The Capitalist Revolution

EVNS 1006

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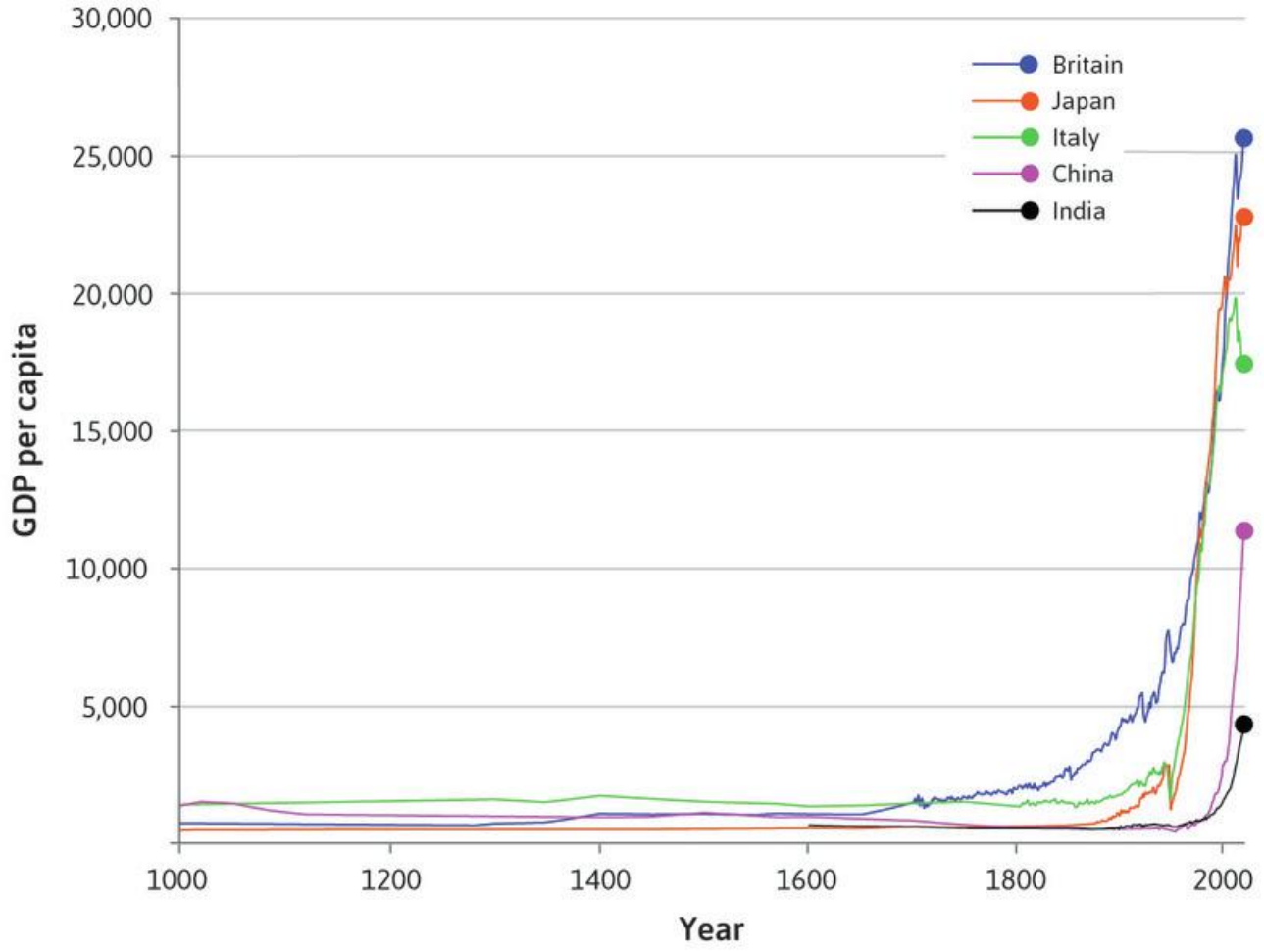
Lecture 3

Context

Why was there sustained growth in average living standards after 1700?



