

## Determinants of the Degree in Which Individuals are Left Behind in European Countries

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Leaving no one behind (LNOB) constitutes a central crosscutting focus of the entire 2030 Sustainable Development Agenda and seems to respond to concerns that require a broader conception than just imposing thresholds, addressing inequality explicitly. As Stuart and Samman (2017) point out, in countries where most people have attained minimum living standards, relative considerations become more important and focusing on closing gaps seems crucial. However, the interest in reducing inequalities is diminished by establishing absolute thresholds, as the achievement of absolute goals is compatible with an increase in inequality. Moreover, the term LNOB is ambiguous and open to interpretation.

In line with Fleurbaey (2019), trying to reduce poverty measured through the proportion of people below a threshold could focus on the people who are just below the poverty line, as they are easier to move up above the threshold. In this vein, we could give priority to populations that are badly off, but not the worst off. In other words, prioritizing the worst off cannot be equated with fighting poverty any more than it can be identified with reducing inequality. One way to avoid this bias against the very worst off could be to construct poverty measures incorporating shortfalls from the in-built thresholds in each of the AROPE components. This way, we would give priority to the populations who stand to benefit most from the policy. These measures that are equivalent to the poverty gap compute the total amount by which the poor fall below the threshold. In effect they measure how much in total would be needed to raise every poor person to the threshold assuming no effect of the policy on the pre-policy distribution. The poverty gap actually induces a bias against the populations that are moved above the threshold, because any additional benefit that they obtain after they pass the threshold has no influence on the poverty gap. In contrast, the populations who remain poor will have their whole benefit recorded in the reduction of the poverty gap. Furthermore, prioritizing the worst off through the use of poverty measures incorporating shortfalls from the in-built thresholds may potentially benefit the best off as well. This paradox comes from the fact that the distribution of weights allotted to the various members of the population must feature an equality of weights for those who are not among the worst off –i.e., their weights are all equal to zero. Therefore, this measure would be not sensitive to redistribution from the middle class to the best off.

It is clear that there are many analytical challenges embedded in translating the LNOB principle from policy language to quantitative assessment and the adoption of public policies. To start with, we need a precise understanding and identification of those who are left behind, to what extent they are lagging behind and which are the determinants that improve the extent to which individuals are lagging behind, in order to implement effective actions based on equality and non-discrimination.

With the aim of measuring the degree to which an individual is left behind, we propose to complement the analysis of multidimensional poverty with the assessment of the extent to which individuals have been 'left behind' in different dimensions — the three dimensions used in the At Risk of Poverty or social Exclusion (AROPE) measure — making use of the fuzzy measure introduced by Garcia Pardo et al. (2021). This measure captures the extent of shortfalls, not just whether a person falls below a threshold. Moreover, these shortfalls are assessed not with respect to some adequacy threshold, but instead relative to the 'best-performing' individuals, so it does not ignore those that exceed the threshold. This fuzzy measure has been applied in the literature. Thus, it is clear that this measure helps to complement information delivered by other indexes, providing additional information on the relative performance of individuals under the perspective of the LNOB principle.

The advantage of this measure is that it allows obtaining a quota of inequality at the individual level through the perspective of LNOB, specifically assessing how much each individual is left behind in the different dimensions of multidimensional poverty and allowing the disaggregation of this information to help identifying the sociodemographic characteristics that contribute differently to the degree to which an individual is lagging behind in each country. This last feature is particularly interesting from a policy viewpoint as it may shed light on systematic disadvantages that leave or threaten to leave some segments of society behind. Accordingly, in this paper we propose to analyse who are left behind in 27 European countries during the period from 2007 to 2019, in order to highlight differences in the level, evolution, distribution, and determinants of the degree individuals are 'left behind' across countries.