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Modelling the Withdrawal of Personal Tax Credits from High Income Earners

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MODELLING THE WITHDRAWAL OF PERSONAL TAX CREDITS FROM HIGH INCOME EARNERS

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ABSTRACT

Since 2008, the Irish Government has implemented a total of €27.8 billion in fiscal adjustments in an attempt to close the gap between government expenditure and revenue. The adjustment to date is equivalent to almost 18% of GDP. While the composition and effectiveness of these adjustments has been much discussed, the terms of Ireland's *Memorandum of Understanding* with the Troika (EC, ECB and IMF) alongside the remaining exchequer deficit, require the programme to continue into 2014 and 2015.

This paper contributes to considerations regarding the composition of the fiscal adjustment planned in Budget 2014 (October 2013). The paper focuses on the potential to reform the current structure of tax credits so that the personal tax credit is gradually withdrawn, or recaptured, from high income earners and entirely eliminated for those with incomes above €100,000. It builds on a proposal from Collins and Walsh (2010, 2011) in their reviews of the Irish tax expenditure system. The paper shows that the policy offers a simple pathway to increase effective tax rates, protect headline marginal tax rates, avoid labour market disincentive effects and raise an additional €115-€130 million in tax revenue from the top 100,000 earners.

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INTRODUCTION

Since 2008, the Irish Government has implemented a total of €27.8 billion in fiscal adjustments in an attempt to close the gap between government expenditure and revenue. The adjustment to date is equivalent to almost 18% of GDP. While the composition and effectiveness of these adjustments has been much discussed, the terms of Ireland's *Memorandum of Understanding* with the Troika (EC, ECB and IMF) alongside the remaining exchequer deficit, require the programme to continue into 2014 and 2015.

This paper contributes to considerations regarding the composition of the fiscal adjustment planned in Budget 2014 (October 2013). The Governments initial plans suggest an overall adjustment of €3.1 billion divided between tax revenue increases totalling €1.1 billion and expenditure reductions of €2 billion. However, the sustained lack of economic growth, supressed domestic demand, interest-bill savings from the restructuring of debt and a smoothing of Ireland's debt refinancing profile, and ongoing instability in the domestic banking sector and at political level in the EU, all point towards choices Government will have to make in introducing Budget 2014. Government's current plans have been endorsed by some (ESRI, 2013; Irish Fiscal Advisory Council, 2013) and contested by others (NERI, 2013; Social Justice Ireland, 2013; IBEC, 2013) with those in the latter category pointing towards alternative approaches to achieve the planned deficit reduction for 2014. However, with few exceptions, most contributors agree that taxation increases are required in Budget 2014 and this paper is focused on evaluating the potential of one possible source.

Given the distortionary effect of any taxation change, and the fragility of the domestic economy, any choices around raising additional tax revenues are challenging.[1] These challenges are magnified given the notable increases to most areas of taxation over recent years. As such, it remains important that choices are examined and their revenue and behavioural implications considered in advance.

The paper focuses on the potential to reform the current structure of tax credits so that the personal tax credit is gradually withdrawn, or recaptured, from high income earners and entirely eliminated for those with incomes above €100,000. The paper builds on a proposal from Collins and Walsh (2010, 2011) in their reviews of the Irish tax expenditure system. The policy examined below is focused on approximately the top 100,000 income earning individuals in Ireland and identifies an annual revenue yield of between €115-130 million.

The structure of the paper is as follows. The next section outlines the data and income definitions used in this examination. The paper then overviews current marginal and effective tax rates before outlining the policy proposal and examining its impact on nominal, effective and

[1] See Collins (2011) who develops this point further. Note, expenditure reductions also carry distortionary effects given the economic environment and their knock-on implications for employment, spending and tax revenues.

marginal tax levels. Following this, an estimate of the review yield is presented. The paper then considers the administrative issue of how the policy would be implemented. Finally, the paper concludes.

DATA AND INCOME DEFINITIONS

The analysis in this paper draws on the NERI's modelling and analysis of the current Republic of Ireland taxation system. Complementing this, the structure of the income distribution and the paper's tax revenue estimates come from the NERI's Republic of Ireland microeconomic model which is being developed to facilitate assessments of trends and policy options on issues including earnings, welfare and taxation. The model, and the analysis in this paper, draws from an examination of the micro data from the Central Statistics Office's (CSO) 2011 Survey on Income and Living Conditions (SILC). This survey is part of a Europe wide household living standards survey and collects income and living standards information from a representative national sample. In 2011 the dataset comprised responses from 11,005 individuals in 4,333 households. The data includes a probability weight variable to correct for under-representation and non-response and these weights are used in the analysis below. The collected income data is reconciled by the CSO with tax records in an attempt to ensure its accuracy.

Like all survey data sources, the SILC dataset, and consequently any analysis drawn from it, is subject to some caveats. In particular, income surveys tend to experience lower response rates from high income households, a feature which may bias down the revenue estimates reported later. Similarly, successful sampling can be challenging among low-income households and minorities while those in institutions are excluded from the sample.[2] However, the SILC data remains the most detailed and robust data source available for Irish individual and household income and offer the most comprehensive method for examining policy options such as that explored in this paper.

A further challenge is that the data used in the paper is for 2011 while the policy under consideration is for 2014. The impact of this difference on the representativeness of the results below depends on how significantly the profile of high income earners has changed between 2011 and 2014. An insight from the Revenue Commissioners published and preliminary data for 2010-2012 suggests limited change in the number of high income tax cases over that period implying some stability in the number of individuals likely to be impacted by the policy (see appendix table A1).[3]

The income definition used in this paper is taxable income. This differs from the more commonly examined, and more easily understood, concept of gross income. The latter comprises all the income flowing to an individual or household from both direct income (cash and non-cash earnings, self-employment profits, private pensions, rental income and investments) and social transfers. However, some components of gross income are exempt from taxation (e.g. child benefit, retirement lump sums) and are excluded from the definition of

[2] These sampling challenges, common to all households surveys, are explored further in: Groves and Couper (1998), Fitzgerald et al (1998), Goyder (1987), Nathan (1999), Cheesbrough (1993), Lynn and Clarke (2002) and Uhrig (2008).

