
Assessing the distributional impact of key changes in taxes and contributions between 2006 and 2015

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Executive summary

Over the last decade, the Government of Jersey has made a number of changes to the personal income tax and social security system, and introduced both a Goods and Services Tax (GST) and a contribution to help meet the costs of funding long-term care (LTC) in Jersey. It would now like to look back over these changes and assess how these changes have had an impact on the distribution of income in Jersey, both individually and in aggregate.

The impacts of the individual changes made vary in their scale and scope; some raise the tax bill and some reduce it, and some do both, depending on the income level of the household in question. As such, it is difficult to digest the various changes into an overall picture. Nonetheless, some high-level observations can be made.

First, income tax. Three key changes to the income tax system are helpfully viewed together. '20 means 20', a package of reforms which (as the name suggests) seeks to simplify the tax system such that standard rate tax payers pay 20% income tax (or close to that amount) (both marginally¹ and on average); an increase in the exemptions (tax-free amounts of income) available to marginal rate tax payers and a reduction in the marginal tax rate (from 27% to 26%). The first increases the tax payable by those at the upper end of the income scale; the latter two reduce the tax paid at low to middle income levels and all three increase the number of households whose tax calculation is based on the marginal rate calculation. The broad effect of these changes is to reduce the tax paid by low to middle income earners, and increase the tax payable by higher income earners.

However, this simplification needs elaboration. Three household characteristics will have a particular effect on the overall impact of these changes. First, the number of children in a household (and whether any are pre-school age or in higher education); second, whether a household has a mortgage; and third the level of pension contributions a household makes. All of these characteristics alter the impact of the changes made since 2006. Mortgage interest tax relief is no longer available at the standard rate, which increases, in particular, the tax payable for higher earners with a large mortgage.

In contrast, households with children—especially those with children of pre-school age or in higher education—experience a significant uplift in the relief potentially available to them. For all other than the highest earners, pension relief available on contributions is more generous, which benefits in particular those making significant pension contributions.

Employees' social security contributions also increased over this period (as the Standard Earnings Limit (SEL) increased each year in line with average earnings), but only for people earning above the Standard Earnings Limit (SEL), which was c.£38,000 in 2006. Anyone earning below this level is unaffected by this change.

As noted, the two new policies that have been introduced over this period are the GST and the LTC contribution. The LTC contribution is calculated based on taxable income under the income tax system and therefore reflects the household characteristics captured by the income tax system. As such, it is a

¹ In economic terms, the marginal rate of taxation is the tax rate that an individual would pay on an additional £1 of income. As such, the marginal tax rate is effectively the tax percentage on the last £1 earned. This is distinct from the marginal rate tax calculation used within the Jersey tax system.

relatively progressive tax (i.e. more is paid by higher earners), albeit this is partially offset by the fact that the marginal rate² of LTC contribution payable is nil for very high income levels.

GST is a tax on expenditure, rather than on income. We assume that, even at very low levels of income, some income is spent on GST (in contrast to income tax, but similar to social security). The tax is not dependent on household characteristics and so tax paid as a percentage of disposable income (which is not modelled in this report) may vary significantly across household types.

Both the LTC contribution and GST have the effect of increasing the actual tax/contribution rate paid by households at most income levels. As we assume that expenditure on GST (as a percentage of income) reduces as income increases, the impact of these two taxes in combination is likely to fall as a share of income as income levels rise. However, as noted above, these changes were introduced over a period of wider policy reform, which partially offsets this effect.

Further detail on all of these high-level observations is presented in the report.

² In this context marginal rate refers to the rate if tax on the last pound earned, rather than the marginal rate tax system

1 Introduction

1.1 Overview

Over the last decade, the Government of Jersey has made a number of changes to the personal income tax and social security system and introduced both a Goods and Services Tax (GST) and a contribution to help meet the costs of long-term care (LTC) in Jersey.

Oxera has been asked to model the changes made between 2006 and 2015 and present our findings graphically, considering the impact on seven different illustrative households and across a wide range of household income levels.

One of the key changes over this period was the implementation of '20 means 20'. Under this policy, most people at the higher end of the income scale will now pay tax at (or close to) 20%. This is because most tax allowances (amounts that are deducted from income to determine the level of income that will be subject to tax) have now been withdrawn for these income levels. '20 means 20' has resulted in a higher effective rate for standard rate tax payers; however, the precise level of income at which tax becomes payable at this rate and how close to an effective tax rate of 20% is payable will depend on household circumstances, and, critically, the remaining allowances the household can claim. Child allowances, single parent allowances³ and tax relief on pension contributions still apply.

Aside from '20 means 20', there have been a number of other changes to the personal income tax system over this period. In particular, the marginal tax rate payable at lower levels of income was reduced from 27% to 26%, marginal rate tax exemptions (which work in the same way as tax allowances) were increased, as were child allowances (in particular for children in higher education). In addition, a new 'enhanced' childcare cost tax allowance was introduced, which increases the tax relief available in relation to childcare costs for pre-school children.

The tax relief available for pension contributions also changed significantly over the period. The impact of the change was to increase the maximum pension contribution tax relief available to those on low and middle incomes and decrease it for the highest earners.

Changes were also made to mortgage interest tax relief (MITR). MITR is now available only to households at the low to medium end of the income scale (i.e. marginal rate tax payers) and is subject to an annual cap of £15,000.

Finally, tax relief on private medical insurance and life assurance premiums has now been withdrawn entirely (although our understanding is that the take-up of this relief was limited when it was available).

Aside from changes to the personal income tax regime, other aspects of the taxes and contributions regime in Jersey also changed between 2006 and 2015. In particular, the cap on the income up to which 6% social security contributions are payable increased by c.£10,000 (as the Standard Earnings Limit (SEL) increased each year in line with average earnings), and a contribution to help fund the cost of LTC in Jersey was introduced (at a maximum of 0.5% of income in 2015, subsequently increased to 1% in 2016). Finally, a GST, applicable to

³ Also known as the 'Additional Personal Allowance'.

purchases of qualifying goods and services, was introduced. GST was originally set at 3% in 2008 and rose to 5% in 2011.

Table 1.1 lists these key changes to taxes and contributions in Jersey over the period 2006 to 2015.

Table 1.1 Summary of key changes

- Introduction of **'20 means 20'**
- Decrease in the **marginal tax rate**
- Increase in **marginal rate exemptions**
- Increase in **child allowances**
- Introduction of **enhanced childcare** tax exemptions
- Withdrawal of **private medical** and **life assurance** relief
- Changes to **mortgage interest** tax relief
- Changes to **pension contribution** tax relief
- Annual increases to the **Social Security standard earnings limit**
- Introduction of a **long-term care** contribution
- Introduction of a **Goods and Services Tax**

The analysis presented in this report reflects Oxera's understanding of Jersey's tax system based on correspondence with the Government of Jersey and information publicly available through the States of Jersey tax website.

1.2 Approach








Illustrative households

To assess the impact of these changes, we have considered how they might affect seven different illustrative households.⁴ Modelling the impact on different household types is important as a given change may affect only a subset of households (e.g. changes to childcare relief), or may affect some households more than others (e.g. changes to the tax relief available in relation to mortgage interest payments).

Households have been defined so as to capture those characteristics of a household that most influence the amount of tax payable—for example, the number of people in the household, the age of household members and whether they have a mortgage. The seven illustrative households used for this analysis are summarised in more detail provided in Appendix A1.

⁴ These illustrative households were agreed with the Government of Jersey, to be representative of a variety of household circumstances

Figure 1.1 Overview of illustrative households

H1	H2	H3	H4	H5	H6	H7
						
Single	Single 1 child	Married	Married 2 children	Married 2 children (one in higher education)	Married pensioners	Single pensioner
No mortgage	£200k mortgage	£300k mortgage	£300k mortgage	£100k mortgage	No mortgage	No mortgage

Note: Images sourced from www.freepik.com.

For ease of interpretation, in some cases the changes to taxes and contributions are presented for a sub-set of households only. In some cases, this is because a change is relevant only to a particular type of household (e.g. one with children); elsewhere it is because it is clearer to see the impact of a change if only the households affected least and most by a change are presented. This also avoids trying to present too many pieces of information in one figure.

Key metrics

To assess the impact of these changes on the seven households, we focus on two key metrics. First, the 'effective tax rate' paid before and after a given change/set of changes. The effective tax rate is the total amount of tax payable, expressed as a percentage of total household income (i.e. the overall average tax rate). Second, we present the 'change in tax paid', in some cases in both in monetary and percentage terms before and after a change.

The effective tax rate is a helpful distributional metric as it enables a comparison to be made at a snapshot in time, across income levels and across household types. It will show, for example, how the portion of income spent on tax varies between the lowest and highest earners in society. This can then be compared with overall policy objectives.

Change in tax paid is helpful for illustrating the impact of a specific change. It will show how a given change is affecting different households at different income levels. It is therefore a useful way to see whether the distributional impact of a change contributes to moving the distribution of income closer to policy objectives.

Assumptions

As with any simplified modelling exercise, in deriving the results presented in this report, we have made a number of assumptions, as set out below.

1. All income is earned

We have assumed that all income is earned—as opposed to income from returns on financial investments, for example. As the treatment of unearned income can be slightly different in some cases, all income is assumed to be earned, to avoid unnecessary complexity.

2. Income is split equally between a married couple/civil partnership

Personal income tax in Jersey is based predominantly on household income (rather than individual income). Therefore, in most cases, how that income is

split between individual earners is not relevant. However, this is not always the case, for example:

- entitlement to tax relief on childcare depends on a minimum level of income for the lower earner in a married couple or civil partnership;
- Social Security contributions are based on individual incomes and so the split of income is important as it affects whether the cap on the total contribution (the Standard Earnings Limit, SEL) is applicable;
- for the LTC contribution, there is a cap on the maximum amount payable, which depends on individual, not household, income.

3. Expenditure assumptions

In addition, we have made a number of assumptions about the level of household expenditure on items which attract tax relief.

A summary of the key assumptions we have made for these (unless otherwise stated) is shown in Table 1.2.

Table 1.2 Summary of expenditure assumptions

Expenditure assumptions

Pension contribution: 2.4% (of income) (0% for pensioners)

Interest rate on a mortgage: 5%

Childcare costs: £3,000 (per child, per year)

No life assurance or private medical insurance contributions

Note: These assumptions are based on expenditure figures from the States of Jersey's expenditure distribution survey, as well as additional detailed expenditure information provided by the Government of Jersey.

Source: States of Jersey (2015), 'Jersey Household Spending 2014/15'.⁵

Presentation of changes

To illustrate the impact of individual changes to taxes and contributions, we have used 2006 as a base. This means that (unless otherwise stated), we are presenting what the impact would have been if a change had been implemented in 2006. This is to ensure that we isolate the impact of the tax change and that this is not combined with other changes, such as the impact of inflation between 2006 and 2015.

This produces a different result than if 2015 was used as a base. In that case, we would compare tax paid in 2015 (a product of the 2015 taxes and contributions regime in 2015) to what it would have been if the specific aspect of interest changed back to what it was in 2006. Where we consider that the two approaches are both helpful, these have both been presented (as indicated by x-axis labels of '2006' or '2015' household income). In general, 2006 is used as it allows for a more intuitive output (i.e. chronological).

⁵

<https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/R%20Spending%20survey%20report%202015%2020160526%20SU.pdf>, accessed 16 March 2017.

For example, to illustrate the impact of the change to the marginal tax rate from 27% to 26%, we compare the tax payable in 2006 to what the tax payable would have been if the marginal rate was 26%.

In some cases, tax payable is related to expenditure (as well as income). For example, tax relief depends on level of expenditure on childcare. In recognition of the fact that underlying expenditure levels are unknown and may change over time, and that household circumstances may vary from the illustrative households used, where appropriate we illustrate the impact of a change in tax policy at more than one expenditure level.

Goods and Services Tax

GST is slightly different to the other taxes and contributions presented in this report, in that it is not a tax on income. Rather, it depends on expenditure, and, in particular, expenditure on qualifying goods and services.

While this does not fit neatly with the other changes presented here, the Government of Jersey recognises that it is a key change to the taxes and contributions in Jersey over the last decade, and is therefore keen to include it in any distributional analysis of the overall changes.

Therefore, to incorporate this into our analysis, we have used data from the Jersey Household Spending survey⁶ to make an assumption about the relationship between expenditure on GST and household income. This is explained in more detail in section 5, Goods and Services Tax .

1.3 Structure of this report

The analysis in this report examines in turn each of the key changes to taxes and contributions between 2006 and 2015 (summarised in Table 1.1).

Section 2 focuses on income tax. In particular, it explains how tax paid is determined in Jersey, and addresses each of the changes to income tax in turn.

Section 3 then explains how Social Security contributions are determined and how the changes to the SEL affect the amount payable by income level.

Section 4 explains the new LTC contribution and the contribution amounts at different levels of household income.

Section 5 explains the GST and, in particular, the assumptions we have made about expenditure subject to this contribution at different levels of income.

Finally, section 6 brings together all of the taxes and contributions to illustrate the overall impact by household type and income level.








⁶ Ibid.

2 Income tax

2.1 Introducing income tax in Jersey

There are two important points to highlight about the personal income tax system in Jersey. First, income tax is generally based on household (in the context of married couples), rather than individual, income. Second, income tax payable is equal to the lower of two amounts calculated: one based on the 'standard rate' of tax and one based on the 'marginal rate' of tax (with different tax allowances and exemptions available under each). The marginal rate calculation generally applies at low and medium levels of household income, and results in a lower effective tax rate, while the standard rate generally applies at medium to high incomes.⁷ A recap of the households is presented below.

Figure 2.1 Overview of illustrative households

H1	H2	H3	H4	H5	H6	H7
						
Single	Single 1 child	Married	Married 2 children	Married 2 children (one in higher education)	Married pensioners	Single pensioner
No mortgage	£200k mortgage	£300k mortgage	£300k mortgage	£100k mortgage	No mortgage	No mortgage

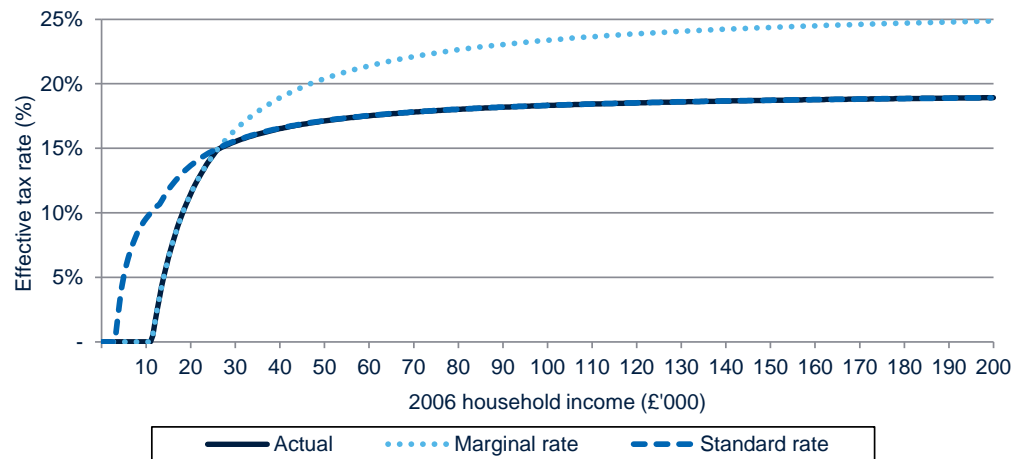
Note: Images sourced from www.freepik.com.

The **marginal rate** calculation allows for significant exemptions which ensure that the lowest income earners pay no tax. Once an income level exceeds the permitted exemptions, tax is charged at the marginal rate (27% in 2006 and 26% in 2015).

Under the **standard rate** regime, tax is charged at 20%, with fewer tax-free 'allowances'. Between 2006 and 2015 these allowances were reduced significantly as part of the implementation of '20 means 20'. By 2015, only child allowances, single parent allowances and tax relief on pension contributions remained available under the standard rate tax calculation.

Figure 2.2 below illustrates how income tax payable changes by income level under this regime. Using Household 1 (H1) in 2006 as an example, the figure shows the effective tax rate as determined based on each of the two methods (the standard and marginal rate methods) and the actual effective tax rate (the lower of the two at a given income level).

⁷ Although this depends on the composition of the household. In 2015, for some households, tax is payable at the marginal rate up to over £200,000 (e.g. H4 in this report).

Figure 2.2 H1: 2006

Source: Oxera analysis.

2.1.1 20 means 20?

Between 2006 and 2015, a number of factors changed in relation to the way income tax is determined. In particular, as part of the move to '20 means 20', the allowances available under the standard rate calculation were reduced.

