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The effect of the coalition's tax and benefit changes on household incomes and work incentives

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The Effect of the Coalition's Tax and Benefit Changes on Household Incomes and Work Incentives[1]

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Executive summary

- Tax and benefit changes introduced by the coalition have reduced household incomes by £1,127 a year or 3.3% on average. In this briefing note we analyse the distributional impact of a subset of these reforms where we can allocate gains or losses to particular households reasonably accurately. These involve an average loss to households of £489 per year, comprising an average gain of £321 a year from cuts to direct taxes, an average loss of £333 a year from increases in indirect taxes and a £477 a year average loss from benefit cuts. Households were bound to be made worse off in the context of a fiscal consolidation aimed at reducing an unsustainable deficit. But this average figure disguises considerable variation across households at different income levels and between different household types – some households have lost considerably more than this, while others have gained from the changes the coalition has introduced.
- Low-income working-age households have lost the most as a percentage of their income from tax and benefit changes introduced by the coalition, mainly as a result of benefit cuts. However this changes if we include in our analysis the tax rises introduced immediately before the coalition came to office (the first element of the fiscal consolidation that began in April 2010): the richest households have lost the most both in cash terms and as a percentage of income from the overall tax and benefit changes that have taken place since the beginning of 2010. Including these tax rises increases the average loss to households to £810 per year.
- Middle-income working-age households without children have gained the most from the coalition's changes. They have gained significantly from the coalition's large increases in the income tax personal allowance and are much less affected by benefit cuts.

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- The size of the impact of reforms on pensioners' incomes depends critically on how we define a 'reform'. Relative to an 'unchanged policy' baseline where all tax thresholds and benefit rates had been indexed according to the default rules in place in May 2010, reforms have left pensioners relatively unaffected. However, pensioners have lost just as much as working-age households on average when we use a baseline where all tax and benefit parameters are increased in line with CPI inflation. This is because, relative to this benchmark, the 'triple lock' applied to the Basic State Pension is a smaller giveaway, pensioners have lost from below CPI-indexation of pension credit, increases to VAT and changes to housing benefit. Furthermore, the reductions in benefits and tax credits for working age families are a smaller takeaway.
- By cutting benefits for non-working families and increasing the personal allowance, the coalition has significantly strengthened average financial incentives to work for most groups. However, cuts to in-work benefits have undermined this effect for lone parents and people in couples with children whose partner is not in paid work.

1. Introduction

The coalition government has introduced a large number of tax and benefit changes during its five years in office. In this briefing note, we examine the effect of all these changes on households' disposable incomes. In other election briefing notes, we will describe these changes, their individual merits and how they change the shape of the tax and benefit system as a whole.

Examining the effect of all tax and benefit changes together is important. Most households will have seen their disposable incomes affected by a large number of these changes; for example, many households will have benefited from the increase to the income tax personal allowance and cuts to fuel duties, but lost out from the increase in the main rate of value added tax (VAT), the increases in the rates of National Insurance Contributions (NICs) and significant cuts to benefits. Accounting for all these changes is therefore necessary to get an accurate picture of which households will have gained and which have lost as a result of reforms introduced during this parliament. And as the effect on a particular household will depend on (among other things) their age, family structure, disability status, housing tenure and spending patterns, the impact will vary substantially across the population. Thus, examining a particular example household cannot give us a good guide to the 'typical' impact of the changes.

In this briefing note, we therefore examine the effect of all the changes introduced by the current government on a representative sample of all households, enabling us to show average impacts for households with different levels of income and by other household characteristics. The broad approach taken (outlined in more detail in section 2 below) is to calculate each household's tax liability and benefit entitlement under the tax and benefit system that we are anticipating will be in place in May 2015 and compare that with their tax liability and benefit entitlement under an 'unreformed' May 2010 system. This ignores the fact that households' characteristics (most importantly, whether and how much paid work they do) may have evolved differently had the changes to the tax and benefit system not been introduced – indeed, we would expect changes to taxes and benefits to also have an impact on individuals' incentives to enter paid work. Therefore,

this briefing note also briefly discusses how tax and benefit changes introduced during this parliament have affected individuals' work incentives.

Note that by looking only at taxes and cash transfers that have direct effects on people's incomes we capture only part of the picture. Cuts to public services and increases in corporate taxes also make the household sector worse off. It is just much harder to assign those effects to particular households. Had the government carried out its whole austerity programme via cuts in public service spending and left taxes and benefits unchanged it would have had an impact on the wellbeing of households, but such effects would not have been picked up by our analysis.

We proceed as follows. Section 2 discusses the methodology used in the report. Section 3 presents our results and shows the sensitivity of our main results to the time period studied and to the definition of what an 'unchanged' May 2010 tax and benefit system would have looked like. We break down our results by income decile, household type and other household characteristics of interest. In section 4, we briefly discuss the impact of tax and benefit reforms on work incentives. Section 5 concludes.

2. Methodology

In this section, we discuss how we go about measuring the distributional impact of tax and benefit reforms, before discussing the limitations of this sort of analysis.

Details of our modelling approach

In our analysis we use the IFS tax and benefit microsimulation model, TAXBEN,[2] to compare tax liabilities and benefit entitlements for a representative sample of all UK households under the tax and benefit system we expect to be in place in May 2015 (incorporating all policy announcements made up to and including Autumn Statement 2014) with those under an 'unreformed' May 2010 system.[3] The difference between the net amount of taxes and benefits a household pays or receives under these two systems is how much they have gained from the reforms. This effectively compares the tax and benefit system the coalition government inherited from its predecessor with the one it will bequeath to its successor. We therefore include the impact of policies announced by the previous government but retained by the current one and introduced during its term of office (for example, the 1ppt increases in employee and employer NICs rates that were introduced in April 2011), but exclude policies that have been announced by the coalition government but which will not yet have been introduced by May 2015 (for example, the new 'Tax Free Childcare' scheme that will begin later in 2015 and the Single Tier Pension that will start to be introduced from April 2016). Another way of thinking about our analysis is that it answers the question: 'If all the tax and benefit changes had been

[2] For a description of TAXBEN, see C. Giles and J. McCrae (1995) "TAXBEN: the IFS microsimulation tax and benefit model', IFS Working Paper 95/19, http://www.ifs.org.uk/publications/572. The basic structure of the model has not changed since then.

[3] Note that we implicitly assume full take-up of benefits and full compliance with the tax and benefit system. In reality, some households do not take up all the benefits to which they are entitled and there is some element of fraud and error in both the tax and benefit systems. Non take-up of benefits will overstate the losses to low-income households from the government's reforms as we will be reducing benefits for some households who do not claim their entitlement in the first place. HM Treasury do account for non-take up of benefits in their analysis of the distributional impact of policies that accompanies fiscal events, and this is one reason why their analysis shows smaller losses for low-income groups. It is not clear how fraud and error would affect our estimates of the distributional impact of reforms.

introduced overnight, how much better or worse off would households be?' This might be considered a somewhat unnatural thought experiment – the changes have in reality been made over a five year period, during which time individual households' characteristics are likely to have changed, and people will have had time to change their behaviour in response to the tax and benefit changes – but it has the advantage of isolating the direct impact of tax and benefit changes made over a longer period on incomes at a particular point in time.

To do this requires us to make choices about the scope of policies included in our analysis. The data we have available do not allow us to estimate precisely how much each household in our data gains or loses from certain tax and benefit changes. In some cases we can make a reasonable estimate as to which households would be affected, and by how much, but in others we have to simply exclude the measures from consideration. To give an idea of the relative size of the modelled and unmodelled measures, we show the average loss from the unmodelled measures alongside the average loss from modelled measures.[4] We also have to choose how to define our 'unreformed' May 2010 tax and benefit system, i.e. to make an assumption about what would have happened in the absence of the government's tax and benefit measures. As we shall see later, the choices we make here can make a significant difference to the results.

Scope of policies in our analysis

Our analysis includes most major changes to personal taxes and benefits that have been introduced over the period, including most changes to income tax, NICs, council tax,[5] VAT, duties on fuel, alcohol and tobacco, state pensions, benefits and tax credits. We do not however include most 'business taxes' (i.e. those where the formal liability is on companies rather than individuals), most notably corporation tax and business rates. However, we do include employer NICs, assuming that changes in employer NICs are passed on to employees in higher or lower wages such that the total cost to employers remains constant. We also exclude most capital taxes from our analysis, including stamp duties, capital gains tax and inheritance tax as we do not have sufficient information in our data to assign changes in these taxes to particular households. Furthermore, we do not include policies that are not expected to have been implemented fully by May 2015, most notably the introduction of universal credit and the introduction of personal independence payment (PIP) to replace disability living allowance (DLA).[6] Table 2.1 below shows the total overall giveaway or 'takeaway' from tax and benefit measures overall, and highlights the most important measures.

[4] We are able to include the average loss because we know the government's estimate of total yield or cost of these measures – we cannot, however, show how this gain or loss is shared between different types of household.

[5] It is arguable that council tax should be excluded from our analysis of coalition changes because council tax rates are set by local authorities rather than central government. However, as the coalition has repeatedly given grants to local authorities that freeze council tax and placed limits on the amount by which council tax can be increased without a referendum, we include changes to council tax in our analysis.

[6] Universal credit is currently only available to new claimants of some means-tested benefits in a small number of areas, but will – under existing plans – replace most means-tested benefits and tax credits for all claimants by the end of 2017. PIP is replacing DLA for new claimants in certain areas at the moment, but – again, under existing plans – current DLA claimants will be reassessed to determine whether they are entitled to PIP, and if so at what level, from October 2015 onwards. The rollout process is expected to be complete by the end of 2017.