[3] Note, the final version of the NERI Microeconomic model will address this issue and update the baseline year SILC data to allow simulations for the current year.

taxable income. The taxable income definition used in this paper is the income tax base appropriate for calculating income tax; there are further and broader definitions for the tax bases used to calculate social insurance contributions and the Universal Social Charge (USC). Table 1 presents a comparison between the gross income and taxable income bases using the 2011 SILC microdata. Given the aforementioned exemptions from taxation for certain income sources, the taxable income distribution is more skewed towards lower income categories.

Table 1: Distribution of Gross Income and Taxable Income across all individuals in the state, 2011

Income Category	Gross Income	Taxable Income
€0 - €16,500	2,890,000	3,030,000
€16,500 - €50,000	1,200,000	1,060,000
€50,000 -€75,000	262,423	256,267
€75,000-€100,000	86,027	85,689
€100,000+	53,463	50,963
Total	**4,490,000**	**4,490,000**

Source: Calculated by author from SILC 2011 microdata.

CURRENT TAX RATES

A starting point for this analysis is the current levels of tax rates. Figure 1, over seven diagrams, examines current marginal tax rates for various individual and household types in Ireland. Marginal tax rates measure the proportion of an additional euro in income that is liable to tax. Variations in entitlements to hold or transfer tax credits and in the structure of contributions for social insurance explain much of the differences in shape between the various household types. As can be seen, in all cases marginal tax rates step-up quickly so that single workers have a marginal tax rate of 52% from approximately €33,000 and above, couples with one earner from approximately €42,000 and above and couples with 2 earners from approximately €66,000 and above.

However, while marginal tax rates play an important role in the decisions individuals and households make regarding additional labour market activity, they are misleading as a measure of individual/household income taxation contributions. The availability of tax credits alongside differing tax rates and tax bands implies a more complex picture of tax paid. Measures of effective tax rates better capture this complex picture and are calculated as the total amount of tax paid (from income tax, USC and PRSI) expressed as a percentage of taxable income.[4]

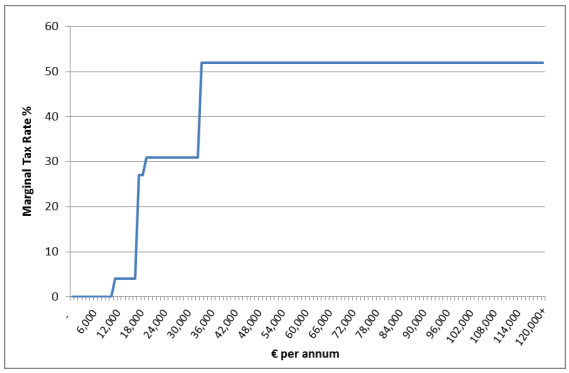
Figure 2 shows the effective tax rates faced by a single PAYE worker in Ireland in 2013. Initially, the availability of tax credits and the exemption below €10,036 for the USC implies earners on these low incomes pay no tax. Effective rates climb subsequently but demonstrate a progressive structure – as income increases the amount of tax liable increases. Indeed, figure 2 demonstrates the progressivity of the Irish income taxation system. It should be noted that the existence of such progressivity does not in itself imply a perfect tax structure; it is always

[4] For example, an individual with an income of €30,000 who pays a total of €3,000 in income taxes, PRSI and USC will have an effective tax rate of 10%.

possible to alter that progressivity (increase it or decrease it), or indeed shift the line in figure 2 up or down to generate either more or less revenue. In 2013, a single PAYE worker on a taxable income of €20,000 pays a total of 11.1% of their income in income tax, USC and PRSI. The rates for a similar worker earning €50,000 is 30.3%; €90,000 is 39.9% and €150,000 is 44.8%. Figure 3 expresses these effective rates in a different way, decomposing income (the 45º line) into that paid in tax and social contributions and post-tax disposable income.

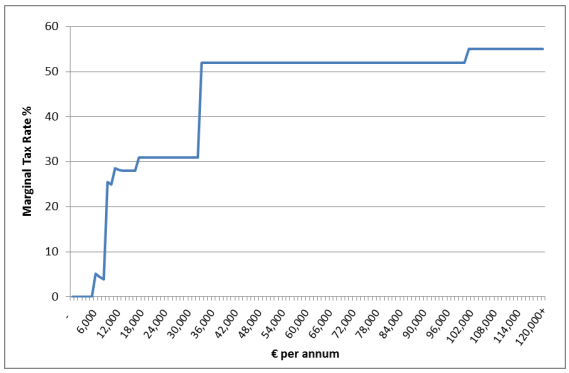
Figure 1: Marginal Tax Rates for various individual/household types, 2013

Single PAYE Worker, 2013



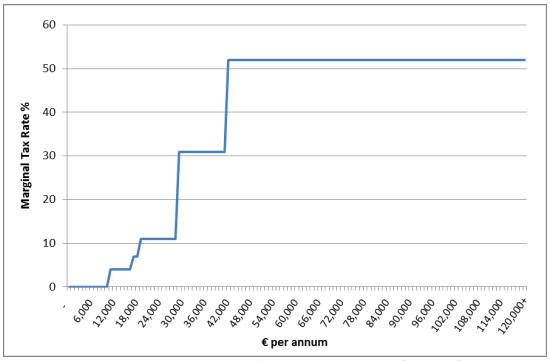
Notes: Income tax rates factor in personal and PAYE tax credits where applicable.
Individual is not subject to PRSI if income is less than €18,304 per annum.