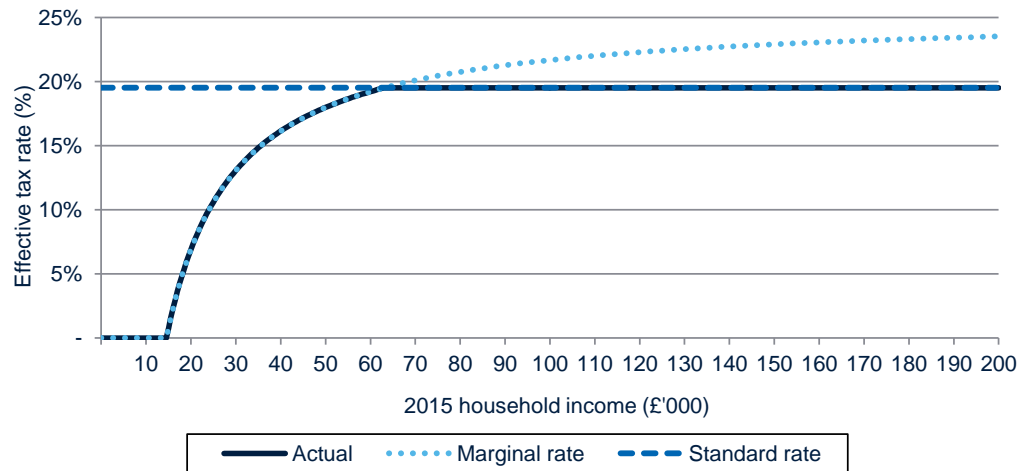
However, as illustrated below, 20 still does not quite mean 20 in 2015, except for households which do not have any children and do not contribute to a pension (or whose income is too high to be entitled to relief for pension contributions). Using H1 as an example, Figure 2.3 below shows tax payable in 2015.

The main observation to make about this figure is that the effective tax rate is slightly lower than 20% at levels of household income for which tax is calculated using the standard rate. This is because H1 is able to claim tax relief in relation to the pension contributions it makes (we have assumed that all non-pensioner households pay 2.4%⁸ of their income into a pension).

By paying 2.4% of household income into a pension, the taxable income of that household is reduced by 2.4%. The tax saving is then 20% of that 2.4%, being 0.48%. Therefore, in Figure 2.3 below, the effective tax rate for levels of income at which the standard rate applies is c.0.5% below 20%, at c.19.5%.

⁸ Based on the average pension contribution in the 2014/15 household expenditure survey. This average includes those who do not have expenditure on pension contributions.

Figure 2.3 H1: 2015 (impact of tax relief on pension contributions)



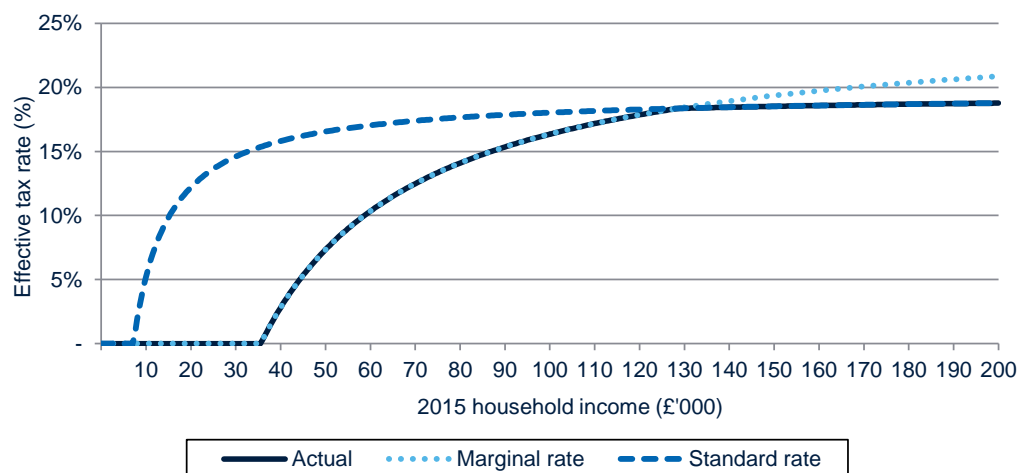
Source: Oxera analysis.

In addition to pension contributions, child allowances and the single parent allowance also mean that the effective tax rate under the standard rate regime is not always 20%.

Figure 2.4 below illustrates this using H2 (single adult, one child) as an example. In 2015, H2 is entitled to a child allowance of £3,000 and a single parent allowance of £4,500 under the standard rate calculation. As a result of this tax-free amount, no income tax is payable at income levels below the level of the allowances, above which the rate rises quickly to near 19.5% (not 20%, due to the tax relief on pension contributions described above).

These fixed allowances mean that the effective tax rate tends towards c.19.5% (as in Figure 2.3 above) but never reaches it. The fixed tax-free allowance becomes a smaller proportion of income as income increases, and so the effective tax rate increases as income grows.

Figure 2.4 H2: 2015 (impact of standard rate allowances)



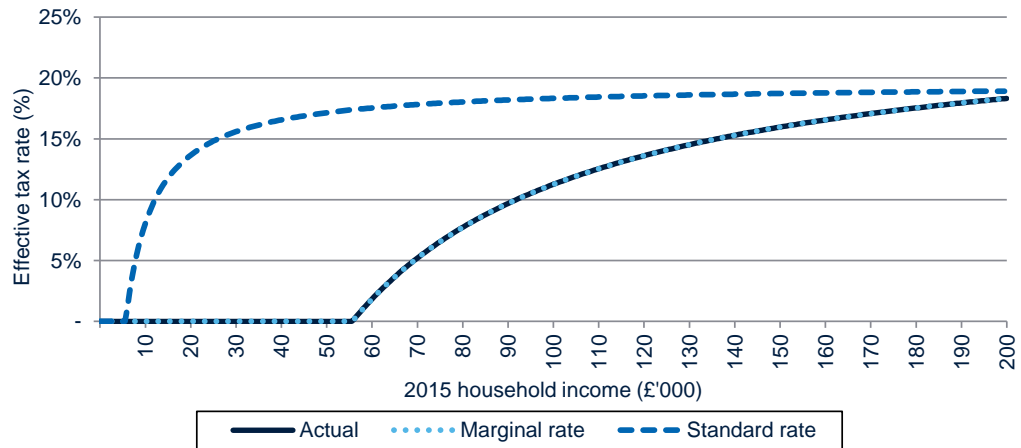
Source: Oxera analysis.

As noted above, the exemptions available under the marginal rate calculation are higher in 2015 than in 2006. This is particularly pronounced for households with children. The specific impact of the changes to the level of exemptions will

be considered in further detail later in this report, but it is helpful to understand the general impact of this on the effective tax rate across income levels.

In the case of H4 (married couple, two children, £300,000 mortgage), exemptions under the marginal rate regime are high enough that income tax is paid at the marginal rate for all household incomes below c.£200,000. This is illustrated in Figure 2.5.

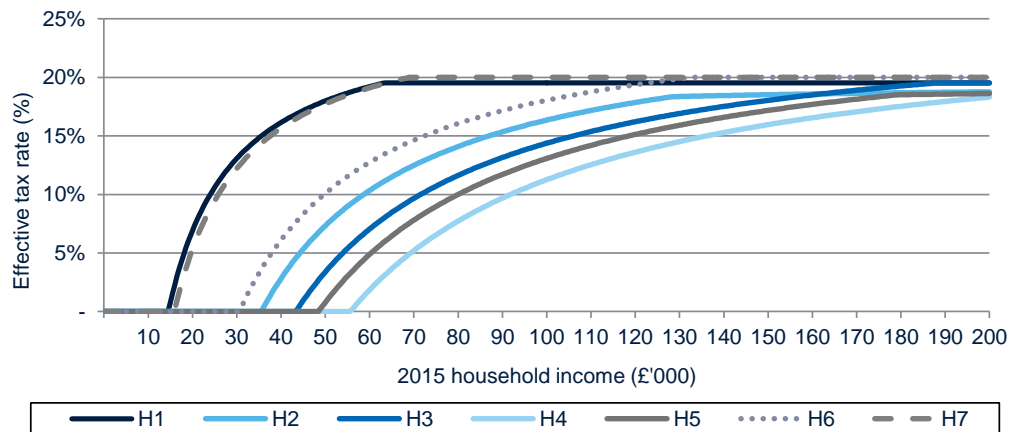
Figure 2.5 H4: 2015 (impact of marginal rate exemptions)



Source: Oxera analysis.

To summarise the effect of the 2015 income tax regime on different households, Figure 2.6 shows the effective tax rate by income level for each of the seven households considered in this report.

Figure 2.6 All households—effective income tax rate in 2015



Source: Oxera analysis.

We now move on to consider the impact of individual changes to the personal income tax regime in Jersey between 2006 and 2015.

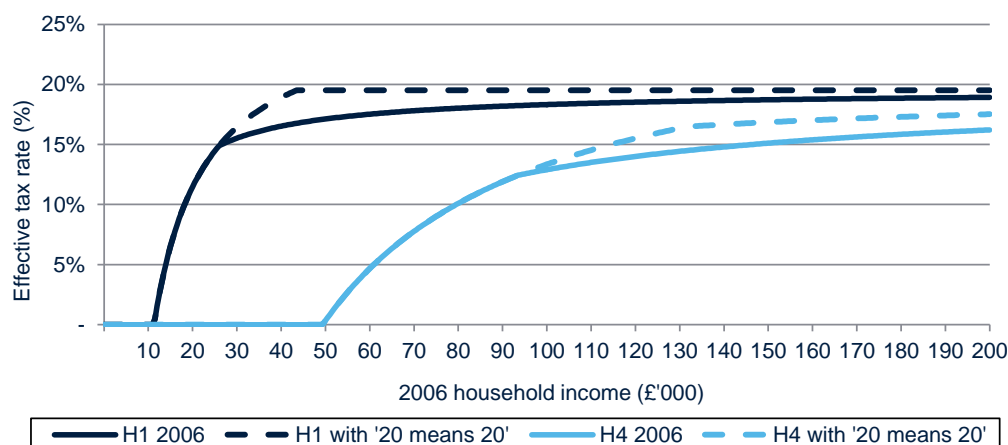
2.2 Impact of ‘20 means 20’

The introduction of ‘20 means 20’ entailed the removal of most tax allowances previously available under the standard rate tax calculation, including single and married person allowances, wife’s earned income allowance, and mortgage interest tax relief (MITR). The impact of this policy change in isolation was to increase the tax payable for those previously paying tax at the standard rate.

Given the significance of the withdrawal of MITR at the standard rate, this is analysed separately in section 2.8 below and not included in the analysis in this section of the report. Similarly, the impacts of the removal of private medical insurance and life assurance have been analysed separately.

Figure 2.7 shows the impact of '20 means 20', by comparing the effective tax rate in 2006 to the effective tax rate that would have applied in 2006 had '20 means 20' been implemented then. This approach is explained in more detail in 'Presentation of changes' in section 1.2 above.

Figure 2.7 H1 and H4: impact of '20 means 20' on effective tax rate



Source: Oxera analysis.

No change is visible at lower levels of income (the income levels to which the marginal tax rate applied before the implementation of '20 means 20'), as these income levels are unaffected by the change to standard rate allowances.

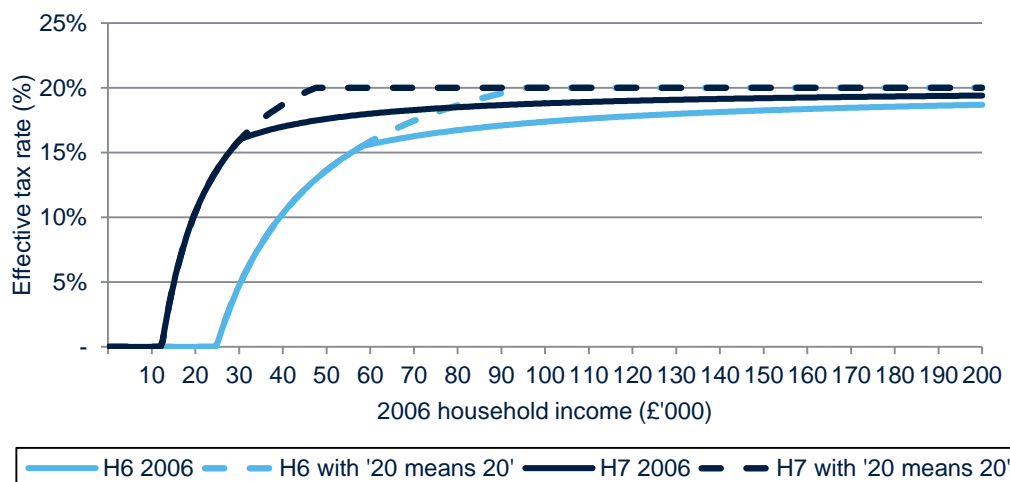
However, under '20 means 20', marginal rate tax is applicable up to a higher income level than before (for H1 up to c.£40,000, whereas previously this was c.£30,000, visible in the kink in Figure 2.7). This is because under '20 means 20', tax-free allowances available under the standard rate tax calculation are lower than before, which increases the tax payable based on the standard rate calculation. Therefore, at any given level of household income, it is more likely that the marginal rate calculation will produce a lower tax bill.

In Figure 2.7, H4 is further to the right than H1 because it is entitled to more exemptions under the marginal rate calculation—specifically, a married couple/civil partnership exemption (versus a single person exemption), child allowances for two children and MITR on a £300,000 mortgage.

Under the standard rate calculation, post '20 means 20', the effective tax rate at £200,000 is slightly lower for H4 than for H1 because of the residual impact of child allowances available to H4 at the standard rate. The gap between the two households decreases as income levels increase since the value of the allowances as a proportion of total household income reduces as income increases (reducing the impact of the fixed tax-free amount).

Figure 2.8 shows the impact on the effective tax rate for the two pensioner households. There are no children in either household, and we have assumed that they no longer make pension contributions. As such, in these two cases (and for any other household that does not make pension contributions or have any children), the 20% standard rate actually does mean 20%.

Figure 2.8 H6 and H7 (pensioners): impact of '20 means 20' on effective tax rate



Source: Oxera analysis.

Figure 2.9 and Figure 2.10 below show the impact of '20 means 20' on tax payable. They illustrate the difference between the personal income tax payable in 2006 and the tax that would have been payable in 2006 had '20 means 20' been in place in 2006 (all else equal).

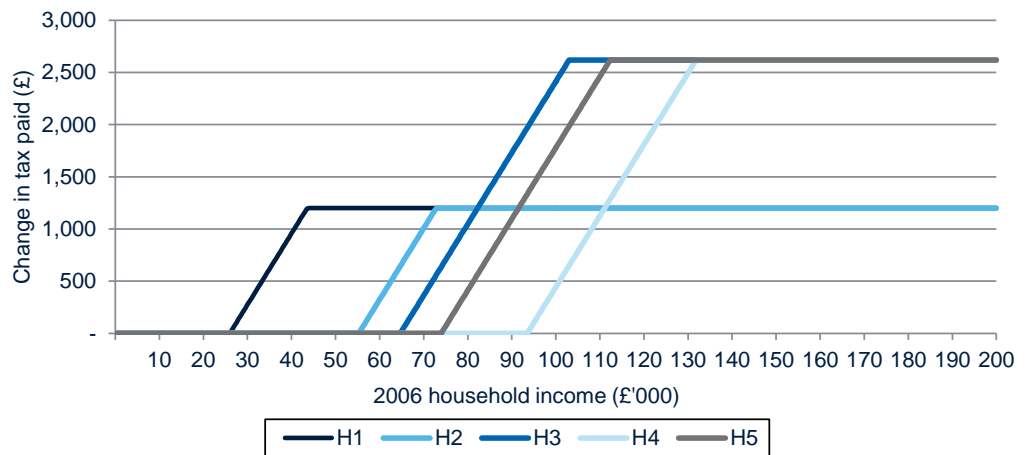
There are only two levels of impact: one for single households (H1, H2 and H7), and one for married households (H3–H6). This is because the allowances which were withdrawn were based only on whether a household was entitled to single or married couple's allowances. MITR was also withdrawn at the standard rate as part of '20 means 20'; however, given the potential significance of this change, it is considered separately in section 2.8 below.

In Figure 2.9, H1 and H2 were previously entitled to a single person allowance (£2,600) and an earned income allowance (£3,400), totalling £6,000 under the standard rate calculation. The rate of tax which is now paid on this amount is 20%; therefore, the maximum additional tax paid is £1,200.

Similarly, H3, H4 and H5 were previously entitled to a married couple's allowance (£5,200), an earned income allowance (£3,400) and a wife's earned income allowance (£4,500), totalling £13,100. At 20% standard rate tax, the maximum additional tax paid is £2,620.

