Social infrastructure and long-run growth

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Introduction to Economic Growth

Rich and poor

We have several reasons why countries could be rich or poor:

- Physical capital formation (s_I)
- Human capital (h), skills and diffusion
- R&D (s_R)
- Population growth (g_L), both negative and positive
- Trade and diffusion of innovations
- Mis-allocations of factors

Investments

Could conceive of each in terms of making a choice on how to use resources:

- Physical capital: use L, K to build more capital
- Human capital: use L, K to educate workers
- R&D: use L, K to innovate
- Population growth: use L, K to create more people
- Trade/diffusion: use L, K to make trade or adoption possible
- Misallocation: use L, K in better/worse ways

F and V

A general decision process would be to evaluate the costs (F) against benefits (V). Think of costs F:

- Lost consumption while investing in capital goods
- Time spent in school
- Time spent by researchers/innovators
- Time spent raising a family and not working (or working in amenable positions)
- Capital and labor spent building physical and legal structure to import/adopt
- Lost output of good i if you push factors to good j

F and V

Think of benefits V:

- Continued use of the capital good over time
- Application of skills learned over time
- Innovation that can be used over time (and shared)
- More people available to work/innovate/invest over time
- New varieties available over time
- Higher overall output

Now and later

A lot of the comparison of F and V comes down to

- Incurring a cost, F, now
- For benefits, V, that accrue in the future

In the end you make the investment/innovate/educate/reform if $V > F$

Higher F

If you make F higher, you make fewer investments worthwhile:

- Bribes, corruption
- Procedures/regulations
- Crime/safety

Note that you might *want* to slow down some investments (e.g. narcotic production) via these routes.

Higher V

The value of a project/investment is something like

$$V_t = \frac{\pi_t}{r - g_\pi + \rho},$$

where π_t is the initial profits you can make, r is discount on the future, and g_π is how fast profits grow. ρ is a chance you lose rights to that project for whatever reason.

- If policies (market structure, taxes) lower π_t, less value
- If property rights over project are insecure, ρ is high, less value
- If *others* don't value future, r is high, less value
- If *others* don't invest, g_π is low, less value

Lump a lot of this together as "social infrastructure" and whether it supports high V and low F

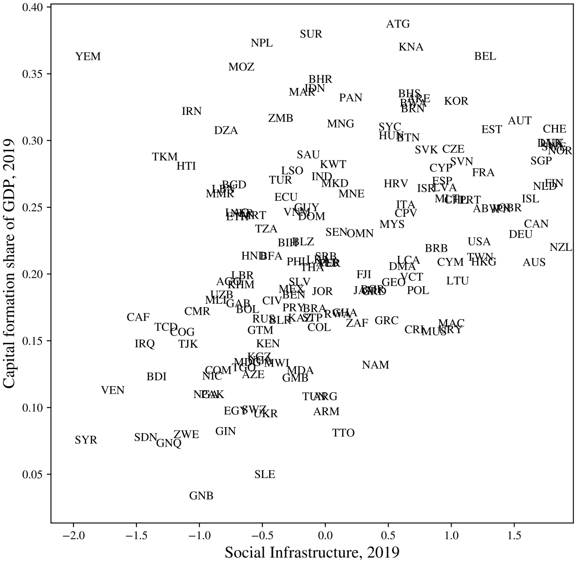
Social infrastructure

No clear way to measure this. World Bank collects measures of things like:

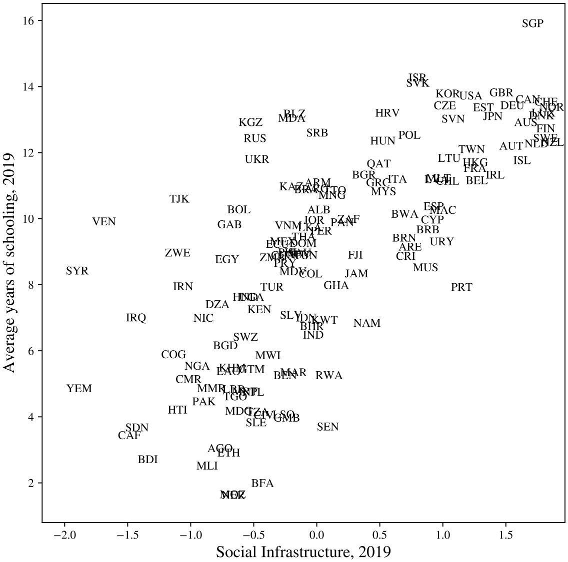
- Accountability of political leaders
- Political stability
- Government effectiveness
- Regulatory quality
- Rule of law
- Control of corruption

These are often measured via survey of perceptions. We take average of these six to measure "social infrastructure"

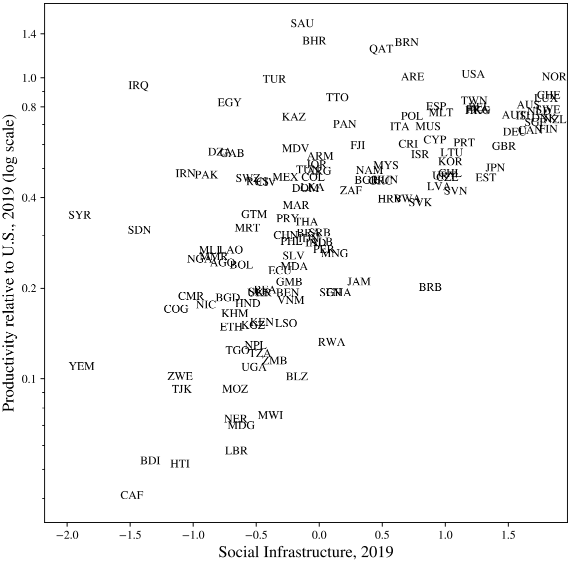
Physical capital



Human capital



Productivity



Causality

We don't know if this is causal

- Higher capital accumulation could lead to higher GDP per capita, which allows places to invest in social infrastructure: maybe this goes the other way
- Individual studies point towards social infrastructure determining these outcomes
- Specific historical instances (e.g. North/South Korea) are examples where differences in social infrastructure seem to determine level of GDP per capita

Why not fix this?

Things that raise F and lower V are subject to change. Why don't poor countries

- Lower regulatory burdens
- Eliminate corruption
- Assure property rights
- Support more education
- Create more effective governments

The benefit is that this would raise GDP. What's stopping them?

Someone benefits

Each individual case is unique. General story is something like

- *Someone* benefits from current structure (e.g. a bribe-taker)
- Improving social infrastructure involves those people losing
- You could promise to give losers a slice of the increased GDP
- But those promises may not be credible
- So no one can or will make that deal