Single SE Worker, 2013



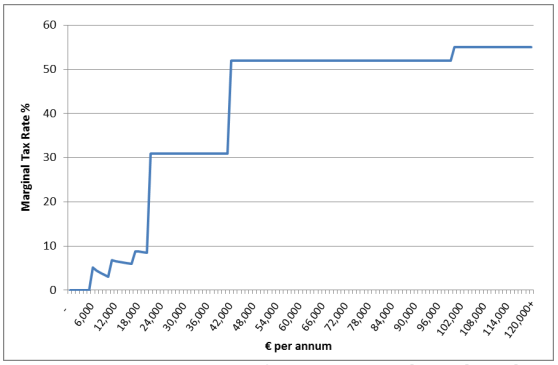
Notes: Income tax rates factor in the personal tax credit. Minimum SE PRSI contribution of €500 - liable when incomes are above €5,000 and there is a tax liability. For those whose income exceeds €5,000 but who have no tax liability a minimum PRSI contribution of €310 is included.

Couple one PAYE Worker, 2013



Note: Income tax rates factor in married couple, PAYE and home carer tax credits alongside the standard band for couples in this category.

Couple one SE Worker, 2013

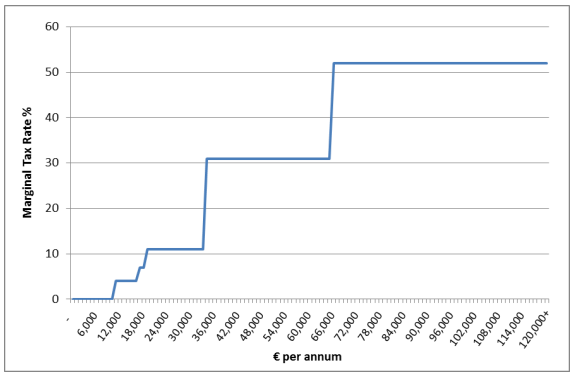


Notes: Income tax rates factor in married couple and home carer tax credits alongside the standard band for couples in this category.
For those whose income exceeds €5,000 but who have no tax liability a minimum PRSI contribution of €310 is included.

Source: Calculated by author.
Notes: PAYE = pay as you earn; SE = self-employed.

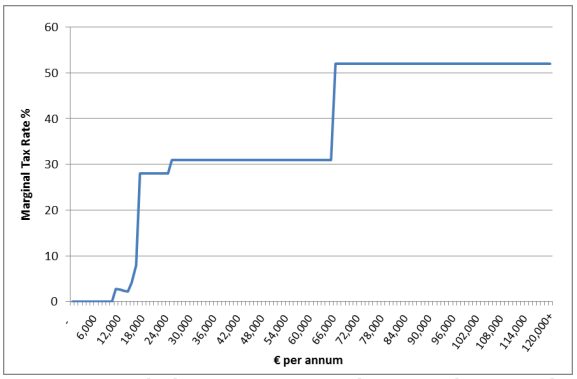
Figure 1 cont: Marginal Tax Rates for various individual/household types, 2013

Couple two PAYE Workers, 2013



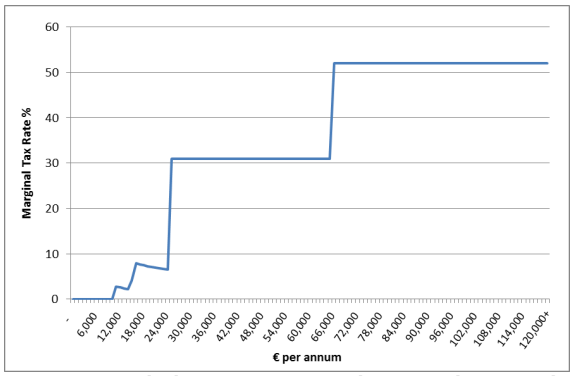
Notes: Calculations assume couple are jointly assessed for income tax. Note, this may not be the most tax efficient choice for the lowest income households.
Income tax rates factor in PAYE and Personal tax credits alongside the standard band for couples in this category.
Calculations assume each worker earns above the minimum USC and PRSI thresholds.

Couple two SE Workers, 2013



Notes: Calculations assume couple are jointly assessed for income tax. Note, this may not be the most tax efficient choice for the lowest income households.
Calculations assume couple have a 65%/35% income split.
Income tax rates factor in married couple (or 2 personal tax credits) alongside the standard band for couples in this category.
For those whose individual income exceeds €5,000 but who have no tax liability a minimum PRSI contribution of €310 is included.
USC rates are reported for the highest individual earner.

