Assessing Individual Poverty Status Using Repeated Cross-sectional Surveys

Maria Grazia Pittau, Roberto Zelli and Saida Ismailakhunova

Abstract

Aim of the paper is to introduce a methodology able to estimate vulnerability to poverty and poverty dynamics in absence of longitudinal data. Considering repeated cross-sectional data, we propose a way to directly estimates the probability of being poor in the next period based on a large information set that includes individual characteristics and contextual variables. The joint inclusion of contextual variables along with individual covariates allows to separate idiosyncratic from aggregate shocks. We also allow the effects of the predictors of poverty status to vary over time, removing the traditional hypothesis of time-invariance of the predictors. Macroeconomic forecasts that can potentially influence, directly and indirectly, individual poverty status, are included in the model for better estimate and forecast the probability of each individual to be poor. Methodologically, we estimate a logistic hierarchical model with different levels of variation within a bayesian framework. We empirically illustrate our approach for Kyrgyz Republic using independent cross-sectional Kyrgyz Integrated households budget and labor force surveys (KIHS) available over the period 2013– 2017.