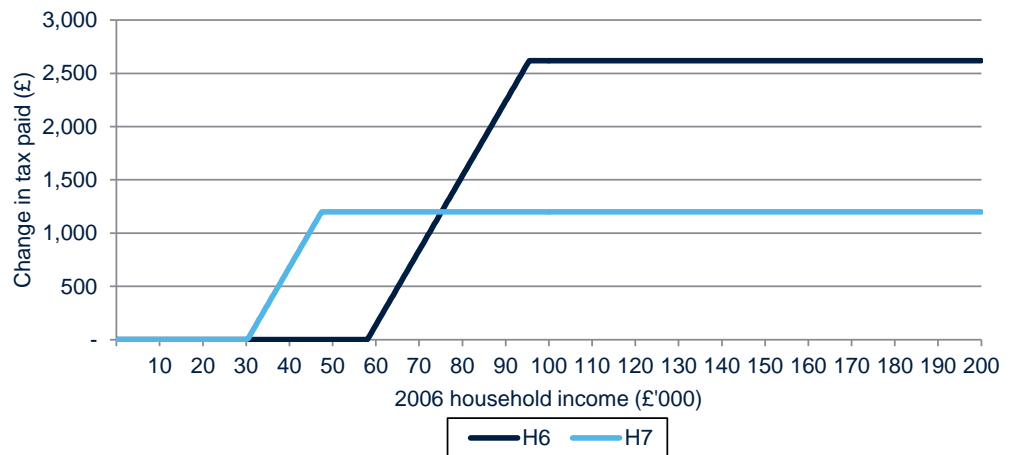
The upward-sloping line, before the maximum is reached, relates to income levels at which tax was previously paid at the standard rate, but post '20 means 20' is paid at the marginal rate. The impact for households at these income levels is some increase in tax, but not the maximum level since the loss of allowance they would have experienced at the standard rate is partially offset by the fact that, post '20 means 20', they pay less tax under the marginal rate calculation.

Figure 2.9 H1–5: impact of ‘20 means 20’ on tax paid



Source: Oxera analysis.

Figure 2.10 H6 and H7 (pensioners): impact of ‘20 means 20’ on tax paid



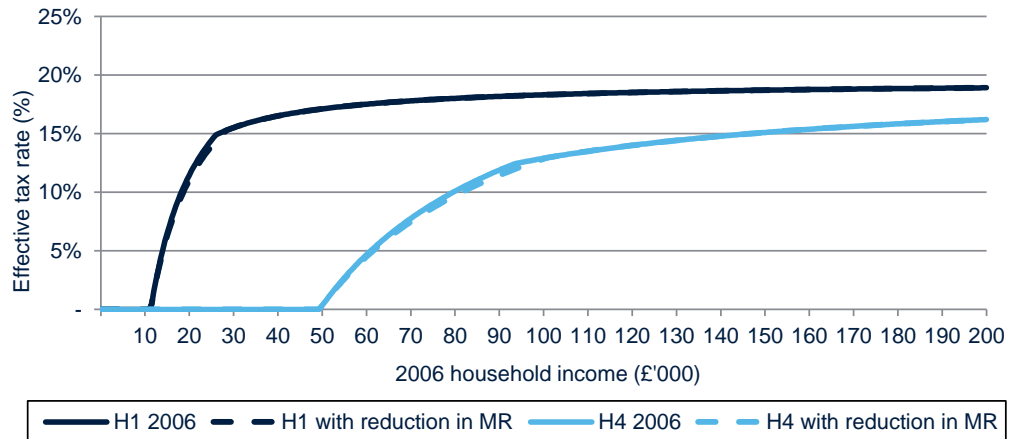
Source: Oxera analysis.

2.3 Decrease in the marginal tax rate from 27% to 26%

In Budget 2014, the rate of tax applied under the marginal calculation was reduced from 27% to 26%. The impact of this change is to reduce the tax paid by households paying tax at the marginal rate (i.e. at levels of income above the total exemptions available, but below the point at which the standard rate calculation produces a lower tax bill). As such, it also benefits households at the margin who previously paid tax at the standard rate but now pay tax based on the marginal rate (as this now produces the lower tax figure).

Figure 2.11 below compares, for H1 and H4, the effective tax rate in 2006 to the effective tax rate that would have applied in 2006 had the marginal rate been 26%, rather than 27%.

Figure 2.11 H1 and H4: impact of marginal rate change on effective income tax rate (relative to 2006 levels)

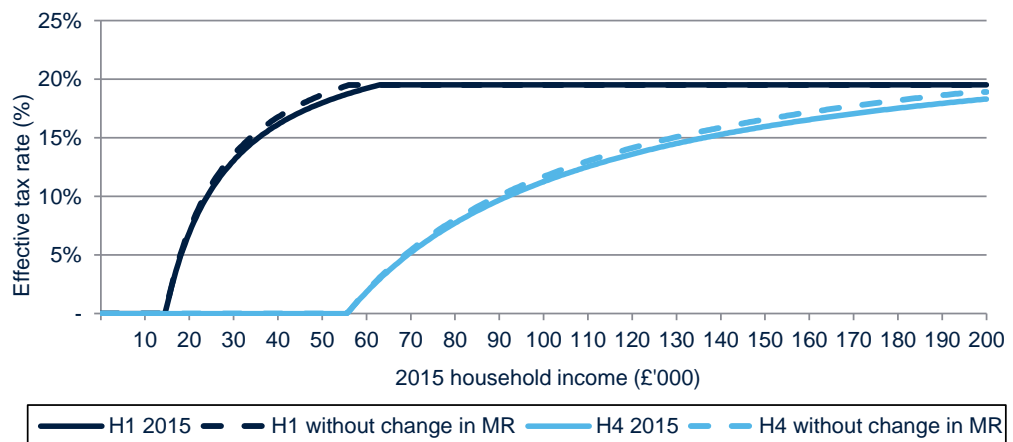


Note: 'MR' is shorthand for 'marginal rate'.

Source: Oxera analysis.

By way of comparison, it is also beneficial to illustrate the difference between the effective tax rate in 2015 and what the effective tax would have been in 2015 had the marginal rate remained at 27%. This is presented in Figure 2.12.

Figure 2.12 H1 and H4: impact of marginal rate change on effective income tax rate (relative to 2015 levels)



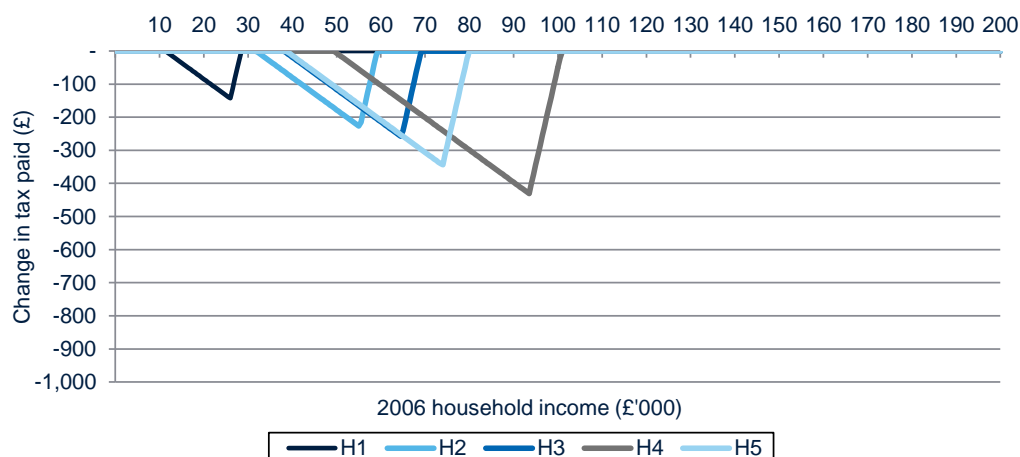
Note: 'MR' is shorthand for 'marginal rate'.

Source: Oxera analysis.

As the impact of the change in the marginal rate is difficult to see in Figure 2.11 and Figure 2.12, it is helpful to examine the difference in tax payable as a result of this change.

Figure 2.13 below shows, for H1 to H5, the difference in tax payable between 2006 and what tax would have been payable in 2006 had the marginal rate been 26%, rather than 27%.

Tax payable is reduced by this change for any household paying tax at the marginal rate. For this reason, the change in tax payable is represented by a negative figure on the y-axis.

Figure 2.13 H1–5: impact of marginal rate change on tax paid (2006 base)

Source: Oxera analysis.

When comparing the difference in tax payable in 2006 and the tax that would have been paid in 2006 had the marginal rate been 26%, Figure 2.13 shows that there is no change for households at the lowest levels of household income (<£10,000). This is because no household pays income tax at all on this income (as entitlement to exemptions exceeds household income), and so a change in the tax rate makes no difference.

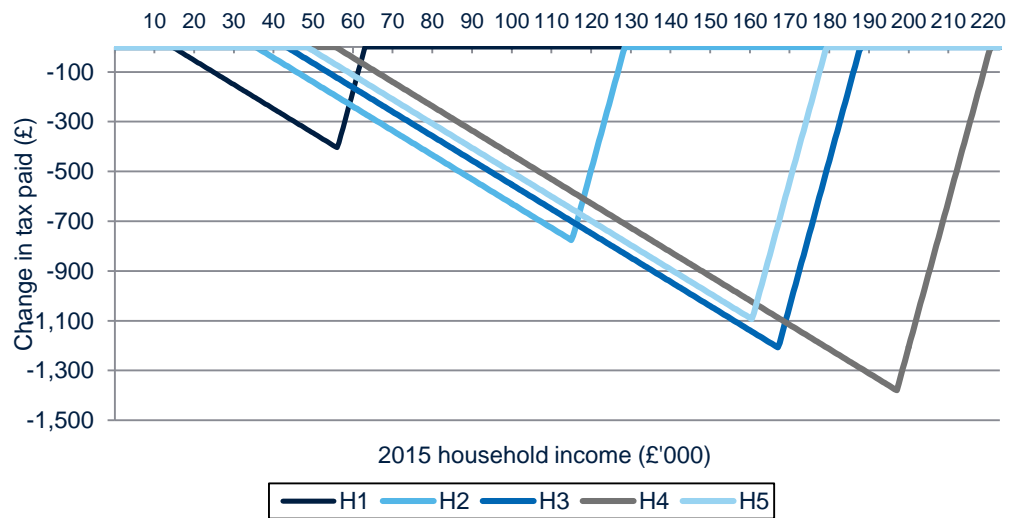
Similarly, there is no change for any household at the highest levels of income (>c.£100,000). This is because above c.£100,000 all of the illustrative households are paying tax at the standard rate, and so a change to the marginal rate does not impact tax payable.

Between these two levels, there is a tax reduction over a portion of household income levels for each illustrative household. The precise impact of the change in marginal rate depends primarily on the level of exemptions a household can claim under the marginal rate calculation (which determines the income level at which the change begins to have an impact on tax payable). For this reason, the household that observes an impact at the lowest level of income is the one entitled to the lowest level of exemption (H1, single person, no mortgage).

A further consideration is the level of allowances available to a household at the standard rate. In Figure 2.13 above, H3 and H5 are entitled to similar levels of exemptions at the marginal rate. However, at the standard rate, H3 is entitled to a higher level of MITR, which means that the switch to the standard rate occurs at a lower level of income. While MITR relief is not available at the standard rate in 2015, for the purposes of this comparative analysis we are using 2006 as a base (as explained in section 1.2) and varying only the one component being analysed (in this case, the marginal tax rate).

The income range over which this change is beneficial is much wider when 2015 is used as a base. This is because more people (household income levels) pay tax at the marginal rate in 2015 and so a change in the marginal rate affects more people. Figure 2.14 below shows the same graph as Figure 2.13 but using 2015 as a base.

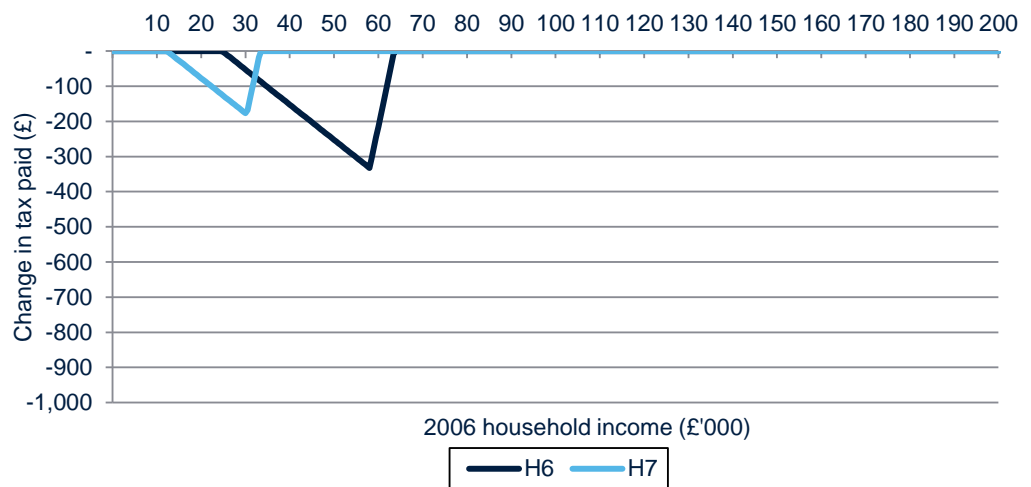
Figure 2.14 H1–5: impact of marginal rate change on tax paid (2015 base)



Source: Oxera analysis.

The same two graphs showing change in tax paid are presented below for the two pensioner households, H6 and H7.

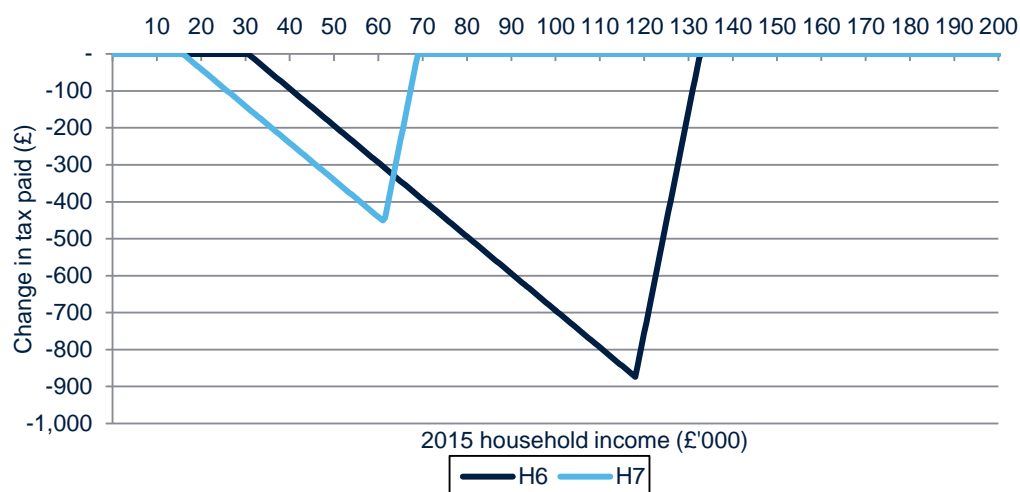
Figure 2.15 H6 and H7 (pensioners): impact of marginal rate change on tax paid



Source: Oxera analysis.

H6 is entitled to almost double the exemptions that H7 is entitled to (a married couple/civil partnership allowance versus a single person allowance). Therefore, the impact of the reduction in the marginal rate is observed at a higher level of income for H6.

Figure 2.16 H6 and H7: impact of marginal rate change on tax paid (2015 base)



Source: Oxera analysis.

2.4 Increase in marginal rate exemptions

The following increases to tax exemptions available under the marginal rate tax calculation have been introduced since 2006:

- single person: £11,020 to £14,200;
- married couple/civil partnership: £17,680 to £22,800;
- single person (over 65⁹): £12,300 to £15,900;
- married couple/civil partnership (over 65): £20,250 to £26,100.

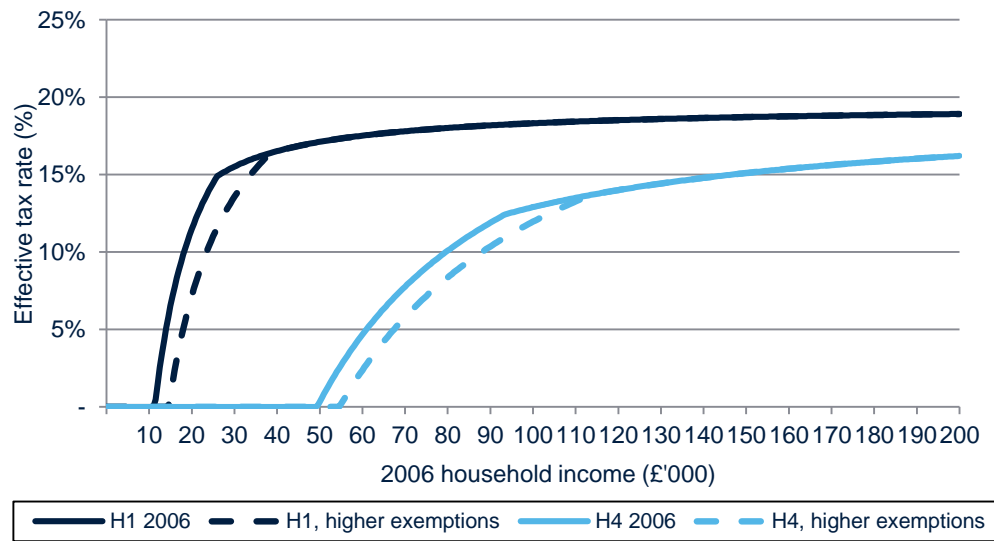
In addition, exemptions relating to pension contributions,¹⁰ childcare and child allowances have been increased, but these are assessed separately later in this report.