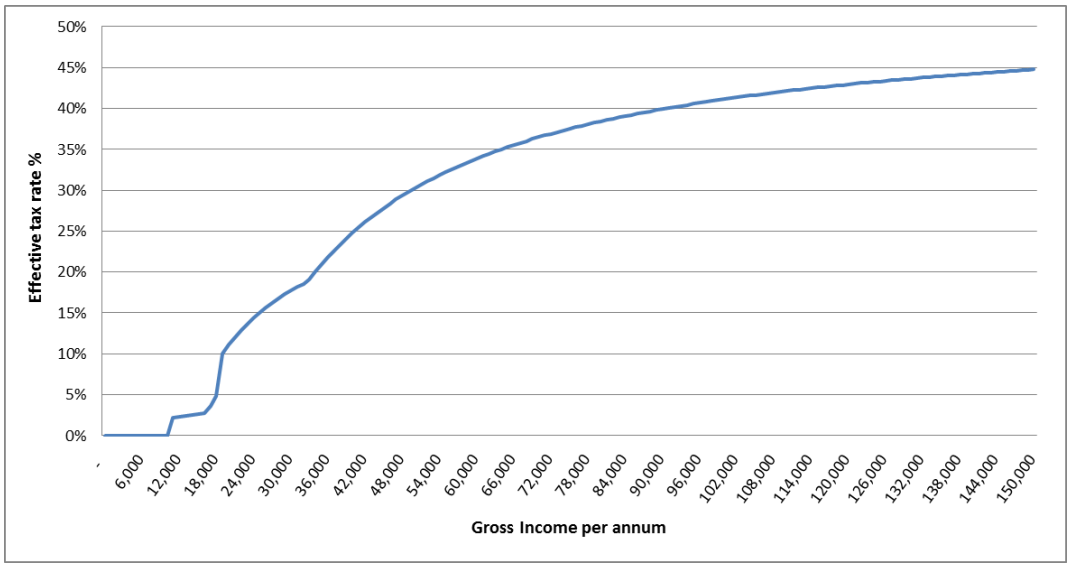
Couple one PAYE and one SE Worker, 2013



Notes: Calculations assume couple are jointly assessed for income tax. Note, this may not be the most tax efficient choice for the lowest income households.
Calculations assume couple have a 65%/35% income split where 65% is PAYE income and 35% is SE income.
Income tax rates factor in personal tax credits and the PAYE credit alongside the standard band for couples in this category.
For those whose individual income exceeds €5,000 but who have no tax liability a minimum PRSI contribution of €310 is included.
USC rates are reported for the highest individual earner.

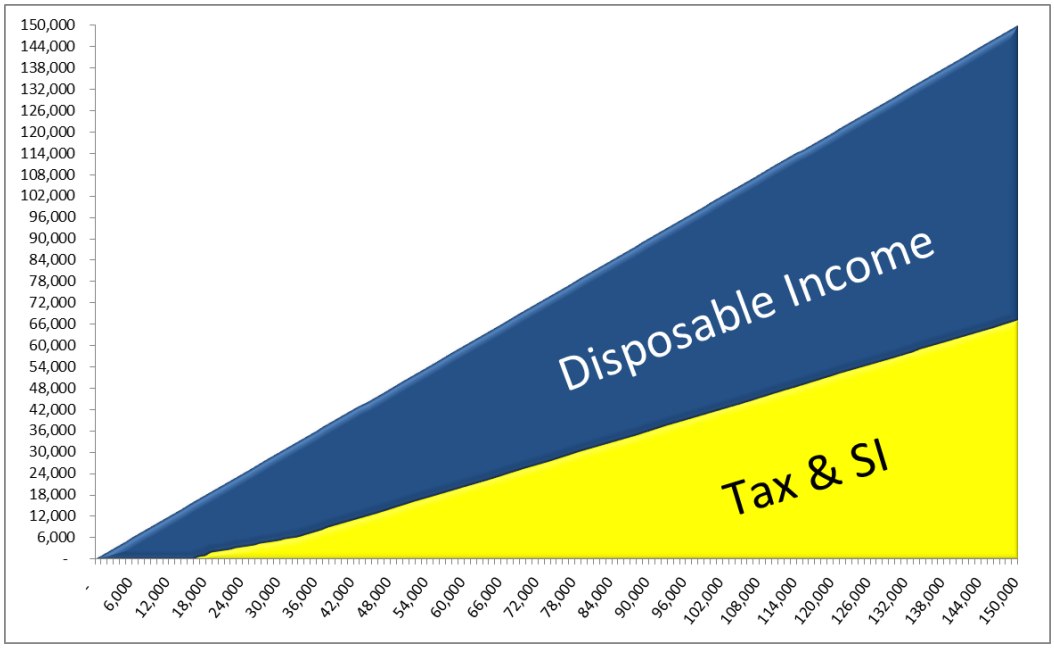
Source: Calculated by author.
Notes: PAYE = pay as you earn; SE = self-employed.

Figure 2: Effective Tax Rates for a single PAYE worker, 2013



Source: Calculated by author.
Note: The effective or average tax rate is calculated as the combined income tax (post any credits), USC and PRSI liability expressed as a percentage of gross taxable income.

Figure 3: Gross Income, Tax & SI and Disposable income – single PAYE worker, 2013



Effective tax rates covering a broader range of income and a more comprehensive set of household types are provided in table 2. These rates represent benchmark effective tax rates in that they are the rates which an individual/household would pay in 2013 we they not to avail of any tax reducing measures. In reality, the actual effective tax rate experienced by individuals/households is lower given commonly available tax breaks for pension contributions, education and health expenses among others. Furthermore, higher income earners avail of

these and other tax breaks, which generally require money or borrowing ability to fund, which further reduces their actual effective rate. Collins (2013 forthcoming) provides a more detailed assessment of these actual effective tax rates. However, as the use of tax breaks will differ across individuals/households, the benchmark rates offer a method of examining the impact of the policy change examined in this paper on earners across in the income distribution. For simplicity, the analysis below focuses on single PAYE earners, although the impact on effective and headline marginal tax rates will be similar across the other household types.

Table 2: Baseline Effective Tax Rates for various individual/household types, 2013

