Top-Corrected Estimates of Wealth Inequality: Evidence from combined Survey Data and National Rich Lists for 18 Eurozone Countries

Franziska Disslbacher
Michael Ertl
Emanuel List
Patrick Mokre
Matthias Schnetzer

This paper studies how the underrepresentation of the top tail of the wealth distribution in household surveys affects estimates of wealth inequality in 18 Eurozone countries. We combine data from the third wave of the Household Finance and Consumption Survey (HFCS 2017) and journalistic evidence from national rich lists, such as the Manager Magazine. We fit a (i) Pareto distribution and a (ii) Generalized Pareto distribution to this combination of data sources and impute the largest wealth holdings, uncovered by the survey. As a result, we provide - for the first time for a large range of countries - estimates of top corrected distributional statistics on household wealth.

In the past, a similar approach has combined survey data and the Forbes list. In the latter data source, the number of observations is very small for the large majority of countries. By contrast, the number of large fortunes included in the national rich lists we use in this paper is much larger and ranges from 100 to 1000 observations. We expect to find large differences in wealth inequality statistics based on the unadjusted HFCS data and the top-corrected, combined data. Variations in this gap between countries are assumed to result to a large extent from differences in the survey design and from conceptual differences in the national rich lists.

One challenge is that the observational unit of the rich list, in some countries, varies within the list and represents either an individual, a household or several households. We test the robustness of the results in three directions and thereby provide plausible lower and upper bounds on the top corrected inequality statistics. First, we work with different assumptions on the exhaustiveness of the rich lists. Second, we compare different methods of selecting or estimating the scale parameter of the Pareto distribution based on the combined data. Third, we compare different
estimators of the shape parameter of the Pareto distribution and the Generalized Pareto distribution. Specifically, we estimate the shape parameter of the Pareto distribution based on a log-rank regression model with weight-corrected ranks and a robust log-rank quantile regression model.