

Facts: Cross-country Income and Growth Differences

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March 17, 2015

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Introduction

We document facts about cross-country variation in

- economic growth
- output per worker

Objectives:

1. Get familiar with data sources.
2. Learn how to handle data in Matlab
3. Get to know the facts the growth literature tries to explain.

Post-War Facts

How to measure output per worker?

Output: GDP in common currencies.

Problems:

- prices differ across countries
- exchange rates fluctuate

Solution:

- deflate GDP using a price index for a common basket of goods
- complicated...
- the International Comparison Project (ICP) offers a commonly used solution

Roughly how is this done?

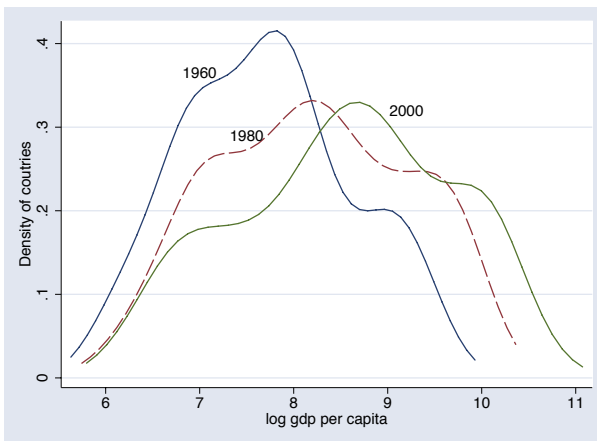
- every several years, the ICP collects prices of (hopefully) comparable goods in many countries (benchmark years)
- the results are published as the Penn World Tables.

For now we take the data as given.

Fact 1: Big Gaps in Output per Worker

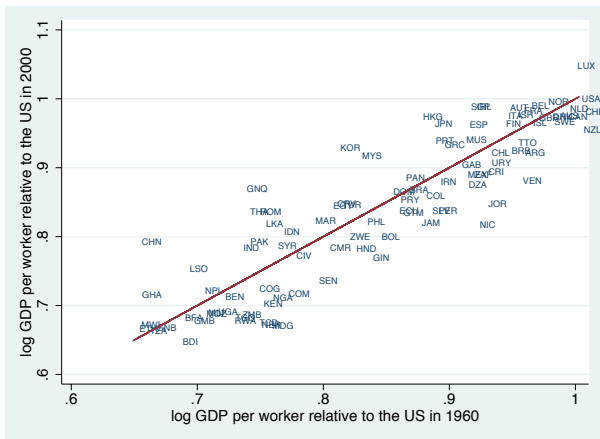
The real per capita GDP of the 5 richest countries is about 30 times that of the 5 poorest countries.

The ratio is roughly stable over the post-war period.



Source: Acemoglu, Introduction to Economic Growth

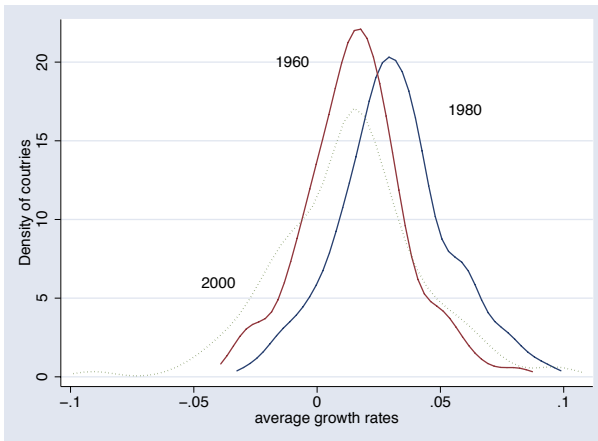
Fact 2: Output Gaps are Highly Persistent Over Time



Source: Acemoglu, Introduction to Economic Growth

Fact 3: Growth Rate Heterogeneity

Large dispersion in average growth rates over post-war period



Source: Acemoglu, Introduction to Economic Growth

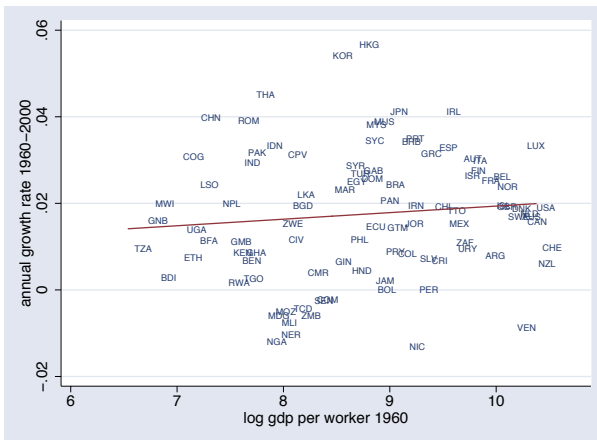
Growth Miracles and Disasters

TABLE 2
GROWTH MIRACLES AND DISASTERS, 1960–90
ANNUAL GROWTH RATES OF OUTPUT PER WORKER

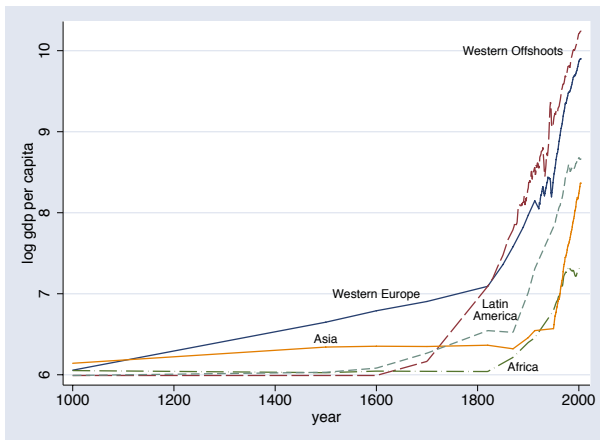
Miracles	Growth	Disasters	Growth
Korea	6.1	Ghana	-0.3
Botswana	5.9	Venezuela	-0.5
Hong Kong	5.8	Mozambique	-0.7
Taiwan	5.8	Nicaragua	-0.7
Singapore	5.4	Mauritania	-0.8
Japan	5.2	Zambia	-0.8
Malta	4.8	Mali	-1.0
Cyprus	4.4	Madagascar	-1.3
Seychelles	4.4	Chad	-1.7
Lesotho	4.4	Guyana	-2.1

Source: Temple (1999)

Fact 4: Poor Countries Do not Grow Faster



A Longer View



Source: Acemoglu, Introduction to Economic Growth

Large cross-country income differences are a “recent” fact.

One interpretation:

- Countries start in subsistence ag (all equally poor)
- Later they switch to industry, starting with the Industrial Revolution
- Today's low income countries are late switchers
- Convergence?

Next Steps

Generate Acemoglu's data figures.

Objectives:

1. Learn main data sources:
 - (a) Penn World Tables
 - (b) World Development Indicators
2. Learn about data handling and visualization