

Fact 1

There is enormous variation in per capita income across economies. The poorest countries have per capita incomes that are less than 5 percent of per capita income in the richest countries.

Several notes:

- Income per capita (or GDP per capita) is not the sole measure of what is good: but it's a useful summary statistic
- Income per capita ignores distribution of income within a country
- Comparing income per capita across countries is not trivial
 - You have to convert between currencies
 - Countries have different relative prices for goods
 - What is the “right” way to value haircuts, apples, or cars across countries?

Rich Countries

Country	GDP per capita 2008	GDP per worker 2008	LF Part. Rate 2008	Avg. Growth 1960-2008	Years to Double
United States	\$43,326	\$84,771	0.51	1.6	43
Japan	33,735	64,778	0.52	3.4	21
France	31,980	69,910	0.46	2.2	30
United Kingdom	35,345	70,008	0.51	1.9	36
Spain	28,958	57,786	0.50	2.7	26

Poor Countries

	GDP per capita	GDP per worker	LF Part. Rate	Avg. Growth	Years to
Country	2008	2008	2008	1960-2008	Double
China	6,415	10,938	0.59	5.6	13
India	3,078	7,801	0.39	3.0	24
Nigeria	1,963	6,106	0.32	0.6	114
Uganda	1,122	2,604	0.43	1.3	52

