Growth Facts

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The Facts: Economic Growth

We want to understand two sets of facts:

1. Level gaps: Countries like the U.S. are about 25 times richer than countries like Bangladesh.
2. Growth: Rich countries today about about 60 times richer than they were in 1700.

Concepts

How do we measure living standards across countries / over time?
GDP

- ▶ what does it measure?
- ▶ what does it fail to measure?

One measure that is commonly used: GDP per worker

- ▶ or GDP per capita (when data on workers is hard to get)

Where to get this data?

Countries collect data on GDP and its components

▶ consumption, investment, government spending, net exports

National Income and Product Accounts

United Nations collects and harmonizes that data

Level Gaps: First Look

Number of countries with population > 1m: 148

Richest 5 countries:

- ▶ United Arab Emirates Switzerland United States Japan Norway
- ▶ Mean gdp per worker: $36,269

Poorest 5 countries:

- ▶ Ethiopia Burundi Tajikistan Sierra Leone Malawi
- ▶ Mean gdp per worker: $140

Ratio: 259 (!)
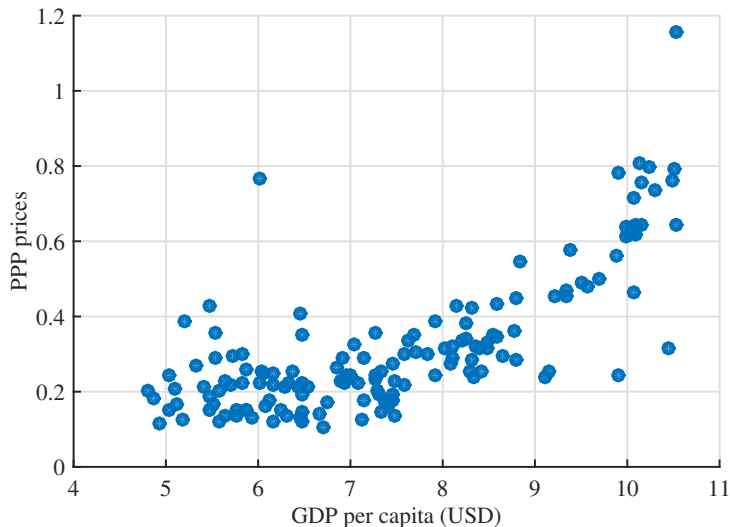
Problem: prices differ across countries.

PPP Prices

A better way: adjust for differences in local prices

ICP (International Comparison Project)

- collects prices for a common set of goods in many countries

Finding: prices are much lower in poor countries

Relative Prices and GDP

Source: UN Data. Ratio of (GDP per capita in USD) to (GDP per capita at PPP)

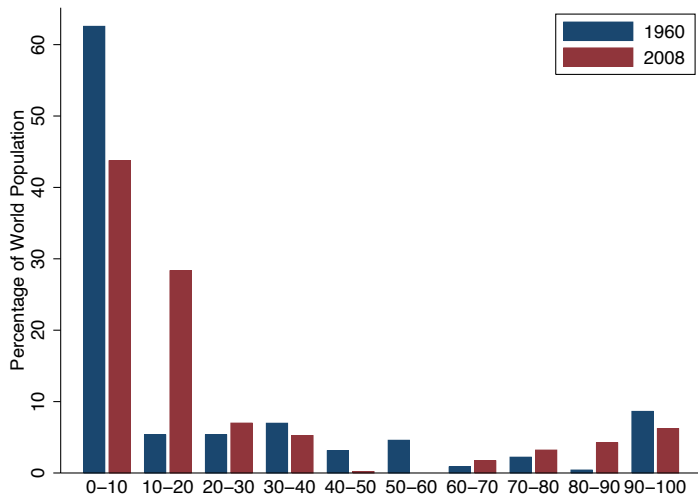# Level Gaps: With Common Prices

Richest 5 countries:

- ▶ Switzerland Singapore Norway Kuwait United Arab Emirates
- ▶ Mean gdp per worker: $69,253$

Poorest 5 countries:

- ▶ Liberia Congo, Dem. Rep. Mozambique Ethiopia Malawi
- ▶ Mean gdp per worker: $559

Ratio: 124

Level Gaps

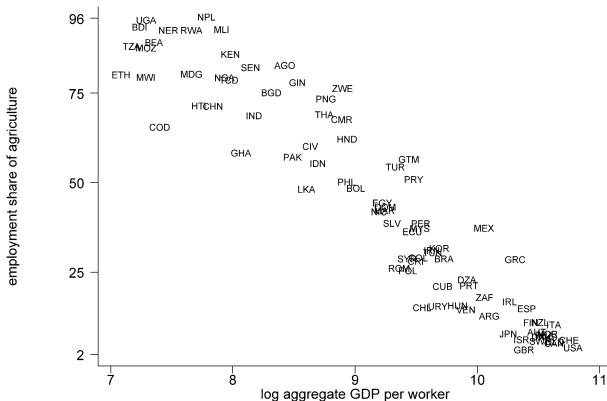Source: Jones (2013b); in comparable prices

Level Gaps

Fact

More than half of the world population earns less than 10% of U.S. income per worker.

Fact

The gap between rich and poor countries has not decreased at least since 1960.

Agriculture

Many developing countries push agriculture.

Source: Caselli (2005)

Is that a good idea?

