

# Connecting the dots on income inequality: what do official sources suggest when adjusted for top incomes?

by Nicolas Ruiz,  
Economist, Structural Surveillance Division,  
Policy Studies Branch  
OECD Economics Department

Concerns about the distribution of income weigh heavily in the public policy debate and the economic crisis has added urgency to deal with the policy issues related to inequality. But if the current challenges are clear, there is less common understanding about the definition and measurement of income inequality. What may be seen as a straightforward concept to measure turns out in practice to be hard to quantify in a reliable way.

Until the last decade, household surveys were pretty much the exclusive source of official statistics to guide policy reflexions on inequality. A consensual finding from these sources, used by governments and international organisations, is that income inequality has been steadily rising between the mid-1980s and the late 2000s, but at a much slower pace after the mid-1990s. During the crisis years, recent evidence point also to stable inequality levels on average.

But a wave of research initiated by Thomas Piketty, and which concentrates almost exclusively on the top of the income ladder, has in fact shown that the share of total income held by the very richest households actually rose faster in the

1990s than in the 1980s. These findings, based however on non-official sources, indicate that income inequality has actually grown more rapidly over the last fifteen years than previously thought, and that following the crisis there has been a significant upsurge in top incomes.

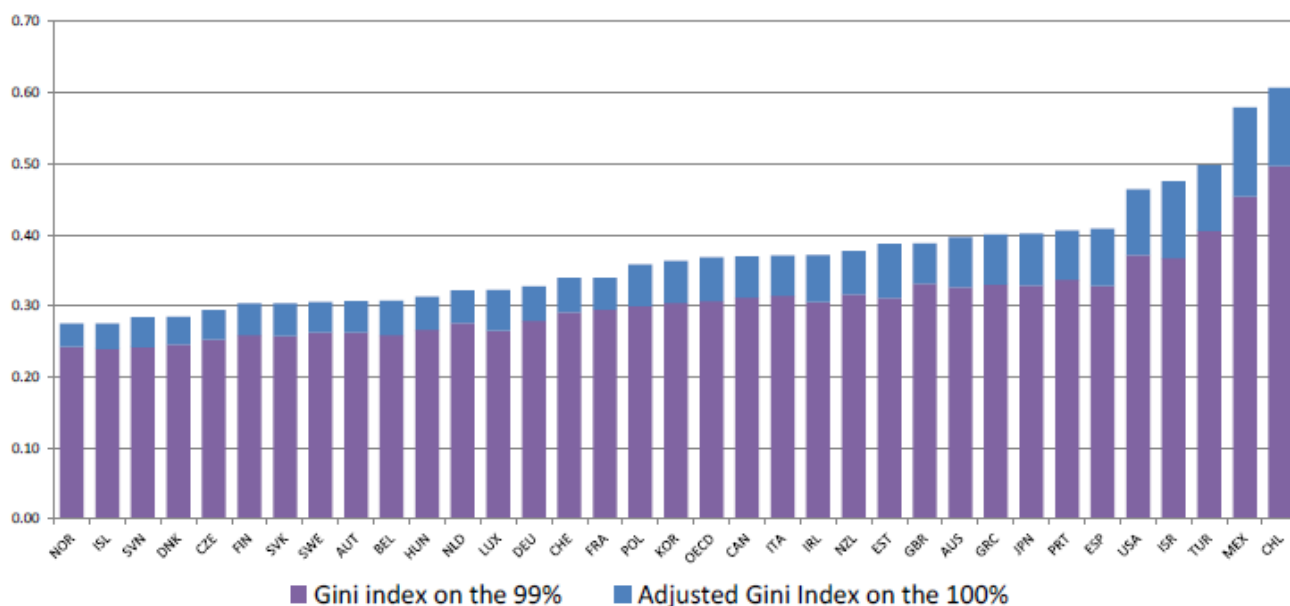
These new findings sparked a debate about the real extent and trends on inequality. It also left economists with a patchwork of data. Inequality figures drawn from household surveys tend to measure income dispersion on a comprehensive and representative portion of the population, say the 99%, but are not able to capture properly the very top due to various shortcomings. Yet, it is in this portion of the distribution that most of the changes in inequality seem to have occurred over the last fifteen years.