In this Lecture

Concepts

Economic *inequality* and divergence

The *technological revolution* and growth

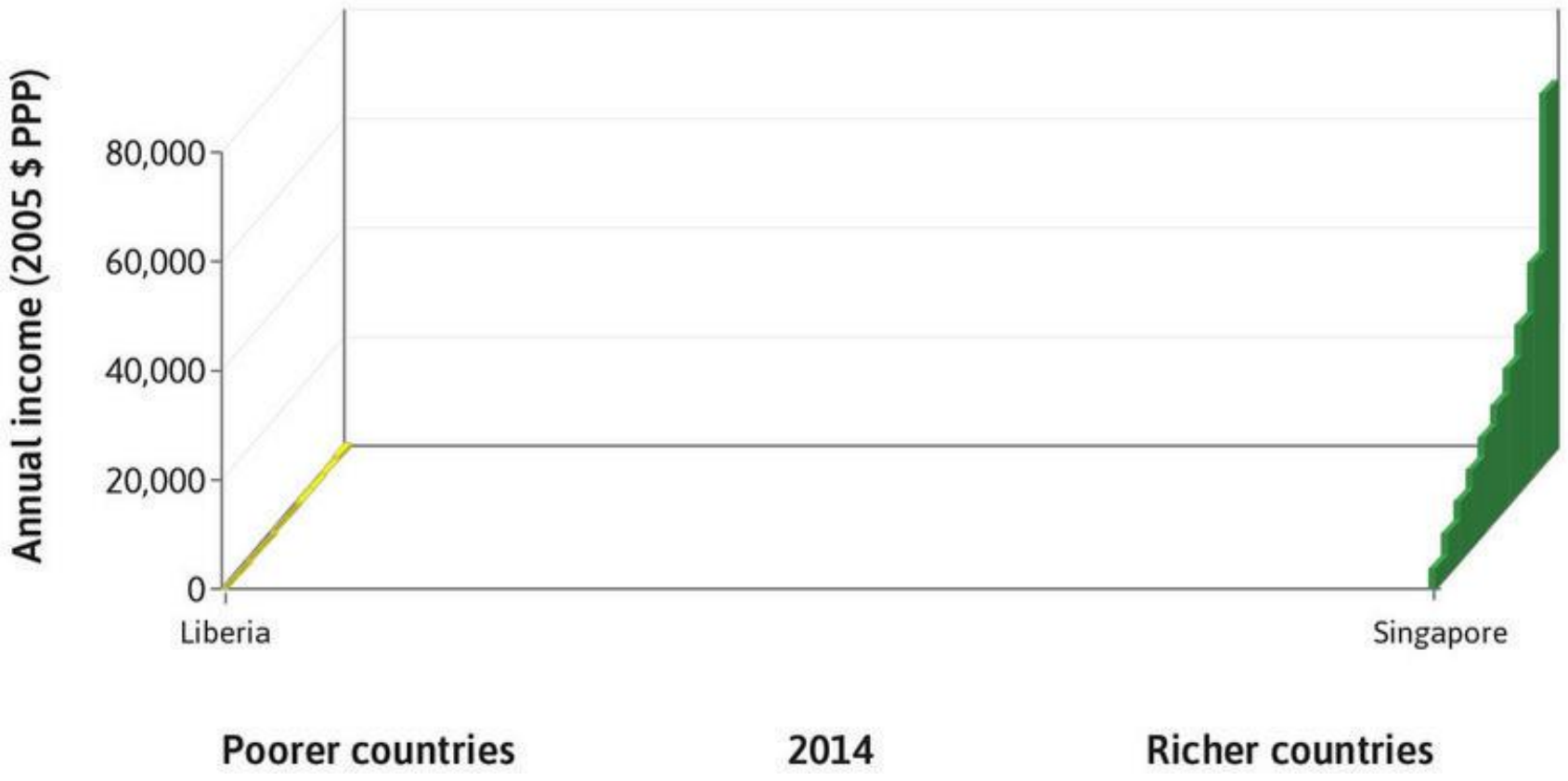
The role of *capitalism* in economic growth

