## INCOME INEQUALITY IN THE EU: A DECOMPOSITION BY INCOME SOURCE

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## **Abstract**

This article analyses inequality in gross and disposable incomes in the EU in the period 2007-2016. In the light of the current academic and policy discussion on the drivers of inequality, it aims at identifying to what extent the different income sources, be them market or tax-and-transfer sources, contribute to determine overall income inequality. The article seeks to address the following questions: i) To which extent do the market income sources determine current inequality levels in the EU and to what extent do taxes and benefits mitigate, if any, these inequality levels? ii) In turn, within market incomes, which source is more disequalising between wages and income from self-employment? iii) Similarly, which sources between taxes and benefits contribute more to inequality reduction? iv) Finally, how have these dynamics evolved over the last decade?

The main aim of the article is to understand which income component has had the highest impact on inequality trend between 2007 and 2016.

In order to address these questions the article will first illustrate the income concepts used (gross and, when available, disposable income), by presenting the shares of each source (e.g. wages, income from self-employment, capital income, private and public pensions, taxes and benefits). It will then present evidence on the contribution of different income sources to determine income inequality using a decomposition technique (Shorrocks 1982). The analysis will shed light on the different market and welfare mechanisms driving income inequality at play in different EU countries. The final aim is to test the hypothesis that the inequality-reducing effect of the welfare state has diminished and that the market mechanisms are those responsible for the increase in inequality experienced in many EU countries after the crisis (OECD 2015).

The analysis will be based on cross-sectional data from the European Union Statistics on Income and Living Conditions (EU-SILC) from 2007 to 2016 (2017 upon availability) and will cover all households in the sample and all EU-28 countries. Two main limitations arise when carrying out such an inequality decomposition with EU-SILC data: 1) the reliability of capital income and 2) the availability of net income values for each income source.

Indeed the design of EU-SILC is such that, despite the cross-country harmonisation effort, countries have some discretion to collect income data: some countries derive data from registers while others collect it from surveys. When income data are derived from tax

registers, capital income is generally more reliable than when it is derived from surveys. Thus, for the countries where capital income is not collected from tax registers, the impact of market and welfare sources on income inequality must be necessarily examined without considering the impact of capital income, so underestimating the market impact.

Moreover, net income sources are not available for all countries. This limits the scope of the decompositions analysis. For example, if net wages are available, social contributions of the employee are already deducted from it; while if wages are reported gross, the social contributions may appear under both taxes paid and gross wages received, so distorting the respective impact of the two sources on inequality. Therefore, for the countries reporting only gross income values, the impact on inequality of different income sources should take into account the potential mismeasurement of some income sources (e.g. social contributions of the employee).

Preliminary results at the EU level show that, while wages as a proportion of household income have been rather constant in the period 2007-2016, their contribution to inequality has increased over the last decade (for about 86% of income inequality in 2007 and about 88% in 2016) (European Commission 2018). This would lead to conclude that, for the EU at large, the impact of market components has been central to explain the inequality trend of the last decade. This trend is the result of high heterogeneity across the EU: the article will dig into it.

**Key words:** income inequality, decomposition, tax and benefits, wages, income from self-employment, EU-SILC.

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