	Single Person		Couple 1 income		Couple 2 incomes	
Income	**PAYE**	**SE**	**PAYE**	**SE**	**PAYE**	**SE**
15,000	2.7%	15.7%	2.7%	6.7%	0.0%	5.9%
20,000	11.1%	19.3%	7.6%	7.6%	1.6%	10.2%
30,000	17.7%	23.2%	9.5%	15.0%	5.6%	16.3%
40,000	24.8%	29.0%	14.9%	19.0%	9.8%	19.5%
50,000	30.3%	33.6%	21.6%	24.9%	13.6%	21.7%
60,000	33.9%	36.6%	26.6%	29.4%	17.7%	23.2%
70,000	36.5%	38.8%	30.3%	32.6%	20.9%	25.7%
80,000	38.4%	40.5%	33.0%	35.0%	24.8%	29.0%
90,000	39.9%	41.8%	35.1%	36.9%	27.8%	31.5%
100,000	41.1%	42.8%	36.8%	38.4%	30.3%	33.6%
110,000	42.1%	43.9%	38.2%	39.9%	32.2%	35.2%
120,000	42.9%	44.8%	39.3%	41.2%	33.8%	36.6%
130,000	43.6%	45.6%	40.3%	42.3%	35.3%	37.8%
140,000	44.2%	46.3%	41.1%	43.2%	36.5%	38.8%
150,000	44.8%	46.9%	41.9%	44.0%	37.5%	39.7%
160,000	45.2%	47.4%	42.5%	44.6%	38.4%	40.5%
170,000	45.6%	47.8%	43.0%	45.3%	39.2%	41.2%
180,000	46.0%	48.2%	43.5%	45.8%	39.9%	41.8%
190,000	46.3%	48.6%	44.0%	46.3%	40.5%	42.3%
200,000	46.6%	48.9%	44.4%	46.7%	41.4%	42.8%
210,000	46.8%	49.2%	44.8%	47.1%	41.6%	43.2%
220,000	47.1%	49.4%	45.1%	47.5%	42.1%	43.6%
230,000	47.3%	49.7%	45.4%	47.8%	42.5%	44.0%
240,000	47.5%	49.9%	45.7%	48.1%	42.9%	44.3%
250,000	47.7%	50.1%	45.9%	48.4%	43.3%	44.6%

Notes: Following Department of Finance Budget calculations, couples are assumed to have a 65%/35% income split.
Baseline effective or average tax rates are calculated as the combined income tax (post any credits), USC and PRSI as a percentage of gross income. They do not account for variations in income definitions (taxable v non-taxable), modified PRSI contributions from pre-1995 civil servants or taxpayers entitlements to tax expenditures which will reduce these figures (see Collins 2013 forthcoming for more details).

WITHDRAWING PERSONAL TAX CREDITS FROM HIGH INCOME EARNERS

In their review of the composition and cost of Ireland's tax expenditure system, Collins and Walsh (2010) considered options for reducing the exchequer revenue foregone cost of various

tax expenditures. Their analysis included a proposal to recapture tax expenditures at higher income levels. In particular, they pointed towards the many tax expenditures not currently subject to inclusion in the high earners restriction (2010: 19). This paper focuses on one of these, the personal tax credit.[5]

The reform examined recaptures the personal tax credit from all earners above €100,000. However, it is not appropriate to just remove the credit from this point upwards as it would create a spike in nominal tax bills at that point; an individual earning €99,999 would pay €1,650 less in taxes than a person earning €1 more. To limit any distortionary effect, the reform is structured so that the personal tax credit is withdrawn over an income range from €83,000 upwards, at a rate of €50 per €1,000 between €83,000 and €84,000 and €100 per €1,000 from there to €100,000 – see table 3. Such a structure limits the distortionary effect of the tax credit removal and mitigates against any negative labour market participation effects which might arise from its implementation.[6]

Table 3: Revised Personal Tax Credit and Total Tax Credits available for PAYE and Self-Employed earners, by income range

Income Range	Revised Personal Tax Credit	Total PAYE Tax Payers Credits	Total Self-Employed Tax Payer Credits
0 – 83,000	1,650	3,300	1,650
84,000	1,600	3,250	1,600
85,000	1,500	3,150	1,500
86,000	1,400	3,050	1,400
87,000	1,300	2,950	1,300
88,000	1,200	2,850	1,200
89,000	1,100	2,750	1,100
90,000	1,000	2,650	1,000
91,000	900	2,550	900
92,000	800	2,450	800
93,000	700	2,350	700
94,000	600	2,250	600
95,000	500	2,150	500
96,000	400	2,050	400
97,000	300	1,950	300
98,000	200	1,850	200
99,000	100	1,750	100
100,000	0	1,650	0
100,000 +	0	1,650	0

Note: Calculated on the basis of the proposal outlined in this paper and tax credit values at their 2013 levels.

[5] Some households, rarely very high income ones, claim a married person's tax credit instead of two personal credits. This has the same value as the two personal credits and where necessary, the proposal in this paper would necessitate a reduction in the value of the married person credit in line with the reduction proposed for each individual earner above €83,000.

[6] It would be possible to withdraw the tax credit at a different pace over a larger or smaller income range. The approach chosen for this paper is taken on the grounds of its simplicity.

Table 3 illustrates the value of the personal tax credit and total tax credits for PAYE and Self-Employed earners under this policy reform. Below €83,000 there are no impacts while above this the amount of the personal tax credit available is gradually reduced up to €100,000 and then eliminated. The difference in total tax credits between PAYE and Self-Employed tax payers is explained by the PAYE tax credit valued at €1,650 in 2013 terms.

IMPACT ANALYSIS

The impact of the policy change on effective and marginal tax rates as well as nominal taxation levels is examined in this section. Table 4 (and the accompanying more detailed table A2 in the appendix) compares pre and post policy effective tax rates which do not change for earners below €83,000. Above this they marginally increase reflecting the gradual reduction of the tax credit value from €83,000 to €100,000. At that point the full value of the credit has been withdrawn and while the nominal increase in taxation levels remains the same (at €1,650) the effective tax rate increase declines as incomes increase. However, the progressive structure of the tax system remains with effective rates continuing to be higher for higher income earners.

Table 4: Impact of Policy on Effective Tax Rates for PAYE earners above €80,000+

Income	Effective tax rates			Nominal value
	Pre-policy	Post-policy	Change	Change in Tax & SI
80,000	38.4%	38.4%	0.0%	0
85,000	39.2%	39.4%	+0.2%	+150
90,000	39.9%	40.6%	+0.7%	+650
95,000	40.6%	41.8%	+1.2%	+1,150
100,000	41.1%	42.8%	+1.7%	+1,650
105,000	41.6%	43.2%	+1.6%	+1,650
110,000	42.1%	43.6%	+1.5%	+1,650
115,000	42.5%	44.0%	+1.4%	+1,650
120,000	42.9%	44.3%	+1.4%	+1,650
125,000	43.3%	44.6%	+1.3%	+1,650
150,000	44.8%	45.9%	+1.1%	+1,650
175,000	45.8%	46.7%	+0.9%	+1,650
200,000	46.6%	47.4%	+0.8%	+1,650
250,000	47.7%	48.3%	+0.7%	+1,650

Notes: A more detailed version of this table is provided in the appendix –table A2
Self-employed earners have higher pre and post policy effective tax rates compared to PAYE earners (see table 2). However, the percentage increase in effective tax rates and the nominal increase in tax paid is the same as that reported above for PAYE earners.

