

Jacques Silber (Bar-Ilan University, Israel), Joseph Deutsch (Bar-Ilan University, Israel), Yongsheng Xu (Georgia State University, Atlanta, USA); Guangha Wan (Fudan University, Shanghai, China)

**Measuring Inequality, Poverty, Growth and Welfare via the use of Asset Indexes: The Case of Armenia, Azerbaijan and Georgia**

This paper examines the evolution of inequality, poverty and welfare in the South Caucasian Asian states, using an aggregate index based on consumer durables available to the households. Instead of using principal components analysis to aggregate asset indicators into an overall asset index, we propose an ordinal approach to using data on assets, when estimating the wealth of a household (or individual). Using various approaches, we show that there tends to be an order of acquisition of durable goods. Using such an order we then compute indices introduced recently to measure inequality, poverty and achievement when only ordinal variables are available.

Our empirical analysis, based on data collected by the Caucasus Barometer and covering the three states in South Caucasus shows that there exists such an order and that it does not really depend on the statistical approach adopted and was very similar in 2009 and 2013. Our results show that among the three countries analyzed, Armenia had the lowest degree of inequality in asset ownership and Georgia the highest. Whatever the approach or index used, ordinal inequality, increased in Armenia and Azerbaijan between 2009 and 2013, but slightly decreased during that period in Georgia. It also appears that poverty decreased in all three countries during this period. There was also important growth, when measuring the latter via the welfare index recently introduced by Silber and Xu (2018), assuming their parameter  $\alpha$  tends towards 1.