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Income Distribution, Pre-Distribution & Re-Distribution

Latest data for the Republic of Ireland

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SUMMARY

The latest income distribution data for Ireland comes from the 2011 CSO *Survey on Income and Living Conditions* (SILC), released in 2013.

This *Research inBrief* uses that data to examine the distribution of income pre and post redistribution. While policy tends to focus on the level of post-distribution income inequality (after taxes and welfare payments), it is important to consider the starting point for policy, the pre-distribution structure of direct (market) income.

This paper outlines the structure of Ireland's income distribution across households assessing direct income (earnings), gross income (earnings plus welfare) and disposable income (earnings plus welfare minus income taxes and social insurance). It also quantifies the impact of Ireland's redistribution system on income inequality.

KEY POINTS

- The latest income distribution data for Ireland comes from the 2011 CSO *Survey on Income and Living Conditions* (SILC).
- The combined direct income share of the bottom 50% is just over 8%.
- The bottom eight deciles receive a total of 40% of the total pre-distribution income, marginally more than that received by the top decile.
- Comparing pre and post redistribution, the relative share of each of the bottom seven deciles increases.
- In 2011, post-redistribution the share of the bottom 50% (25.05%) was the same as the share of the top 10% (24.85%).
- The combined impact of the tax and social welfare system on income distribution in Ireland is to reduce the Gini coefficient measure of income inequality by just over 55 percentage points.

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Research for new economic policies

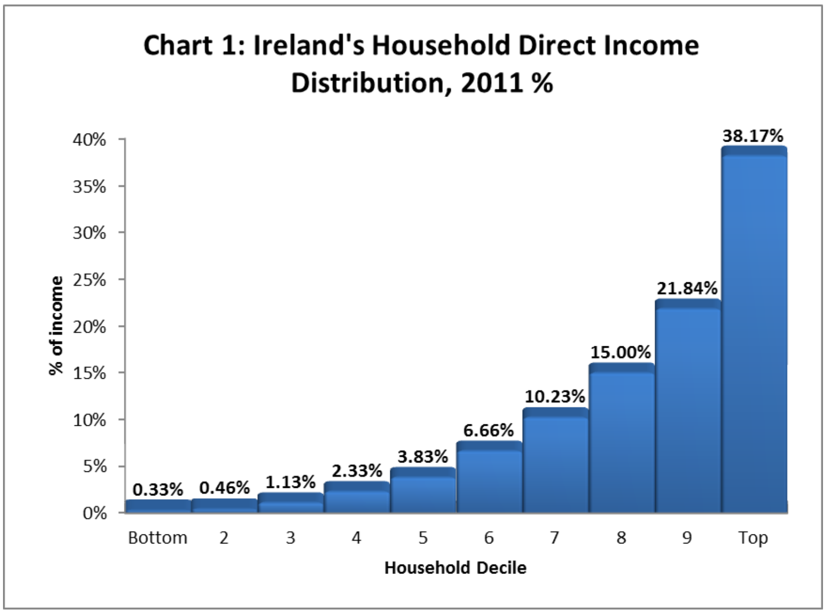
Chart 1: Ireland's Household Direct Income Distribution, 2011 %
% of income
0% 5% 10% 15% 20% 25% 30% 35% 40%
0.33% 0.46% 1.13% 2.33% 3.83% 6.66% 10.23% 15.00% 21.84% 38.17%
Bottom 2 3 4 5 6 7 8 9 Top
Household Decile

