

GMM Approach to Modeling Income Distributions: Using Aggregate Data and the Estimation of Levels and Trends in Inequality and Poverty in Middle Income countries, 1988 to 2005

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The study of levels and trends in global and regional inequality has been the subject matter of several studies over the last two decades. Chotikapanich et al (2007, 2012) have focused on the measurement of global inequality accounting for inequality within each of the countries and in the process developed econometric methodology based on the generalised method of moments (GMM) to model income distributions when only aggregate data in the form of income shares of decile groups or quantiles are available along with the mean incomes of the countries. The traditional decomposition analyses of global inequality typically focus on geographical classification of countries and very little focus has been on grouping of countries based on income levels. Consistent with the theme of the Session, the main objective of the paper is to model income distributions for middle income countries and examine the levels and trends in inequality and poverty using aggregated data available from the World Bank and WIDER covering the period 1988 to 2005. Based on the GMM estimation, standard errors for inequality and poverty measures are also provided. Stochastic dominance of the country-specific distributions will be examined using the fitted distributions. Based on the country-specific distributions, the distribution of income in the group of middle income countries as a whole will be constructed and analysed. The issues of changing membership of the group of middle income countries and the influence of major economies like Brazil, China and India on the level of inequality in the group will be examined. The study will also compare and contrast the levels of inequality in the middle income countries with low and high income group countries and assess the contribution of the middle income group countries to global inequality. The analysis will focus on benchmark years 1988, 1993, 2000 and 2005.