

# Politics of Growth | PS 2543

Michaël Aklin

Why are we interested in growth?

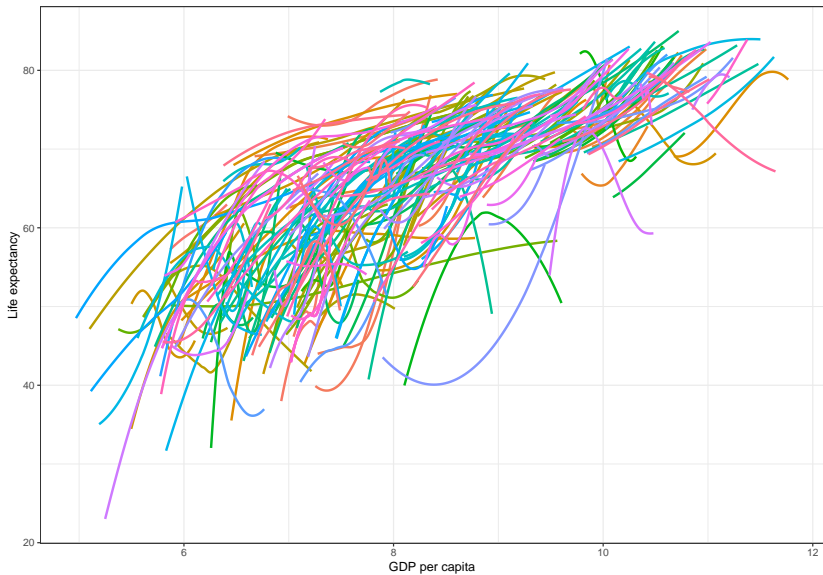


Figure 1: GDP per capita and life expectancy. Figure: Aklin. Source: WDI.

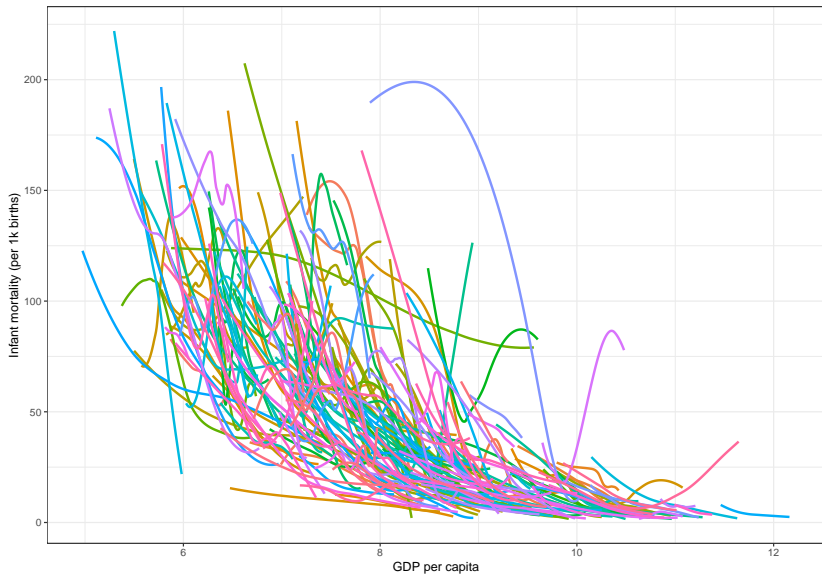


Figure 2: GDP per capita and infant mortality (death per 1,000 births).  
Figure: Aklin. Source: WDI.

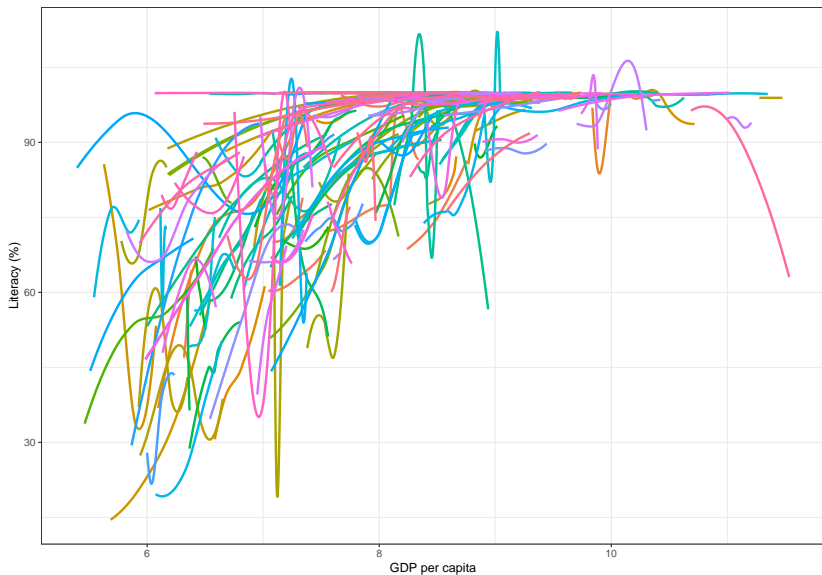


Figure 3: GDP per capita and literacy. Figure: Aklin. Source: WDI.

