

I. Empirical methods

This question is based on the methodology note by Finseraas and Kotsadam, but almost any introduction to applied econometrics could also work.

We want to study how income affects savings, i.e. the marginal propensity to consume, in a sample of poor farmers. Discuss whether simply regressing savings on income would yield correct estimates? Specify what you mean by "correct" One solution to the problems discussed above is to use instrumental variables. One commonly used instrument for income of the poor, is rainfall during the growing period (Paxson 1992). Explain what instrumental variables is, why rainfall could help, and how you would go about to estimate the IV.

II. Global inequality

The Penn World Tables (PWT) provide PPP-adjusted GDP numbers for a number of countries. You can access compiled files, using two different versions of PWT here: **STATA** version, **EXCEL** version. PWT 7.0 uses the ICP data from 2005, whereas PWT 9.0 uses ICP data from 2011.

To analyze inequality you could for example use `inequal7` in Stata (type `ssc install inequal7` to install), but feel free to use any package that computes Gini coefficients and handles weighted data.

- a. Compute inequality between countries using the Gini coefficient for the period 1970 to 2009. Does the level and trend in inequality depend on which round of the PWT you use?
- b. Repeat the same exercise, but weight the Gini coefficients with population.
- c. Use the weighted estimates from the latest PWT round. What is the role of China and India?
- d. Discuss what is missing to say something about global inequality, and discuss challenges to estimating this.