## **Development Economics - Homework 1**

Go to the website of the Socio-Economic Database for Latin America and the Caribbean (http://sedlac.econo.unlp.edu.ar/eng/), click on STATS and get data on poverty and inequality. Choose a country for which data on both Gini1 (computed over per-capita income) and several measures of poverty are available.

From PENN World Tables (http://pwt.econ.upenn.edu/php\_site/pwt\_index.php) get data on PPP Converted GDP Per Capita, G-K method, at current prices (in I\$) (variable cgdp) for the country you have chosen from 2000 to 2009.

Assume that income distribution for that country is lognormal. From data on GDP per capita and Gini1 derive the parameters  $\mu$  and  $\sigma^2$  of the log-normal distribution from 2000 to 2009.

Next compute the headcount ratio corresponding to the poverty line at \$2.5-a-day, \$4-a-day and 50 percent of the median income (hint: median income is  $e^{\mu}$ ).

Plot together your estimated headcount ratios and the actual measures of poverty you have previously downloaded. How much they differ? Comment.

## Rules of the game:

Each student must hand in a "personalized" homework. To this end, choose a different country (but check whether all required data are available).

If it is not possible to find out enough countries with complete data, choose a different time interval, e.g. 1990 to 1999.