Figure 2.17 and Figure 2.18 show the impact on the effective tax rate of the increase in exemptions available under the marginal rate calculation (two non-pensioner households and two pensioner households).

⁹ 65 is applicable in 2015; the comparable figure for 2006 was 63. We do not consider in this report the impact of this change—it is assumed that both pensioner households are aged over 65, and therefore entitled to the age-enhanced exemption in both years.

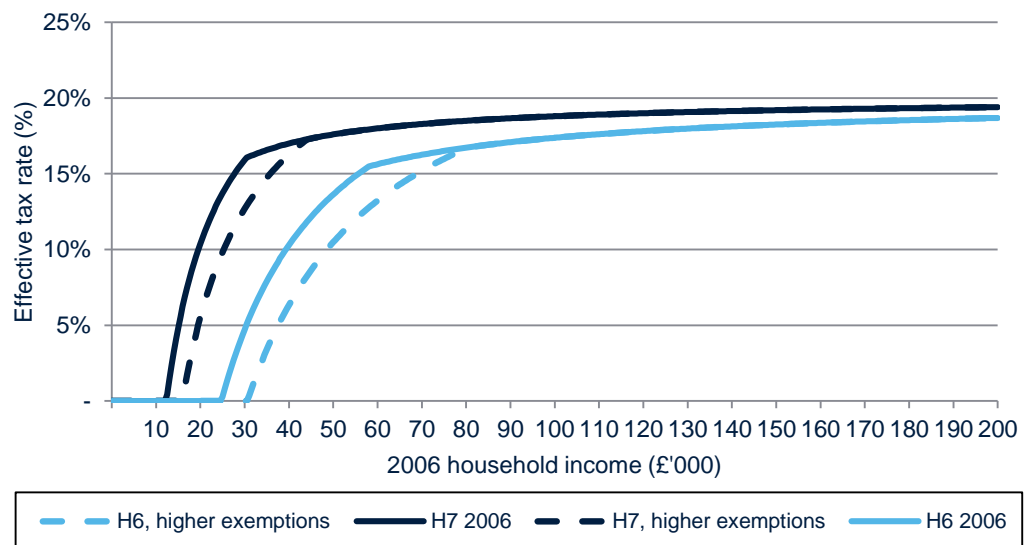
¹⁰ At most levels of income at which tax is payable at the marginal rate.

Figure 2.17 H1 and H4: impact of change in marginal rate exemptions on effective tax rate



Source: Oxera analysis.

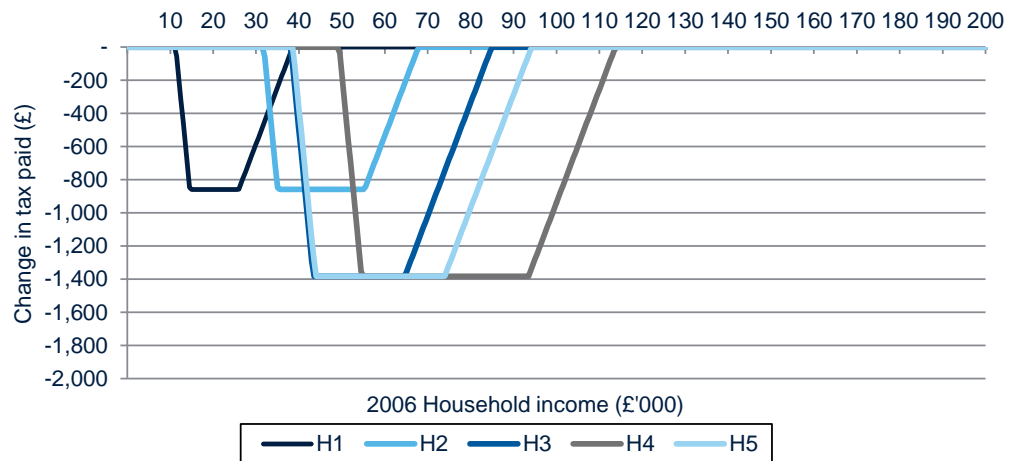
Figure 2.18 H6 and H7: impact of change in marginal rate exemptions on effective tax rate



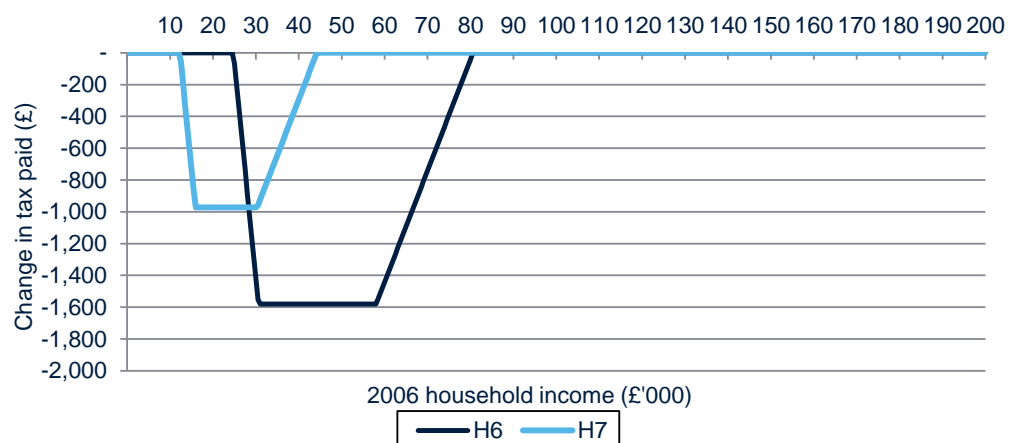
Source: Oxera analysis.

The primary impact, visible in both figures, is that the income level at which income tax becomes payable has increased for all households. The secondary impact is then that the income level at which the income tax switches to being calculated under the standard rate is higher after the change.

Figure 2.19 and Figure 2.20 show the impact on tax payable of the increase in marginal rate exemptions, for all households.

Figure 2.19 H1–5: impact of change in marginal rate exemptions on tax paid

Source: Oxera analysis.

Figure 2.20 H6 and H7 (pensioners): impact of change in marginal rate exemptions on tax paid

Source: Oxera analysis.

In each figure, there are two maximum levels of change in tax paid. These relate to the single or married status of a household (as it is this that affects the amount by which the household's entitlement to the exemption has changed).

While, for any given household, the increase in exemptions is independent of household income, the ability to use that increase in available exemptions does vary depending on household income.

For example, for household incomes below £10,000, the increase in exemptions has no value, as the existing exemptions (2006) are already greater than household income and so there is no taxable income remaining against which the exemption can be offset.

Therefore, the reduction in tax payable arises from the point at which household income increases above the level of exemptions available to a household in 2006. In Figure 2.19, this point is at a household income level of just over £10,000.

The maximum value of the exemption is equal to the increase in exemption multiplied by the marginal rate (which is 27% for the purposes of this graph, as

we are comparing 2006 with a scenario based on 2006 but with the higher level of exemptions).

For example, the increase in exemptions available to H1 (and any other single, under 65 household) is £3,180 (£14,200 less £11,020). The value of this increase is £858.60 (£3,180 * 27%). For this reason, in Figure 2.19, the reduction in tax payable reaches a maximum at this level (represented by the flat part of the line at c.£860).

The change in tax payable reduces back to zero once household income reaches the level at which tax is paid based on the standard rate (as the changes to exemptions only affect tax paid at the marginal rate).

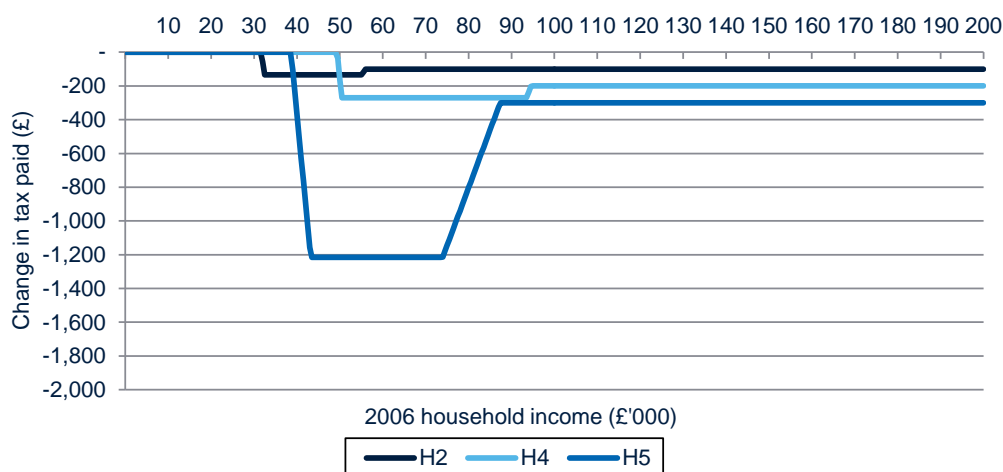
2.5 Increase in child allowances

Between 2006 and 2015, child allowances increased under both the standard and marginal rate calculations. The standard child allowance rose from £2,500 per child to £3,000 per child. The allowance for a child in higher education rose from £5,000 to £6,000 under the standard rate calculation, and to £9,000 under the marginal rate calculation.

Figure 2.21 shows the impact on tax paid for households with children. Beyond the initial level of exemptions, the impact is felt across the income spectrum, but is more significant under the marginal rate regime (the hump in each line).

The impact on H5 is highest as it has two children, one of which is in higher education. The household therefore benefits from the significant increase in exemption available under the marginal rate calculation for a child in higher education.

Figure 2.21 H2, 4 and 5: impact of change in child allowances on tax paid



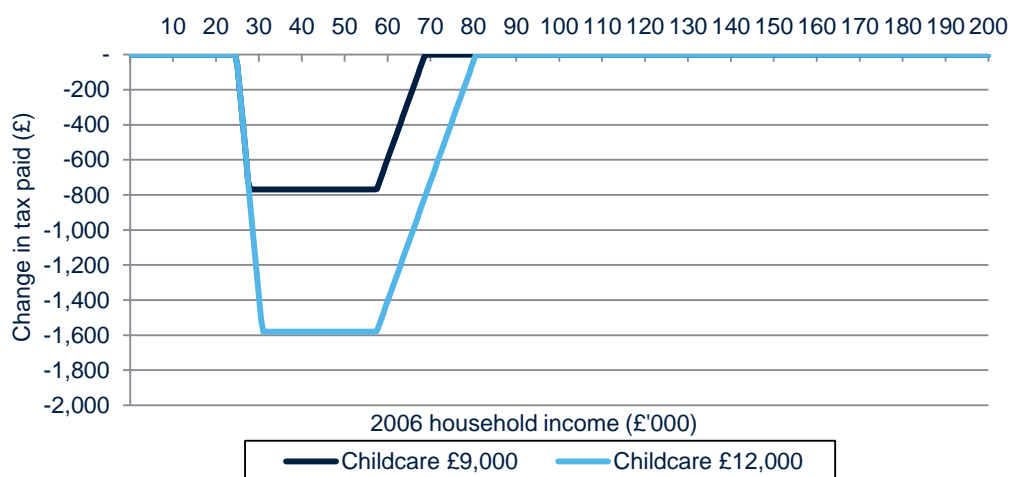
Source: Oxera analysis.

2.6 Introduction of enhanced childcare relief

Relief is also available for the cost of childcare. While the level of relief has not changed for school-age children, a new higher rate has been introduced for pre-school children. This 'enhanced' childcare relief means that for pre-school children, the tax relief available for expenditure on childcare is higher. The maximum exemption available in 2015 is £12,000, compared with £6,150 in 2006.

The impact of this change depends on how much a household spends on childcare. Figure 2.22 illustrates the tax reduction for two single-child households, one which spends £9,000 per annum on childcare for a pre-school child and one which spends £12,000. There will be no impact for a household which spends less than or equal to £6,150 per annum (per child) on childcare.

Figure 2.22 Impact of introducing an enhanced childcare allowance on tax paid



Source: Oxera analysis.

As stated in Table 1.2, it has generally been assumed that all households with children pay £3,000 per child per year for childcare. At this level of expenditure, the enhanced childcare tax relief would not have any impact. Therefore it does not change the shape of the aggregate charts in either section 2.10 or section 6.

2.7 Withdrawal of life assurance and private medical insurance relief

A further change between 2006 and 2015 was the withdrawal of the tax relief available for payments made towards life assurance (LA) and private medical insurance (PMI) policies. The impact of this change depends on the level of payments being made.

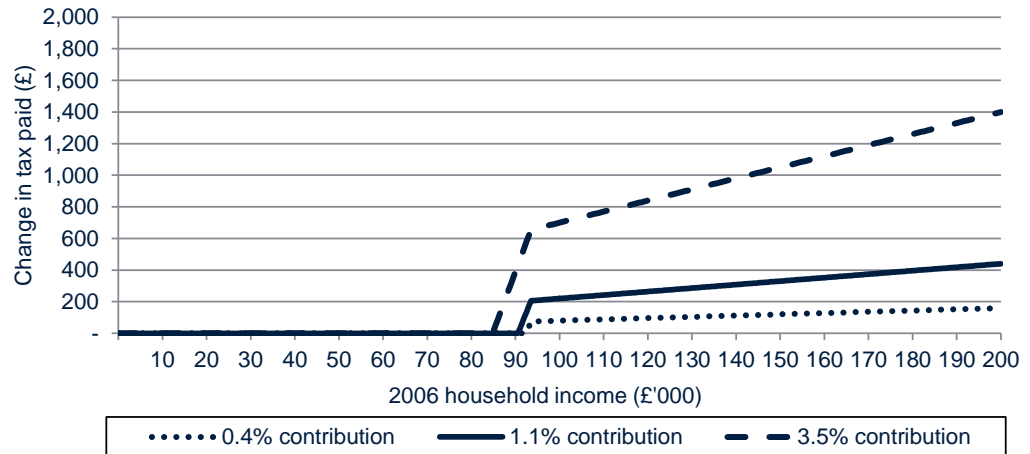
Figure 2.23 and Figure 2.24 show the impact of each of these changes in turn at three different levels of payment (as a percentage of income), using H4 as an illustrative example.

The example payments used are based on two sources of data from the Government of Jersey and serve to illustrate the potential impact of the tax at three different levels of payment. Information from the 2014/15 Household Expenditure Survey shows that the average expenditure on PMI and LA for those who have these policies is 1.8% and 1.1% of household income respectively. As actual payments will vary from the average, Figure 2.23 and Figure 2.24 show the impact of this change on three different payment levels, including the average, but also including two different assumptions.¹¹

¹¹ A lower assumption, also based on the Household Expenditure Survey but the average of both those who do spend on these insurance products and those who do not—to account for the fact that the majority of taxpayers did not claim each relief in 2006. A higher assumption—taken from Taxes Office data showing the average amount of relief claimed, as a proportion of mean household income.

Both reliefs were available under the standard rate calculation only. The levels of income over which this change has no impact are those for which tax is payable under the marginal rate calculation.

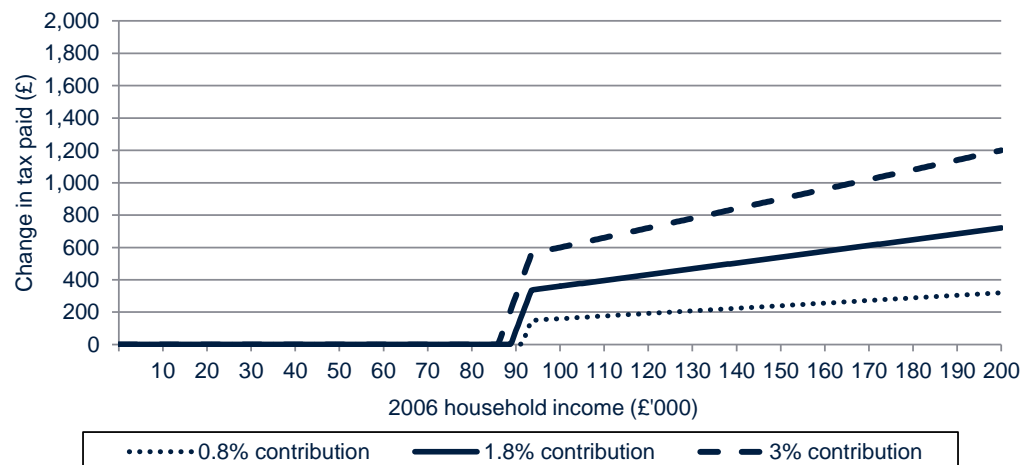
Figure 2.23 H4: impact of removing life assurance relief on tax paid



Source: Oxera analysis.

We note that there were some restrictions in place in relation to this relief, relating to the value of the sum assured and the level of contribution as a percentage of income. Neither restriction is relevant for the levels of payment modelled here.

