

Growth Regressions

In the Solow lectures we discussed empirical papers by Baumol & De Long on whether or not there was convergence in incomes over long periods.

Now consider the world after 1960. This is when there starts to be good data for many countries.

Consider the regression:

$$\ln \frac{Y_{1985}}{Y_{1960}} = \beta_0 + \beta_1 Y_{1960}$$



Should be significant & negative if there is convergence but it doesn't work

Y 's are per capita outputs

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So people consider "conditional convergence"

That is, if you control for other variables do you get poor countries growing faster than rich ones

Mankiw, Romer & Weil (1992) estimate

$$\ln \left(\frac{Y_{1985}}{Y_{1960}} \right) = \beta_0 + \beta_1 \ln Y_{1960} + \underbrace{\sum \beta_i X_i}_{\text{other accumulation variables}}$$

This works quite well so there is evidence for conditional convergence

Basic story would be that, at least the poor countries, are out of their steady states & catching up.

Levine & Renelt (1992)

All growth regression analysis is highly dubious because adding and subtracting variables & replacing variables with similar ones completely changes the results

Galtan's Fallacy - Suppose Y_{85} & Y_{60} are independent draws from the same distribution:

$$Y_{85} = B_0 + B_1 Y_{60}$$

↓
negative

Hall & Jones (1999) - Take output per capita on the left-hand side of the regression rather than growth

This work directly poses the question why are some countries rich & other countries poor?

They find that factors of production can't account for much. You need some thing like "Institutions"

See Olson (19.6)