

Problem Set #1

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Econ. 8105-8106

The purpose of this problem set is twofold. First, you will have to learn how to find data on your own. Second, it will familiarize you with some of the basic facts about the macroeconomy of the US and other countries.

1. What are the time series properties of the following in the last 50 or so years (what are they on average, how much do they fluctuate, are there noticeable trends in them, etc.):
 - (a) Consumption as a fraction of GNP.
 - (b) Investment as a fraction of GNP.
 - (c) Government spending as a fraction of GNP.
 - (d) Payments to Labor as a share of GNP.
 - (e) Payments to capital as a share of GNP.
 - (f) The capital output ratio.
 - (g) The growth rate of output per capita.
 - (h) The growth rate of consumption per capita.
 - (i) The rate of return on capital.
2. Do the linear detrending of the following variables (in log):
 - (a) Output per capita.
 - (b) Consumption per capita.
 - (c) Investment per capita.
 - (d) Hours worked per capita.
3. How do other countries compare to the US with regard to these statistics?
 - (a) In 1950 and in 1960, which countries had the lowest per capita GNP and how did they compare to the US?
 - (b) Same question, but in 1990.
 - (c) In 1950, which countries, other than the US, had the highest GNP per capita and how did they compare to the US?
 - (d) Same question, but in 1990.
 - (e) Are these two groups of countries 'stable'? (i.e., is it the same countries in both 1950 or 1960 and 1990?)
 - (f) Are there any obvious systematic differences in the groups of countries at the top and at the bottom? (e.g., big versus small, geographic location, labor's share of income, government's share of income, etc.)