Table 2.1: Estimated revenue effects in 2015–16 of tax and benefit changes implemented by the coalition government

	2015–16 estimated revenue effect (£ million)	
	Giveaway	**Takeaway**
Benefit changes	**8,080**	**24,730**
Largest measures by revenue:		
Of which: modelled measures	7,675	19,490
CPI-indexation of most benefits and tax credits		*4,260*
"Triple-lock" the basic state pension	*4,590*	
1% nominal cap on increases in most working-age benefits and tax credits for 3 years from April 2013[b]		*1,740*
Over-indexation of child tax credit in April 2011	*1,625*	
Below-(CPI) inflation indexation		*1,605*
Time-limiting contributory ESA to one year for the Work Related Activity Group		*1,475*
Below-inflation increases to Working Tax Credit		*1,320*
Of which: unmodelled measures	405	5,240
Introduction of £2,500 disregard for income falls in tax credits		*690*
Reduction of disregards for income rises in tax credits		*605*
Abolition of child trust fund		*580*
Extend lone parent benefit conditionality to those whose youngest child aged 5 or 6		*355*
Total benefits	**16,650 takeaway**	
Tax changes	**50,738**	**64,312**
Largest measures by revenue:		
Of which: modelled measures	29,321	39,992
Increase in the main VAT rate		*13,980*
Increases in NICs rates		*11,817*
Changes to personal allowance, higher rate threshold and upper earnings limit	*7,988*	
Restrictions on tax relief on pension contributions		*5,005*
Fuel duty cuts	*3,260*	
Of which: unmodelled measures	21,416	24,320
Reductions in main rate of corporation tax	*7,615*	
Introduction of bank levy		*2,900*
Increase in North Sea supplementary charge		*1,815*
Reduction in small profits rate of corporation tax	*1,400*	
Total tax	**13,575 takeaway**	
Overall impact of tax and benefit measures	**30,225 takeaway**	

Source for Table 2.1: IFS researchers' calculations using HM Treasury Budgets, Autumn Statements and Spending Reviews, various years, Office for Budget Responsibility policy measures database (http://budgetresponsibility.org.uk/policy-measures-database/) and Office for Budget Responsibility, *Economic and Fiscal Outlook,* March and December 2014. The authors would like to thank Andrew Hood and Barra Roantree for their assistance in constructing this table.

The scope of our analysis is similar to that of HM Treasury (HMT) in their distributional analysis document that accompanies fiscal events, though the HMT excludes some policies that are included in our analysis.[7] HMT only include measures where impacts can be modelled precisely in their income decile analysis of tax and benefit changes (though they do apportion some measures between income quintiles in their income quintile analysis). Our analysis differs in the following ways:

- We apportion losses from restrictions on the lifetime and annual amounts that can be saved in pensions, which are assumed to affect only those with incomes above £100,000. The loss from these measures is assumed to be proportional to the amount of income above £100,000;
- Since we use different, more detailed data than HMT we are able to allocate losses to households from changes to housing benefit in our analysis (we use the Family Resources Survey (FRS) to model the impact of direct taxes and benefits and the Living Costs and Food Survey (LCFS) to model indirect taxes whereas HMT use the LCFS throughout);
- HMT do not include measures where behavioural responses are likely to be very large. Most importantly for our analysis, HMT do not include the reduction in the additional rate of income tax from 50% to 45% in their analysis. In this case the likely scale of behavioural change is such that best estimates are that this change will cost the Exchequer little or no money – little tax revenue will be lost – and hence individuals' tax bills will not fall on average.[8] But that can of course only be true if there is a significant increase in taxable income among those with very high incomes, in which case the change is making them better off. The overall impact on their incomes would therefore be greater than a static analysis would suggest. Therefore, although including only the static gain to these households from the reduction in the additional tax rate will likely give an underestimate of its impact on the incomes of these households, this is better than excluding it altogether.[9]

Choice of baseline system

The primary baseline system that we compare the actual May 2015 system against is the system that would have been in place in 2015 had the government not introduced any changes to taxes and benefits since May 2010, but had simply allowed rates and thresholds in the tax and benefit system to increase each year according to the uprating

[7] The latest version from Autumn Statement 2014 is available here: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/382310/AS2014_distributional_analysis_final.pdf.

[8] Our static analysis suggests that the cut in the additional rate of income tax costs £3.7 billion a year whereas the OBR estimates that, after allowing for behavioural responses, it will only cost £0.1 billion a year.

[9] It is important to note that if we are interested in the impact of reforms on the amount of tax paid by each group we will overestimate rather than underestimate the overall effect by only looking at the static effect. This is because the behavioural response to the reduction in the additional rate of income tax leads to those affected paying more tax (as they will increase their incomes in response), offsetting the static impact which is to reduce their tax liabilities.

rules prevailing at the time it took office.[10] We use this baseline because it is what would have happened if the government had not introduced any new measures in its Budgets and Autumn Statements and had cancelled measures that the previous government had announced but not yet implemented when it left office.[11] This was the 'unchanged policy' baseline used by HMT under the previous government when costing measures in Budgets and Pre-Budget Reports,[12] and it is also the baseline used by HMT in their distributional analysis publications that accompany fiscal events. It involves most rates and thresholds increasing in line with a variant of RPI inflation each year. However, since 2010 there have been increasing concerns that the RPI overstates the true level of inflation, and the RPI was therefore stripped of its status as a National Statistic in May 2013.[13] As a consequence, this baseline arguably involves most benefit rates increasing in real terms over time, which we might not think of as being a particularly neutral baseline.

To correct for this, we also show results against a baseline where all rates and thresholds in the tax and benefit system are increased in line with CPI inflation each year (even those that are currently frozen each year). This comparison can be thought of as showing the impact of real changes to the tax and benefit system that have occurred since May 2010.

Of course, there are other baselines that one could legitimately choose. In the past, IFS researchers have also examined changes relative to a baseline where all rates and thresholds in the tax and benefit system increase in line with average earnings growth or nominal GDP per capita.[14] These are closer to an inequality neutral baseline since they involve benefit income increasing at the same pace as other income sources, meaning that lower-income households who are more reliant on income from the state do not fall behind other groups during periods when incomes are growing in real terms. Furthermore, this baseline does not involve 'fiscal drag' (where tax thresholds increase less quickly than incomes over time, bringing more and more taxpayers into higher tax brackets). This means that total tax revenues remain stable as a share of national income rather than increasing as they do under the 'unchanged policy' baseline used in this analysis. However, these concerns are less relevant over our period of study as the growth in wages and in the economy has been so weak. For brevity we therefore restrict ourselves to the 'unchanged policy' baseline and the CPI-indexed baseline in this briefing note.

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[10] Note that this means that measures announced but not implemented by the previous government are included as changes.

[11] Note that the baseline also assumes that policies that were in place in April 2010 but intended to be temporary remain in place permanently. The most important of these for our analysis is a temporary increase in winter fuel payments from £200 to £250 for those aged between the female state pension age and 79 and from £300 to £400 for those aged 80 and over that expired in 2011–12.

[12] The coalition government has changed the default rules for uprating most direct tax thresholds, benefits, tax credits and state pensions, which has changed the way measures are costed in Budgets and Autumn Statements. We do our analysis relative to the baseline prior to these changes.

[13] See 'Assessment Report 246 – The Retail Prices Index', UK Statistics Authority, March 2013, http://www.statisticsauthority.gov.uk/assessment/assessment/assessment-reports/assessment-report-246---the-retail-prices-index.pdf

[14] See, for example, our equivalent election briefing note from the 2010 General Election (J. Browne and D. Phillips, 'Tax and benefit reforms under Labour', IFS Briefing Note 88, http://www.ifs.org.uk/publications/4807) and S. Adam and J. Browne (2010), 'Redistribution, work incentives and thirty years of UK tax and benefit reform', IFS Working Paper W10/24, http://www.ifs.org.uk/publications/5367.

Limitations of our analysis

As we discuss above, our distributional analysis only shows the direct impact of tax and benefit changes on household incomes if all the changes were introduced at once and households did not change their behaviour, and pre-tax prices faced by consumers did not adjust in response.[15] In practice, though, both household behaviour and pre-tax prices in the economy will be affected by the tax and benefit regime. For example, people may be more likely to enter paid work if out-of-work benefits and taxes on earned income are reduced, or households may move to cheaper accommodation in response to reductions in housing benefit. Furthermore, it may be the case that changes in housing benefit or childcare subsidies affect the prices of housing and childcare, or that firms are not able to pass on increases in indirect taxes to consumers in full, which will affect the distributional impact of these changes.[16]

These sorts of changes in behaviour or prices will have an impact on households' incomes, and affect their wellbeing more generally – examining the impact of tax and benefit changes on household incomes of course only gives a partial view of their overall effects, and it is not obvious that calculating the change in income after behavioural response would get us closer to the impact of reforms on households' wellbeing.[17]

An analysis that attempted to model all possible changes in behaviour resulting from changes to the tax and benefit system would be intractable. However, what we can do is show how changes to the tax and benefit system have affected the incentive for individuals to do paid work, and the incentive for those in paid work to increase their earnings. This can help to give us a sense of the scale of behavioural responses we might expect to see.

Only analysing the direct impacts of tax and benefit changes on household incomes also means that we ignore indirect effects resulting from the impact of changes to taxes and benefits on macroeconomic variables such as employment, inflation and earnings growth. A particular point to note here is that changes to indirect taxes (most importantly in our analysis, the increase in the main VAT rate) will have an impact on price inflation, which will in turn affect the amount by which benefits, tax credits and state pensions are uprated. (It may also affect income received from index-linked pensions, annuities and bonds and earnings growth.) This means that those who receive a large proportion of their income from the state such as pensioners, disabled people and the unemployed will be compensated for increases in indirect taxes. Indeed, they may benefit overall from an increase in the main VAT rate if they spend a smaller-than-average proportion of their income on VATable goods. Our analysis therefore likely overstates the overall losses from indirect taxes for these groups.

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[15] The one exception to this rule is our treatment of employer NICs, which we assume are passed on to workers in the form of lower wages as discussed on p.4.

