

# Assessing Absolute and Relative Pro-Poor Growth, with an Application to Selected African Countries

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## Comments

The paper is very interesting and it provides a useful tool to investigate pro-poor growth. The paper bridges two streams of the literature about “pro-poor growth”: the absolute view and the relative view, and it may be considered a dialectic synthesis of the two. As the definition of poverty itself can be both relative and absolute, the definition of pro-poor growth is here interpreted as jointly relative and absolute.

The proposed methodology also allows for an appealing geometrical visualization of the pro-poor dominance in the two-dimension space of relative and absolute poverty, which helps in disentangling the different determinants even in inconclusive cases.

The authors should just improve the readability of Section 2, because it lacks some definitions and logic passages which would help to follow the discussion.

Here the passages it would be worth strengthen.

### 1. Introduction

p.1 “*Other poverty indices will almost always react quantitatively differently [...]*” This statement is not intuitive. The authors should either provide some examples or cite references in support.

p.2 “*For instance, the absolute pro-poor view [...] relative impact of growth*” The authors should specify that this is true for a given absolute poverty line. Otherwise, in the second example, the number of poor individuals may increase. The authors might better clarify that as ‘absolute pro-poor view’ they incorporate also an underlined definition of an absolute poverty line.

### 2.1 The General Setting

p.4 The authors should first define what is an absolute and relative welfare indicator  $(a, r)$ . Are those individual indicators?

“We are then interested in computing an aggregate index of overall deprivation based on the joint distribution of  $a$  and  $r$ ”. Since the authors introduced few lines above the individual index of overall welfare, one would expect the aggregate index to be defined over those.

“We also wish to focus on those with the greatest degree of overall deprivation”. Are “those” individuals? The authors defined an individual index of overall well being. Therefore, the threshold is defined on the well-being (bi-dimensional) space and separates deprived from not deprived individuals. Then, the authors impose a sort of *Focus Axiom*, and they state that the aggregate overall deprivation depends only on the set of deprived individuals. Consider to re-write the paragraph by first defining an individual index of joint absolute and relative deprivation, and the different possible definition of deprived individual  $(\lambda_1, \lambda_2, \lambda_3)$  and then introducing the aggregate index, specifying the focus on the deprived individuals, and additivity.

The paragraph beginning with “Consider Figure 1”, would be improved by explicitly referring to the literature on multidimensional poverty and the different approaches to the definition of poor individual in a multidimensional environment (among the others: Bourguignon and Chakravarty, 2003, Duclos et al, 2006 and Alkire and Foster, 2009)

$H^j(z_a, z_r) = \int I(a \leq z_a)I(r \leq z_r)dF^j(a, r)$ . Since this is an example of an aggregate indicator of deprivation, it should be introduced *after* the authors define the aggregate index.

- p.5 “who exactly should be deemed to be poor (the role of  $\pi$ ) and on how to quantify and aggregate their degree of deprivation (the role of  $\lambda$ )”.
- Check the sentence:  $\lambda$  is used to defined the poor individuals, and  $\pi$  quantifies the degree of deprivation of each individual.
  - As for “aggregate”, since  $\pi$  is defined on individuals, it is not clear what the authors are referring to.

$$P^j(\pi, \lambda) = \int \int_{\Lambda(\lambda)} \pi(a, r; \lambda)dF^j(a, r)$$

- If  $\lambda$  is an identification function used to define an individual as deprived or not deprived, then  $\pi$  is an individual poverty index, and  $P$  is the aggregate poverty index, the authors should be more explicit with the definitions.
- What is the external integral sing integrating for?

Define  $\lambda^+$

## 2.2 Absolute and relative deprivation in the income dimension

- p.6  $F^j(y)$  is not defined

“someone with income  $y$  in a distribution  $j$ ”.  $j$  does not refer to a distribution, as it has been defined as *time* (see p.4).

p.7 “ $a(y) = a^j(y)$ ”. It is better to replace it with “ $a^i(y) = a^j(y) = a(y)$ ” to reinforce the idea that the evaluation of some individual absolute poverty does not depend on the distribution of income in the population

“ $a^j(y) = y$ ”. Following previous comment, replace it with “ $a(y) = y$ ”.

### 3.1 Data and estimation procedures

p.11 “Since this is necessary for joint absolute and relative pro-poor dominance, it also prevents bidimensional pro-porness over  $\Lambda(\lambda^+)$ ”. This sentence is not clear: what is *this*?

#### Suggested Additional Refereces

F. Bourguignon and S. Chakravarty (2003), “The Measurement of Multidimensional Poverty,” *Journal of Economic Inequality*, 1(1), 25-49.

Alkire, S. and J. E. Foster (2009): “Counting and Multidimensional Poverty Measurement (Revised and Updated),” *OPHI Working Papers*, ophiwp32, Queen Elizabeth House, University of Oxford.