

A fourth ‘I’ of poverty ?

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Extended abstract

Current poverty measurement methodology does not allow a definitive analysis of changes in distribution, through time or between countries, which involve changes in the number or proportion of poor people. Different poverty indices can exhibit startlingly different behaviours in response to the simplest of distributional changes. In this paper, we re-examine a number of assumptions that have become conventional in poverty analysis, relating to continuity at the poverty line and what happens (or should happen) when people cross this line. Our findings provide illumination for such different behaviours, and, we hope, will give encouragement as well as added flexibility to analysts coping with real-world measurements where the number and/or proportion of poor people differs between distributions being compared.

Sen’s (1976) development of his poverty index is motivated by the need for a poverty index to be adequately informative on the situation of the poor. We frame our discussion around Sen’s “three ‘I’s of poverty” which have become highly influential - namely the *incidence*, *intensity* and *inequality* dimensions of aggregate poverty. The re-examination of those ‘I’s’ firstly leads us to a discussion on how to view the inequality dimension, and to the introduction of a parallel with the concept of “prioritarianism” in social justice theory (Parfit, 1995). Secondly, it also fosters our conceptualization of a fourth ‘I’: the *injustice* of poverty, corresponding closely with Rawls’s concern for the least advantaged.

By investigating alternative value judgements behind different behaviours of a poverty index when the poverty line is crossed, we show how within the class proposed by Bourguignon and Fields (1997) a number of visions can be accommodated through an appropriate choice of its parameters. Valuable ethical flexibility can be added, so that that additional possibilities for making poverty comparisons arise, bringing opportunities for deeper research and wider scope for cogent measurement.

Passing from the income distribution [vector $y = (y_1, \dots, y_q)$] to the distribution of the normalized poverty gaps [vector $\Gamma = (\Gamma_1, \dots, \Gamma_q)$], a close association is possible between the members of the classes in Foster *et al.* (1984) and Bourguignon and Fields (1997) for integer values of α and the moments of that latter distribution, with well-known links to transfer properties. This leads to our perspective on a wide family of subgroup-decomposable scale-invariant poverty indices, not seen before, and to a new understanding of the role of the individual deprivation function in this family.

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