Importance of the *government* in capitalist economies

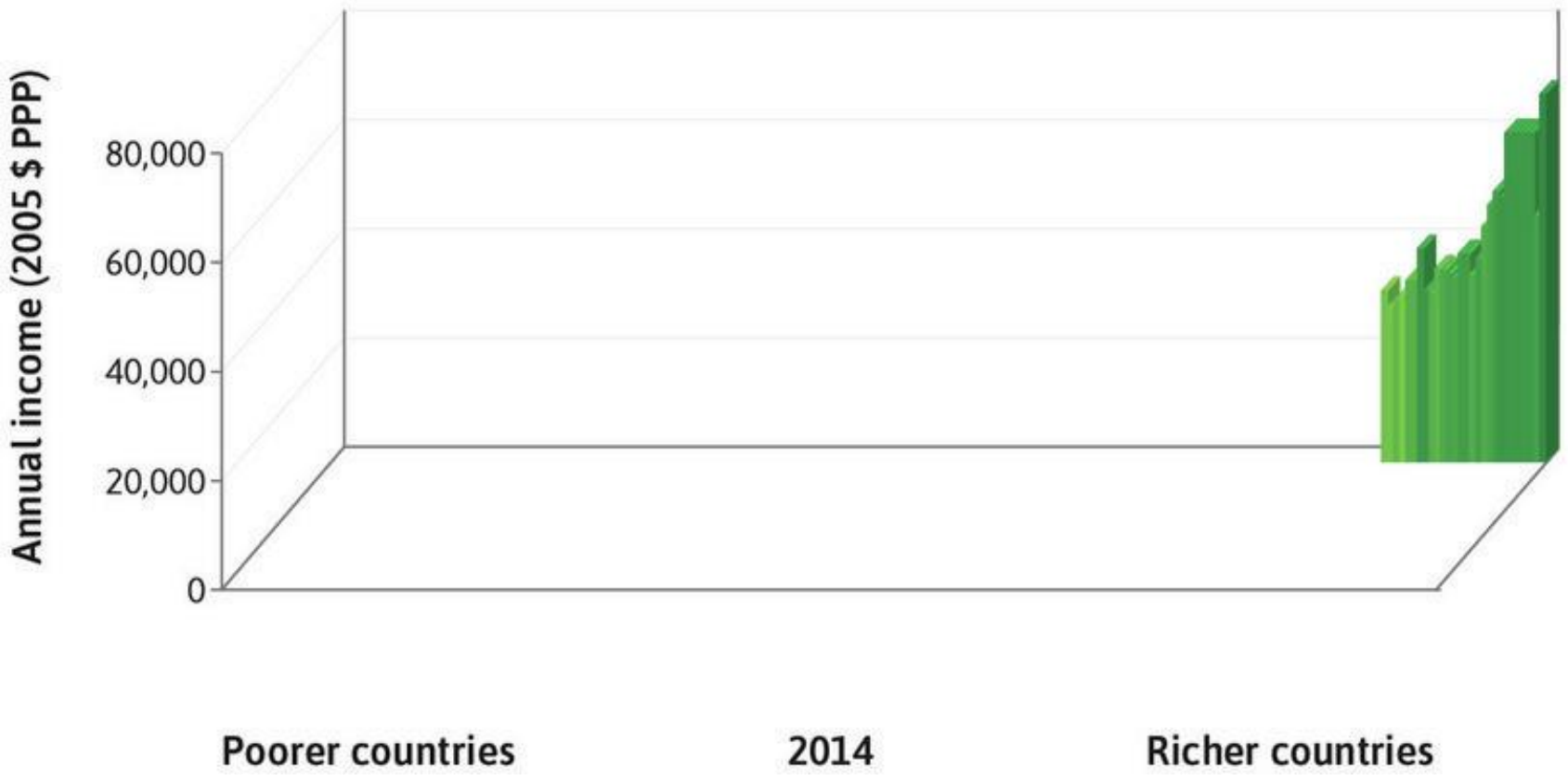
Reading:

The capitalist revolution by The Core Project.