[16] However, recent IFS research for DWP has shown little evidence that contractual rents were affected by recent changes to local housing allowance (see http://www.ifs.org.uk/publications/7277). This suggests that our assumption about the incidence of changes to housing benefit is a good approximation in this instance. We are unaware of any analyses of the incidence of other tax and benefit changes studied in this report.

[17] In the two examples here, working more and moving to cheaper accommodation would likely have a negative impact on households' overall wellbeing in a way that is not reflected in the change in their net income. Since households will only change their behaviour if it gives them a better outcome, the change in income before behavioural response is always an upper bound on the impact of a tax increase or benefit cut on a household's wellbeing, while the change in income after behavioural response is a lower bound.

3. Distributional impact of tax and benefit changes

This section shows the results of our analysis of the distributional impact of tax and benefit changes. We begin by showing average impacts by income group, before going on to show how these effects vary between different household types at each income level and other breakdowns between different types of household.

3.1. Impact by income decile group

Figure 3.1 below shows the average gain or loss in 2015–16 from tax and benefit changes introduced between May 2010 and May 2015 by decile of household net income (measured relative to the 'unchanged policy' baseline described in section 2, i.e. a situation where most benefit rates and tax thresholds increased in line with RPI).[18] We can see that on average households lose £489 per year from the changes we model; changes that are not included in our modelling and differences between official costings and those coming out of TAXBEN increase the average loss by £639 per household, though we do not know how this is distributed between households.[19] The effect of all modelled and unmodelled changes to the tax and benefit system under the coalition government gives an annual average loss for households of £1,127.

It is important to keep in mind that some takeaway from households' incomes was almost certainly inevitable given the need to correct the fiscal deficit that the government inherited. The previous government had already announced a number of tax rises to take effect over this period (and indeed had already implemented some tax rises on very high income groups in April 2010, see below), and it is likely that any government who had taken office in May 2010 would have sought to introduce additional deficit reduction measures. Note that had the current government chosen to do more of its fiscal consolidation through tax increases as opposed to cuts in public service spending then the overall takeaway shown in Figure 3.1 would have been greater.

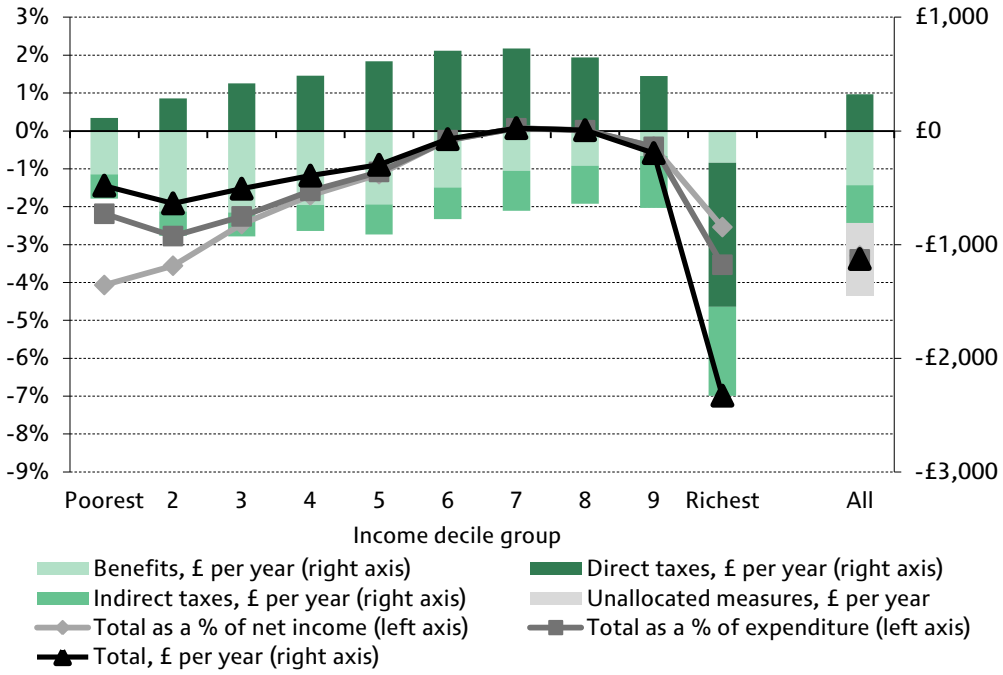
Overall, TAXBEN estimates that cuts in direct taxes are almost exactly offset on average by increases in indirect taxes among our modelled measures – households gain £321 a year on average from cuts in direct taxes but lose £333 a year from increases in indirect taxes (most importantly the increase in the main rate of VAT from 17.5% to 20% from January 2011). This contrasts with official estimates of policy costings from Table 2.1. These numbers shows that our modelled tax measures should constitute an overall tax rise of £10.7 billion or around £400 per household. A partial explanation for this difference is that official costings take into account behavioural responses to the reduction in the additional rate of income tax from 50% to 45%, which the OBR estimates reduces its cost from £3.7 billion (around £140 per household) to £0.1 billion. But most of the difference arises because of inaccuracies in TAXBEN's costings of other measures.

[18] Income deciles are created by ranking households according to their total net (i.e. post-tax and benefit) income in the 'base system' (i.e. under the May 2010 tax and benefit system), adjusted for household size according to the McClements equivalence scale, and then splitting them into ten equal-sized groups. Table A1 in Appendix A shows the net income levels required for different types of household to get into each income decile.

[19] However, since these unmodelled measures include increases in capital gains tax and stamp duty on high-value properties as well as a series of anti-avoidance measures, we might speculate that better-off households might be worse affected by these measures on average.

However, although the modelled tax rises and tax cuts offset each other overall, this is not the case for all households: the richest tenth of households have seen their direct tax liabilities increase on average, mainly as a result of higher NICs rates, reductions in the point at which the higher 40% rate of income tax starts to be applied and restrictions on tax relief on pension contributions. These more than offset the reduction in the additional rate of income tax, which only affects a relatively small number of very rich households. The modelled measures represent a net tax cut for deciles 2-9 on average, as the gain from changes to direct taxes (most importantly, the big increases in the income tax personal allowance) offset losses from indirect taxes. However, the bottom income decile, who generally do not have incomes high enough to benefit from increases in the personal allowance see a net tax rise as a result of these measures. Losses from benefit cuts average £477 per household. The average loss is larger among lower income deciles, as we would expect given that benefits are focused on low-income households: these households lose out from across-the-board cuts to benefits and tax credits (the switch to CPI-uprating and the 1% increases in most working-age benefits for three years from 2013–14 to 2015–16) and specific cuts to housing benefit and council tax support.

Figure 3.1: Impact of tax and benefit reforms introduced between May 2010 and May 2015 by income decile



Note: Income decile groups are derived by dividing all households into 10 equal-sized groups according to net income adjusted for household size using the McClements equivalence scale. Assumes full take-up of means-tested benefits and tax credits.
Source: Authors' calculations using TAXBEN run on uprated data from the 2012–13 FRS and 2012 LCFS.

Looking at the overall impact of changes to taxes and benefits combined, we can see that within the bottom 70% of the population, average losses as a percentage of income fall as income rises. This is mainly the result of cuts to means-tested benefits and tax credits for working-age households. The richest tenth lose the most in cash terms, but we see that the bottom two deciles lose the most when losses are measured as a percentage of income. The figure also shows the average gains and losses as a percentage of household

expenditure: we might think that household expenditure gives a better measure of the resources available to a household than income measured in a snapshot.[20] When the effects are expressed as a percentage of expenditure we see that it is now the richest households that lose the most.

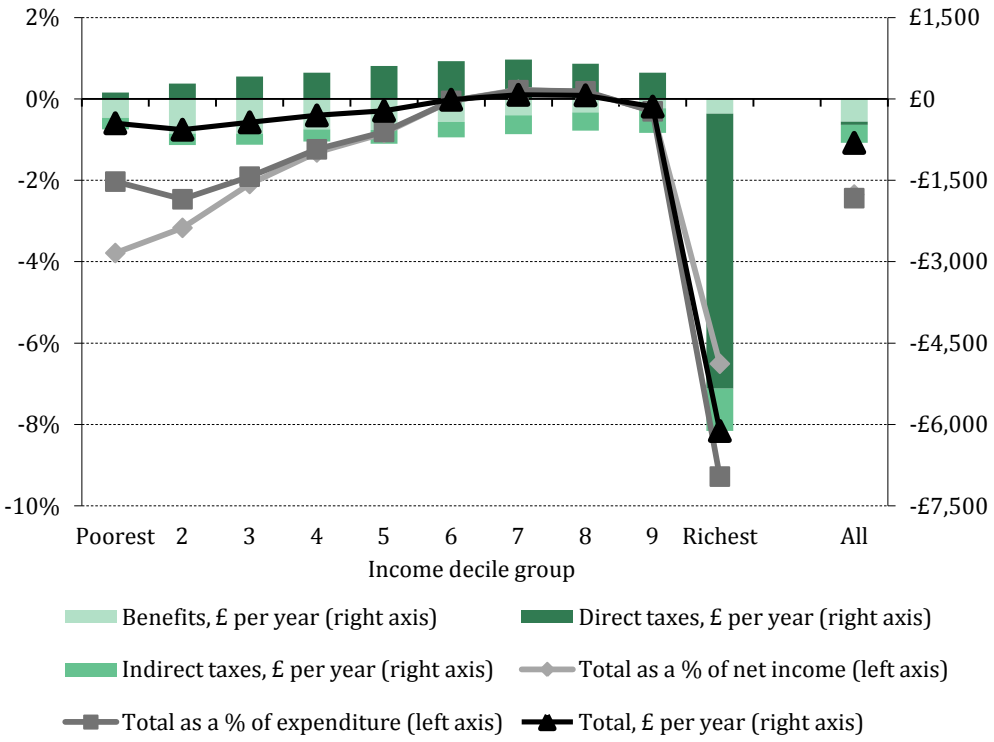
The picture is somewhat different, however, when we also include changes introduced in April 2010, immediately before the coalition government took office. Figure 3.2 shows how our results change when we add on the impact of these measures (note the change of scale compared to Figure 3.1). These measures represented a significant tax rise for those with very high incomes, and we therefore find significantly greater losses among the richest tenth of households, and the average loss among all households from modelled measures increases to £810 per year.[21] Once we incorporate these measures, the richest tenth of households lose the most when measured in cash terms, as a percentage of expenditure, and as a percentage of income.