An attractive feature of this policy change is its impact on headline marginal tax rates. As table 5 shows, these are unchanged for all earners post the policies introduction (see also table A2 in the appendix). As the policy targets reforms to the value of tax credits, rather than rates or bands, the headline marginal tax rate is unchanged. For a PAYE worker impacted by the policy change their marginal rate remains at 52% (41% income tax + 7% USC + 4% PRSI). For self-employed earners who earn less than €100,000 and are impacted by the policy change, their

marginal tax rate also remains at 52% (41% income tax + 7% USC + 4% PRSI). Self-employed earners above €100,000 experience a USC surcharge of 3% giving them an unchanged marginal tax rate after the policy change of 55% (41% income tax + 10% USC + 4% PRSI).

For earners between €83,000 and €100,000 the reform does impact on their effective marginal tax rate – a measure of the proportion of each additional euro of income deemed liable for taxation. The phased recapturing of the tax credits minimises this effect over the range but would, for example, result in an individual increasing their taxable income from €85,000 to €86,000 experiencing an effective marginal rate of 62%: 52% (as above) plus a withdrawal of €100 of tax credits representing 10% of the income increase. These effects only occur for individuals moving within the range of the tax credit recapture and conversely cushion any earning reductions over the same range.

Table 5: Impact of Policy on Headline Marginal Tax Rates for earners above €80,000+

Income	Headline marginal tax rates		
	Pre-policy	Post-policy	Change
80,000	52%	52%	0.0%
85,000	52%	52%	0.0%
90,000	52%	52%	0.0%
95,000	52%	52%	0.0%
100,000	52%	52%	0.0%
105,000*	52%	52%	0.0%
110,000*	52%	52%	0.0%
115,000*	52%	52%	0.0%
120,000*	52%	52%	0.0%
125,000*	52%	52%	0.0%
150,000*	52%	52%	0.0%
175,000*	52%	52%	0.0%
200,000*	52%	52%	0.0%
250,000*	52%	52%	0.0%

Notes: * Self-employed earners with income above €100,000 experience an additional 3% USC levy giving them a marginal tax rate of 55%. This rate does not change when the policy proposal outlined in this paper is implemented.
A more detailed version of this table is provided in the appendix –table A2.

Overall, given the phased withdrawal of the tax credit and the lack of any impact on headline marginal tax rates, the behavioural impact of the policy change on marginal labour market participation decisions is likely to be minimal to non-existent.

REVENUE ESTIMATES

To estimate the potential additional taxation revenue which would be collected by the exchequer from this policy change, the aforementioned NERI microeconomic model has been used. The distribution of taxable income outlined earlier in table 1 is detailed further for the

groups impacted by the policy in table 6. It reports that there are approximately 51,000 individuals with a taxable income in excess of €100,000 and approximately 45,000 individuals with an income between €83,000 and €100,000.

Collectively, the policy change would yield additional taxation revenue of €115.6m per annum, comprising €84m from those with incomes above €100,000 and €31.5m from those who would experience a partial withdrawal of the tax credit.

Table 6: Estimate of the Additional Taxation Revenue Arising from Policy Change

Taxable Income Range		Number of Individuals	Tax Credit Reduction €	Revenue
From €	To €			
0	**83,000**	4,387,080	0	€0.00m
83,000	**84,000**	3,615	50	€0.18m
84,000	**85,000**	2,948	150	€0.44m
85,000	**86,000**	3,173	250	€0.79m
86,000	**87,000**	3,899	350	€1.36m
87,000	**88,000**	5,644	450	€2.54m
88,000	**89,000**	2,677	550	€1.47m
89,000	**90,000**	2,414	650	€1.57m
90,000	**91,000**	974	750	€0.73m
91,000	**92,000**	3,979	850	€3.38m
92,000	**93,000**	2,182	950	€2.07m
93,000	**94,000**	2,848	1,050	€2.99m
94,000	**95,000**	1,064	1,150	€1.22m
95,000	**96,000**	4,222	1,250	€5.28m
96,000	**97,000**	2,912	1,350	€3.93m
97,000	**98,000**	786	1,450	€1.14m
98,000	**99,000**	953	1,550	€1.48m
99,000	**100,000**	584	1,650	€0.96m
100,000 +		50,963	1,650	€84.09m
Total		**4,490,000**		**€115.64m**
			From income between €83,000-€100,000	**€31.55m**
			From income in excess of €100,000	**€84.09m**

Note: Estimate calculated using NERI Microeconomic model and based on microdata from CSO's 2011 SILC survey.

As previously mentioned, despite corrections for sampling bias and non-response, household income surveys such as SILC, upon which the NERI microeconomic model is built, tend to under-represent individuals and earners on the highest incomes. This occurs given their small number,

the challenges in accurately covering them in a sample survey and the various sources of their income, some of which may not be adequately captured by the survey.[7]

Given this, the estimates of numbers of people and revenue in table 6 is likely to have underestimated the number of individuals impacted by this policy. While there are no available ways of accurately correcting for this, it seems likely that the policy change would impact on the top 100,000 earners and generate additional tax revenue of between €115m and €130m per annum.[8]

IMPLEMENTATION

As outlined in this paper, the withdrawal of the personal tax credit from high income earners can be introduced and explained as a simple amendment to the tax credit entitlement of approximately the top 100,000 income earners in the state. Those earning above €100,000 loose the credit in its entirety while those between €83,000 and €100,000 see the value of their credit decline by a set amount.

