Title: Global inequality: how large is the effect of top incomes?

Over the past two decades, there has been a renewed interest in the economic literature and international policy fora in the levels of, and the trends in, global inequality. The UN System Task Team report that preceded the introduction of the Sustainable Development Goal 10, pointed out that inequality is a key concern, not just from the perspective of a future in which a decent and secure wellbeing is a prerogative of all citizens, but sustained development itself is impeded by high inequalities. Assessing inequality trends is a major challenge because individual data on income or consumption is not often available. Nevertheless, the periodic release of certain summary statistics of the income distribution has become increasingly common. Hence, grouped data in form of income shares have been conventionally used to construct inequality trends based on lower bound approximations of inequality measures. This approach introduces two potential sources of measurement error: first, these estimates are constructed under the assumption of equality of incomes within each income group; second, the highest income earners are significantly undersampled in household surveys from which the grouped data is obtained. In this paper, we propose to deploy a flexible parametric model, which addresses these two issues in order to obtain a reliable representation of the income distribution and accurate estimates of inequality measures. This methodology is used to estimate the recent evolution of global interpersonal inequality from 1990 to 2010 and to examine the effect of omitted top incomes on the level and direction of global inequality. Overall, we find that the undersampling of the richest individuals in household surveys generate a downward bias in global inequality estimates that ranges between 15 per cent and 42 per cent, depending on the period of analysis and the different assumptions on the omitted information at the right tail of the distribution. Our estimates suggest, therefore, that much of the research on global inequality relies on severely biased estimates. The methodology developed in this paper might contribute to a better monitoring of the progress towards the tenth Sustainable Development Goal.