Figure 2.24 H4: impact of removing private medical insurance relief on tax paid



Source: Oxera analysis.

In accordance with Table 1.2, it has generally been assumed that households did not have any expenditure on PMI or LA, as only a minority of households were claiming these reliefs. Therefore it does not change the shape of the aggregate charts in either section 2.10 or section 6.

2.8 Reduction in mortgage interest tax relief

While the majority of changes to MITR were introduced as part of the wider implementation of '20 means 20' changes (as described in section 2.2),¹² given

¹² The £15k cap on MITR was not introduced as part of '20 means 20'.

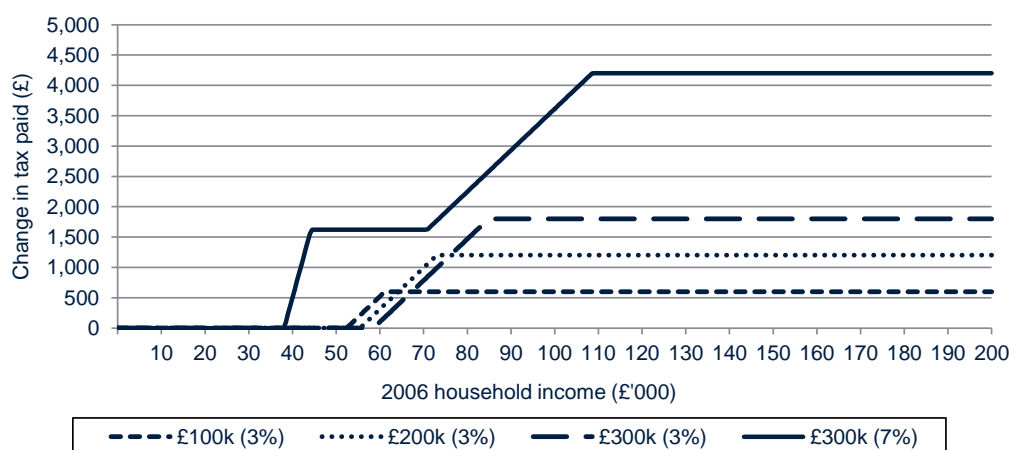
the significance of this component of the change, we have assessed this aspect of the policy separately.

This section assesses how MITR varies depending on the specific assumptions made (e.g. in relation to the prevailing interest rate and mortgage level), enabling us to isolate the impact of the MITR change. Between 2006 and 2015, MITR was withdrawn at the standard rate. In addition, a cap on total relief available was introduced at £15,000.

The impact of this change depends on the interest rate and the outstanding mortgage. The amount of relief available to standard rate taxpayers in 2006 was determined as follows: mortgage amount (capped at £300,000) * interest rate * 20%. The total amount of relief available is independent of income, but the *impact* of this change on tax paid is income-dependent. This is because the value of relief is dependent on the availability of taxable income against which the mortgage interest relief can be offset, which in turn has implications for whether a household pays tax under the marginal or standard rate.

Figure 2.25 shows the impact of this change on tax payable based on three different levels of mortgage and two different levels of interest rate (shown in brackets in the legend).

Figure 2.25 H3: impact of changes to mortgage relief on tax paid



Source: Oxera analysis.

At the marginal rate, income tax payable is affected only where the total interest paid is above £15,000 per annum. Figure 2.25 includes an example in which the mortgage level is £300,000 and the interest rate is 7%, in which case interest payable is £21,000. In this case, the cap introduced reduces the tax relief available under the marginal rate (by $[\text{£}21,000 - \text{£}15,000] * 27\% = \text{£}1,620$). This is illustrated by the kink (relative to the other lines shown) in the line representing a £300,000 mortgage at 7%.

For levels of annual interest below the £15,000 cap, the impact is only on households paying tax under the standard rate (as for the £300,000 mortgage at 7% shown in Figure 2.25).

2.9 Change in pension contribution tax relief

Since 2006, the pension relief available has changed significantly. Particularly for lower levels of income, the pension relief available is significantly higher in 2015 than in 2006. However, for those at the highest levels of income, pension relief has been reduced significantly.

Pension relief (the maximum value of tax-deductible income) available in 2015 is determined based on the lower of the following three figures:

- total pension contribution;
- £50,000 less any 'excess' (defined below);
- relevant earnings less any 'excess'.

The 'excess' referred to above is the amount by which an individual's income exceeds £150,000. This is illustrated by the example presented in Box 2.1.

Box 2.1 Pension contribution example

An individual has a salary of £160,000

Pension contribution: £50,000

To calculate the pension relief available:

Total income: £160,000

Excess (£160,000 - £150,000) = £10,000

Pension relief is the lower of:

- £50,000 (actual pension contributions)
- £40,000 (£50,000 less excess £10,000)
- £150,000 (relevant earnings £160,000 less excess £10,000)

Pension relief = £40,000

Source: Oxera analysis based on an example provided on the States of Jersey website.¹³

Previously, pension contributions tax relief was capped as a percentage of income, which increased across three age brackets. This cap applied on earnings up to £100,000, above which no additional relief could be claimed. This is shown in Table 2.2.

Table 2.2 Summary of previous pension relief rules

Age	Maximum relief
Up to 39	15% of earnings; maximum of £15,000
40–49	25% of earnings; maximum of £25,000
50+	35% of earnings; maximum of £35,000

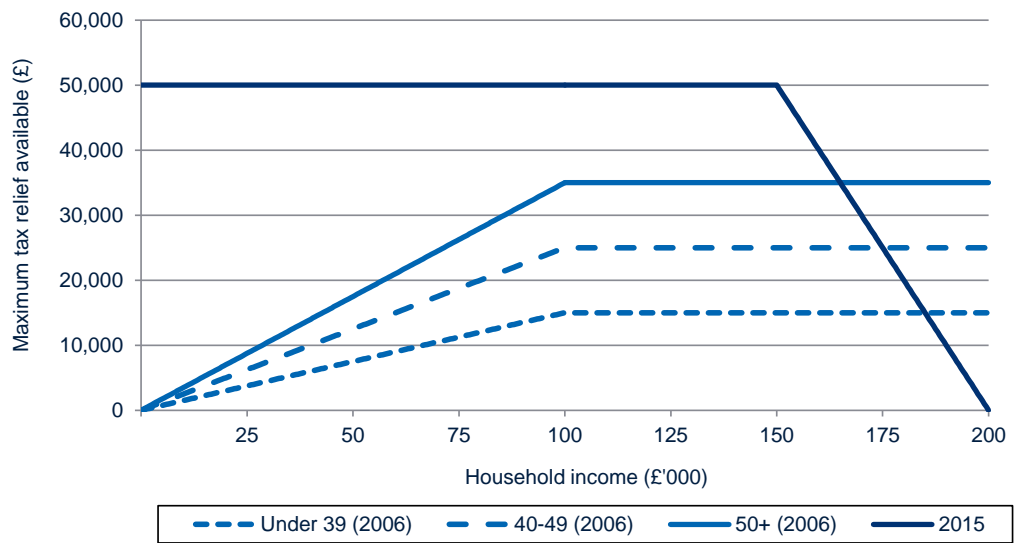
Source: Government of Jersey.

Figure 2.26 below shows how the change in policy has altered the maximum amount of tax relief available on pension contributions for each age group above. The 2015 policy does not distinguish by age and so is represented by one line.

¹³

<https://www.gov.je/TaxesMoney/IncomeTax/Individuals/AllowancesReliefs/Pages/DeductionsForPensionContributions.aspx#anchor-0>, accessed 16 March 2017.

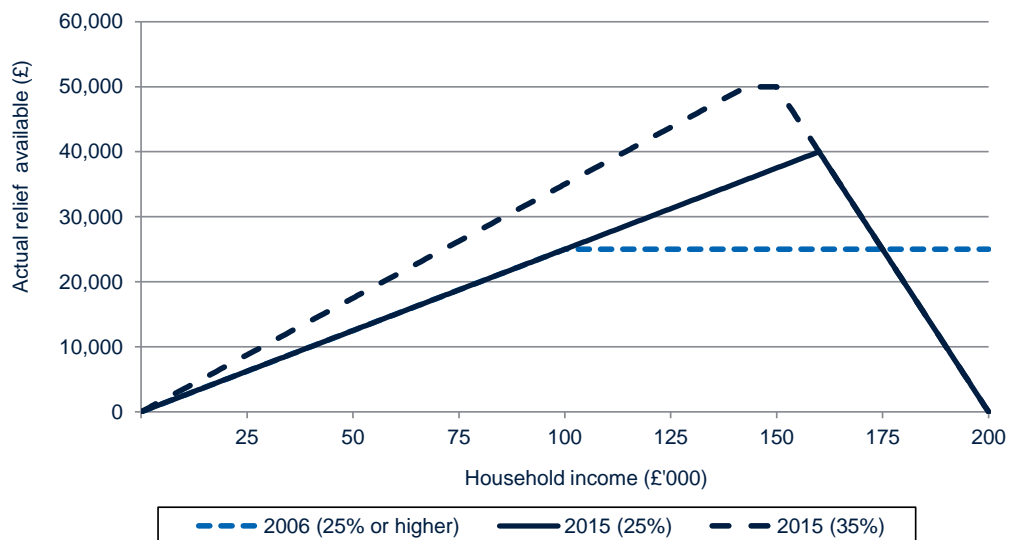
Figure 2.26 Maximum pension tax relief available by age group



Source: Oxera analysis.

While Figure 2.26 illustrates the maximum relief available, in reality individuals may make much lower contributions into their pensions. To illustrate the impact at different levels of contribution, Figure 2.27 below shows the actual tax relief available for an individual in the 40–49 age bracket at two levels of pension contribution: 25% of income and 35% of income. While these levels of contribution are much higher than the average level of contribution, they enable the difference between the 2006 and 2015 policy to be clearly illustrated.

Figure 2.27 Actual tax relief on pension contributions (individual aged 40–49)

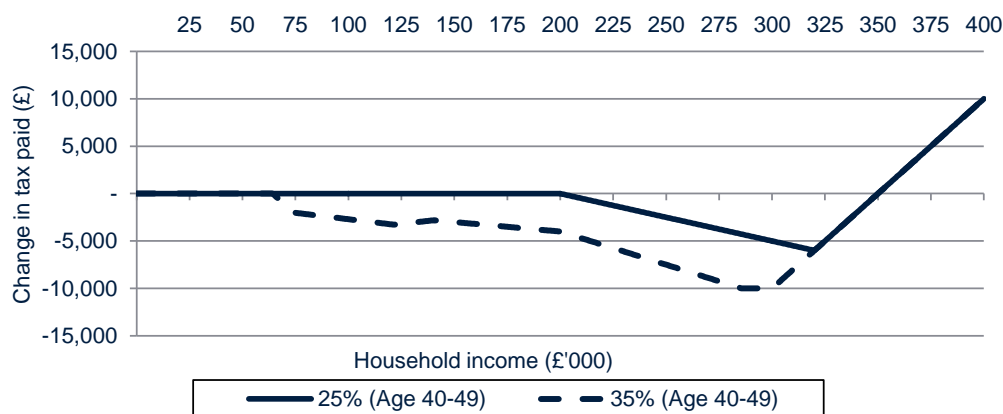


Source: Oxera analysis.

As Figure 2.27 illustrates, the 2015 policy provides the same or higher level of relief for individuals earning up to £175,000. Beyond that point, the 2015 regime provides a lower level of relief.

Putting this change in the context of the wider income tax regime, Figure 2.28 shows the impact of this change on tax paid for these same two levels of contribution (expressed as a percentage of household income), using H4 (a two-person household) as an illustrative example.

Figure 2.28 H4: impact of change in pension contributions tax relief on tax paid



Source: Oxera analysis.

The adults in the household are aged between 40 and 49. The percentages illustrated are significantly higher than the actual contribution average of 2.4% (used elsewhere in this report). However, their use enables us to demonstrate the impact of this policy change, which is more visible in the case of higher pension contributions.

This is a significant change and, as shown in the graph, the reduction in tax payable for a couple aged between 40 and 49 could be up to £10,000 at a household income level of £300,000. However, for household incomes above £350,000, the impact is an increase in tax payable, equal to £5,000 at a household income of £400,000. The shape of the 35% line can be explained by the following:

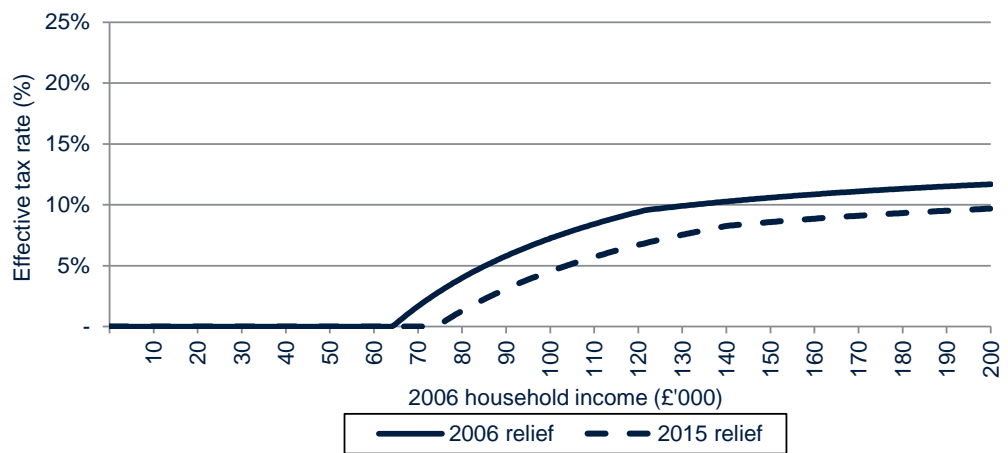
1. the impact of higher pension contribution relief in 2015 on the level of income reached before income tax is payable at the marginal rate;
2. the difference between relief at 25% (2006) and 35% (2015) (at marginal rate);
3. the change in the income level at which the standard rate is applicable;
4. the difference between relief at 25% (2006) and 35% (2015) (at standard rate);
5. the impact of a cap of £25,000 (2006);
6. the impact of a cap at £50,000 (2015);
7. the impact of the 'excess' as individual incomes increase above £150,000 each.

Unlike most of the other charts presented in this report, the x-axis in Figure 2.28 goes up to £400,000, to allow the impact of the cap on the tax relief to be illustrated. The combined impact of the changes in pension contribution rules means that those on very high incomes are worse off, and those on middle to high incomes are better off only if they have very high contribution rates—

therefore, it provides more flexibility to this group of people, which can benefit from tax relief on higher levels of pension contribution.

Figure 2.29 demonstrates the effective income tax rate paid by H4 in 2006, before and after the pension changes, assuming a 35% level of pension contribution. The impact of the change is to reduce the effective income tax payable by around 2%. This is because, in 2006, relief was available only on pension contributions up to 25% of income. In 2015, this cap was removed and replaced with an absolute cap of £50,000 (one of the conditions in Box 2.1 above¹⁴). Before the £50,000 cap is reached (beyond the £200,000 shown here for a two-person household), the difference in contributions which will attract relief is 10% of income (35% less the 25% cap applicable in 2006). At a standard rate of 20%, this is equivalent to a reduction in the effective rate of 2% (20% of 10%).

Figure 2.29 H4: effective income tax rate (35% pension contribution)

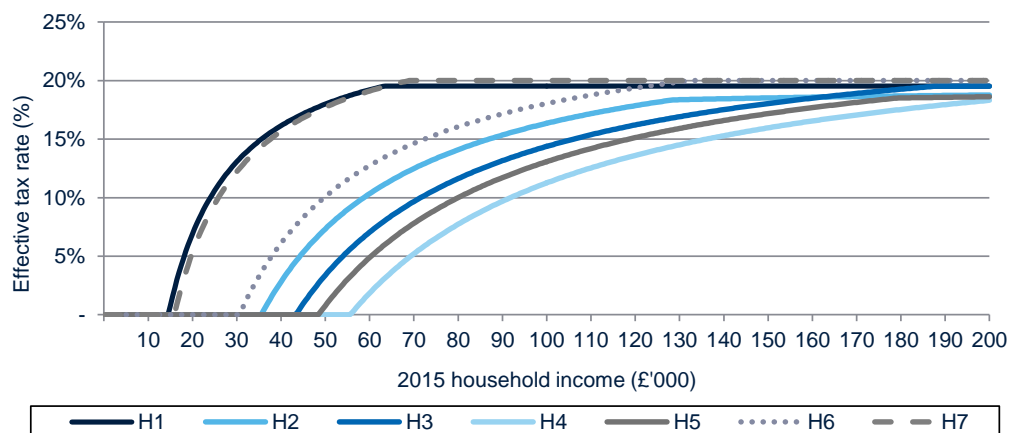


Source: Oxera analysis.

2.10 Income tax summary: 2006 versus 2015

To summarise the changes to income tax, Figure 2.30 shows the effective tax rate by income level for each of the seven households considered in this report.