Where workers income is known in advance, such as those with set salaries, the policy can be implemented by the Revenue Commissioners advising employers of the revised tax credit values at the beginning of the calendar year – as is already the case. Changes to income levels during the year would be handled in the same way as changes to tax credits or incomes under the current system (i.e. they are factored in and the employees income is smoothed as much as possible to accommodate the change).

For the limited number of workers likely to be on a variable income somewhere between €83,000 and €100,000, and who are not self-employed, their precise level of tax credit entitlements may be uncertain. However, in general such situations are handled on the basis of projections of current year income given past income trends, and it is possible to provide some indication at the outset of a tax year on the quantity of tax credit entitlements an individual will have. In any event, the simplicity of the withdrawal mechanism outlined in table 3 makes it straightforward for employers and individuals to establish appropriate deductions to account for any income changes in this earning band. Where necessary an end of year balancing statement from the Revenue Commissioners would highlight any refunds or tax owed.

Self-employed taxpayers in the relevant income range would incorporate their new tax credit values in their annual preliminary and final tax returns. Via the ROS system, the Revenue Commissioners could automate their calculation given the declared final income.

For those married/civil partnership taxpayers who instead of using the personal credit use the married credit, equivalent to two individual personal credits, the value of the married credit

[7] There is much analysis in the survey/sampling literature on the phenomenon of lower response rates from higher income households in household surveys. See for example: Cheesbrough (1993), Goyder (1987), Lynn and Clarke (2002) and Uhrig (2008).

[8] The concentration of this reform at the top of the income distribution is further highlighted by table A3 in the appendix. It shows that those individuals above €83,000 reside exclusively in the top 20% of the household income distribution with 70% of those individual between €83,000 and €100,000 in the top decile and 99.6% of those individuals earning above €100,000 of taxable income in the top decile.

would be amended in accordance with the individual incomes of the couple. For a couple with two incomes above €100,000 the married credit would be reduced by two times the personal credit, i.e. it would be eliminated. Where one partner has an income above €83,000 and the other below that, the half of the married credit attributable to the higher income worker would be amended and the other half left untouched. In the case where the higher earner has an income above €100,000 the married credit would reduce to a value of €1,650; equivalent to the personal credit value of the lower income worker.

CONCLUSION

The provision, structure and value of tax credits remain a choice for Government. They exist as measures to incentivise labour market participation and provide households with flexibility to allocate their collective time between work, care and leisure. In general, given the structure of the taxation system, these decisions and trade-offs arise at points well down the income distribution; far below the point at which the policy examined in this paper emerges. Consequently, there is nothing stopping Government from reforming the current structure of personal tax credits so that they are withdrawn from the very highest earners.

As shown earlier, the policy if implemented achieves increases in the effective taxation rates for all individuals who earn above €83,000. Those with incomes in excess of €100,000 see the full value of the personal tax credit (€1,650 in 2013) eliminated. The phased withdrawal of the credit from €83,000 upwards alongside the focus of the policy on tax credits, rather than bands or rates, means that the change has limited if any distortionary effect on marginal labour market participation decisions. In all cases there are no changes to the headline marginal tax rates faced by taxpayers.

Overall, the policy offers a simple pathway to increase effective tax rates, protect headline marginal tax rates, avoid any labour market disincentive effects and raise an additional €115-€130 million in tax revenue from the top 100,000 earners.

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APPENDIX

Table A1: Summary of the Distribution of Tax Cases by Gross Income - Revenue Commissioners, 2010-2012

Gross Income Range €	2010	2011	2012
0 -75,000	1,886,867	1,955,039	1,947,402
75,001-100,000	102,146	104,238	104,875
100,001+	99,430	103,351	104,552
Total cases	**2,088,443**	**2,162,628**	**2,156,829**

Sources: Revenue Commissioners (2012) and Parliamentary Question reply 14th May 2013
Notes: Data is for tax cases rather than individuals. Tax cases may comprise one individual or two individuals jointly assessed. Revenue Commissioners do not provide a method for distinguishing between tax cases of different sizes.

Table A2: Detailed comparison of pre and post policy impact on effective tax rates, marginal tax rates and nominal tax amounts