Starting our analysis in January rather than May 2010 does answer an interesting question. This is because April 2010 arguably marked the beginning of the austerity measures to reduce the deficit, since most fiscal stimulus measures, most notably the temporary reduction in VAT, had expired by January 2010, and measures introduced in April 2010 represented a net takeaway from households. Thus, this analysis shows the total impact of tax and benefit measures introduced as part of the fiscal consolidation rather than the impact of measures introduced by the present government. This is arguably a more interesting economic question. Furthermore, the fact that the current government retained some of the changes suggests that it is at least not wholly averse to them, making it more reasonable to include them in our analysis. However, since this is an election briefing note focused on the record of the incumbent government, we restrict ourselves to examining those changes introduced by the current government in the remainder of this document.

[20] We would expect households to smooth their spending over time by saving when their income is particularly high and dis-saving or borrowing when their income is particularly low. This is indeed what we see in our analysis: the bottom two deciles on average have expenditure greater than their income, suggesting that some members of these two decile groups have access to stocks of savings – or credit - that enable them to spend more than their income. Of course, it is not possible for households to spend more than their income indefinitely, suggesting that some households in the bottom deciles of current income are not necessarily the lifetime poor. We also see that higher-income households on average have expenditure lower than their income, suggesting that they are saving for future periods (e.g. retirement) when they expect their income to be lower.

[21] A new 50% 'additional' income tax rate was introduced on incomes above £150,000 a year in April 2010, and the personal allowance was withdrawn from individuals with incomes above £100,000, effectively creating a 60% marginal income tax rate over a range of income just above £100,000. Thus in Figure 3.2, the reforms we are studying involve an increase in the top income tax rate from 40% to 45%, whereas in Figure 3.1 the reforms involved a reduction in the top income tax rate from 50% to 45%.

Figure 3.2: Impact of tax and benefit reforms introduced between January 2010 and May 2015 by income decile



Notes and sources: As for Figure 3.1.

Sensitivity to choice of baseline

As we discussed in section 2, the 'unchanged policy' baseline (where most rates and thresholds are increased in line with RPI) involves benefits and tax credits increasing in real terms over time, since the RPI is now thought to overstate the true rate of inflation. The 'unchanged policy' baseline also involves the (arguably implausible) assumption that the basic state pension and the guarantee component of pension credit would have been increased in line with average earnings growth from April 2012 onwards, despite average earnings growth lagging well behind CPI inflation. The 'triple lock' (whereby the basic state pension (BSP) increases by the highest of average earnings growth, CPI inflation and 2.5%) appears to be a bigger giveaway relative to the 'unchanged policy' baseline than it does relative to a baseline where the BSP had been increased in line with CPI inflation. And the guarantee component of pension credit has increased by less than CPI inflation, though it has increased by more than earnings growth – this means that recipients of the guarantee component of pension credit gain relative to the 'unchanged policy' baseline but lose out relative to the CPI-indexed baseline. We therefore also examine reforms relative to a baseline where all rates and thresholds in the tax and benefit system are increased in line with CPI each year. This might be thought of as showing the impact of real changes to the tax and benefit system since May 2010.

Figure 3.3 shows our results relative to this alternative baseline scenario – panel a) shows the impact of direct taxes, indirect taxes and benefits separately whereas panel b) compares the overall effects when we use the CPI-indexed baseline with those when we use the 'unchanged policy' baseline shown in Figure 3.1. The overall pattern of average gains and losses by income decile is remarkably similar to that observed in Figure 3.1.

This arises because two effects roughly offset. On the one hand, the cut to most working-age benefits is smaller relative to this baseline than relative to the 'unchanged policy' baseline used in figure 3.1. This is because the switch from RPI to CPI indexation for most benefits, tax credits and the second state pension is effectively no longer counted as a cut when we use a CPI-indexed baseline. This reduces the scale of losses for those households that receive these payments (principally pensioners and low-income working age households). On the other hand, as discussed above, relative to this baseline the increase in the basic state pension has been smaller, and the guarantee component of pension credit has been cut rather than increased. These both reduce the average gain to pensioners from tax and benefit reforms. Since the overall patterns in figure 3.1 and 3.3 are relatively similar, we can conclude that within each decile the reduction in the average losses for working-age households roughly cancels out the increase in the average losses for pensioners, leaving the average loss in each decile roughly the same.[22]

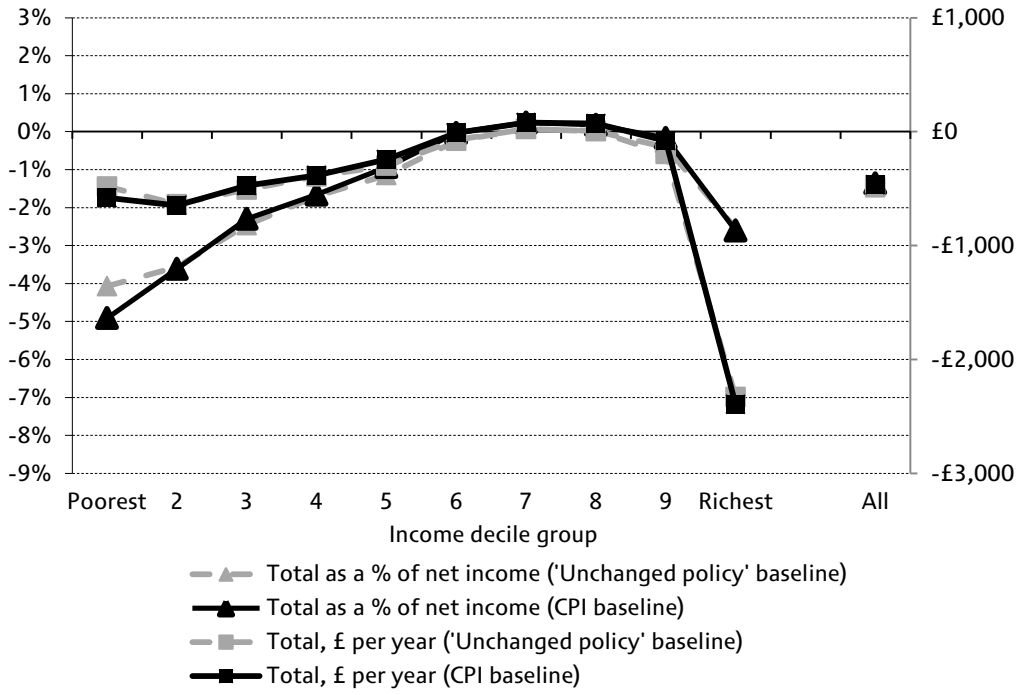
One difference we do see between Figures 3.1 and 3.3 is that the average gain from changes to direct taxes is larger (or the loss is smaller) relative to the CPI-indexed baseline. The overall average gain for the 7th and 8th deciles is also more clearly visible when we use this CPI-indexed baseline. This is because increases to the personal allowance are larger relative to the CPI-indexed baseline than relative to the 'unchanged policy' baseline, where the personal allowance increases in line with RPI inflation (which has been higher than CPI inflation).

Figure 3.3: Impact of tax and benefit reforms introduced between May 2010 and May 2015 relative to a CPI-indexed baseline by income decile

a) Split by different components

[22] Pensioners are relatively evenly split across the deciles: between 35 and 30% of deciles 1-7 are pensioner households, though only 26, 24 and 19% of the 8th, 9th and 10th deciles are pensioner households.

b) Comparison with Figure 3.1

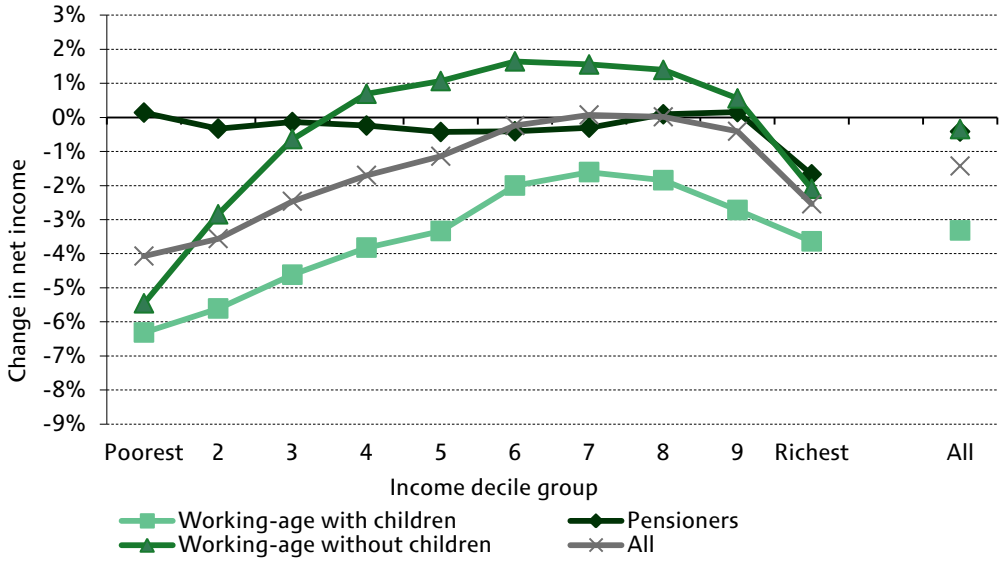


Notes and sources: As for Figure 3.1.

