

# **EXTENDED ABSTRACT**

#### Title:

The distribution of the left behind individuals in EU countries: Central and Eastern countries vs Western countries

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**Subject area:** (please, indicate the subject area which corresponds to the paper)

S03 – Challenges in the construction of composite indicators for monitoring public policies

### **Abstract:** (minimum1500 words)

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.

In line with Fleurbaey (2019), trying to reduce poverty (or any other aspect as severe material deprivation or low work intensity) 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.

Moreover, 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.

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 de aim of measuring the degree to which an individual is left behind, we focus on the three dimensions of the At Risk of Poverty or social Exclusion (AROPE) measure, the main indicator to monitor the EU 2030 target on income and living conditions. To this end, we make 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. Specifically, we examine who are left behind in the 27 EU countries and conduct a comparative analysis of the former state-socialist countries from Central and Eastern Europe with respect to the Western countries during the period 2007-2019, in order to highlight differences in the level, evolution, distribution, and determinants of the degree individuals are 'left behind' across European countries. Thus, We assess the differences between CEE and WE countries and within the CEE countries in terms of inequality through the prism of the principle of 'Leaving no one behind' in each of the three dimensions of the indicator AROPE (income, material deprivation and work intensity). And, we then will aggregate to assess the inequality in a multidimensional setting.

From our point of view, the comparison between CEE and WE countries and within the CEE countries in terms of inequality is particularly interesting taking into account that equality was one of the central features of state socialism. In fact, in most of the Central and Eastern European (CEE) countries income distribution was relatively egalitarian at the end of state socialism, although it does not mean that there was not a certain hidden inequality (Henderson et al., 2008). Around 1989, the estimates of the Gini coefficient of income inequality in these countries ranged from 0.2 to 0.25 (Milanovic, 1998; Tóth, 2014), while the average Gini for the OECD countries was 0.3 at that time (Flemming and Micklewright, 2000).

After the fall of the Berlin Wall, the transition from non-democratic regimes to liberal democracy and from centrally planned economies to market economies of the CEE countries involved profound institutional changes, with significant distributive consequences (Alvaredo and Gasparini, 2015; Perugini and Pompei, 2016). This entailed substantial increases in income inequality in all CEE countries, even though the size of the increases was heterogeneous across countries (Brzezinski, 2018). These

inequality increases were related, apart from the retrenchment of the redistributive state, to the processes of privatization, liberalization and foreign investment penetration, which implied decentralized wage setting, resulting in a broader wage distribution (Ferreira, 1999; Mitra and Yemtsov, 2007).

Overall, despite the broad similarities between the CEE countries in the transitions to representative democracy and competitive economies and later adaptation processes for the accession to the EU, the institutions and economic and social policies adopted significantly differed, ranging from the neoliberal framework of the Baltic States to the neo-corporatist Slovenia (Myant and Drahokoupil, 2011; Bohle and Greskovits, 2012). The CEE countries thus displayed different economic dynamics, converging some of them towards inequality levels similar to those of the Western European (WE) countries (Ahlborn et al., 2016).

Three decades after transitions and more than 15 years after their accession to the EU, it is worth assessing differences between CEE and WE countries and within the CEE region in terms of inequality through the current prism of the principle of 'Leaving no one behind' (LNOB) of the 2030 Sustainable Development Agenda.

The advantage of proposed fuzzy measure introduced by Garcia-Pardo et al. (2021), 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 AROPE 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.

We thus contribute to the literature on comparative analysis of inequality by block of countries and by individual countries. The analysis of inequality usually focuses on overall measures of inequality and do not provide evidence on the nature of individuals' contribution to inequality, which is provided with our measure. This way, we provide a comparative analysis of the individual quota of inequality measured through the perspective of LNOB by block of countries and among CEE countries, something not addressed yet to the best of our knowledge. In particular, we aim to answer the following questions: To what extent individuals of the CEE countries are left behind compared to those of the WE countries? How these differences have evolved along the period analysed? What kind of similarities and dissimilarities does exist among CEE countries in the level in which individuals are left behind? To what degree demographic and socioeconomic characteristics of the left behind differ between individuals

throughout the distribution of the left behind? Do significant differences exist in it between CEE and WE countries and among the CEE nations?

One hypothesis is that individuals in CEE countries are more left behind than individuals in WE countries at the beginning of the period examined, given the greater levels of income inequality measured trough the Gini index when the CEE countries joined the EU and the expected similar greater inequality in the other two dimensions. Nevertheless, this result does not necessarily have to be maintained for the whole period, expecting a closure in the gap between blocks due to convergent trend in the economic dynamics between CEE and WE countries. We check whether this result is robust to the aggregation method used to condense information on different dimensions, and which of the three dimensions analysed are more closely linked to the result. Furthermore, we analyse the distribution of the left behind and of each of its dimensions according to the individual's position on the income ladder of each country in the last year of the period in order to evaluate similarities and differences in the extent to which individuals in each decile are left behind in each block of countries and among the CEE countries.

We speculate that there are differences between blocks that could be linked to the demographic or socioeconomic characteristics of the population. Our approach goes beyond traditional overall inequality measures, and allows obtaining a quota of inequality at the individual level through the perspective of LNOB. In this vein, our measure helps identifying the individual characteristics linked differently to the degree to which a person is lagging behind. 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.

Even though if we observe that individuals in CEE countries are more left behind than in WE countries, another hypothesis is that there are significant differences by countries within the CEE region. We pay attention to between-country similarities and dissimilarities, attempting to find out whether homogeneity or heterogeneity dominates between the CEE countries. We reproduce the same analysis for each of the former socialist country with the intention to identify possible behaviour patterns among countries, both in the evolution of the degree to which individuals fall behind and in the characteristics of the population that are associated with the degree to which they fall behind.

**Keywords:** (maximum 6 words)

AROPE, Central and Eastern countries vs West countries, fuzzy approach, leave no one behind, cross-country inequality, distribution

**JEL codes:** C02, D3, I3, O15, O57,

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