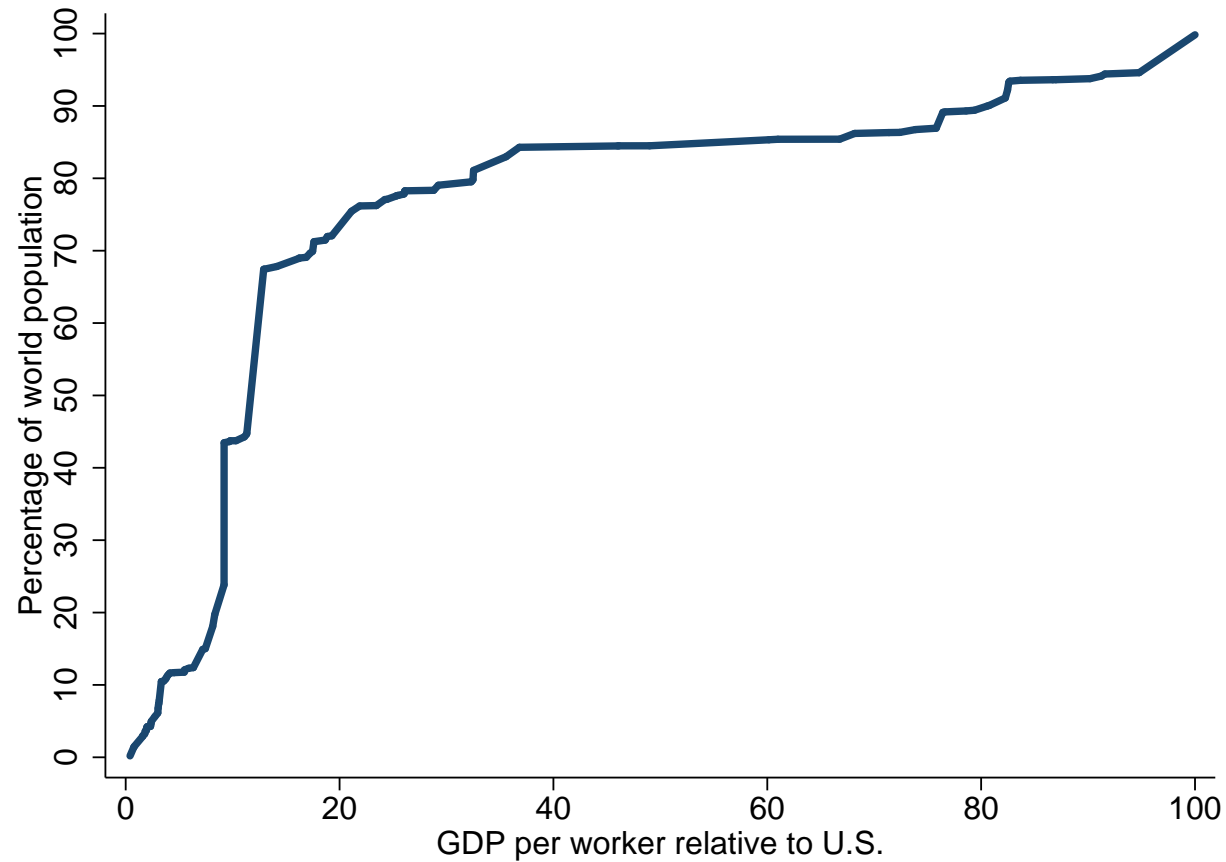
Growth Miracles

Country	GDP per capita 2008	GDP per worker 2008	LF Part. Rate 2008	Avg. Growth 1960-2008	Years to Double
Hong Kong	37,834	70,940	0.53	4.3	16
Singapore	49,987	92,634	0.54	4.1	17
Taiwan	29,645	62,610	0.47	5.1	14
South Korea	25,539	50,988	0.50	4.5	16

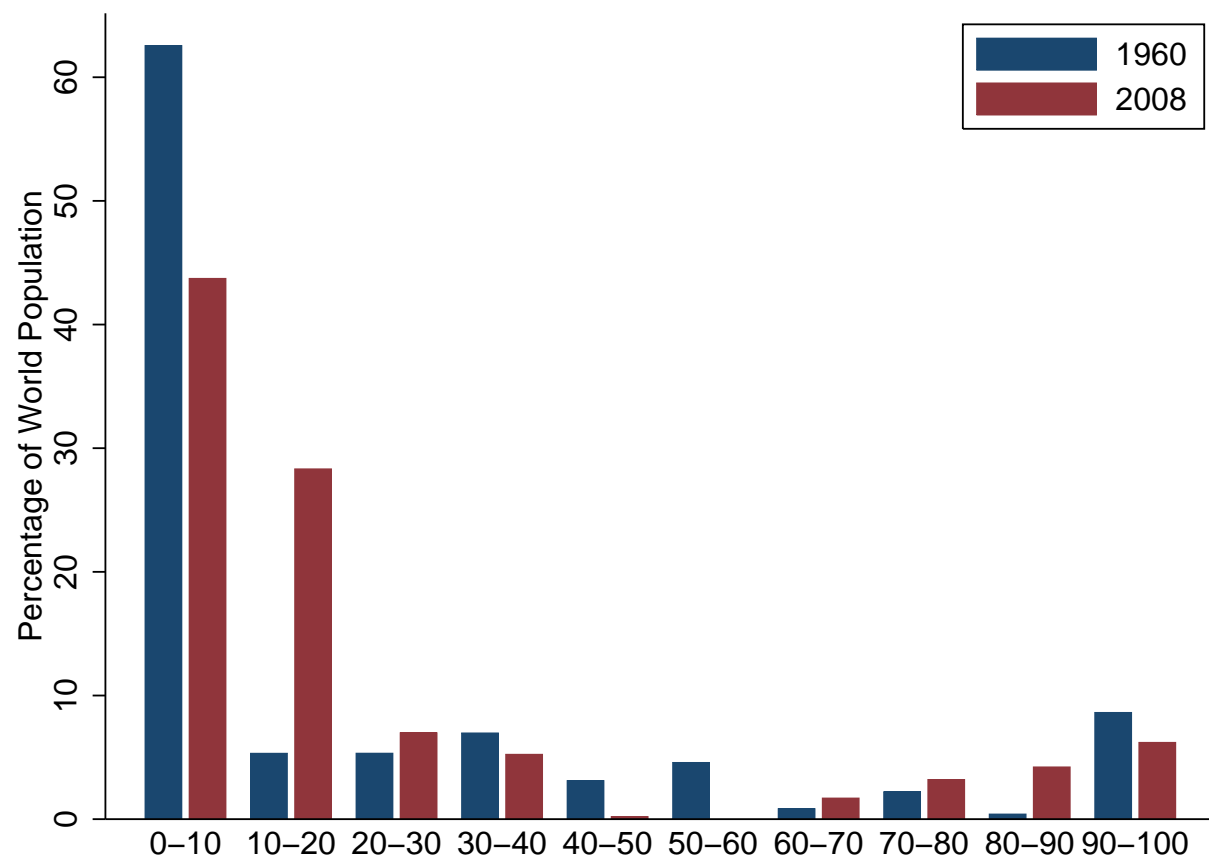
Growth Disasters

Country	GDP per capita 2008	GDP per worker 2008	LF Part. Rate 2008	Avg. Growth 1960-2008	Years to Double
Venezuela	9,762	21,439	0.46	-0.1	-627
Haiti	1,403	3,164	0.44	-0.4	-168
Madagascar	810	1,656	0.49	-0.1	-488
Zimbabwe	135	343	0.40	-1.5	-47

Distribution of Population by GDP per Worker, 2008



World Population by GDP per Worker, 1960 and 2008



Fact 2

Rates of economic growth vary substantially across countries.