3.2. How do these average impacts vary between different types of household?

The charts in the previous section show the average impact of reforms by income group. These impacts are just averages: since tax liabilities and benefit entitlements depend on a whole variety of characteristics other than incomes – including, but not limited to, household composition, age, disability status, housing tenure and spending patterns – the impact of reforms will vary considerably within each income decile. A particular difference in the impacts of these policies exists between those above state pension age and working-age households, and between working-age households with and without children. In Figure 3.4, therefore, we split each income decile into these three distinct types of household: those containing someone aged over state pension age, those where all individuals are below state pension age and there are dependent children, and those where all individuals are below state pension age and there are no dependent children in the household.

Figure 3.4: Impact of tax and benefit reforms introduced between May 2010 and May 2015 by income decile and household type



Notes and sources: As for Figure 3.1.

We see from figure 3.4 that, relative to the 'unchanged policy' baseline, pensioners have been largely unaffected by tax and benefit changes overall. In part this is because they have been affected by fewer changes. Pensioners have been less affected by cuts to social security spending that have reduced benefit entitlements for working-age people, and since pensioners do not pay NICs they have not lost out from increases in NICs rates. On the other hand, they have not benefited from increases in the income tax personal allowance.[23] This is why pensioners have done less well than working age families without children at higher income levels. However, pensioners have not been entirely unaffected by reforms. Pensioners have lost from the increase in VAT, the expiry of a temporary increase in winter fuel payments in 2011–12 and cuts to housing benefit in the private rental sector, but have benefited from the 'triple lock' on the basic state pension and increases in the guarantee component of pension credit relative to this baseline where these are linked to average earnings growth. These gains and losses roughly offset each other on average for pensioners in the bottom 90% of the household income distribution.

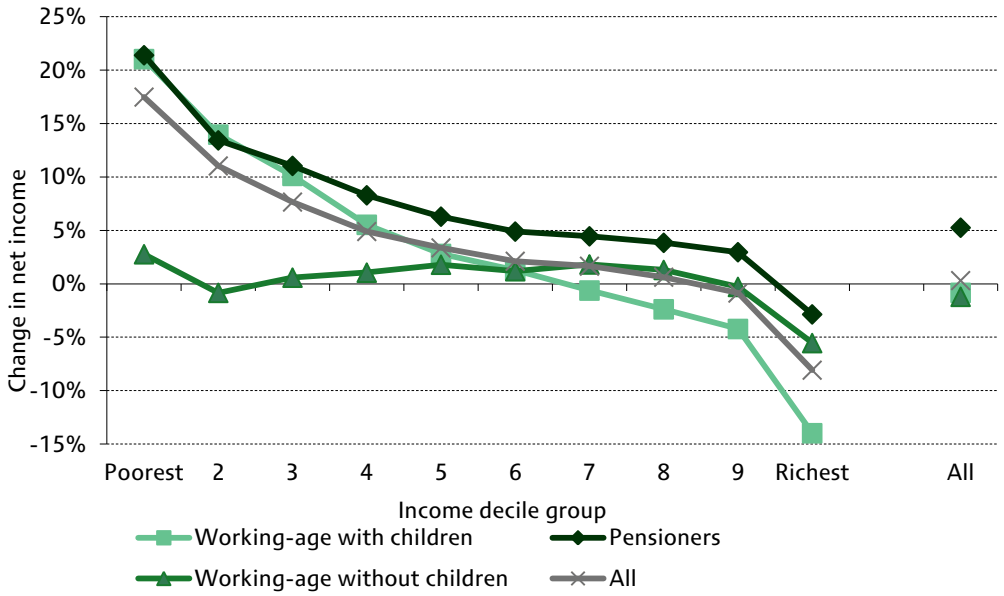
Within working-age households, we see that households with children are worse affected by tax and benefit changes than those without children. Indeed, working-age households without children in the middle to top of the income distribution (though not the very richest) have gained from reforms introduced by the coalition: this arises because this group has been less affected by the cuts to social security spending, while they have benefitted from the large increase in the personal allowance. Households with children lose out because they have greater entitlements to benefits than those without and because entitlement extends to higher income levels for those with children. Furthermore, a number of benefits directed at families with children have been reduced

[23] This is because those aged 65 and over have a separate personal allowance that is higher than that for working-age people, and this has been frozen since 2012.

(notably, through freezing child benefit, the high-income child benefit charge and means-testing child tax credit more aggressively).[24]

This stands in contrast with the big increases in benefits and tax credits for households with children under the previous Labour government. To illustrate this, Figure 3.5 adds in the impact of reforms between May 1997 and May 2010 to our analysis (i.e. we are now comparing tax liabilities and benefit entitlements under the actual May 2015 system with those under an 'unreformed' May 1997 system). We can see that reforms since May 2010 have only slightly rolled back the big increases in benefits and tax credits for low-income households with children under Labour. Furthermore, we see from figure 3.5 that, on average, pensioners also gained significantly from Labour's reforms. However, working age people without children at low income levels benefitted significantly less from Labour's reforms and they are therefore now little better or worse off compared to where they would have been under an 'unreformed' 1997 system. The highest income decile has, however, lost out relative to an 'unreformed' 1997 system.

Figure 3.5: Impact of tax and benefit reforms introduced between May 1997 and May 2015 by income decile and household type



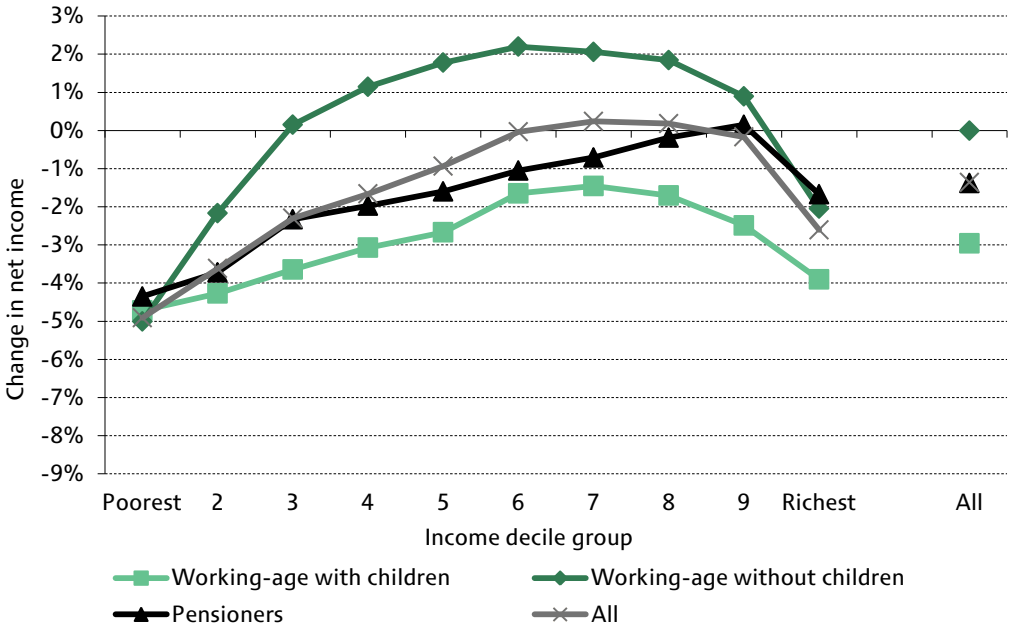
Notes and sources: As for Figure 3.1.

The pattern of changes by family type changes dramatically when we examine the effect of reforms relative to the CPI-indexed baseline rather than the 'unchanged policy' baseline. Most strikingly, there is significantly less difference between pensioners and working-age households with children when we use the CPI-indexed baseline. As we discussed above, this arises because, relative to this baseline, the increase in the basic state pension has been significantly smaller and the guarantee component of pension credit has been cut rather than increased. This results in larger losses for pensioners since pensioners still lose out from the changes to housing benefit affecting the private rental sector, the expiry of a temporary increase in winter fuel payments and the increase in VAT. For low-income working age people, the cuts to working-age benefits are smaller relative to this baseline because the move from RPI to CPI indexation is effectively no

[24] For more details, see http://election2015.ifs.org.uk/benefits.

longer counted as a reform, meaning that they lose less in this case. Furthermore, as the increase in the personal allowance is larger relative to this baseline, the average gains for working age people without children in the middle income deciles are larger.

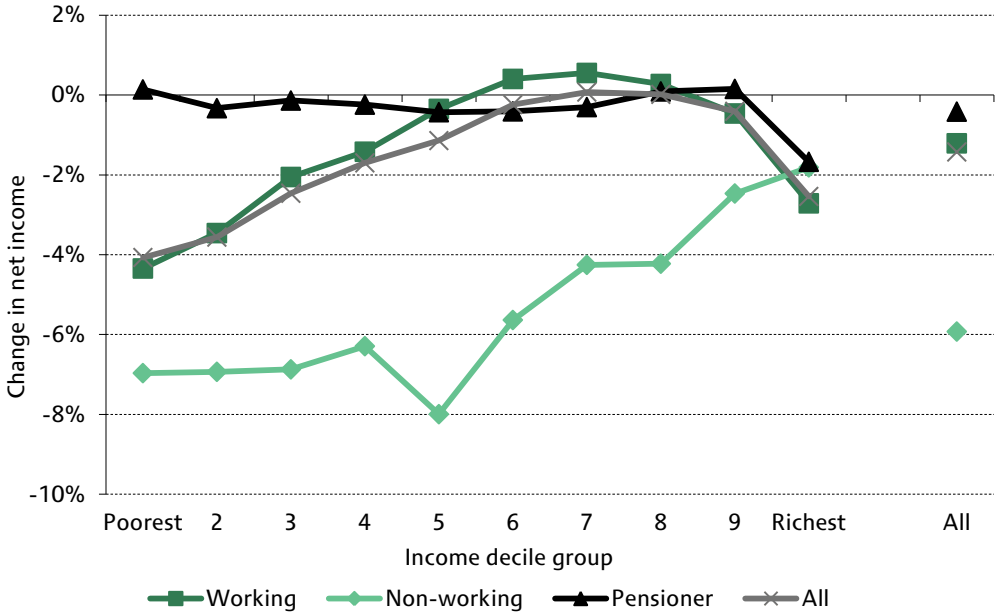
Figure 3.6: Impact of tax and benefit reforms introduced between May 2010 and May 2015 relative to a CPI-indexed baseline by income decile and household type



Notes and sources: As for Figure 3.1.