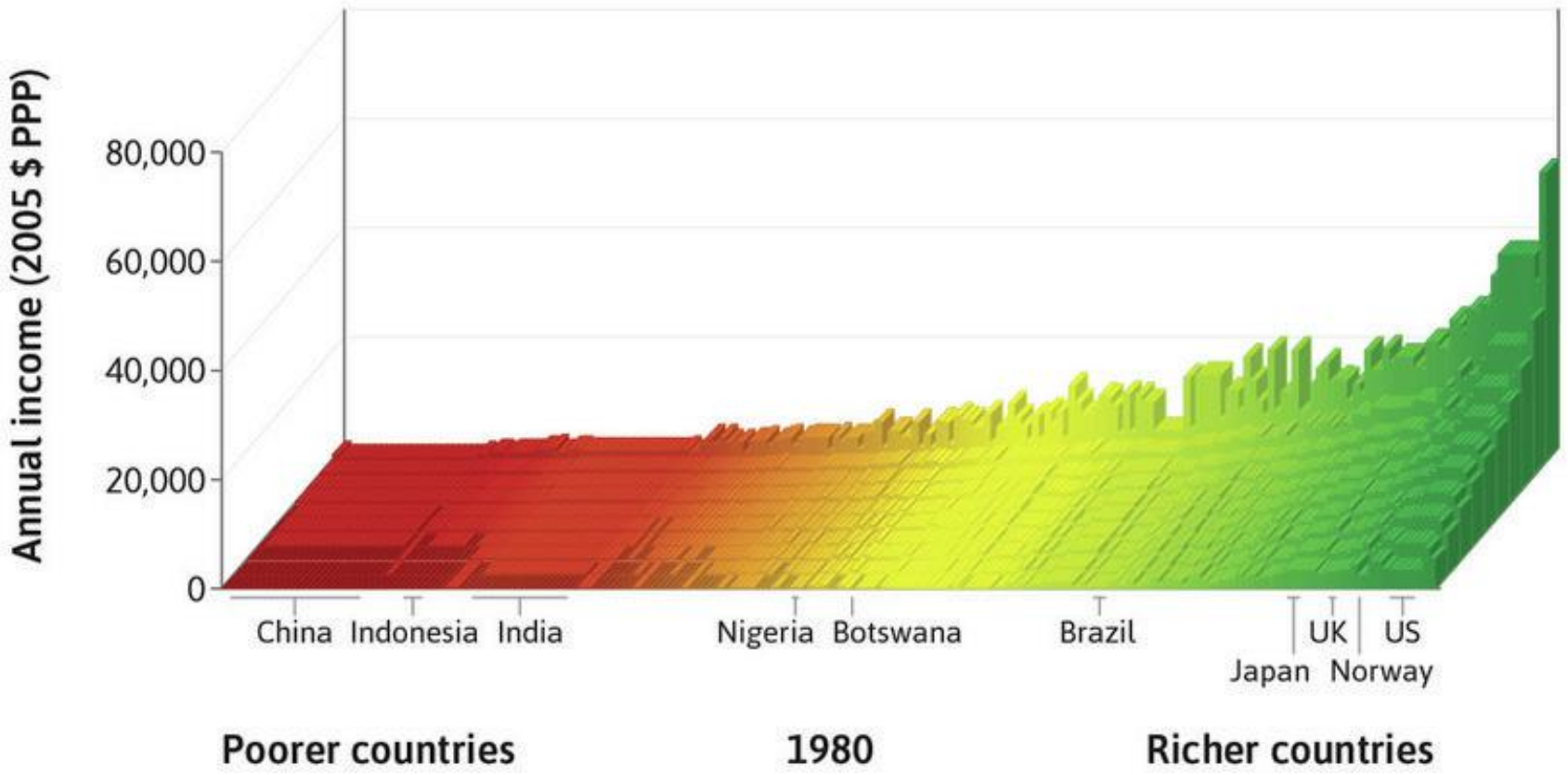
Inequality: Singapore