Notes:

- We will try to distinguish whether these are long-term differences or just transitional differences
- If they are long-term, then eventually some countries will be infinitely rich compared to others
- We think most differences are transitional

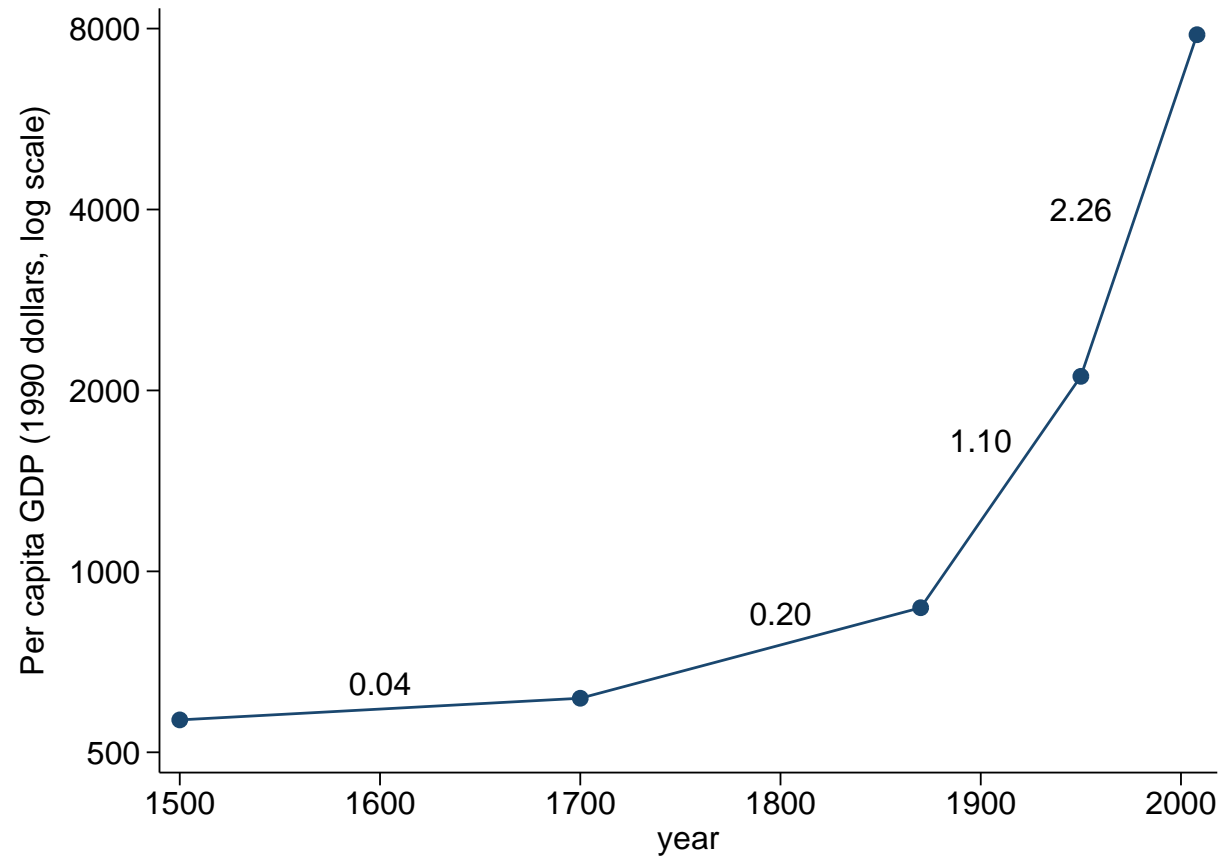
Fact 3

Growth rates are not generally constant over time. For the world as a whole, growth rates were close to zero over most of history but have increased sharply in the twentieth century. For individual countries, growth rates also change over time.

Note:

- The big changes in growth rates over history are from pre-Industrial Revolution (close to 0% growth) to modern times (roughly 1.85% growth per year for developed countries)
- The big changes in growth rates within countries tend to be as they transition from poor to rich (e.g. Japan or China), after which growth slows down.

World GDP per Capita Growth Rates



Fact 4

A country's relative position in the world distribution of per capita incomes is not immutable. Countries can go from being “poor” to being “rich”, and vice versa.

