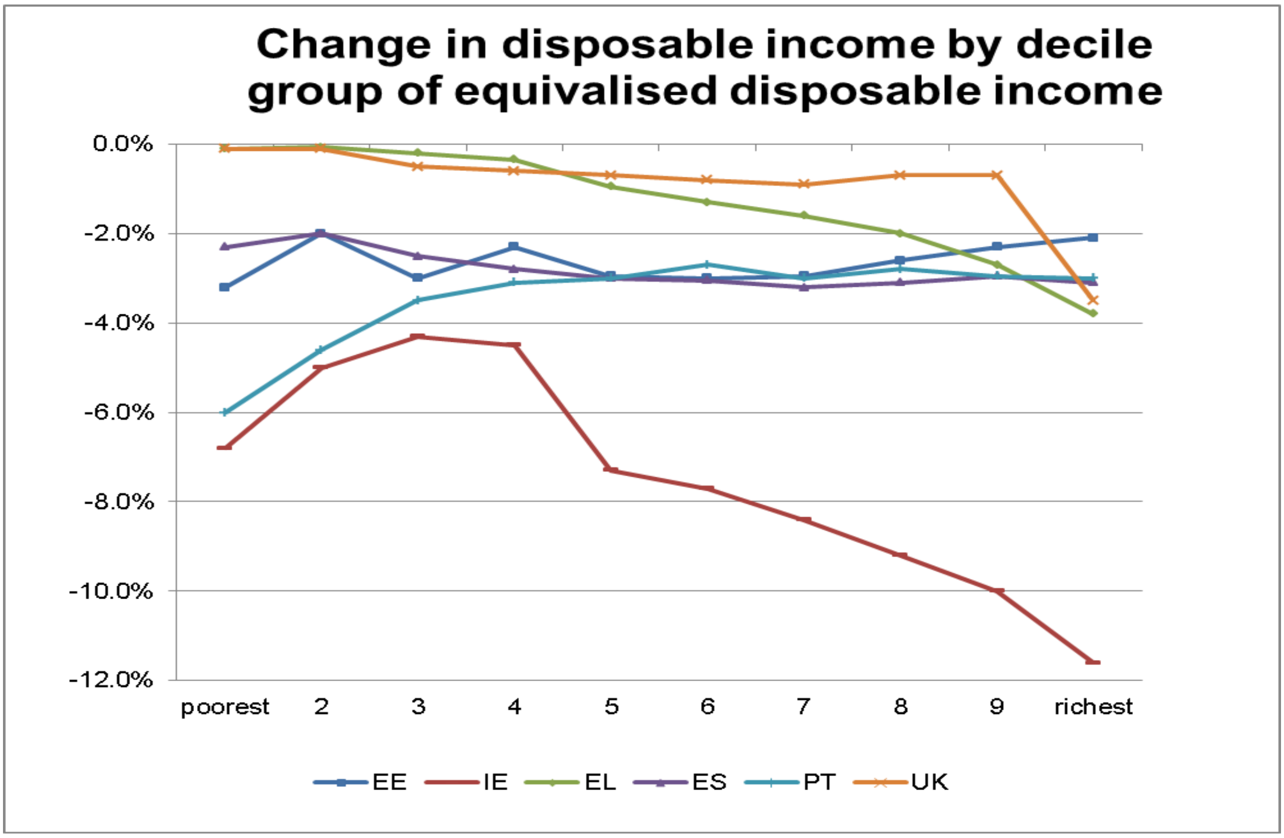
ANNEX F

Distributional impact of recent budgets and progressivity issues

The Irish tax system is one of the most progressive in the world. Research by the OECD, the ESRI and the European Commission has shown that the income tax system is one of the most progressive in the OECD and that the overall fiscal adjustment has been progressive in nature.

A comparison of austerity measures to 2011 in six EU countries by researchers on behalf of the European Commission found that reductions in disposable income due to tax and contribution increases in Ireland were larger in the upper part of the income distribution.[1] The research also showed that over 30% of the overall adjustment was borne by the richest 10% of the population and approximately 70% by the richest four deciles. The researchers also identified Ireland's adjustment as the most progressive of the six countries that were reviewed.