Figure 2.30 All households: effective income tax rate in 2015

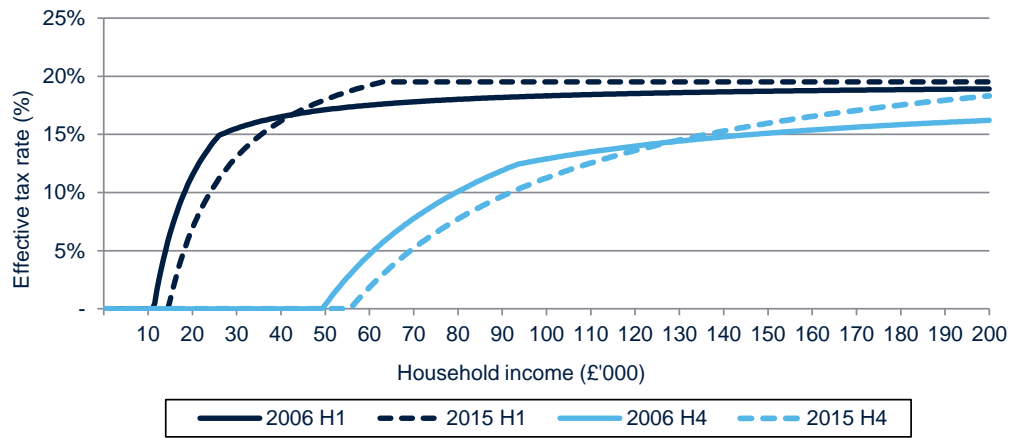


Source: Oxera analysis.

¹⁴ Less any excess, which applies only to individual income over £150,000.

Figure 2.31 shows the effective rates in 2006 and 2015 for the two extreme households, H1 and H4, illustrating the cumulative effect of the changes.

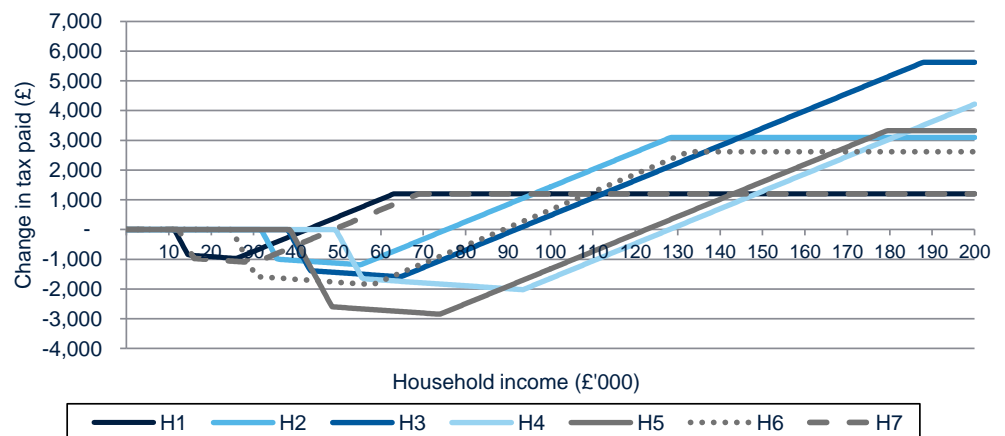
Figure 2.31 H1 and H4: effective income tax rate in 2006 and 2015



Source: Oxera analysis.

Figure 2.32 shows, for the same seven households, the change in income tax payable between 2006 and 2015.

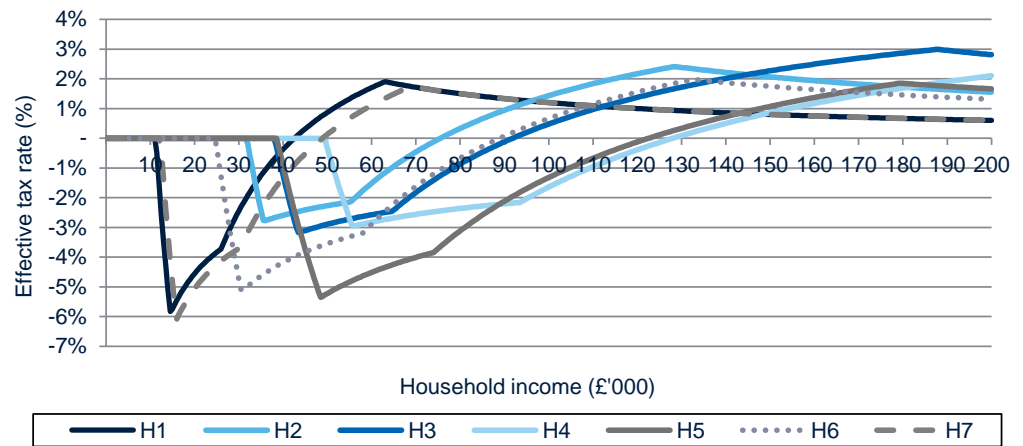
Figure 2.32 All households: change in income tax paid, 2006–15



Source: Oxera analysis.

Figure 2.33 below demonstrates the change in the effective rate between 2006 and 2015.

Figure 2.33 All households: change in effective rate, 2006–15



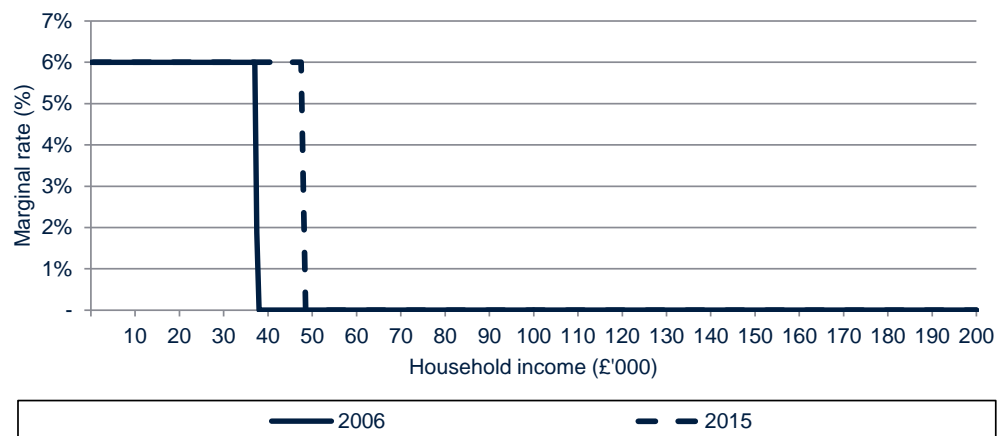
Source: Oxera analysis.

3 Social Security

Social Security contributions are payable by employees on all income earned up to a certain level: the Standard Earnings Limit (SEL). The SEL increased between 2006 and 2015 from £37,656 to £48,240 as the SEL increased each year in line with average earnings.

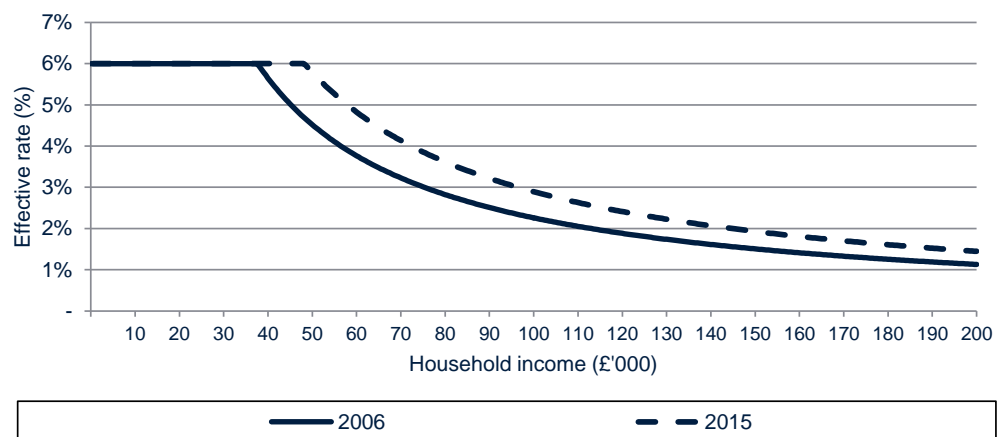
This change is illustrated in Figure 3.1, which shows the marginal rate of contribution across a range of income levels for a single-person household. This same pattern arises for a two-person household, but the switch from 6% to 0% marginal rate will arise at double the income level shown below (i.e. each adult in the household pays 6% up to the SEL).

Figure 3.1 Social Security contributions: marginal rate



Source: Oxera analysis.

Figure 3.2 Social Security contributions: effective rate



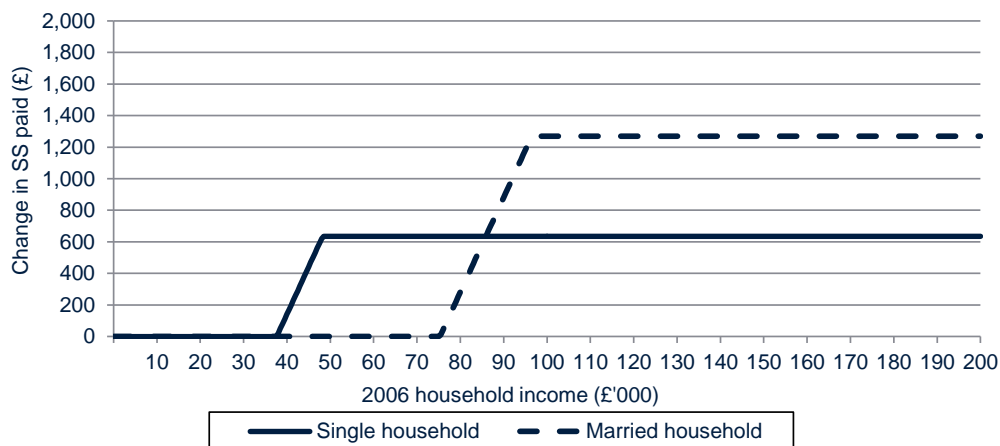
Source: Oxera analysis.

As shown in Figure 3.1 and Source: Oxera analysis.

Figure 3.2, in 2006 the effective rate was 6% up to earnings of £37,656, after which the marginal rate reduces to nil, and hence the effective rate begins to fall as no additional contributions are made on additional income. The same pattern arises in 2015, but the drop-off occurs at a higher level of income, the new SEL of £48,240. At £200,000 income, the effective rate is between 1% and 2% in both years.

Figure 3.3 below shows how this change translates into a change in Social Security payable for a single and married household.

Figure 3.3 Increase in Standard Earnings Limit: change in Social Security paid



Source: Oxera analysis.

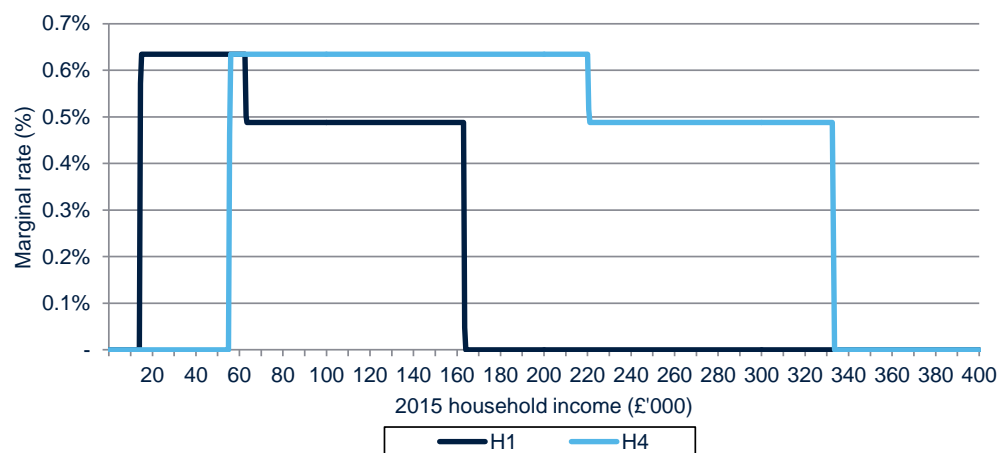
4 Long-term care contribution

Since 2006 the Government of Jersey has introduced a tax payer contribution intended to help fund long-term care in Jersey.

In 2015 this contribution was set at a maximum of 0.5% of income for households paying tax at the standard rate, and 0.65% for those paying at the marginal rate. Contributions are payable at 0.65/0.5% on all taxable income (i.e. over and above available exemptions) below an individual's 'Upper Earnings Limit' (UEL) of £159,624.

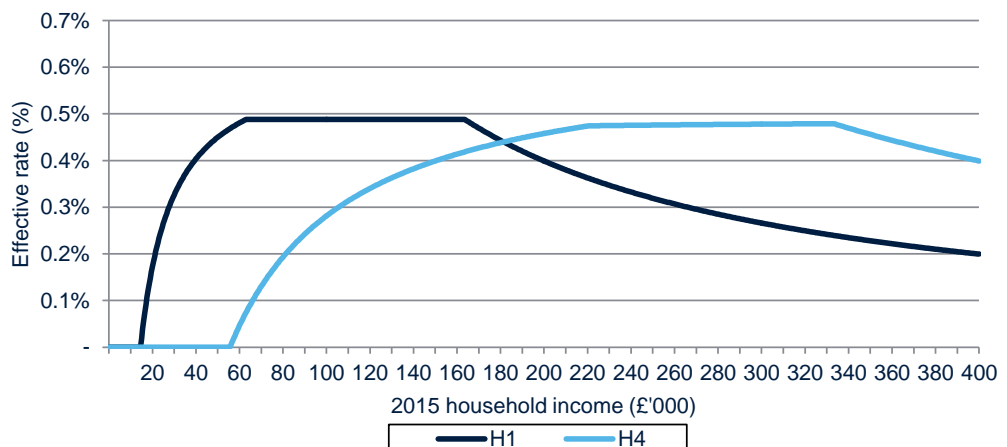
Figure 4.1 and Figure 4.2 show the marginal and effective rates of LTC contribution for a single person household (H1) and a married household (H4).

Figure 4.1 H1 and H4: marginal LTC contribution rate in 2015



Source: Oxera analysis.

Figure 4.2 H1 and H4: effective LTC contribution rate in 2015



Source: Oxera analysis.

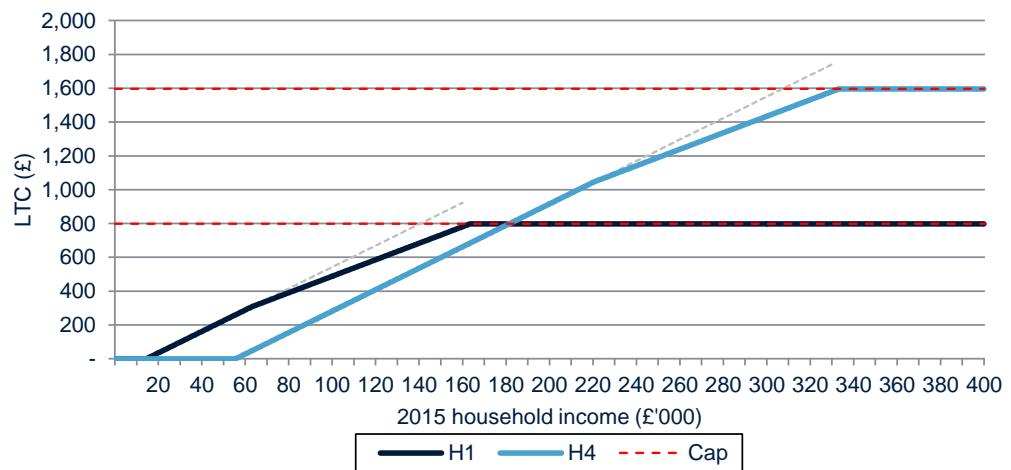
In all cases, the amount of LTC contribution depends on the underlying income tax payable by a household (and by an individual for the highest levels of income). Therefore, the effective rate is influenced by the level of exemptions and allowances that household is entitled to. This is why the effective rate differs by household.

Figure 4.3 below shows how much LTC contribution is payable for H1 and H4. The dotted red lines show the cap on contributions (£798 per person) and the

dotted grey lines help to identify the change in the gradient of the lines in the figure (reflecting a move from marginal to standard rate tax).

The cap on contributions of £798 per person is based on 0.5% of the UEL of £159,624. However, both households are entitled to some tax-free income at the standard rate. In this case, both households are entitled to tax relief on pension contributions (which we have assumed are 2.4% of income) and H4 is additionally entitled to child allowances. Because of this, the LTC contribution cap of £798 per person is not reached until an income level of c.£163,000 for H1 and £333,500 for H4.¹⁵

Figure 4.3 H1 and H4: LTC contribution paid in 2015



Source: Oxera analysis.

¹⁵ Further illustrations of how the LTC contribution was calculated in 2015 can be found on the States of Jersey website: <https://www.gov.je/SiteCollectionDocuments/Tax%20and%20your%20money/ID%20LTCContributionDetailCalculation%2020151127%20jc3.pdf>, accessed 16 March 2017.