Another interesting way in which we can separate working-age households into different groups is according to whether or not it contains an adult in paid work. In Figure 3.7, we see that at each income level other than the richest tenth, households who do not have an adult in paid work, who are more likely to be reliant on income from benefits, lose more than those where there is some income from paid work. Also, working households are more likely to benefit from increases in the personal allowance. However, as in-work benefits have also been cut, there are also significant losses for low-income working households.

Figure 3.7: Impact of tax and benefit reforms introduced between May 2010 and May 2015 by income decile and household type



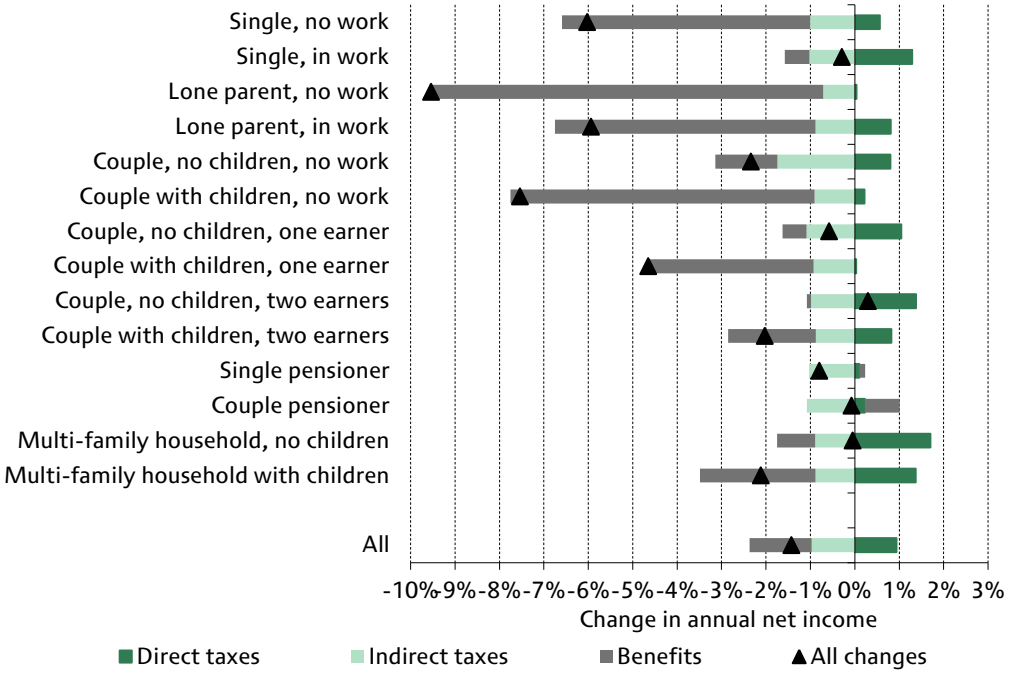
Notes and sources: As for Figure 3.1.

3.3. Other breakdowns

We can of course show results by household characteristics other than their current income. Figures 3.8 and 3.9 show average gains and losses for different household types as a percentage of net income and in cash terms respectively. In Figure 3.8 we see that workless households with children lose the most as a percentage of their income. This is because these households lose the most from cuts to benefits, in particular from cuts to housing benefit, freezes in child benefit and cuts to council tax support as well as the switch to CPI-uprating of benefits from 2011–12 and below-inflation increases in most working age benefits in 2013–14, 2014–15 and 2015–16. Note that the average losses for these groups are skewed upwards by very large losses for a small number of households who are affected by measures such as the benefits cap and national caps on local housing allowance rates: for example, although the mean loss from benefit changes for non-working lone parent households is £1,837 per year, the median loss is £1,134. Cuts to benefits also have a large impact on single unemployed people without children, working lone parents and single-earner couples with children. The latter two of these groups are also affected by cuts to working tax credit, which has been significantly cut in real terms. By contrast, two-earner couples without children have gained slightly from the changes introduced by the coalition. This arises because in many cases both members of these couples benefit from the higher personal allowance, and because they are less likely to have been affected by benefit cuts.

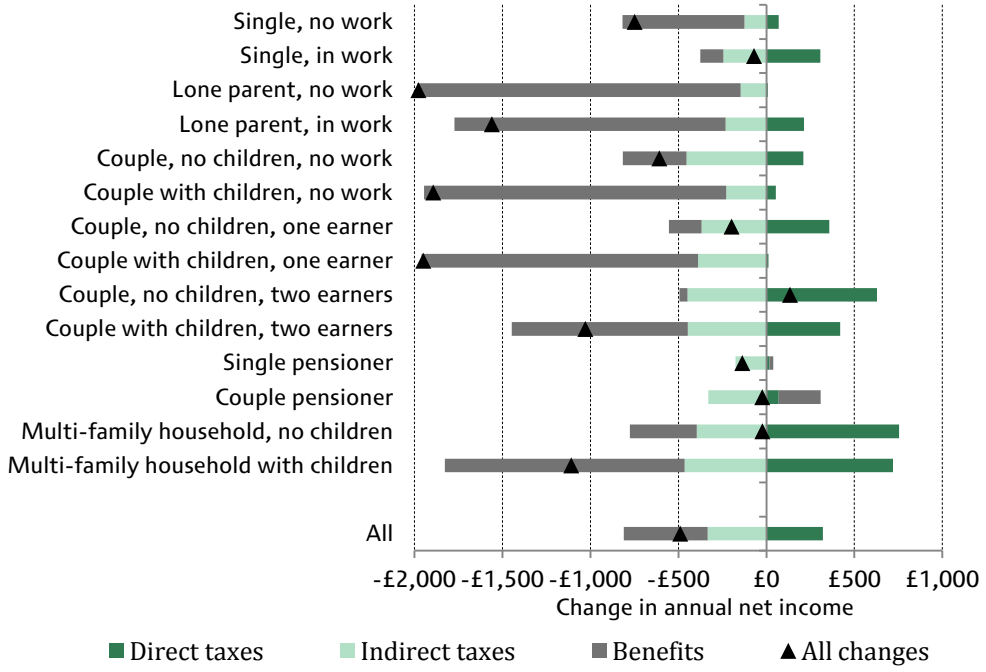
From Figure 3.9, we can see that single-earner couples with children lose around the same amount as workless households with children in cash terms. The losses for single-earner couples with children arise partly because, as we saw in Section 3.1, very high income households lose the most in cash terms from the tax and benefit changes introduced by the coalition and these are most heavily concentrated in this family type. If we exclude the richest tenth of households from our analysis, the average loss for this family type falls from £1,949 to £1,579.

Figure 3.8: Impact of tax and benefit reforms introduced between May 2010 and May 2015 by household type – as a percentage of net income



Note: Assumes full take-up of means-tested benefits and tax credits.
Source: Authors' calculations using TAXBEN run on uprated data from the 2012–13 FRS and the 2012 LCFS.

Figure 3.9: Impact of tax and benefit reforms introduced between May 2010 and May 2015 by household type – cash terms



Notes and sources: As for Figure 3.8.

Table 3.1 provides some further breakdowns of our analysis. It shows the average losses among households according to the number of children in the household and shows the average losses for households in the different regions of England and in Wales, Scotland and Northern Ireland. We see that households with more children have lost more (both in cash terms and as a percentage of income). The vast majority of the loss comes from cuts to benefits – most notably through freezing child benefit, introducing the high-income child benefit charge, cuts to housing benefit and means-testing child tax credit more aggressively. Again, however, note that the average loss from direct tax and benefit measures is skewed upwards by some very large losses for a relatively small number of households: the median impact of direct tax and benefit changes is a gain of £329 a year for childless households (compared to a mean gain of £199), a loss of £434 for households with 1 child (compared to a mean loss of £648), a loss of £708 for households with 2 children (compared to a mean loss of £1,202), a loss of £996 for households with 3 children (compared to a mean loss of £1,674) and a loss of £1,647 for households with 4 or more children (compared to a mean loss of £2,550).

Table 3.1 also shows that households living in Greater London and in the South East of England have on average lost the most in both cash terms and as a percentage of income. The main difference between these two regions and the other parts of the UK arises from differences in the impact of direct tax changes. This is because these two English regions are the most affluent and thus contain many of the households in the top income decile, who, as we saw in section 3.1, lose rather than gain from direct tax changes introduced by the coalition. Households in London have also seen larger average losses from benefit cuts. This is because many of the housing benefit cuts have a particularly large impact in London where owner-occupation rates are relatively low and rents are high, meaning that a larger proportion of the population are entitled to housing benefit. Furthermore, some housing benefit cuts such as the national caps on local housing allowance rates and the benefits cap only affect high-rent areas such as London.

Table 3.1: Impact of tax and benefit changes introduced between May 2010 and May 2015 by number of children and region

	% Of income	Tax changes		Benefit changes	£ Total change	Population shares
		£ Direct	£ Indirect			
0 children	–0.4%	+£326	–£313	–£127	–£113	71%
1 child	–2.6%	+ £471	–£374	–£1,119	–£1,022	14%
2 children	–3.5%	+£176	–£394	–£1,378	–£1,597	11%
3 children	–4.5%	+ £133	–£412	–£1,807	–£2,087	3%
4+ children	–6.9%	+£80	–£391	–£2,630	–£2,941	1%
North East	–1.2%	+ £407	–£312	–£445	–£350	5%
Yorkshire	–1.3%	+ £401	–£319	–£454	–£373	8%
North West	–1.3%	+£389	–£278	–£519	–£408	10%
East Midlands	–1.0%	+ £446	–£294	–£440	–£288	7%
West Midlands	–1.3%	+£416	–£327	–£504	–£415	9%
East Anglia	–0.9%	+£404	–£332	–£376	–£303	4%
Greater London	–2.3%	+£18	–£375	–£685	–£ 1,042	12%
South East	–1.6%	+£230	–£436	–£435	–£642	18%
South West	–1.1%	+£406	–£349	–£413	–£356	9%
Wales	–1.2%	+ £360	–£255	–£457	–£351	5%
Scotland	–1.0%	+ £365	–£300	–£365	–£300	9%
Northern Ireland	–1.3%	+ £425	–£264	–£537	–£375	3%
All	–1.4%	+£321	–£333	–£477	–£489	100%

Notes and sources: As for Figure 3.8.