Notes:

- The “growth disasters” in the table were all very well off in 1960 compared to East Asia. Now they are well behind
- The “growth miracles” in the table were though, in 1960, to be on the path to starvation and destitution.
- What are the sources of these movements in rankings?

Fact 5

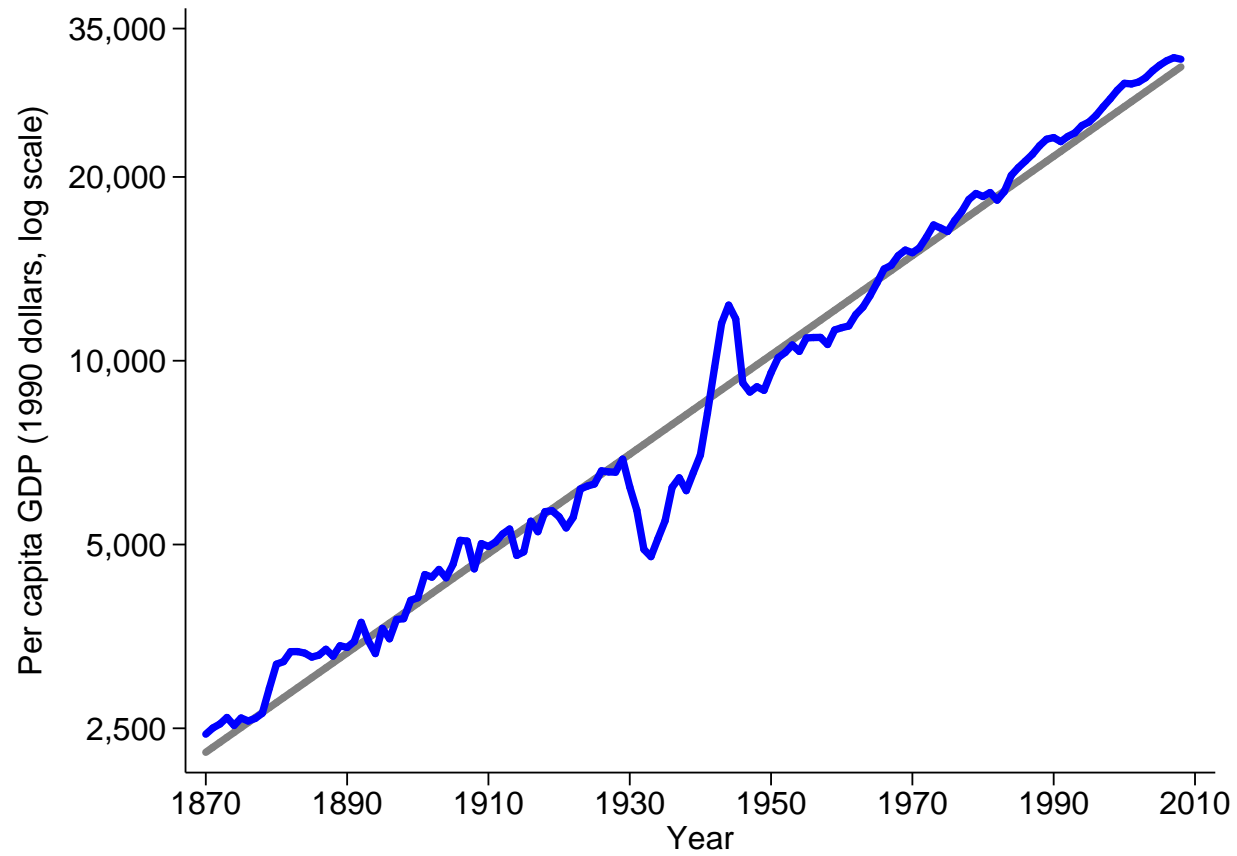
In the U.S. over the last century,

- The real rate of return on capital, r , shows no trend upward or downward
- The shares of income devoted to capital, rK/Y , and labor, wL/Y , show no trend; and
- The average growth rate of output per person has been positive and relatively constant over time - that is, the United States exhibits steady, sustained per capita income growth.