5 Goods and Services Tax

A Goods and Services Tax (GST) was introduced in 2008, initially at 3% of qualifying expenditure, but later increased to 5%. At the time the tax was introduced, other changes were made to reduce its impact on those at the lower end of the income scale.

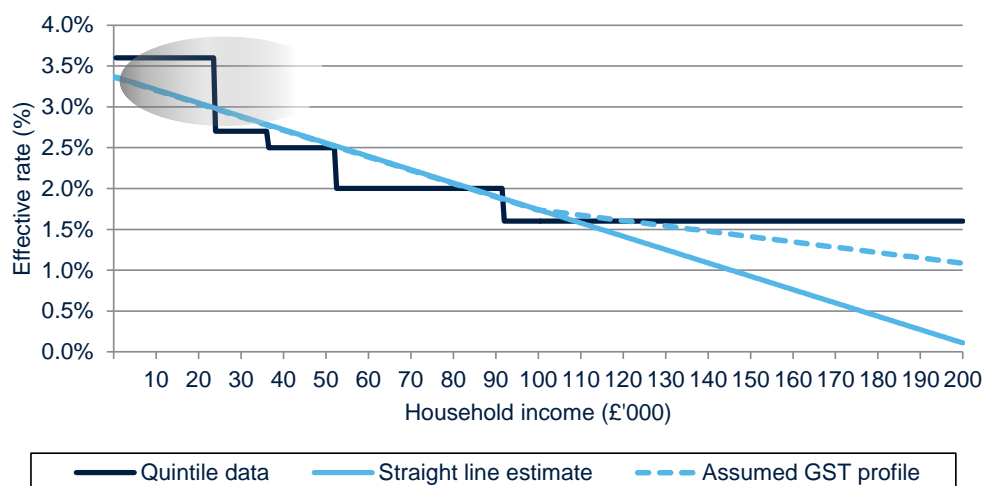
Income support was introduced in 2008 and to offset the additional cost of this tax the components of income support subject to GST were increased by 3% when GST came into force later that year. They were increased further when GST rose from 3% to 5%. In addition, a food costs bonus was introduced to ensure that those at the lower end of the income scale who were not eligible for income support and who did not pay income tax would be compensated for an estimate of the amount of GST payable on food. The food costs bonus increased again when GST rose from 3% to 5%.

This report does not explicitly consider either income support payments or the food costs bonus, but the charts in this section and section 6 note that the cost of GST will be offset to some degree by these receipts for households at the lower end of the income scale.

To analyse the distributional impact of this tax, we have made assumptions about the portion of household income that is spent on GST. These assumptions are based on data provided by the Government of Jersey about the portion of income spent on GST by income quintile.

The black line in Figure 5.1 shows the quintile data provided to Oxera. It illustrates that households in the lowest 20% income quintile spend c.3.6% of their income on GST. The households in the highest income quintile spend on average c.1.6% of their income on GST.

Figure 5.1 GST as a proportion of income



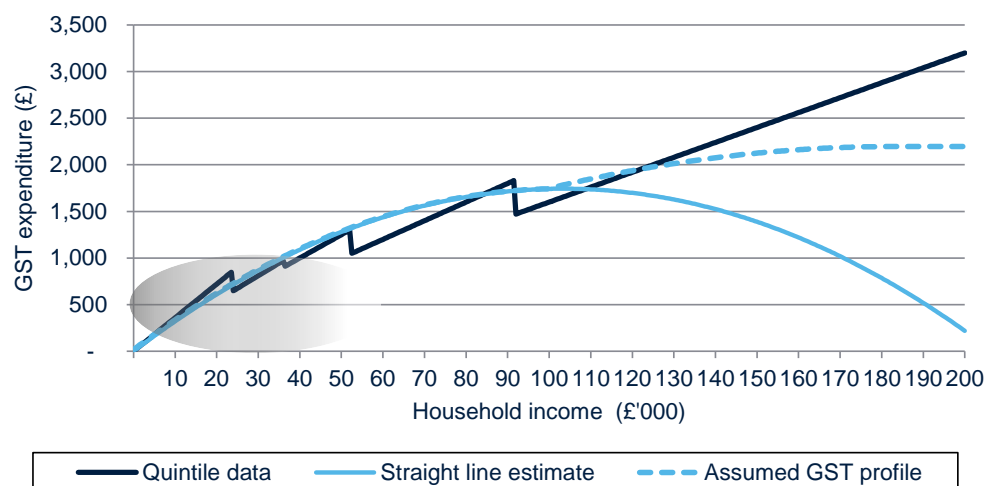
Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be offset (in full or in part) by income support and/or food costs bonus receipts.

Source: Oxera analysis.

However, in reality, the average percentage of income spent on GST is likely to reduce continuously as income increases (generally the propensity to spend, as opposed to save, reduces as income increases). As such, using this 'stepped' data for modelling purposes might produce slightly distorted results. We have therefore used the quintile data to estimate an underlying linear relationship

between household income and the proportion of income spent on GST (based on a line of best fit¹⁶). However, when we tested what this implied for the actual expenditure on GST, we observed that, beyond a certain income level (c.£103,000), actual expenditure on GST appeared to decrease as income increased.¹⁷ This is shown in Figure 5.2 below.

Figure 5.2 Actual expenditure on GST by income level (£)



Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be offset (in full or in part) by income support and/or food costs bonus receipts.

Source: Oxera analysis.

We do not consider a declining profile of expenditure on GST (as suggested by the light blue line in Figure 5.2, beyond c.£103,000) to be a realistic assumption. Therefore, we made an adjustment to the linear relationship beyond this point.

Specifically, we have assumed that the slope of the line in Figure 5.1 reduces slightly beyond £103,000.¹⁸ For income levels up to £200,000, this profile implies that absolute expenditure on GST increases as income rises.

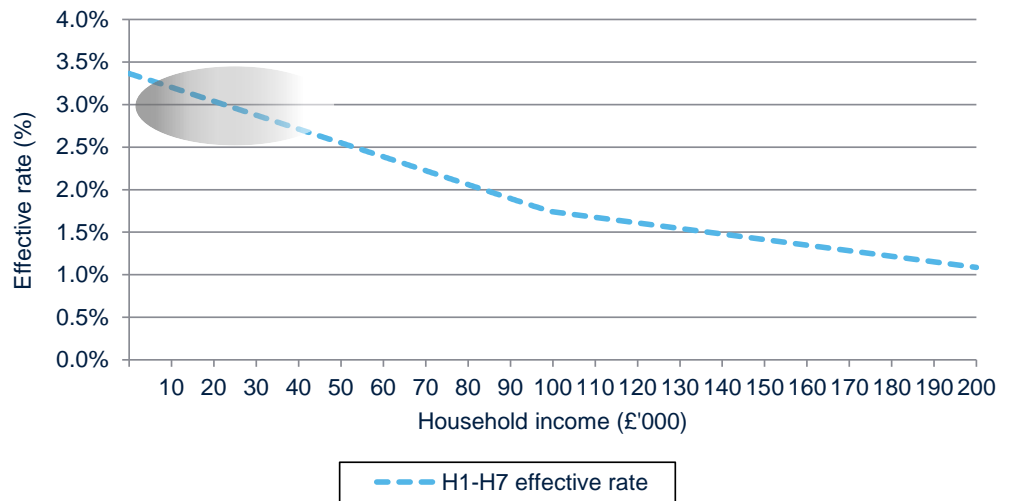
While the specific nature of the relationship at higher levels of income is difficult to estimate, we consider this a more realistic approach than using either the quintile data or line of best fit in isolation. The dotted line in Figure 5.1 and Figure 5.2 above illustrates our overall assumption about the relationship between household income and spending on GST. Figure 5.3 shows how the effective rate paid by all household types on GST varies by income.

¹⁶ Derived based on a 'least squares' estimate.

¹⁷ This is because, as income increases, a lower percentage of *total* (rather than marginal) income is assumed to be spent on GST. Beyond a certain point (at high levels of income), the reduction in GST paid on current income is greater than the additional amount of GST assumed to be spent on GST as a result of incremental income.

¹⁸ Specifically, the slope of the new line is 40% of that for the line of best fit.

Figure 5.3 Impact of GST change on effective tax rate



Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be offset (in full or in part) by income support and/or food costs bonus receipts.








Source: Oxera analysis.

6 Combining taxes and contributions: income tax, Social Security, LTC contribution and GST

We now consider all of the taxes and contributions together: income tax, Social Security, LTC contribution and GST. Income tax in 2015 includes '20 means 20' (including the changes to MITR), lower marginal rate tax, higher exemption thresholds, an increase in child allowances, and the change in relief for pension contributions. It does not include the impact of the removal of relief for PMI and LA premiums (because only a minority of taxpayers were claiming each of these in 2006), or the introduction of enhanced childcare (because it is assumed that childcare costs are £3,000 per child, in line with the average).

A recap of the household characteristics is presented in the Figure 6.1.

Figure 6.1 Overview of illustrative households

H1	H2	H3	H4	H5	H6	H7
						
Single	Single 1 child	Married	Married 2 children	Married 2 children (one in higher education)	Married pensioners	Single pensioner
No mortgage	£200k mortgage	£300k mortgage	£300k mortgage	£100k mortgage	No mortgage	No mortgage

Note: Images sourced from www.freepik.com.

Figure 6.2 to Figure 6.8 below compare the taxes and contributions in 2015 to that of 2006 for each household. The principal features of these graphs are explained below.

In each case the level of effective tax at the lowest end of the income range increased between 2006 and 2015. This is principally due to the introduction of GST, which is assumed to account for approximately 3.5% of income at the lower end of the income spectrum.

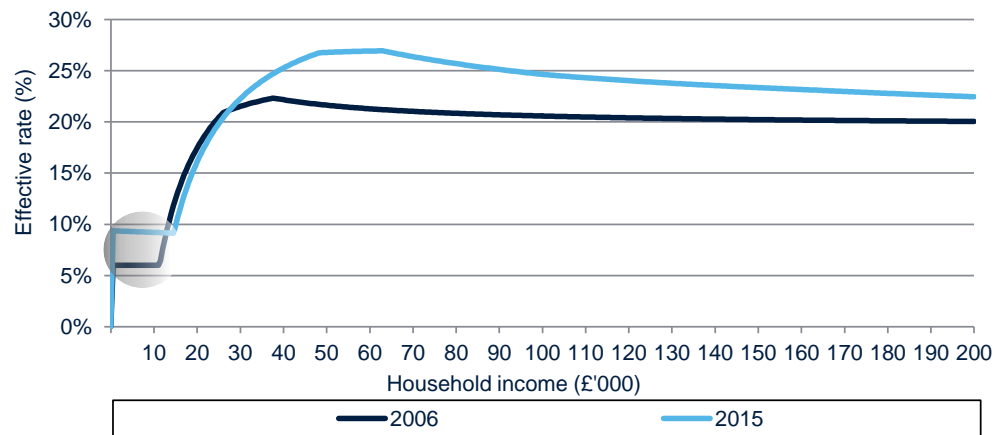
The second feature of the graphs is the fact that the flat part of the chart (for example, up to about £15,000 in Figure 6.2) is generally longer in 2015. This is a result of the higher exemptions available at the marginal rate in 2015, and is most prominent in Figure 6.6 because H5 benefits in particular from the substantial increase in child allowances for a child in higher education (which increased from £5,000 to £9,000 for marginal rate tax payers). As a result of this, some marginal rate tax payers pay a lower effective rate of taxes and contributions in 2015 than in 2006, at the same level of income.

Beyond the point at which exemptions exceed income (i.e. where the lines begin to climb), the figures below show a slightly steeper line for 2015 than 2006. This is because of the introduction of the GST and LTC contribution, which in 2015 is at a marginal rate 0.65% of income at this point in the figures. However, the impact of GST and the LTC contribution is partially offset by the reduction in the marginal rate of income tax from 27% to 26% as well as the increase in exemptions, as discussed in the next paragraph.

The upwards slopes of the lines for each household vary—in general, the higher the level of exemptions applicable (shown by the length of the flat part of the chart), the more slowly the line will rise. This is because additional tax paid at the

marginal rate as income rises is a smaller portion of total income, the higher the level of exemptions.

Figure 6.2 H1: effective rate (all taxes and contributions)

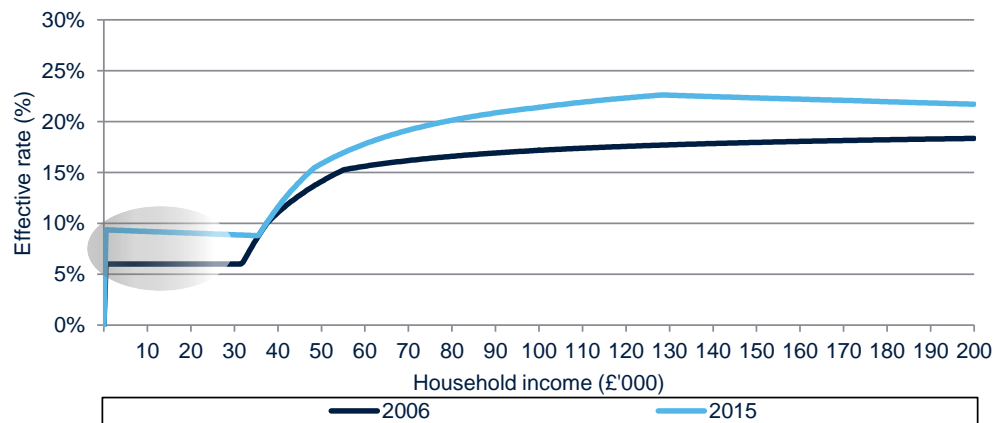


Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be offset (in full or in part) by income support and/or food costs bonus receipts (see section 5 'Goods and Services Tax').

Source: Oxera analysis.

Each of the lines for 2015 in the figures below also show subtle 'kinks'. These relate to the switch from marginal to standard rate tax and the SEL on Social Security payments. The cap on Social Security payments and the LTC contribution, and the reducing profile of GST as a percentage of income, together lead the effective tax rate to reduce slightly at the highest levels of income. This is most pronounced for H1, as shown in Figure 6.2.

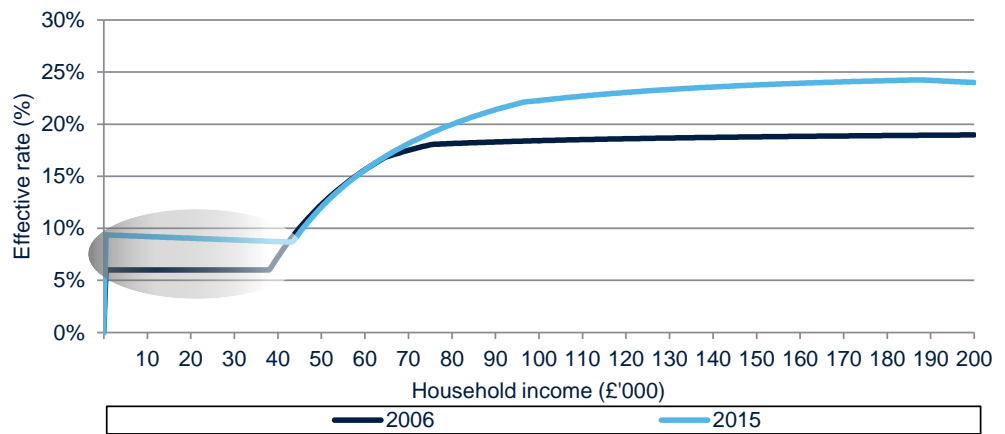
Figure 6.3 H2: effective rate (all taxes and contributions)



Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be reduced (in full or in part) by income support and/or food costs bonus receipts (see section 5 'Goods and Services Tax').

Source: Oxera analysis.

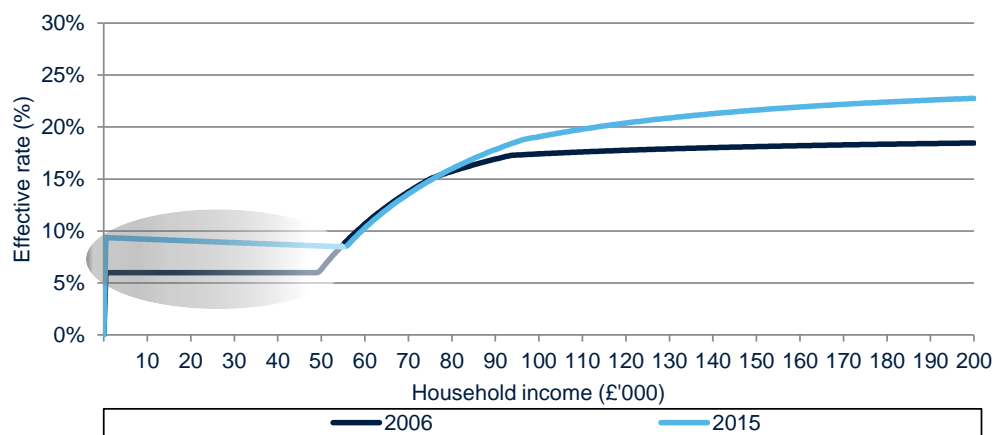
Figure 6.4 H3 effective rate (all taxes and contributions)



Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be reduced (in full or in part) by income support and/or food costs bonus receipts (see section 5 'Goods and Services Tax').