Two divisions in political economy:

- ▶ (i) Micro vs. macro
- ▶ (ii) Long-term (growth) vs. short term (business cycle)
- ▶ 19th century: interest in long-term growth (Ricardo, Smith)
- ▶ Late 19th-130s: lots of interest in business cycle (Great Depression)
- ▶ Since 1945: return of growth studies
  - ▶ Rapid growth in the West
  - ▶ Growing global inequality

## Great divergence

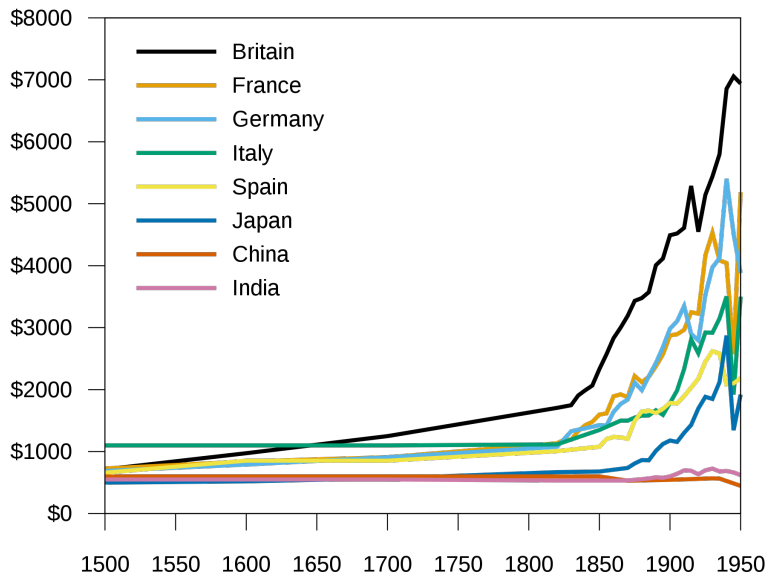


Figure 4: Data: Maddison. Source: wiki.

# How to make sense of it?

Early attempts: Solow-Swan growth models.

Input: capital. Labor, technology: constant

$$\begin{array}{ll} Y = F(K) & F \equiv \text{prod function} \\ F'(K) > 0 & \text{Inada assumptions} \\ F''(K) < 0 & \end{array}$$

Q: how does Y grow? A: when K grows!

Q: how does K grow? A: investments!



$$\begin{aligned}
\frac{\partial K}{\partial t} &\equiv \dot{K} = I \\
&= sY - \delta K \\
&= sF(K) - \delta K \\
K^* &\rightarrow sF(K) - \delta K = 0
\end{aligned}$$

2nd last expr: fundamental differential equation of neoclassical growth theory

## Adding labor

$$Y = F(K, L)$$

$$F(\lambda K, \lambda L) = \lambda F(K, L) \quad \text{constant ret scale}$$

If pop  $L$  grows at rate  $n$ :

$$\begin{aligned} y &\equiv \frac{Y}{L} \\ &= \frac{F(K, L)}{L} \\ &= F(K/L, 1) \\ &\equiv f(k) \end{aligned}$$

If we assume  $F()$  is Cobb-Douglas:

$$Y = K^\alpha L^{1-\alpha} \qquad 0 < \alpha < 1$$
$$y = k^\alpha$$

Then:

$$\dot{k} = sf(k) - (\delta + n)k$$

- ▶ Thus: growth (of GDP or GDP per capita) goes to zero and depends on labor, capital
- ▶ Empirically: not great to explain divergence
- ▶ Addition: human capital, technology (grows at rate  $g$ )

$$Y = (AL)^{1-\alpha} K^{\alpha}$$

$$\dot{k} = sk^{\alpha} - (n + g + \delta)k$$

- ▶ That brings us to the 1980s (Heckman, Barro, Mankiew)
- ▶ Since then: Schumpeterian growth (Aghion)
- ▶ And: institutional theory
  - ▶ Institutions (North, Weingast, Greif, Ostrom, Acemoglu, Robinson)
  - ▶ (Social) contracts and incentives (Coase, Williamson, Putnam, Duflo, Pande)
  - ▶ Iconoclasts (Przeworski, Hirschman)



# Assignments

- ▶ 50%: a research project/pre-analysis plan (including theory + empirical design; data analysis optional)
- ▶ 40%: in-class presentations and participation.
- ▶ 10%: a book review.

# Structure

1. Lecture (when applicable)
2. Presentations of papers
3. Presentation of own research



# Presenting a paper

- ▶ ~20 minutes

- ▶ Summarize:

1. Research question and why it matters (if it does)
2. Theory: what explains the variation of what and why
3. Empirical strategy and results

- ▶ Discuss: what's next?

- ▶ Expanding theory?

- ▶ Using empirical strategy?

- ▶ etc.

# Presenting your own research

► You will all present at least three times

1. Research question
2. Theory
3. Empirical design
4. Analysis

# Online

Signup sheet for presentations: [shorturl.at/bjkmt](https://shorturl.at/bjkmt).

Homepage for the course:

[https://michaelaklin.github.io/2023\\_ps2543/](https://michaelaklin.github.io/2023_ps2543/)

Questions?

[aklin@pitt.edu](mailto:aklin@pitt.edu)