Table 3.2 shows the impact of direct tax and benefit changes by whether there is a disabled person in the household, according to the statutory definition of disability.[25] This variable is not available in the LCFS, meaning that we are unable to show this breakdown for indirect taxes. We see that households containing a disabled person lose more from changes to modelled direct taxes and benefits than those who do not contain a disabled person. This arises both because households containing a disabled person lose more from benefit cuts, and because they gain less from cuts to direct taxes. Disabled people are more likely to receive benefits than people who do not have a disability, meaning that they lose more from benefit cuts, and they are less likely to be in paid work, meaning that they will gain less from cuts to direct taxes such as increasing the income tax personal allowance. It is also worth noting that our analysis does not include the replacement of DLA with PIP, which will further increases losses for those with disabilities – around 30% of households containing a disabled person receive some DLA.

[25] An individual is disabled according to this definition if they report having physical or mental health conditions or illnesses that has lasted or is expected to last 12 months or more and this reduces their ability to carry out day to day activities. This variable was included for the first time in the 2012–13 FRS, meaning that we are now able to break down our analysis in this way that we were unable to previously.

Table 3.2: Impact of direct tax and benefit changes introduced between May 2010 and May 2015 by whether anyone disabled in household

	Overall as a percentage of income	Overall, £ per year	Direct tax changes, £ per year	Benefit changes, £ per year	Population shares
No one disabled in the household	–0.3%	–£113	+£354	–£467	65%
One or more disabled people in the household	–0.8%	–£232	+£262	–£494	35%
All	–0.5%	–£155	+£321	–£477	100%

Notes and sources: As for Figure 3.8.

4. The impact of tax and benefit changes on work incentives

We saw in section 3.2 that households where no adults are in paid work lose more from the tax and benefit changes introduced by the coalition than households where one or more adults are in paid work. This suggests that the average gain from being in paid work – the difference in the amount of income received when in paid work relative to not working – has increased as a result of the coalition's tax and benefit changes. In this section, we examine the impacts of the coalition's tax and benefit changes on individuals' work incentives more formally.

An individual's financial incentive to work depends on the amount of income an individual receives without working, the gross wage rate an individual can command when working and the taxes and benefits payable from/to them at different levels of earnings. Two common measures of the incentive for an individual to be in paid work at all (as opposed to not working) are the replacement rate and the participation tax rate. Replacement rates (RRs) measure the ratio of the income an individual would receive if they were not in paid work relative to the income they receive when working. Participation tax rates (PTRs) measure the proportion of gross earnings that are lost in either higher tax liabilities or lower benefit entitlements when an individual enters work. In both cases, higher numbers mean weaker work incentives. It is clear that policies that reduce the level of benefits an individual receives if they are not working, and those that increase the amount of income an individual receives if they are in paid work (such as

increases in the income tax personal allowance) would tend to reduce both of these measures, reflecting a strengthening of work incentives.[26]

We might also be interested in the incentive for those who are in paid work to increase their earnings slightly. A typical measure of these incentives is the effective marginal tax rate (EMTR), which measures the percentage of a small increase in earnings that is lost in either higher tax payments or lower benefit entitlements.

In other work, IFS researchers have estimated the impact of the coalition's tax and benefit changes on work incentives in a similar way as we have analysed the impact of these changes on household incomes here, that is to say by comparing measures of work incentives under the actual May 2015 tax and benefit system and under an 'unreformed' May 2010 tax and benefit system for a representative sample of the population.[27] Some details of the methodology are given in Box 1 below (see the full report for more details). This research shows that the tax and benefit changes we consider here do strengthen work incentives: both PTRs and RRs fall by around 3 percentage points (ppts) on average as a result of the changes we consider elsewhere in this report.[28] However, these relatively modest changes in average work incentives hide much greater variation at the individual level, with significant strengthening of incentives for some being offset by weakening for others. For example, around a quarter of working-age adults (9.3 million people) see their PTR change by more than 5ppts (8.1 million down by at least 5ppts and 1.2 million up by at least 5ppts), 9% by more than 10ppts (2.9 million down by at least 10ppts and 0.5 million up by at least 10ppts) and 3% by more than 20ppts (0.9 million down by at least 20ppts and 0.2 million up by at least 20ppts) as a result of these changes.

[26] A slight complication arises with replacement rates for those whose partner is in paid work. If their partner receives a tax cut, this increases both their out-of-work and in-work incomes by the same amount, which increases rather than reduces their replacement rate.

[27] S. Adam and J. Browne (2015), 'Do the UK government's welfare reforms make work pay?', paper presented at ECFIN Workshop on "Expenditure-based consolidation: experiences and outcomes", available from http://ec.europa.eu/economy_finance/events/2015/20150120-ecfin_workshop/documents/session_32_en.pdf.

[28] For consistency with the rest of this briefing note, we cite numbers from Adam and Browne (2015) excluding the impact of universal credit. Adam and Browne (2015) also report figures including the impact of universal credit. Including universal credit would further reduce average PTRs and RRs.

Box 1. Calculating the impact of tax and benefit reforms on work incentives

To calculate the work incentive measures discussed here, it is necessary to estimate individuals' income if they are in paid work (which depends on their hours and earnings), and their income if they do not work. Adam and Browne (2015) do this in the following manner using the IFS tax and benefit microsimulation model, TAXBEN (also used in Section 3 of this report):

- For those who are observed in paid work in the 2012–13 FRS data, the procedure is straightforward: work incentives are calculated at the observed level of hours and earnings by comparing the individual's income with that level of hours and earnings with their income when their hours and earnings are zero.
- For those in the data who are observed as being not in paid work, financial incentives to move into work depend on what their earnings and hours would be if they were to work. For each non-working individual, Adam and Browne (2015) calculate RRs and PTRs at four different hours points, using predicted earnings based on an Ordinary Least Squares regression of log weekly earnings of individuals observed employed in the relevant hours category on various characteristics including age, sex, region, ethnicity, education, housing tenure, number and ages of children, partnership status, and any partner's employment status and earnings. These four RRs and PTRs are then weighted according to estimated probabilities of that individual choosing to work that number of hours were they to enter paid work. The probabilities are calculated using a multinomial logit model, again estimated using the behaviour of individuals in paid work with the same set of explanatory variables.

As the FRS does not contain information on spending patterns for each household, Adam and Browne (2015) give each household an average consumption tax rate for their household type (single without children, lone parent, couple without children, couple with children) and income decile calculated using TAXBEN run on the 2012 LCFS.

Source: S. Adam and J. Browne (2015) 'Do the UK government's welfare reforms make work pay?', paper presented at ECFIN Workshop on "Expenditure-based consolidation: experiences and outcomes", available from http://ec.europa.eu/economy_finance/events/2015/20150120-ecfin_workshop/documents/session_32_en.pdf.

A key explanation for why some individuals have seen significantly strengthened work incentives while others have seen their incentives weaken can be found by looking at what has been happening to in-work benefits. For those without a working partner (i.e. single people and people with non-working partners), the effect of the coalition's benefit changes on incentives to be in work is in principle ambiguous: it depends whether in-work support or out-of-work support is cut by more. In practice, relatively few of those without children are entitled to tax credits if they work, so cuts to out-of-work benefits dominate and these groups see the biggest reductions in their average RRs and PTRs (i.e. their work incentives strengthen the most). For those with children, however, reductions in the tax credits they receive if they work are significant while tax credits (though not benefits) for non-working families have actually been increased. Lone parents and parents with non-working partners – particularly those who earn little if they work – have thus seen smaller reductions in their mean RRs, and indeed see their mean PTRs increased by benefit changes. For those with a working partner – about half the working-age population – the strengthening of incentives is largely unambiguous. For this group, benefit cuts mean less (if any) support with one partner in work, and the second partner therefore has less to lose from entering into work.

The impact of policy changes on the incentive for workers to increase their earnings slightly again varies quite substantially between different individuals. A small number of individuals have seen their EMTRs fall substantially as a result of certain tax and benefit changes the coalition has introduced. Most notably, increases in the personal allowance and in the NICs primary threshold have reduced the number of individuals paying direct taxes at all, and cuts to means-tested benefits and tax credits means that fewer individuals are subject to withdrawal of benefits if they increase their earnings slightly.[29] However, for the majority of individuals, increases in VAT and NICs rates have meant that the incentive for them to increase their earnings slightly has weakened a little. Averaging this out across all of those in paid work, the mean EMTR has fallen by 1.1ppts, but the median EMTR (which is less sensitive to large movements for relatively small numbers of people) has *increased* by 1.1 ppts. In sum, the *majority of individuals* who are already in work have a weaker incentive to work more hours even though the incentives have strengthened *on average*.

There are a number of further points worth noting about what has been happening to work incentives over the course of this parliament. First, falling real earnings have reduced the gain from being in paid work. Adam and Browne (2015 op. cit.) estimate the impact of this and find that falling real earnings will offset around half of the reduction in the average replacement rate caused by tax and benefit changes: falling real earnings (and other developments in the wider economy) are expected to increase the average replacement rate by 1.4ppts, compared to a fall of 3ppts resulting from tax and benefit changes. Second, RRs and PTRs only measure financial work incentives, and the coalition government has made several changes to the benefit system that affect non-financial work incentives. The coalition has introduced the Work Programme[30], imposed greater work search requirements on lone parents whose youngest child is at least 5 years old, and introduced new disability tests for employment and support allowance that have increased work search requirements on those who would previously have qualified for incapacity benefit.