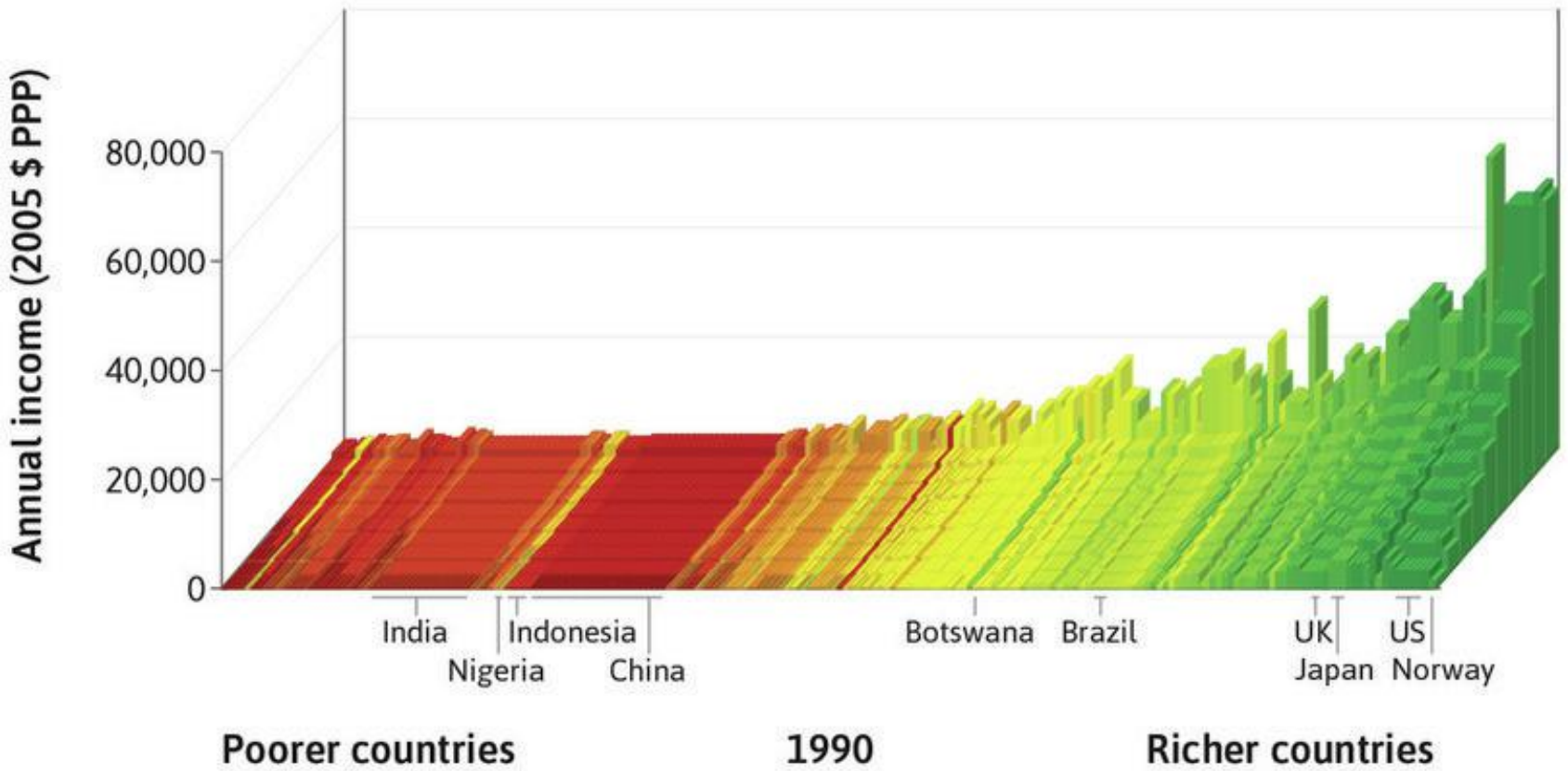
Inequality: Top 10% in Rich Countries



