**Abstract for "'Pro-poorest' Poverty Reduction with Counting Measures"**

**Gaston Yalonetzky (University of Leeds, U.K.)**
**Jose Gallegos (Institute of Development Studies, U.K.)**

The 'pro-poor' nature of income or per-capita GDP growth has received much attention from both academics and policymakers for the last couple of decades. While a straightforward notion regards income growth to be 'pro-poor' when the poor's incomes rise, a more interesting notion declares growth to be 'pro-poor' when the income of the poorest grows faster than the income of the less poor. Whenever income grows monotonically faster at lower initial quantiles, 'pro-poor' growth reduces inequality according to a broad family of Lorenz-consistent measures. The related literature on pro-poor concepts, dominance conditions and indices is vast. (See, for instance, Deutsch and Silber (2011); for a review).

Now the 'pro-poor' growth literature has traditionally worked with one continuous variable. However, recently there has been an interest in connecting the 'pro-poor' growth concepts with non-monetary measures of well-being, and multidimensional poverty indices in particular. For instance, Berenger and Bresson (2012) provide dominance conditions to probe the 'pro-poorness' of growth when well-being is measured jointly by continuous and discrete variables. Ben Haj Kacem (2013) measures the 'pro-poorness' of growth in income when the initial conditioning situation is not income itself but a non-monetary multidimensional index of poverty or well-being. Boccanfuso et al. (2009) apply the now traditional 'pro-poor' growth toolkit to assess changes in the individual scores of a non-monetary poverty composite index, where the weights are determined by multiple correspondence analysis (MCA). Since they use a vast number of indicators, their scores can take several values, thereby mimicking a continuous variable.

In this paper we pose a related question in the context of multidimensional poverty counting measures: What are the conditions under which a poverty reduction experience is more 'pro-poorest' than another one? In other words, under which conditions does poverty reduction not only reduce the average poverty score further but also decrease deprivation inequality among the poor more? In order to answer these questions we adapt and extend a theorem and a corollary from Benabou and Ok (2001), who work with transition matrices.

When our conditions are fulfilled then one can state that multidimensional poverty reduction is more egalitarian in one experience vis- a-vis another one, for a broad family of poverty indices which are sensitive to deprivation inequality among the poor. This analysis quali fies as a non-anonymous assessment of pro-poor growth (see Grimm (2007), for further elaboration on this distinction). Additionally, an anonymous analysis can also be performed as shown by Boccanfuso et al. (2009). However in many empirical applications, the number of indicators is not large enough, so that the number of values that the individual deprivation score can take is quite limited, for a given set of weights and deprivation lines. Hence an anonymous assessment linking initial and final quantiles is not really possible. However, in the anonymous context, we show that there is a simple second-order dominance condition whose fulfillment ensures that multidimensional poverty decreases along with a reduction in deprivation inequality for a broad family of inequality-sensitive poverty measures.

We illustrate both the non-anonymous and the anonymous conditions using a yearly panel dataset from the Peruvian National Household Surveys spanning two periods: 2003-2007 and 2008-2013 (and the respective cross-sections for the anonymous analysis). In the former period, Peru experienced a commodity boom, which translated into high GDP growth rates, from 4 % in 2003 to 8.9 % in 2007, and a steady decrease in monetary poverty headcounts, from 58.7 % in 2004 to 42.4 % in 2007. However, between 2008 and 2013, Peru's economic performance was affected by the world economic situation: GDP growth fell from 9.8 % in 2008 to 0.9 % in 2009, and then stabilizing around 7 % between 2010 and 2012. Notwithstanding this fluctuation, monetary poverty levels kept decreasing steadily, from 37.3 to 27.8 %. We rank each multidimensional poverty transition according to their degree of 'pro-poorest' poverty reduction, i.e. the extent to which they reduce poverty while reducing inequality among the poor at the same time, with an added interest to assess whether the ranking is affected by the particular economic conditions that characterized each observed period.