

Tax-benefit systems, employment structures and the distribution of household disposable income: the UK versus Ireland

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The 2011 World Economic Forum has identified income inequality as one of the “two most serious challenges the world is facing today” (Van der Elst & Davis, 2011). Income inequality has increased since the 1980s in most advanced economies and emerging markets. More striking, however, is the variation in income inequality across countries, which is considerably larger than the variation in inequality over time in any country (OECD, 2011, World Bank, 2005, 2011, Bourguignon, Ferreira & Leite, 2007, Milanovic, 1998, 2005.). Even among high income countries, the variation in the Gini index is high, ranging from a low of .248 in Denmark to a high of .378 in the US (OECD, 2011). Despite this and the recognition that social inequality may have short-term and long-term implications for welfare, social cohesion, social unrest and growth (Wilkinson & Pickett, 2009), relatively little is known about the sources of the differences in household disposable income inequality across countries (Bourguignon, Ferreira & Leite, 2007). As stated by Brandolini & Smeeding (2010), “...attempts to model and understand causal factors and explanations for differences in level and trend in income inequality across nations is the ultimate challenge to which researchers on inequality should all aspire”.

Furthermore, since 2008, Europe and most industrialized countries have been hit by a major economic crisis -the “Great Recession”- and persisting difficulties in re-gaining economic growth, reducing unemployment and balancing public budgets. Households have been facing an increased insecurity of employment, a slowdown in wage growth or wage freezes, and, later, cuts in public transfers and higher taxes. These factors have affected (and are still affecting) the distribution of disposable incomes to different degrees internationally, with countries showing different resilience to the economic crisis.

Most of the evidence regarding the driving factors of inequality comes from studies which investigate the inter-temporal changes in income inequality or its components. The general lesson is that countries differ with respect to their tax-benefit systems, institutions, market forces, demographic factors, behaviour, cultural and historical aspects (Alesina & Glaeser, 2005, Haveman et al. 2011). At the same time, countries also differ in their level of household disposable income inequality. Exploiting this cross-national variation can help shed light on the nature of the cross-national differences in household disposable income inequality and identify the key sources of inequality, thereby informing policy makers about appropriate policy measures for reducing it.

The relevance of this question is enhanced in the context of the “Great Recession”. The existing literature does not provide clear cut conclusions with respect to the impact of economic downturns on household income inequality (Jenkins et al. 2013). Cross-national differences in labour market structures and tax-benefits systems, however, have the potential to produce considerable cross-national differences in the distributional impact of the economic downturn (Avram et al. 2013, Jenkins et al. 2013, Callan et al. 2011). Existing studies on the impact of the consolidation measures on household income inequality during the crisis looked at the inter-temporal dimension within selected countries only (Avram et al.

2013, Jenkins et al. 2013, Callan et al. 2011). They do not yet explain the cross-national differences in *changes* in household income inequality, incorporating the effect of fiscal consolidation measures and employment changes.

The goal of this paper is to enhance understanding of the functioning of the tax-benefit systems in Europe and of their interactions with different labour market and employment structures in shaping the distribution of disposable household income in the context of the Great Recession. We focus on two countries, the UK and Ireland, which were hit particularly hard by the recession. First, we explore the nature of the cross-national differences in household disposable income inequality between these countries before the crisis.. Second, we assess how much these factors can help understand the cross-national differences in how household incomes have been hit during the crisis. The question here is how the different tax-benefit systems and initial employment structures have lead to differential impacts of the crisis on economic inequality and how cross-country differences in inequality have evolved recently under the impact of economic shocks and austerity measures.

The paper proposes a unified framework where (i) we use comparable data (EU-SILC) to evaluate the nature of the differences in household disposable income inequality between the selected countries and (ii) extend the methodology developed in Bourguignon et al. (2007) (henceforth BFL) by developing a *household income distribution model* which incorporates the tax-benefit rules through micro-simulation techniques (EUROMOD), building on the progress made in tax-benefit simulations, and in decomposing income distributions (see Bargain 2012, Bargain et al. 2012, Bargain & Callan 2010, Decancq, Peichl & Van Kerm 2013, DiNardo, Fortin & Lemieux 1996, Ferreira 2012, Fortin, Lemieux & Firpo 2010, Fusco, Kyzyma & Van Kerm 2013, Jenkins & Van Kerm 2005, Juhn, Murphy & Pierce 1993, Li & O'Donoghue 2012, O'Donoghue 2002, O'Donoghue et al. 2013).

This approach will help us identify the sources of the cross-country differences in inequality and in changes in inequality before and during the economic downturn. The contribution of tax-benefit systems and labour market structures to the differences in inequality is assessed using (a sequence of) simulated counterfactual distributions of household disposable incomes that would prevail in each country, if these factors were swapped between countries. The decomposition is evaluated using the Biewen, M. (2012) approach. This simulation device is descriptive by nature (no experimental or quasi-experimental setting is exploited), but the apparatus offers sufficient sophistication to allow detailed analysis of the way tax-benefit systems can interact with labour market structures and employment in determining the distribution of household disposable income and in explaining the cross-national differences in disposable income inequality.

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