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MEASURING THE INCIDENCE, INTENSITY AND INEQUALITY OF INCOME LOSSES (OR GAINS) BY AGE GROUPS

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OVERVIEW

- While recent evidence on the impact of the crisis on the European Union shows that changes in income inequality and poverty have been relatively small, a more complete evaluation of how individual well-being has changed needs to consider changes in individuals' chances to scale up or lose ground in the income ladder.

- To understand the impact of downward (and upward) income mobility during the last decade in different countries, we propose a new subgroup decomposable class of income mobility measures with good axiomatic properties by adapting the concept of "individual income gap between two moments in time" to a framework that is traditionally used in the measurement of poverty and deprivation.

- This strategy allows us to provide intuitive and simple measures of downward (and upward) mobility that consider incidence, intensity and inequality of income gaps. Results are easy to comprehend and communicate to policy makers. Moreover, measures are consistent with a simple and intuitive graphical device such as Three I's of Downward Mobility (TIDM) or Upward Mobility (TIUM) curves in a similar way as traditional Three I's of Poverty (TIP) curves in poverty analysis.

- As an empirical illustration of the use of this class of measures, we present an analysis of downward income mobility for different age groups in three EU countries: Spain, Italy and Belgium using European Union Survey of Income and Living Conditions (EU-SILC) longitudinal data from 2004 up to 2015.

- Results show that only considering incidence in the analysis of downward income mobility is not enough to evaluate the impact of the losses if we only considered incidence, Belgium would be placed in a worse position than Spain in various years while the intensity of income drops in Belgium was much smaller than in Spain.

- Downward mobility indices for Belgium are frequently below those for Spain or Italy, whatever the degree of aversion to income losses. Spain is in a worse relative position compared to Italy and Belgium if we consider a higher sensitivity to greater losses. Nevertheless, during the biannual period 2009-2010, Italians suffered more than Spaniards from social welfare reductions due to income losses. Income losses are of similar incidence by age groups in all three countries but their intensity in Spain and Italy is much larger for young and middle-aged individuals than for older groups.

Research findings

We propose a subgroup decomposable class of income mobility measures with good axiomatic properties using a framework that is traditionally used in the measurement of poverty and deprivation. This strategy allows us to provide intuitive and simple measures of downward (and upward) mobility that consider incidence, intensity and inequality of income gaps and are easy to comprehend and communicate to policy makers.

Our class of mobility measures has important advantages. First, it is directional because it quantifies upward separately from downward mobility avoiding compensation between different individual's gains and losses. Second, it can identify the relevance of all three important dimensions of the individual mobility experience. Third, its properties allow researchers to evaluate mobility across population subgroups in a coherent way. Fourth, the proposed class of mobility measures is consistent with a simple but complete and very informative graphical device that allows for further intuitive and detailed analysis of the distribution of income losses (gains) for different population subgroups. Finally, its simple structure facilitates comprehension and eases communication with policy makers without leaving any desirable axiomatic properties aside.

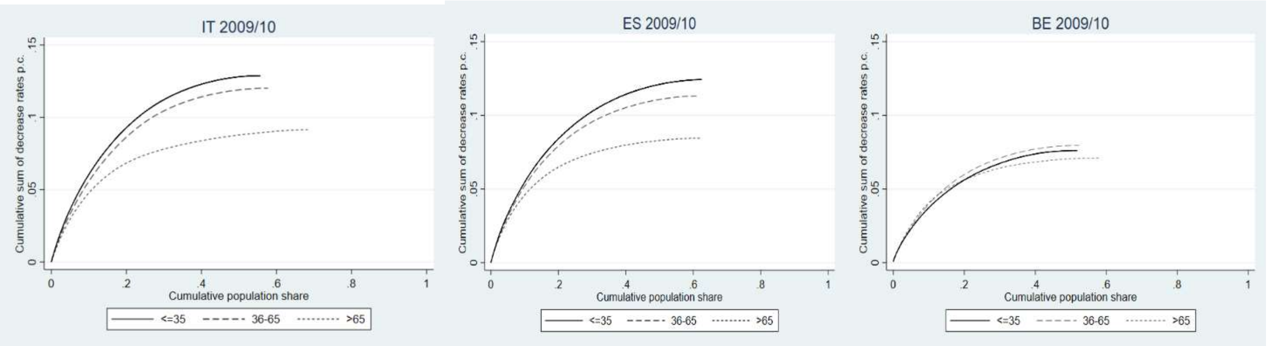
As an empirical illustration of the use of this class of measures, we present an analysis of downward income mobility for different age groups in Spain, Italy and Belgium using longitudinal data from the European Union Survey of Income and Living Conditions (EU-SILC) database undertaken by Eurostat that provides comparable panel information on individuals and households from 2004 to 2015.

Our main results reveal that our class of measures is particularly useful to show (both cardinally and in a graph) how different components of mobility are contributing to a comprehensive income mobility measure. We can also analyse how these components differ between countries along time and by age groups or any other individual demographic or socioeconomic characteristic.

Our results show that the Great Recession has generated many income losses in Spain and Italy. These losses were much more intense than in Belgium; Spain is in a worse relative position compared to Italy and Belgium if we consider a higher sensitivity to greater losses. Nevertheless, during the biannual period 2009-2010 Italians suffered more than Spaniards from the mix of incidence, intensity and inequality of income losses.

When considering different age groups, we find a similar incidence of downward mobility in all three countries. However, the intensity of income losses in Spain and Italy is much larger for young and middle-aged individuals than for older groups, in contrast with Belgium.

Comparing downward mobility by age groups, Three I's of Downward Mobility curves (TIDM) for Italy, Spain & Belgium 2009-2010.



Policy Implications

In analysing the impact of any policy in EU countries it is not only important to check any changes in income inequality and poverty but also the changes in individuals' chances to scale up or lose ground in the income ladder. Using this proposal of new simple subgroup decomposable class of downward (and upward) mobility measures policy makers can undertake a more complete evaluation of how income changes affect individuals. This will allow for a better understanding of the real impact of a recession or a change in policy on individual wellbeing.

Policy Recommendations

The consequences of the Great Recession on downward income mobility show that there is a need for the development of more inclusive and protective policies for those below 65 years of age who are not covered by the pension system, particularly in Spain and Italy. A key policy would aim to protect them from intense income drops in future recessions. Up to now, only those over 65 have been protected from labour market swings due to regular non-contributory or contributory pension payments.

Further reading

"A simple subgroup decomposable measure of downward (and upward) income mobility", by Elena Bárcena and Olga Cantó, CIRCLE Working Paper n. 2, July 2018.