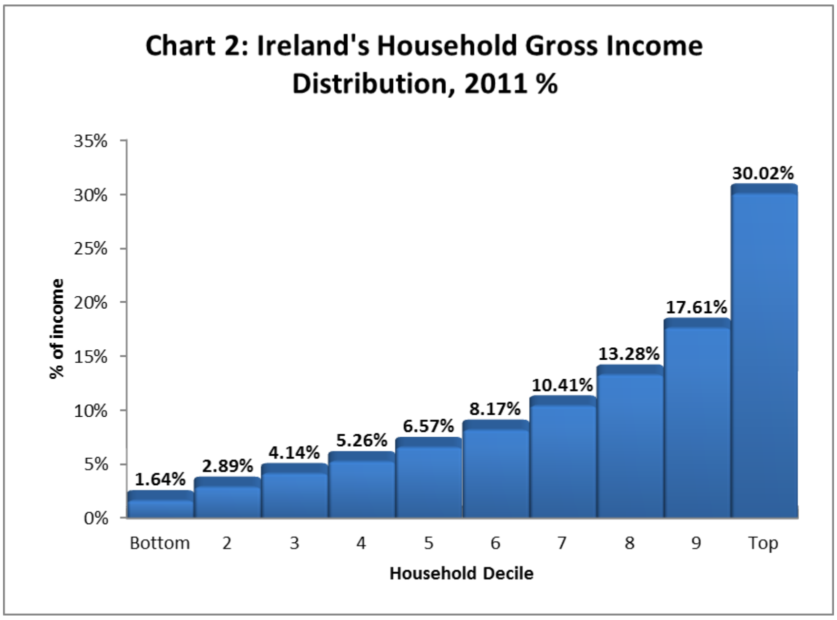
Chart 2: Ireland's Household Gross Income Distribution, 2011 %
% of income
0% 5% 10% 15% 20% 25% 30% 35%
1.64% 2.89% 4.14% 5.26% 6.57% 8.17% 10.41% 13.28% 17.61% 30.02%
Bottom 2 3 4 5 6 7 8 9 Top
Household Decile

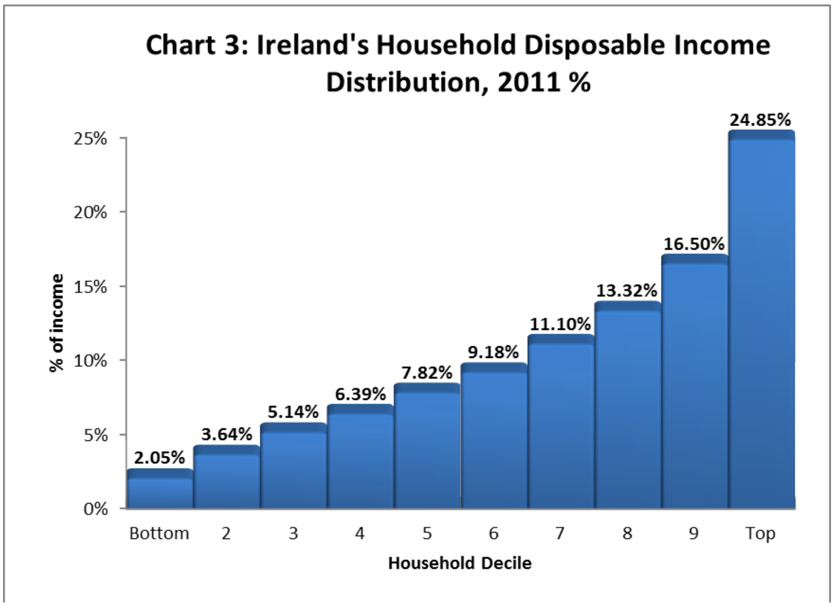
Chart 3: Ireland's Household Disposable Income Distribution, 2011 %
% of income
0% 5% 10% 15% 20% 25%
2.05% 3.64% 5.14% 6.39% 7.82% 9.18% 11.10% 13.32% 16.50% 24.85%
Bottom 2 3 4 5 6 7 8 9 Top
Household Decile

Introduction

The shape of the income distribution and possible methods of altering it, remain central to policy formation and analysis in Ireland. Whether it is the examination of policies to improve the equity of that distribution or the consideration of policy choices on the structure of the income distribution.

This paper outlines the starting point for each of these considerations by using the latest income data to outline the nature of the Republic of Ireland's income distribution. It also considers and quantifies the impact of the current set of redistributive policies on income inequality.