Notes:

- “Kaldor facts”
- Questions about the first two, are they really true over long periods of time?
- These facts will drive us to look at a specific pattern of growth - the *balanced growth path*

Growth in U.S. GDP per capita



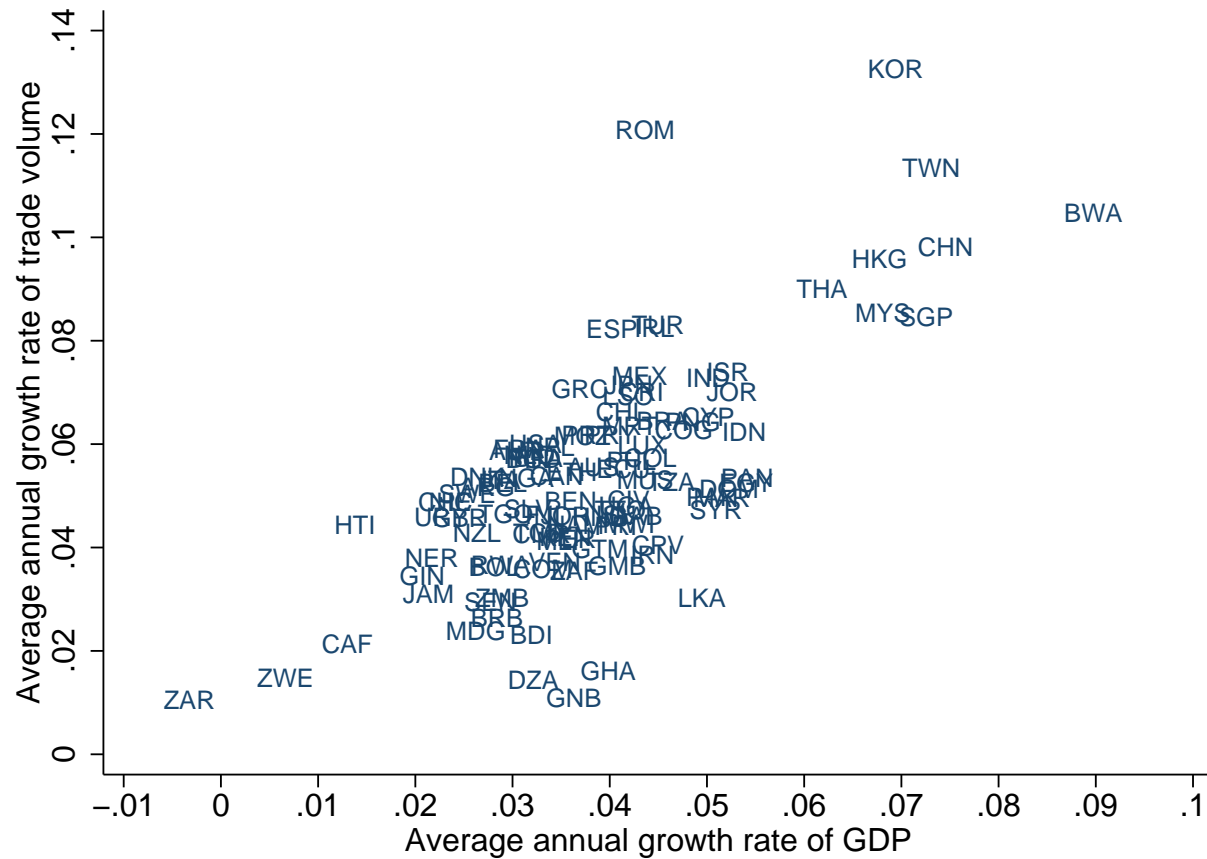
Fact 6

Growth in output and growth in the volume of international trade are closely related.

Notes:

- Growth in trade is associated with growth in output, but not necessarily level of trade (Japan does not actually trade much, but is rich)
- Rapid growth in trade is no necessarily just growth in exports from East Asia (China and Korea also import a lot more than they used to)

Growth in Trade and Growth in Output



Fact 7

Both skilled and unskilled workers tend to migrate from poor to rich countries or regions.

Notes:

- Implies that return to both kinds of labor is higher in developed countries
- Shouldn't scarcity in poor countries imply a large premium to skilled workers?

Big Questions

Why are some countries so rich and others so poor?

Answers?

- Level differences
- Different levels of human capital
- Different institutions supporting innovation/technology adoption/entrepreneurship

Big Questions

What is the engine of growth?

Answers?

- Technological progress - new goods, or better versions of old goods
- Not accumulation of more physical or human capital - those cannot sustain growth
- Ultimately technological progress will rely on population - more people, more ideas

Big Questions

What creates growth miracles in some countries?

Answers?

- Reversing what made them poor
- Changing institutions to foster technology adoption (copying?)
- Changing institutions to create larger markets (trade, internal markets) to support innovation/adoption