The derivation of top incomes figures depend crucially on the use of the Pareto "iron law" of income distribution, which assumes that the percentage of a given income decreases in proportion as the income threshold is raised. Originally formulated by the economist Vilfredo Pareto more than one century ago, this law has passed the test of time and is used in various branches of economics. It can also be applied to official sources to correct for missing top incomes.

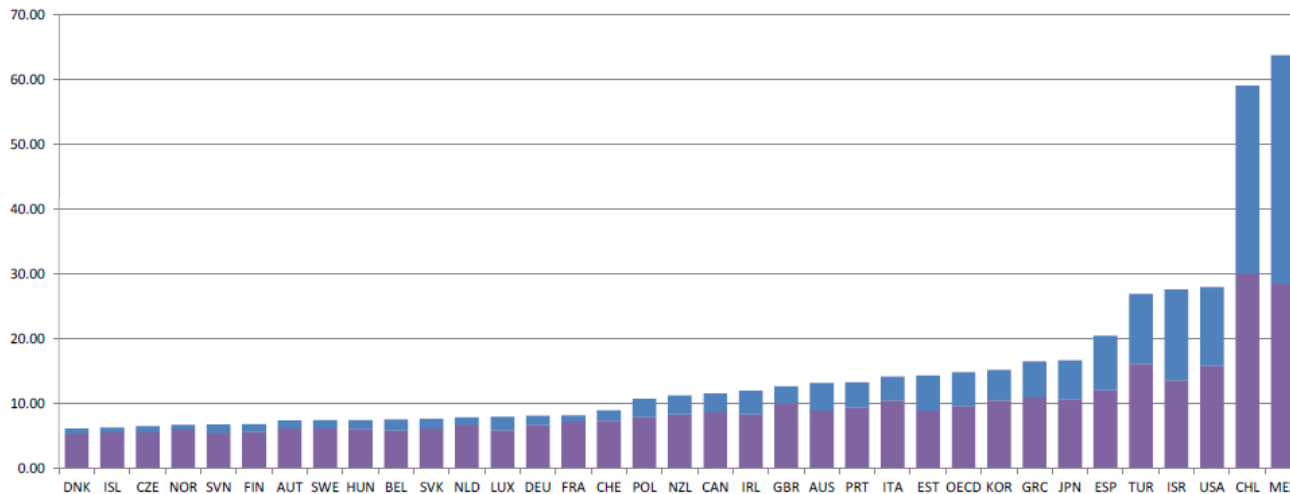
What happens if we do so, which can be thought as measuring inequality on the 100%? Unsurprisingly, it results for most countries in an increase of the level of inequality. What is perhaps more surprising is the magnitudes implied, which are strikingly large. Across OECD countries the Gini coefficient (a staple for measuring inequality), measured on the whole population from the poor to the very rich, the 100%, was in 2011 on average 6 percentage points higher than official statistics based on household surveys, moving from 0.31 to 0.37. Similarly, the ratio of the mean income of the richest 10 per cent of the population to that of the poorest 10 per cent rises from 10 to 15.

# Inequality levels are larger when accounting for the whole population

## Gini coefficient



## Ratio of mean incomes of the richest to the poorest 10%



Source: Nicolas Ruiz and Nicolas Woloszko (2016), "What do household surveys suggest about the top 1% incomes and inequality?", OECD Economics Department Working Papers, No 1265, OECD Publishing, Paris.

So when we connect the dots on income inequality and adjust official sources for the missing top incomes, it appears that we are living in more unequal economies than is generally

documented. Does it matter? Well, a lot. Consider the example of the recovery years in the United States. According to the Census Bureau, between 2009 and 2012 the Gini coefficient on pre-tax and transfers income remains fairly stable around 0.47. But according to recent figures computed by Thomas Piketty and his team, the top 1% captured 95% of real national income growth during the same period. Clearly, policy roadmaps could radically differ when based on these two separate sources. In our efforts to make growth more inclusive, an encompassing view of inequality taking on board all the segments of the populations, is essential to guide policy discussions.

See also: [Structural Policies and Distributional Consequences | OECD Insights Blog](#)