

# Wealth as an Increasing Source of Inequality and Distortion in Income Groups

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Economists and social scientists express increasing interest for joint income and wealth distributions. Inequality and poverty had long been thought through income, and even earnings, but wealth can substantially change our measurement and vision of inequality. The inclusion of virtual incomes (long term capital gains along with interests) generated by wealth to income as we know them do change inequality measures. Our aim is to compare countries (the U.S. and Euro-countries) to show the important contrasts in this respect. With the American SCF Survey of Consumer Finances 2013 and its European equivalent the Household Finance and Consumption Survey (HFCS), we propose a comparison of the conventional measurement of inequality based on pre-tax incomes, and the extended one when virtual incomes generated by wealth are considered. Along with traditional inequality measures, the Isograph method (Chauvel 2016, Chauvel & Bar-Haim 2017) shows the different shapes of inequality of wealth, conventional income and extended income. Some countries like the U.S., France and Luxembourg shows the importance of wealth in inequality.

## Introduction

Wealth is gaining an increasing importance (Skopek et al. 2011, Pfeffer & Hällsten 2012, Kuypers & Marx 2016) for socioeconomic positions. The aim of this paper is to describe and develop tools to understand better how socioeconomic inequality is affected by the transformation of wealth respective to income.

Our main argument is that: even if the Gini indices of wealth distribution remains the same, the increase in the wealth to income ratio (W/I) documented by Piketty (2014). The W/I ratio (Stiglitz, 1969) is of importance, due to the leptokurticity (power tailed nature) of wealth is considerably stronger than for income (Solomon & Richmond, 2001): we can detect a middle class in income but there is no such thing in wealth. Our claim is that even if the Gini Indices of wealth are not substantially changing, the increasing W/I ratio has a massive impact on economic inequalities due to the switch from standard inequalities generated by work (with typical Gini indices circa .3 in Europe) to inequalities generated by property (with Gini indices close or above .6).

Wealth and income inequality

Wealth and income distributions exemplify the deep trend of inequality in contemporary capitalism (Atkinson & Bourguignon 1995, Piketty 2014, Wolff 2016). Previous studies suggested analyzing detailed percentiles of income or wealth (Díaz-Giménez, Quadrini, & Ríos-Rull 1997, Wolff 1998) but the pertaining standard errors are either unknown or difficult to systematically assess. Hence, we propose here a new method that is suitable to measure the contribution of each part of the scale to the overall inequality.

#### Method

The Isograph (Chauvel 2016) describes inequalities in different income or wealth levels, thus providing the overall pattern of inequality together with level-specific inequalities, serving as an extended Gini [in the sense that if ISO is a constant,  $Gini = ISO$ ]. See paper.

#### Data

\*Household Finance and Consumption Survey (HFCS).

\*\*“Survey of Consumer Finances” (SCF) of 2013. Along with the conventional income, we develop an extended one including the long term capital gains generated by wealth. To do so we make use notably of the International House Price Database.

#### Results

We now turn to the analysis of the Isographs, or the local inequalities above the median for income and wealth. Figure 3 presents the results for each country separately, where the X-axis represent two socio-economic scales that is measured by the logit rank of the medianized income and wealth respectively. The Y-axis represent the ISO or the log medianized income (straight lines) and wealth (dots) over X. This shows how wealth means massive inequality, even stronger near to the median. This confirms that the association presented in Figure 2 is not a trivial consequence of inequality expansion, but means a stronger coherence of the diagonal at the top of income and wealth.

As a final result, we propose to compare income inequalities in the middle classes as we conventionally know it via level of living (income per consumption unit) to an extended, more realistic conception of income inequality where wealth based income defined as capital gains are included. We know that due to legal tax optimisation, an important share of capital incomes are undeclared by their recipients, and capital gains (such as the increasing home values on the long range that are generally un(der)covered by tax regimes) escape from the measurement of incomes.

To generate an extended income taking into account the consequence of wealth accumulation, we consider the variation of home values via the International House Price Database of the Federal Reserve Bank of Dallas (see above). For the 9 common countries of the two databases, we consider an extended income including the implicit capital gains generated by the housing prices expansion of the period 2000-2015 (one 15th value of the gains on this period) plus a standard yearly 4% gain generated by the virtual income generated by housing property (virtual rent equivalent of housing ownership).

We consider (figure 4) four measures of inequality and middle class stretch – the lower the

values, the denser the middle class – for the conventional and for the extended conceptions of income. The first indicator is the Gini index (1) and the others are three income ratios pertaining to the (lack of) density of the middle class: the interquartile ratio (2) pertaining to the density of the distribution around the median, the top quartile to median ratio (3) that focuses on the middle class right above the median, and the top decile to top quartile ratio (4) which measures the density in the upper middle class. These measures are deeply affected in the extended measure.

#### Discussion

In the context of “repatrimonialization” defined as a trend of increasing importance of wealth. We show how private ownership objectively changes inequality within homogeneous socioeconomic groups and must be considered by social policies in order to improve public pension regimes and social protection.