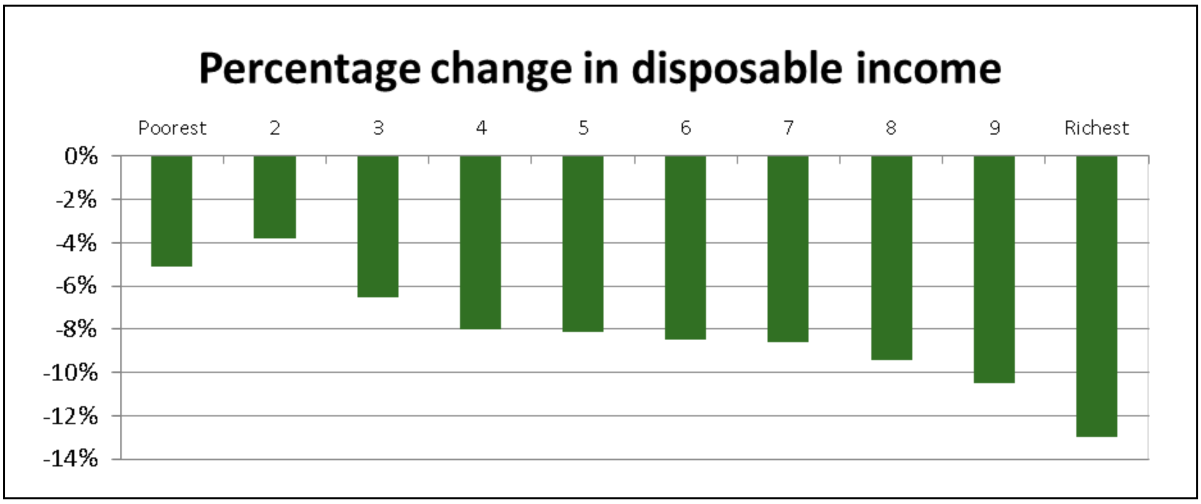


Percentage Change in Household Disposable Income Due to Austerity Measures in 6 EU Countries(Estonia, Greece, Ireland, Portugal, Spain, UK)
Source: EUROMOD

Similar results were presented by the ESRI based on an analysis of the cumulative impact of budgetary policy over the full period to Budget 2012 since the initial budgetary response to the emerging crisis in October 2008.[2] The greatest losses over the period were for those with high incomes, and the smallest losses for those with the lowest incomes. Losses for low

[1] Callan T., C. Leventi, H. Levy, M. Matsaganis, A. Paulus and H. Sutherland, 2011. "The distributional effects of austerity measures: a comparison of six EU countries" Research Note 2/2011 of the European Observatory on the Social Situation and Demography, European Commission.
[2] Callan, T., Keane, C., Savage, M., and and Walsh, J.R. 2012. "Distributional Impact of Tax, Welfare and Public Sector Pay Policies: 20092012", in, *Quarterly Economic Commentary, ESRI, 2012.*

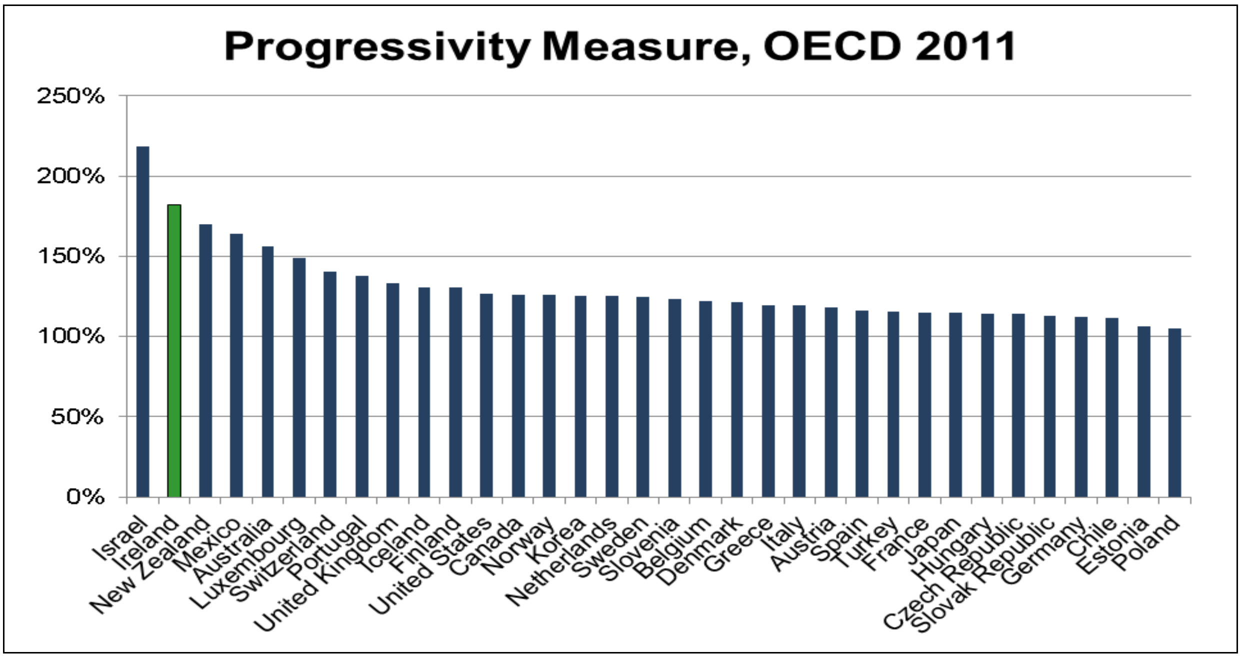
income deciles range from 4 to 6 per cent, for middle income deciles from 7.5 to 9.5 per cent, and 11-13 per cent for the top two income deciles.