The paper derives 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.

Data and Income Concepts

The latest income distribution data for Ireland comes from the 2011 CSO *Survey on Income and Living Conditions* (SILC), released in 2013. 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.

Using this data, the distribution of income is examined across all households in Ireland. The charts on page 2 examine the distribution of three income concepts. Direct income represents the distribution of market income from earnings and investments. Gross income, a frequently used income distribution concept, captures direct income plus any social tranfers to households (e.g state pensions, child benefit etc). Finally, disposable income represents gross income minus any tax and social contributions paid. In effect, it is a measure of the income households have to live off.

Table 1: Average Direct, Gross and Disposable weekly income by decile, 2011*

Decile	Direct	Gross	Disposable
Bottom	€23.93	€166.27	€164.70
2	€33.89	€293.55	€292.15
3	€82.64	€420.64	€412.27
4	€169.83	€533.77	€512.24
5	€279.48	€666.83	€626.51
6	€485.74	€829.14	€735.99
7	€745.88	€1,056.71	€889.89
8	€1,093.37	€1,348.16	€1,067.94
9	€1,592.08	€1,787.61	€1,322.30
Top	€2,782.81	€3,047.49	€1,992.14
Mean	**€728.69**	**€1,014.75**	**€801.43**

Notes: *Household deciles are based on the gross income distribution. See Collins and Kavanagh (2006) for an explaination of these income concepts.

Table 2: The 'Redistribution Effect' on Income Inequality, 2011

	Gini Coefficient %
Pre-distribution (direct income)*	86.45
Post redistribution (disposable income)	31.06
Redistribution effect	**-55.39**

Note: *Calculations of the direct income Gini assume households with €0 have an income of €0.01

Income Distribution

Charts 1-3 and table 1 highlight a number of interesting features of Ireland's income distribution. In all cases, there is a pronounced separation between the top decile and the one immediately below it. Deciles represent 10% groups of the population ranging from the 10% of households with the lowest income to the 10% of households with the highest income. The top 10% of households receive 38% of all market income, 30% of all gross income and almost one-quarter of all disposable income.

Pre-distribution, the direct income distribution reflects a large proportion of Irish society with little, if any, market income. The combined direct income share of the bottom 50% is just over 8% of all Ireland's direct income. The bottom eight deciles receive a total of 40% of the total pre-distribution income, marginally more than than received by the top decile.

The redistributive system, through both welfare and taxation, decreases the scale of these initial income divides; this of course is its purpose. Comparing pre and post redistribution, the relative share of each of the bottom seven deciles increases. However, the pronounced difference between the 9th and top decile remains. In 2011, post-redistribution the share of the bottom 50% (25.05%) was the same as the share of the top 10% (24.85%).[i]

The 'Redistribution Effect'

A glance at the aforementioned charts and tables highlights Ireland's redistributive system in action. However, it is useful to quantify this further.

To do so the paper calculates the Gini coefficient, a measure of income inequality ranging from 0% to 100% where the latter represents complete income inequality (one households has all the income) and the former represents perfect equality (all households have the same income). The higher the Gini coefficient, the higher the level of income inequality. The measure is calculated using equivalised household income - adjusted for household size.

Pre-distribution, the level of direct income inequality gives a Gini of 86.45%. Post re-distribution, the Gini falls to 31.06%. The difference between these two measures is the 'redistribution effect'. The combined impact of the tax and social welfare system on income distribution in Ireland is to reduce the Gini coefficient measure of income inequality by just over 55 percentage points (see table 2).

The scale of that reduction highlights both the effectiveness of the redistribution system and the scale of pre-distribution income inequality.

Conclusion

Understanding the nature and shape of the income distribution remains an important context for public policy analysis and formation. The brief overview highlights multiple questions and future policy issues. Using the NERI's microeconomic model, future publications will return to examine these distributions and how they are impacted by policy changes.

References

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[i] For data on previous years see NERI (2013) and Social Justice Ireland (2013).