Agriculture

Table 1: Agriculture and Labor-Productivity Accounting

Panel A: Labor Productivity Differences

Sector	Ratio of 90th-10th Percentile
Aggregate	22
Agriculture	45
Non-Agriculture	4

Panel B: Percent of Labor in Agriculture

Country Income Percentile	Percent
90th	2.8
10th	78.3

Source: Caselli (2005)

Agriculture

Fact

*Low income countries have a massive **comparative disadvantage** in agriculture.*
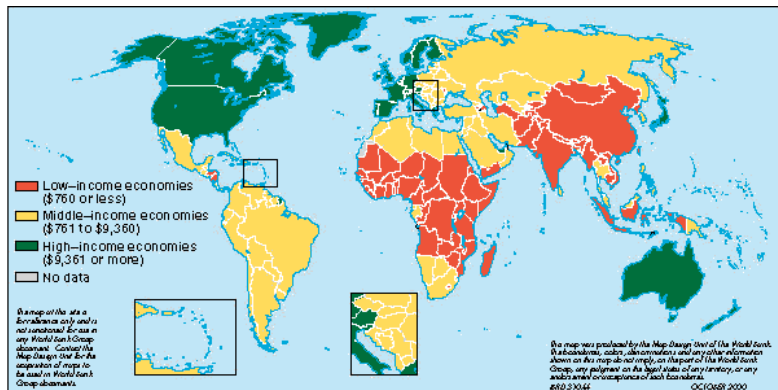
Comparative advantage means...

Do low income countries employ too much labor in the "wrong" sector (ag)?

Agriculture

An important insight

It is difficult to draw cause-effect conclusions from just looking at data.

Poverty is geographically concentrated

What does this suggest about the origins of income differences?

See Acemoglu and Robinson (2001) for more.

Growth Facts

Questions:

- ▶ Where do the enormous differences in income come from?
- ▶ How long have the rich been rich and the poor been poor?
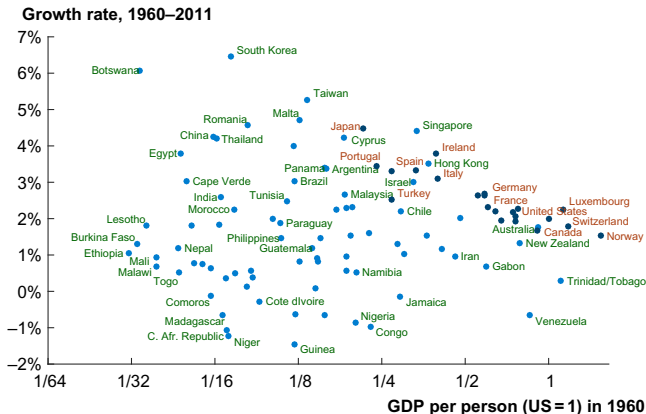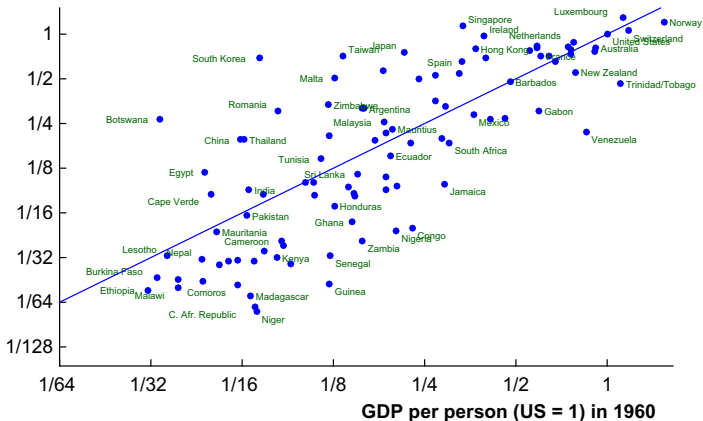
Poor Countries Do Not Grow Faster

Fig. 26 The lack of convergence worldwide. Source: *The Penn World Tables 8.0.*

Source: Jones (2016)

No "convergence."

Persistence Over Time

GDP per person (US = 1) in 2011 vs GDP per person (US = 1) in 1960

Source: Jones (2016)

There is mobility, but also a lot of persistence over time.

Summary

Enormous level gaps:

▶ Rich countries are 25 times richer than poor countries.

▶ Big productivity gaps in agriculture.

▶ Poor countries seem to specialize in the "wrong" sector.

▶ Poor and rich countries cluster geographically.

Postwar growth:

▶ **No convergence**: poorer countries do not generally grow faster.

Questions to think about

1. Why are the rich countries so much richer than the poor ones?
2. How could one answer such a question?
   E.g.: "How much does lack of capital contribute to low incomes?"

Reading

- Jones (2013b), ch. 1
- Blanchard (2018), ch. 10
- Blanchard and Johnson (2013), ch. 10

A good place to access data on long-run growth: The Penn World Tables

At knoema, users can generate graphs using data from a wide range of sources.

For further reading:

- Jones (2013a), ch. 3 (explains logs and ratio scales)
- Acemoglu (2009), ch. 1 (summarizes the facts)
- Jones (2016) contains an exhaustive list of growth facts

References I

Acemoglu, D. (2009). *Introduction to modern economic growth*. MIT Press.

— and Robinson, J. A. (2001). The colonial origins of comparative development: An empirical investigation. *The American Economic Review*, **91** (5), 1369–1401.

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References II

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