ENVIRONMENT AND ECONOMIC DEVELOPMENT

ASSIGNMENT 2

Answers to this assignment are due back by Monday, January 9, 2017. You may work on this assignment alone or in pairs. Answer question 1 and any two other questions.

1. Using PovcalNet

The World Bank estimates the extent and evolution of world poverty with the help of PovcalNet, a software interface that is available online at http://iresearch.worldbank.org/PovcalNet/index.htm. This exercise represents an exploration of world poverty using PovcalNet.

   a. Assume a poverty line of US$1.90 per person per day. Create a table that shows the headcount poverty rate for the six main regions (East Asia/Pacific, Europe & Central Asia, Latin America & Caribbean, Middle East & North Africa, South Asia, and Sub-Saharan Africa) for 1981, 1993, 2002, and 2013.

   b. Repeat question 1, but for a poverty line of $3.80 a day.

Based on 1. and 2:

   c. Which are the world’s poorest regions?

   d. And which regions have seen the biggest reduction in poverty over the past two decades?

   e. Pick a country. Graph the evolution of its headcount poverty rate over time (i.e. for every year available). On the same graph, show the headcount poverty rate for the region in which the country is located. Relative to the region, has the country you chose done relatively well, or poorly, in reducing poverty over time?

   f. Pick any two countries. Compute the headcount poverty rate for each country at a dozen different daily poverty lines ($1, $2, $3, ..., $12) and graph these curves. The horizontal axis will show the poverty line and the vertical axis will show the headcount poverty rate. These are poverty incidence curves. Which country has the higher poverty rate? Explain.

2. Exploring PPP

a. Run a regression of real GNI per capita in PPP terms against GNI per capita using the World Bank’s exchange rate method for one year (e.g. 2011). The best source for these data is the World Bank’s World Development Indicators.

b. How good is the fit?

c. Is the relationship linear?

d. For what types of problems is the PPP-based (rather than exchange-rate-based) comparison appropriate? And for what types of problems is it not appropriate?

3. Savings rates in poor countries

Are the rates of saving and investment low in poor countries? Back up your argument with evidence.
4. **Structural Change and Development**

a. Graph the percentage share of income (or consumption) of the top 10% of the population, and for the bottom 40% of the population, against GNI per capita for a large sample of countries for the recent past. Comment on the pattern.

b. Pick a structural or demographic change that may be associated with economic development – e.g. share of GDP generated by agriculture, size of government relative to GDP, fertility rate, secondary school enrolment rate, share of exports in GDP, – and test whether there is indeed an association.