[29] 14% of workers (3.8 million people) see their EMTRs fall by at least 5ppts as a result of tax and benefit changes introduced by the coalition, 12% (3.1 million) see their EMTR fall by at least 10% and 5% (1.4 million) by at least 20%.

[30] The work programme is a significant reform to the delivery of welfare-to-work services in which welfare-to-work services are delivered by a mix of private, voluntary and public-sector organisations, with payments to providers based on the results achieved in terms of returning welfare claimants to employment, with amounts varying according to the duration of the employment and the perceived barriers to work faced by different groups. The intention is that the Work Programme should give providers greater flexibility to innovate and stronger incentives to get claimants into work, though initial results have been disappointing. See Comptroller and Auditor General (2012), 'A Commentary for the Committee of Public Accounts on the Work Programme Outcome Statistics', HC 832 and Public Accounts Committee (2013), 'Department for Work and Pensions: Work Programme outcome statistics', HC936 for more information.

Table 4.1: Impact of tax and benefit reforms on RRs of different groups

	2010 'unreformed' system	Change in mean RR (ppts) from:			2015	Number of people (millions)
		Tax changes	Benefit changes	Overall		
Single, no children	41.8%	–0.9	–3.8	–4.6	37.1%	10.5
Lone parent	72.3%	–0.7	–2.2	–2.8	69.5%	2.0
Partner not working, no children	60.9%	–0.5	–4.5	–5.0	55.9%	2.7
Partner not working, children	70.3%	–0.6	–0.8	–1.4	68.9%	2.7
Partner working, no children	56.1%	+0.0	–1.5	–1.5	54.6%	9.5
Partner working, children	66.8%	–0.4	–1.9	–2.2	64.6%	9.3
Without children	50.0%	–0.5	–2.9	–3.4	46.6%	22.7
With children	68.3%	–0.5	–1.7	–2.2	66.1%	13.9
Non-workers	62.8%	–0.6	–2.7	–3.3	59.5%	9.8
Workers	54.8%	–0.4	–2.4	–2.8	52.0%	26.8
All	57.0%	–0.5	–2.5	–2.9	54.0%	36.6

Note: Only includes those aged between 19 and the state pension age in 2010, i.e. men aged 19-64 and women aged 19-59. Figures may not sum due to rounding.
Source: Adam and Browne (2015) op. cit.

Table 4.2: Impact of tax and benefit reforms on PTRs of different groups

	2010 'unreformed' system	Change in mean PTR (ppts) from:			2015	Number of people (millions)
		Tax changes	Benefit changes	Overall		
Single, no children	55.6%	–1.7	–2.2	–3.9	51.7%	10.5
Lone parent	53.4%	–1.3	+0.7	–0.6	52.7%	2.0
Partner not working, no children	62.6%	–1.1	–2.8	–3.9	58.7%	2.7
Partner not working, children	71.2%	–1.0	+2.2	+1.2	72.4%	2.7
Partner working, no children	44.0%	–1.5	–1.7	–3.2	40.8%	9.5
Partner working, children	50.4%	–1.8	–1.6	–3.4	47.0%	9.3
Without children	51.6%	–1.6	–2.0	–3.6	48.0%	22.7
With children	54.8%	–1.5	–0.6	–2.1	52.7%	13.9
Non-workers	54.6%	–1.5	–1.4	–2.9	51.6%	9.8
Workers	52.2%	–1.6	–1.5	–3.1	49.1%	26.8
All	52.8%	–1.6	–1.5	–3.0	49.8%	36.6

Notes and sources: as for Table 4.1.

Table 4.3: Impact of tax and benefit reforms on workers' EMTRs

	2010 'unreformed' system	Change in mean EMTR (ppts) from:			2015	Number of people (millions)
		Tax changes	Benefit changes	Overall		
Single, no children	51.6%	–0.2	–1.4	–1.7%	50.0%	6.6
Lone parent	75.6%	–1.1	–1.0	–2.1%	73.5%	1.1
Partner not working, no children	56.3%	+0.4	–1.2	–0.9%	55.4%	1.4
Partner not working, children	69.7%	–0.2	–1.7	–1.9%	67.8%	1.8
Partner working, no children	49.8%	+0.4	–0.7	–0.3%	49.5%	8.3
Partner working, children	54.3%	+0.0	–1.0	–1.1%	53.2%	7.5
Without children	51.1%	+0.1	–1.0	–0.9%	50.2%	16.4
With children	59.2%	–0.2	–1.1	–1.3%	57.9%	10.4
All	54.3%	+0.0	–1.1	–1.1%	53.2%	26.8

Note: Only includes those in paid work aged between 19 and the state pension age in 2010, i.e. men aged 19-64 and women aged 19-59.
Source: Adam and Browne (2015) op. cit.

5. Future challenges

We have seen that over the course of this parliament the main losers from austerity measures to increase tax revenues and cut benefit spending have been low-income working-age households with children, who have seen their benefit and tax credit entitlements reduced, and the richest tenth of households. These richer households have lost out from increases in NICs rates, restrictions on tax relief on pension contributions and real reductions in the point at which the higher 40% rate of income tax starts to be applied (these changes have more than offset the reduction in the additional rate of income tax from 50% to 45% in April 2013 for this group on average). If we move the starting point of our analysis to January 2010 to incorporate the introduction of the 50% income tax rate and the withdrawal of the personal allowance from those with incomes above £100,000 in our analysis, this group has lost the most from the fiscal consolidation as a whole. By contrast, working-age households without children in the richer half of the income distribution (though not the very richest) have lost relatively little, or even gained from tax and benefit changes introduced during this parliament, mainly as a result of increases in the income tax personal allowance. The impact of reforms on pensioners depends critically on how we define a 'reform'. Relative to the 'unchanged policy' baseline used by HMT under the previous government when costing measures in Budgets and Pre-Budget Reports (where benefit rates and tax thresholds increase in line with the default indexation rules in place in May 2010 each year), pensioners have been relatively unaffected by reforms overall. This is because pensioners' gains from the 'triple lock' on

the basic state pension have largely offset the negative impact of other tax rises and benefit cuts (pensioners have lost out from the increase in VAT, cuts to housing benefit in the private rental sector and the expiry of a temporary increase in winter fuel payments). However, relative to a baseline where all tax and benefit parameters are increased in line with CPI inflation, the gain from the 'triple lock' is much smaller and the guarantee component of pension credit has been cut rather than increased. Relative to this baseline, pensioners have lost just as much as working-age people as a percentage of their income on average.

Looking ahead, there will be a continued need for fiscal consolidation in the next parliament, and it is likely that at least some of this will be delivered through tax rises or cuts to social security spending to reduce the implied cuts to 'unprotected' departments in current spending plans.[31] Based on what the three main UK parties have told us about their plans so far, it seems that at least some of the trends we have seen over the last five years are likely to continue whoever forms the next government. None of the parties is proposing significant tax rises that would affect the moderately well-off, or significant cuts to state pensions or other benefits received by pensioners. The Conservatives have said that they would seek to cut the social security budget by £12 billion a year, and have already announced that they would freeze most working-age benefits for two years were they to form a majority government. This would mainly affect the poorer half of working-age households. Labour has proposed a couple of very small cuts to benefits: they would increase child benefit by 1% (rather than in line with inflation) for an additional year in 2016–17 and would remove winter fuel payments from pensioners who pay the higher or additional rates of income tax. The Conservatives and Liberal Democrats share the aim of increasing the income tax personal allowance to £12,500 by 2020–21, the largest beneficiaries of which would be upper-middle income households. Labour and the Liberal Democrats would seek to increase taxes on the richest households as has happened during this parliament. Both of these parties propose raising the tax on high value properties – the Liberal Democrats through additional council tax bands and Labour through a separate mansion tax.[32] Furthermore, the Liberal Democrats would increase capital gains tax for higher rate taxpayers, and Labour would increase the additional income tax rate back to 50%. The Conservatives would, however, increase the higher rate threshold to £50,000, a significant giveaway to the richest tenth of households. We will publish more detailed analysis of the different parties' plans for the next parliament after manifestoes have been published closer to the election.

Of course, this brief discussion and our analysis in the run up to the election can only be of policies that each party has announced. Experience from recent UK general elections (1992, 1997, 2001, 2005 and 2010) suggests that whichever party or parties form the next government could well introduce additional tax rises or benefit cuts that were not discussed before the election, and this seems likely to be the case again this time around given the scale of the fiscal tightening required for each party to meet its fiscal targets.

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[31] For more detail on the main parties' spending plans, see R. Crawford, C. Emmerson, S. Keynes and G. Tetlow (2014), 'Fiscal aims and austerity: the parties' plans compared', IFS Briefing Note 158, http://election2015.ifs.org.uk/uploads/publications/bns/BN158.pdf.

[32] Note that not all owners of high-value properties necessarily have high incomes. These policies would therefore not only affect the highest income deciles in the same way that increasing the additional rate of income tax would, for example.

Appendix A

Table A.1: Yearly net income (£) needed for different family types to be in the different income deciles.

	Single	Lone parent, 12 year old child	Couple	Couple, 12 year old child	Couple, 5 and 12 year old children
2	9,068	12,785	14,866	18,583	21,705
3	10,818	15,251	17,734	22,167	25,891
4	12,303	17,345	20,168	25,210	29,446
5	13,973	19,699	22,906	28,633	33,443
6	15,888	22,400	26,047	32,558	38,028
7	18,213	25,678	29,858	37,323	43,593
8	20,881	29,439	34,231	42,789	49,978
9	24,906	35,113	40,829	51,036	59,611
10	31,865	44,924	52,238	65,297	76,267

Source: Authors' calculations using TAXBEN run on uprated data from the 2012–13 FRS.