Estimated impact of Budgets 2009 to 2012 by decile of disposable income - Source: ESRI

In its annual publication '*Taxing Wages'* the OECD publishes a measure of progressivity of income tax systems in member countries.[3] This measure compares the tax wedge of an individual on 167% of the average wage to an individual on 67% of the average wage.[4]

Under this measure the OECD estimates show that with a score of 182%,[5] Ireland had the second highest progressivity outcome of OECD members in 2011 and the highest of EU members. This is demonstrated in the graph below.



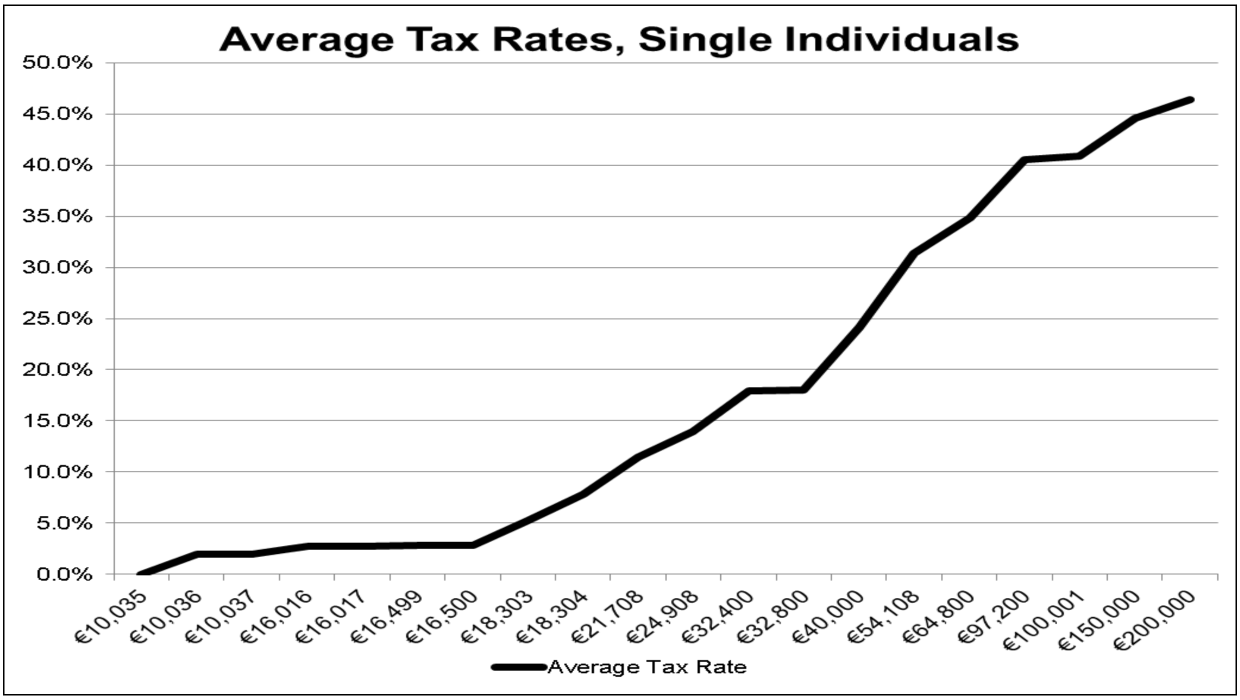
Progressivity of income tax systems - Source: OECD, 'Taxing Wages 2011'

---

[3] OECD (2012), Taxing Wages 2011, OECD Publishing. http://dx.doi.org/10.1787/tax_wages-2011-en
[4] The tax wedge is defined by the OECD as income tax plus employee and employer social security contribution less cash benefits as a percentage of a labour costs.
[5] Based on an average wage in Ireland of €32,400 the OECD measure compares the ratio of the tax wedges of individuals earning approximately €54,100 to €21,700.

