

**Multidimensional poverty in the EU: rethinking AROPE through a multi-criteria analysis**

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**Abstract**

At risk of poverty or social exclusion rate (AROPE) constitutes the pivotal indicator of living conditions and poverty in the European Union. Nevertheless, as a multidimensional poverty measure, it has some drawbacks that significantly reduce its utility. In this paper, we propose an alternative multi-criteria approach that provides some innovations for the computation of multidimensional poverty in the European countries. We first propose a normalization formula for each dimension by using a double point of reference. We then put forward alternative aggregation functions that permit diverse degrees of substitutability across dimensions. This new formulation allows us to go beyond focusing merely on the rate of people classified as AROPE, making it possible to evaluate aspects such as the intensity of multidimensional poverty and how changes over time are distributed across population in terms of shared prosperity, as showed in an illustration for the EU28 countries.

**Key words:** multidimensional poverty, AROPE, multi-criteria approach, shared prosperity, European countries

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