	Before Change			After Change			Change		
Income €	Total Tax & SI €	Effective Rate	Marginal Rate*	Total Tax & SI €	Effective Rate	Marginal Rate*	Total Tax & SI €	Effective Rate	Marginal Rate*
80,000	30,730.80	38.4%	52%	30,730.80	38.4%	52%	0	0.0%	0%
81,000	31,250.80	38.6%	52%	31,250.80	38.6%	52%	0	0.0%	0%
82,000	31,770.80	38.7%	52%	31,770.80	38.7%	52%	0	0.0%	0%
83,000	32,290.80	38.9%	52%	32,290.80	38.9%	52%	0	0.0%	0%
84,000	32,810.80	39.1%	52%	32,860.80	39.1%	52%	+50	+0.1%	0%
85,000	33,330.80	39.2%	52%	33,480.80	39.4%	52%	+150	+0.2%	0%
86,000	33,850.80	39.4%	52%	34,100.80	39.7%	52%	+250	+0.3%	0%
87,000	34,370.80	39.5%	52%	34,720.80	39.9%	52%	+350	+0.4%	0%
88,000	34,890.80	39.6%	52%	35,340.80	40.2%	52%	+450	+0.5%	0%
89,000	35,410.80	39.8%	52%	35,960.80	40.4%	52%	+550	+0.6%	0%
90,000	35,930.80	39.9%	52%	36,580.80	40.6%	52%	+650	+0.7%	0%
91,000	36,450.80	40.1%	52%	37,200.80	40.9%	52%	+750	+0.8%	0%
92,000	36,970.80	40.2%	52%	37,820.80	41.1%	52%	+850	+0.9%	0%
93,000	37,490.80	40.3%	52%	38,440.80	41.3%	52%	+950	+1.0%	0%
94,000	38,010.80	40.4%	52%	39,060.80	41.6%	52%	+1,050	+1.1%	0%
95,000	38,530.80	40.6%	52%	39,680.80	41.8%	52%	+1,150	+1.2%	0%
96,000	39,050.80	40.7%	52%	40,300.80	42.0%	52%	+1,250	+1.3%	0%
97,000	39,570.80	40.8%	52%	40,920.80	42.2%	52%	+1,350	+1.4%	0%
98,000	40,090.80	40.9%	52%	41,540.80	42.4%	52%	+1,450	+1.5%	0%
99,000	40,610.80	41.0%	52%	42,160.80	42.6%	52%	+1,550	+1.6%	0%
100,000	41,130.80	41.1%	52%	42,780.80	42.8%	52%	+1,650	+1.7%	0%
101,000	41,650.80	41.2%	52%	43,300.80	42.9%	52%	+1,650	+1.6%	0%
102,000	42,170.80	41.3%	52%	43,820.80	43.0%	52%	+1,650	+1.6%	0%
103,000	42,690.80	41.4%	52%	44,340.80	43.0%	52%	+1,650	+1.6%	0%
104,000	43,210.80	41.5%	52%	44,860.80	43.1%	52%	+1,650	+1.6%	0%
105,000	43,730.80	41.6%	52%	45,380.80	43.2%	52%	+1,650	+1.6%	0%
106,000	44,250.80	41.7%	52%	45,900.80	43.3%	52%	+1,650	+1.6%	0%
107,000	44,770.80	41.8%	52%	46,420.80	43.4%	52%	+1,650	+1.5%	0%
108,000	45,290.80	41.9%	52%	46,940.80	43.5%	52%	+1,650	+1.5%	0%
109,000	45,810.80	42.0%	52%	47,460.80	43.5%	52%	+1,650	+1.5%	0%
110,000	46,330.80	42.1%	52%	47,980.80	43.6%	52%	+1,650	+1.5%	0%
111,000	46,850.80	42.2%	52%	48,500.80	43.7%	52%	+1,650	+1.5%	0%
112,000	47,370.80	42.3%	52%	49,020.80	43.8%	52%	+1,650	+1.5%	0%
113,000	47,890.80	42.4%	52%	49,540.80	43.8%	52%	+1,650	+1.5%	0%
114,000	48,410.80	42.5%	52%	50,060.80	43.9%	52%	+1,650	+1.4%	0%
115,000	48,930.80	42.5%	52%	50,580.80	44.0%	52%	+1,650	+1.4%	0%
116,000	49,450.80	42.6%	52%	51,100.80	44.1%	52%	+1,650	+1.4%	0%
117,000	49,970.80	42.7%	52%	51,620.80	44.1%	52%	+1,650	+1.4%	0%
118,000	50,490.80	42.8%	52%	52,140.80	44.2%	52%	+1,650	+1.4%	0%

Table A2 continued: Detailed comparison of pre and post policy impact on effective tax rates, marginal tax rates and nominal tax amounts

Income	Before Change			After Change			Change		
	Total Tax & SI €	Effective Rate pre	Marginal Rate*	Total Tax & SI €	Effective Rate post	Marginal Rate*	Total Tax & SI €	Effective Rate	Marginal Rate*
119,000	51,010.80	42.9%	52%	52,660.80	44.3%	52%	+1,650	+1.4%	0%
120,000	51,530.80	42.9%	52%	53,180.80	44.3%	52%	+1,650	+1.4%	0%
121,000	52,050.80	43.0%	52%	53,700.80	44.4%	52%	+1,650	+1.4%	0%
122,000	52,570.80	43.1%	52%	54,220.80	44.4%	52%	+1,650	+1.4%	0%
123,000	53,090.80	43.2%	52%	54,740.80	44.5%	52%	+1,650	+1.3%	0%
124,000	53,610.80	43.2%	52%	55,260.80	44.6%	52%	+1,650	+1.3%	0%
125,000	54,130.80	43.3%	52%	55,780.80	44.6%	52%	+1,650	+1.3%	0%
150,000	67,130.80	44.8%	52%	68,780.80	45.9%	52%	+1,650	+1.1%	0%
175,000	80,130.80	45.8%	52%	81,780.80	46.7%	52%	+1,650	+0.9%	0%
200,000	93,130.80	46.6%	52%	94,780.80	47.4%	52%	+1,650	+0.8%	0%
250,000	119,130.80	47.7%	52%	120,780.80	48.3%	52%	+1,650	+0.7%	0%

Note: * Self-employed earners with income above €100,000 experience an additional 3% USC levy giving them a marginal tax rate of 55%. This rate does not change when the policy proposal outlined in this paper is implemented.

Table A3: Household Income Distribution Profile of Individuals Impacted by the Policy Reform

Household Income Decile	Individual Taxable Income Range €				
	€0 - €83,000	€83,000 - €100,000	€100,000	€83,000 - €90,000	€90,000- €100,000
1	5.78	0.00	0.00	0.00	0.00
2	5.68	0.00	0.00	0.00	0.00
3	8.81	0.00	0.00	0.00	0.00
4	9.82	0.00	0.00	0.00	0.00
5	11.38	0.00	0.00	0.00	0.00
6	11.41	0.00	0.00	0.00	0.00
7	11.63	0.00	0.00	0.00	0.00
8	11.80	0.00	0.00	0.00	0.00
9	12.66	28.63	0.35	40.46	14.57
10	11.02	71.37	99.65	59.54	85.43
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Note: Estimate calculated using NERI Microeconomic model and based on microdata from CSO's 2011 SILC survey.