The progressivity of the Irish income tax system is driven by the low average effective tax rates, including universal social charge and social security contributions, for individuals at low levels of income. The chart below plots the effective tax rates for a range of income levels along the income distribution.

The effective tax rate is less than 11% for all incomes up to €21,700 (approximately 67% of the average wage) and 18% at the average wage. The OECD rate for workers at 67% of the average wage was 21% in 2011 and 25% for individuals earning the average wage.

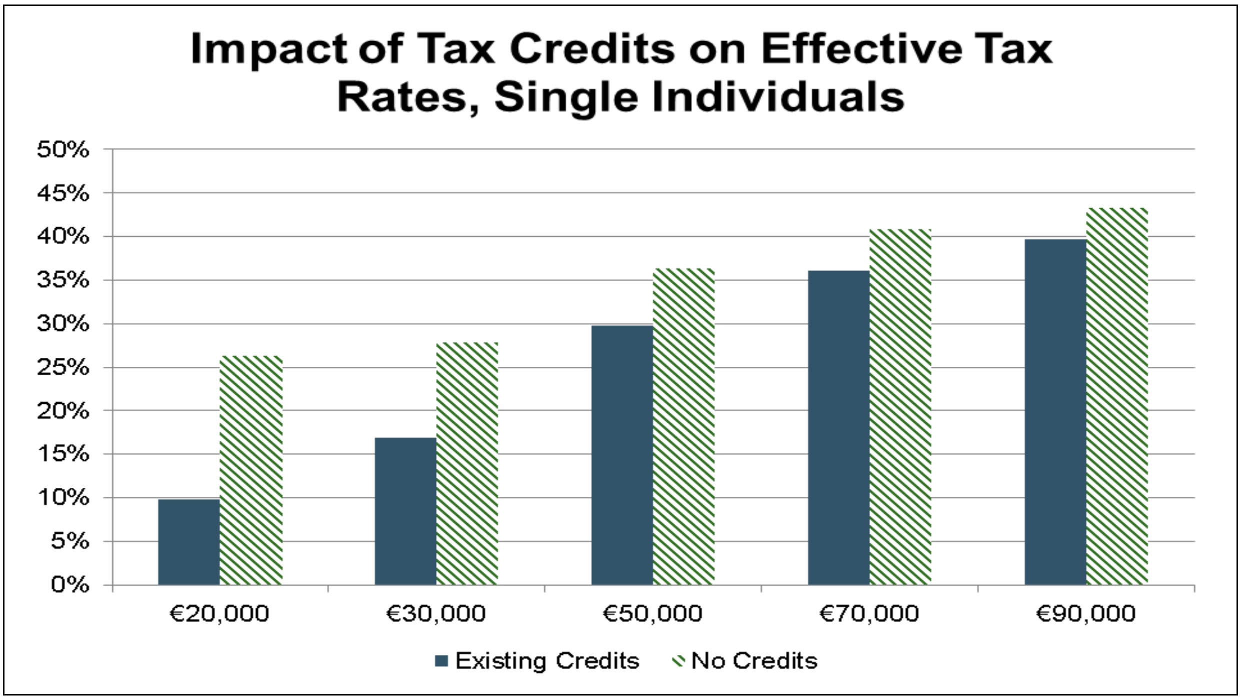


Average effective rates for single individuals, Ireland
Source: Department of Finance analysis

That the average effective rates of tax are low at lower income levels is not surprising given the progressive nature of the tax credits. The personal and PAYE tax credits (of €1,650 each) result in individuals not entering the income tax system until an income level of €16,500, a level that was described by the IMF as very high in its recent Article IV report on Ireland.[6]

The tax credits are also highly progressive with the benefits disproportionately accruing to those at the lower end of the income distribution. As can be seen in the chart below the effective tax rate for an individual at €20,000 is just under 11% but would be 26% but for the tax credits. For an individual at €90,000 the tax credits only result in a 3 percentage point reduction in effective rates.

