

Real and Nominal Savings

Background

Differences in savings rates translate into differences in living standards, whether we think of savings as determined by something like the Solow model, or something like the Ramsey model. In accounting for the level of living standards, the capital/output ratio (a function of the savings rate) did not appear to contribute much.

Going further, Hsieh and Klenow (2007) document that the variation in savings rates that do occur are differences in *real* investment rates, but that there is essentially no variation in *nominal* investment rates.

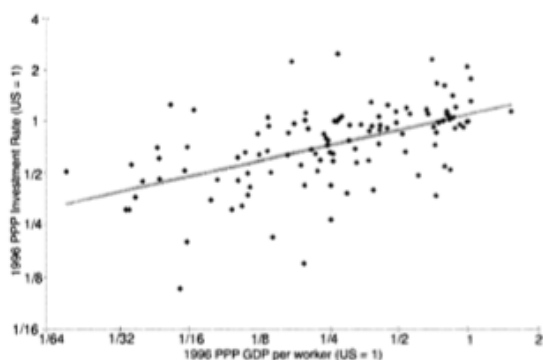


FIGURE 1. INVESTMENT RATES AT *INTERNATIONAL* PRICES

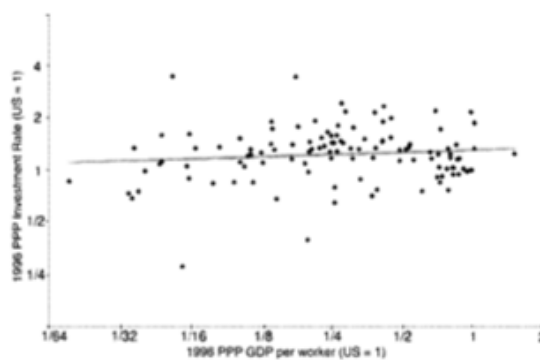


FIGURE 2. INVESTMENT RATES AT *DOMESTIC* PRICES

Figure 1: Variation in Real and Nominal Savings Rates

The panel on the left shows the real savings rate against GDP per capita. By real savings rate, the authors mean total investment spending valued at an international price, relative to GDP valued at an international price. By nominal, the authors mean investment spending valued at the domestic price, relative to GDP valued at the domestic price.

The comparison implies that for poor countries, with low GDP per worker, the domestic price of investment goods is very *high* (and hence their nominal savings do not result in many real investment goods). In contrast, for rich countries, the domestic price of investment goods must be very *low*.

Project

Write down an infinitely forward looking savings model that is capable of replicating the features of the two panels in the figure above. Within that model, you should be able to explain exactly what drives the variation in real investment rates, and what drives the similarity in nominal investment rates.

Rules

You can work on this project in groups of 2-3. I'll grade and assist each group as a whole.