Source: Oxera analysis.

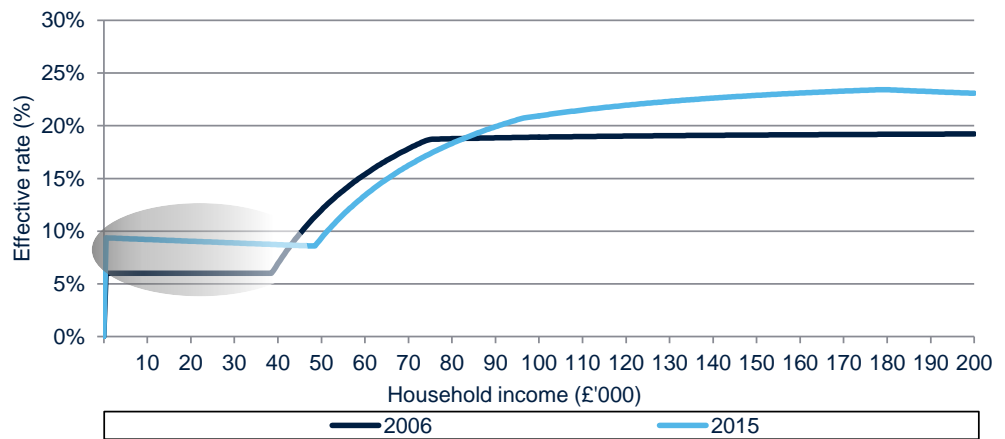
Figure 6.5 H4: effective rate (all taxes and contributions)



Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be reduced (in full or in part) by income support and/or food costs bonus receipts (see section 5 'Goods and Services Tax').

Source: Oxera analysis.

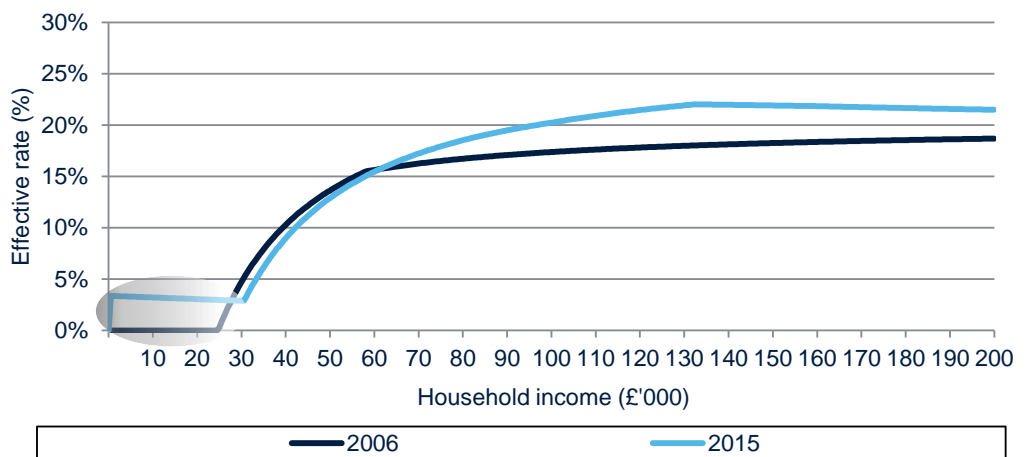
Figure 6.6 H5: effective rate (all taxes and contributions)



Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be reduced (in full or in part) by income support and/or food costs bonus receipts (see section 5 'Goods and Services Tax').

Source: Oxera analysis.

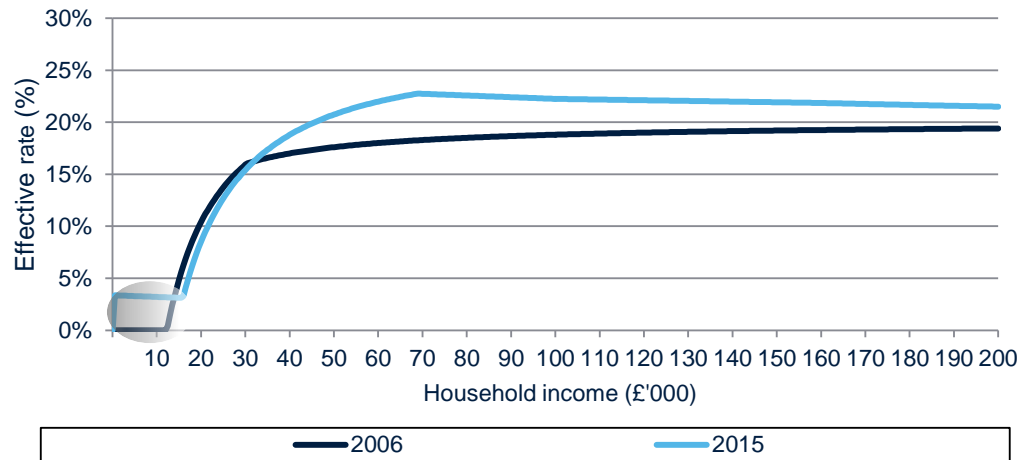
Figure 6.7 H6: effective rate (all taxes and contributions)



Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be reduced (in full or in part) by income support and/or food costs bonus receipts (see section 5 'Goods and Services Tax').

Source: Oxera analysis.

Figure 6.8 H7: effective rate (all taxes and contributions)

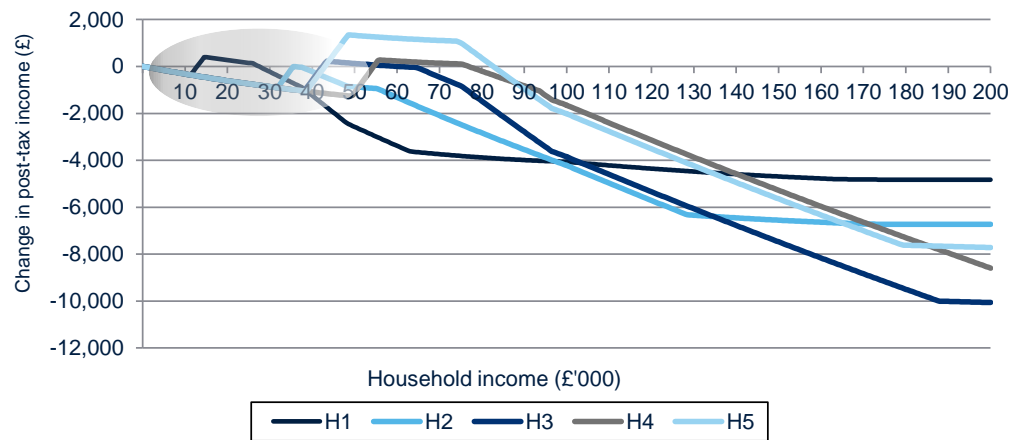


Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be reduced (in full or in part) by income support and/or food costs bonus receipts (see section 5 'Goods and Services Tax').

Source: Oxera analysis.

Figure 6.9 to Figure 6.12 show the change in post-tax income between 2006 and 2015, as well as the changes in the effective rate over this period.

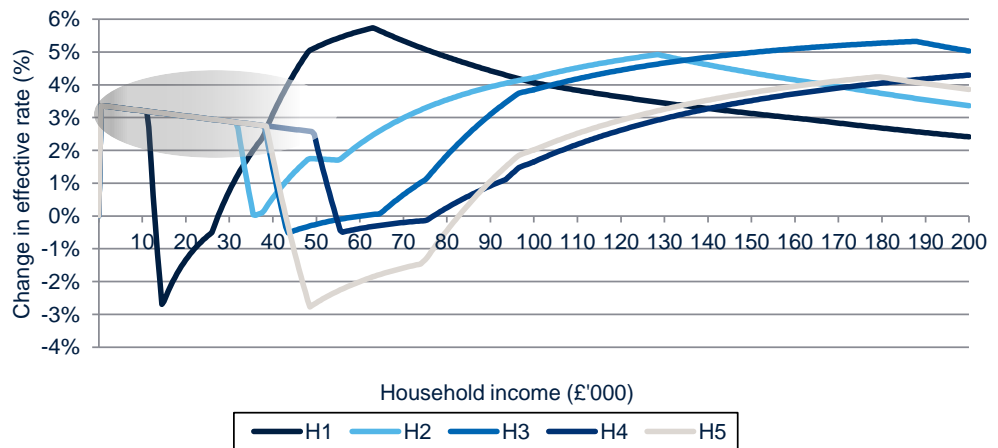
Figure 6.9 H1–5: change in post-tax and contribution income



Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be reduced (in full or in part) by income support and/or food costs bonus receipts (see section 5 'Goods and Services Tax').

Source: Oxera analysis.

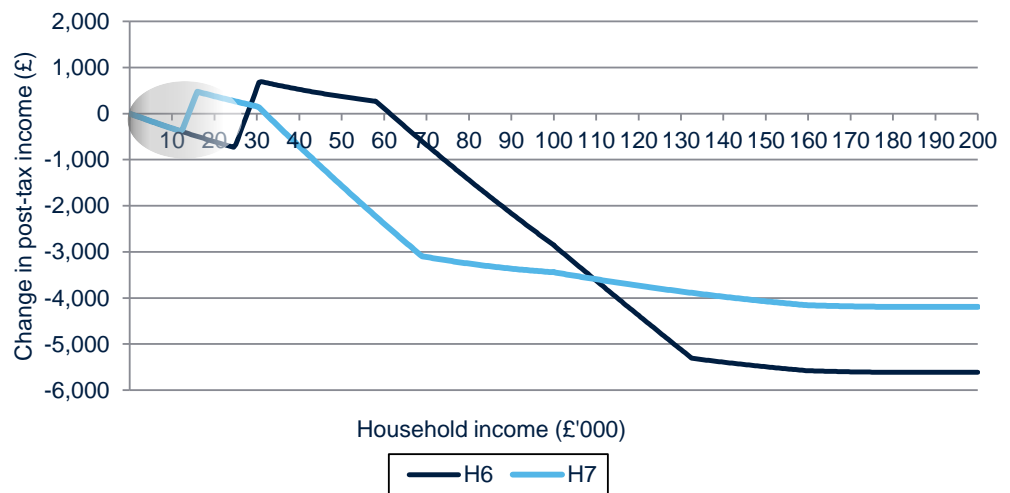
Figure 6.10 H1–5: change in effective rate, 2006–15



Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be reduced (in full or in part) by income support and/or food costs bonus receipts (see section 5 'Goods and Services Tax').

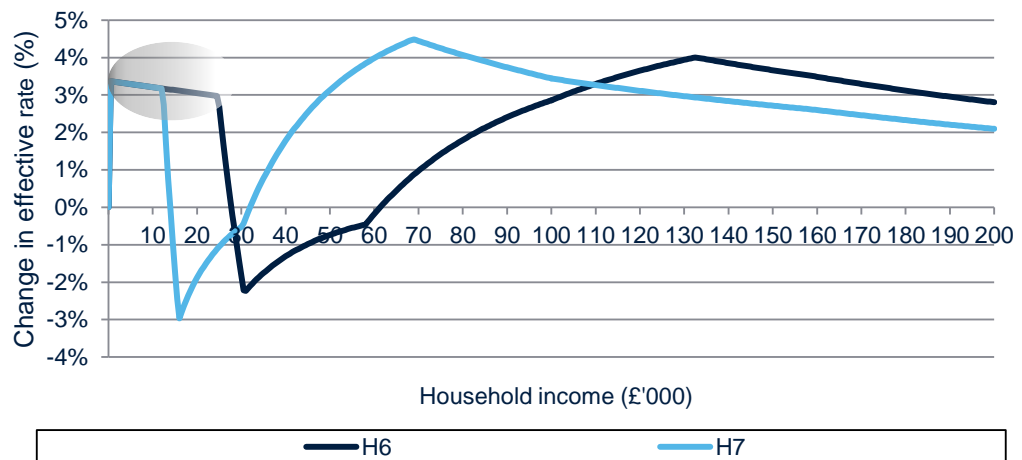
Source: Oxera analysis.

Figure 6.11 H6 and H7: change in post-tax and contribution income



Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be reduced (in full or in part) by income support and/or food costs bonus receipts (see section 5 'Goods and Services Tax').

Source: Oxera analysis.

Figure 6.12 H6 and H7: change in effective rate, 2006–15

Note: The shaded area indicates that GST paid for households at the lower end of the income scale will be reduced (in full or in part) by income support and/or food cost bonus receipts (see section 5 'Goods and Services Tax').

Source: Oxera analysis.

As these figures illustrate, the overall impact of the changes to the taxes and contributions regime appears to have been an increase in taxes and contributions for households with an income over c.£100,000. The absolute value of additional tax paid generally increases with income level (which would be expected).

Below income levels of c.£100,000, there are some households, at some income levels, that would have seen a marginal reduction in their tax bill over this period, assuming their income did not change—for example, H5 with household income of between £40,000 and £90,000.

However, it is important to note the limitations of this comparison. As described in section 1.2 above, this report does not consider inflation, and so the results of this comparison between 2006 and 2015 should be treated with caution. What this chart really shows is what taxes and contributions payable in 2006 would have been if the tax rules were what they were in 2015 or vice versa.

7 Conclusions

As set out in this report, over the last decade the Government of Jersey has made a number of changes to the personal income tax and Social Security system, and introduced both a GST and a contribution to help meet the costs of long-term care in Jersey.

The impacts of the individual changes made vary in their scale and scope; some raise the tax bill and some reduce it, and some do both, depending on the income level of the household in question. As such, it is difficult to digest the various changes into an overall picture. Nonetheless, some high-level observations can be made.

First, income tax. Three key changes to the income tax system are helpfully viewed together: the introduction of '20 means 20', an increase in the exemptions available to marginal rate tax payers and a reduction in the marginal tax rate from 27% to 26%. The broad effect of these changes is to reduce the tax paid by low to middle income earners, and increase the tax payable by higher income earners.

However, three household characteristics will have a particular effect on the overall impact of these changes. First, the number of children in a household (and whether any are pre-school age or in higher education), Second, whether a household has a mortgage, and, third, the level of pension contributions a household makes. All of these characteristics alter the impact of the changes made since 2006. Changes to MITR, in particular, have increased the tax payable for higher earners with a large mortgage.

In contrast, households with children—especially those with children of pre-school age or in higher education—experience a significant uplift in the relief potentially available to them. For all other than the highest earners, pension relief available on contributions is more generous, which benefits in particular those making significant pension contributions.

Employees' social security contributions also increased over this period (as the Standard Earnings Limit (SEL) increased each year in line with average earnings), but only for individuals earning above the SEL, which was c.£38,000 in 2006. Those earning below this level are unaffected by this change.

A LTC contribution was also introduced over this period to contribute to the cost of long-term care in Jersey. As this is calculated based on taxable income under the income tax system and is able to reflect the household characteristics that are captured by the income tax system (it is a relatively progressive tax), albeit this is partially offset by the fact that the marginal rate¹⁹ of LTC contribution payable is nil for very high income levels.

In contrast to the other taxes and contributions described in this report, GST is a tax on expenditure, rather than income. The tax is not dependent on household characteristics and so tax paid as a percentage of disposable income (which is not modelled in this report) may vary significantly across household types

Both the LTC contribution and GST have the effect of increasing the effective tax/contribution rate paid by households at most income levels. As we assume expenditure on GST (as a percentage of income) reduces as income increases, the impact of these two taxes in combination is likely to fall as a share of income

¹⁹ In this context marginal rate refers to the rate if tax on the last pound earned, rather than the marginal rate tax system

as income levels rise. However, as noted above, these changes were introduced over a period of wider policy reform, which partially offsets this effect.

A1 Illustrative households

Table A1.1 Household characteristics

Characteristic	Options	Household 1	Household 2	Household 3	Household 4	Household 5	Household 6	Household 7
Marital status	Single/Married	Single	Single	Married	Married	Married	Married	Single
Adult age 1	<39/40–49/50+	<39	<39	<39	40-49	50+	50+	50+
Adult age 2	<39/40–49/50+			<39	40-49	50+	50+	
Pensioner?	Yes/No	No	No	No	No	No	Yes	Yes
At least one over 65?	Yes/No	No	No	No	No	No	Yes	Yes
Children?	Yes/No	No	Yes	No	Yes	Yes	No	No
No. of children in higher education	0–9	0	0	0	0	1	0	0
No. of children post age 4	0–9	0	1	0	2	1	0	0
No. of children pre age 4	0–9	0	0	0	0	0	0	0
Mortgage?	Yes/No	No	Yes	Yes	Yes	Yes	No	No
Outstanding mortgage	£0–£300,000	0	£200,000	£300,000	£300,000	£100,000	0	0
Medical insurance	Yes/No	No	No	No	No	No	No	No
Life assurance	Yes/No	No	No	No	No	No	No	No

Note: As agreed with the Government of Jersey.

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