[6] IMF (2012), Ireland - Staff Report for the 2012 Article IV Consultation, IMF. See ‘Policy Discussion B – Growth-Friendly Consolidation that Protects the Vulnerable’



Impact of tax credits on average effective tax rates for single individuals, Ireland
Source: Department of Finance analysis

It is also very instructive to look at the cumulative impact of tax changes over the period since 2008. The tables below provide a distributional analysis of progressivity for single individuals working in the private and public sector for the period 2008 to 2013 inclusive at selected income levels**.**

For the private sector the reductions in net income range from 8% or €1,753 at €25,000 to just under 14% or €16,068 at €200,000.

Private Sector (Full PRSI)[7]

Income	Total Deductions in 2008	Net Pay in 2008	Total Deductions in 2013	Net Pay in 2013	Total Change in Net Income	% Change in Net Income
€25,000	€3,216	€21,784	€4,969	€20,031	- €1,753	- 8.0%
€50,000	€13,732	€36,268	€16,901	€33,099	- €3,169	- 8.9%
€75,000	€25,561	€49,439	€30,786	€44,214	- €5,225	-10.6%
€100,000	€37,212	€62,788	€44,671	€55,329	- €7,459	- 11.9%
€150,000	€60,672	€89,328	€72,441	€77,559	- €11,769	- 13.2%
€200,000	€84,143	€115,857	€100,211	€99,789	- €16,068	- 13.9%

[7] Assumes a 6% pension contribution; total deductions in 2008 include pensions contribution, income tax, PRSI, and health levy where appropriate; total deductions in 2013 include pensions contribution, income tax, PRSI and Universal Social Charge where appropriate.

The progressivity of the changes over the period is even more marked in the public sector. For the public sector the reductions in net income range from 10.4% or €2,325 at €25,000 to 23.5% or €27,253 at €200,000. This additional loss is driven primarily by the application of a highly progressive Pensions Related Deduction (PRD) in the public sector. It is important to note that the figures for the public sector do not include the pay adjustment which took effect from 1 January 2010 (the pay reductions themselves were progressive ranging from 5% to 20% of gross income in some cases).

Public Sector (Full PRSI)[8]

Income	Total Deductions in 2008	Net Pay in 2008	Total Deductions in 2013	Net Pay in 2013	Total Change in Net Income	% Change in Net Income
€25,000	€2,674	€22,326	€4,999	€20,001	- €2,325	- 10.4%
€50,000	€13,420	€36,580	€18,472	€31,528	- €5,052	- 13.8%
€75,000	€25,297	€49,703	€33,950	€41,050	- €8,653	- 17.4%
€100,000	€37,020	€62,980	€49,457	€50,543	- €12,437	- 19.7%
€150,000	€60,622	€89,378	€80,472	€69,528	- €19,850	- 22.2%
€200,000	€84,234	€115,766	€111,487	€88,513	- €27,253	- 23.5%

In terms of where the burden of taxation (income tax plus USC) falls this is illustrated in the table below. It shows that in 2012 the top 5% of income earners (those over €100,000) paid 40% of all income tax and USC combined. By comparison the bottom 78% of income earners (those below €50,000) pay 24% of all income tax and USC combined.

Estimated Cumulative Burden of Income Tax and USC for 2012[9]

Gross Earnings	% Income Earners 2012	% Tax & USC Paid 2012
> €200,000	1%	19%
> €100,000	5%	40%
> €80,000	8%	51%
> €50,000	22%	76%
< €50,000	78%	24%

The foregoing analysis of tax changes since 2008 and the burden of income taxation in 2012 strongly support the analysis carried out by the OECD in their *'Taxing Wages 2011'* that Ireland has one of the most progressive income tax systems in the OECD.

[8] Total deductions in 2008 include pension's contribution (based on Civil Service conditions), income tax, PRSI, and health levy where appropriate; total deductions in 2013 include pension's contribution (based on Civil Service conditions), pensions related deduction (PRD) income tax, PRSI and Universal Social Charge where appropriate.
[9] The figures are estimates from the Revenue Commissioners tax-forecasting model using actual data for the year 2010 adjusted as necessary to take account of the most recent data available for income and employment trends for the year in question. It is, therefore, provisional and likely to be revised.