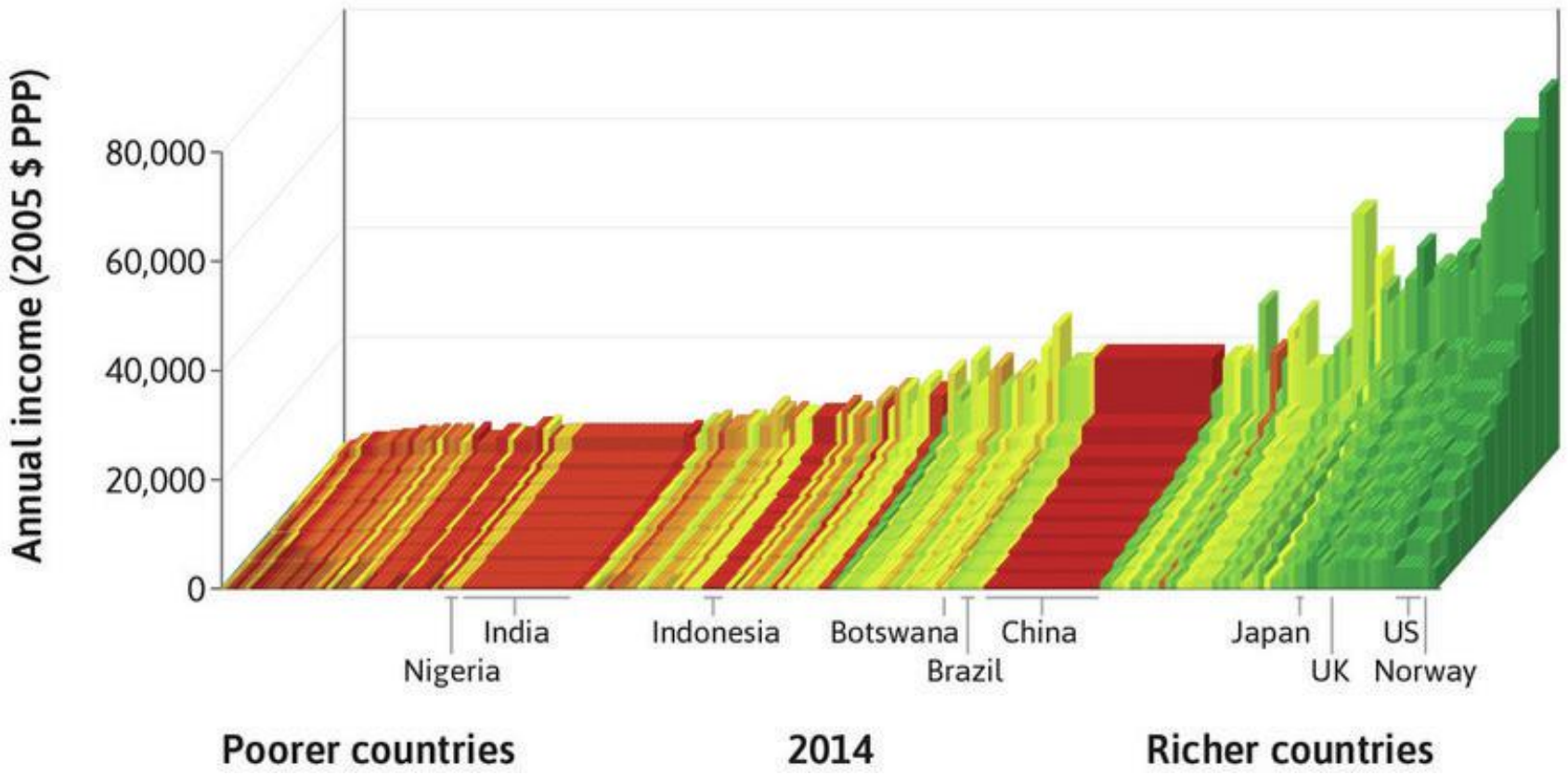
Inequality: 1980



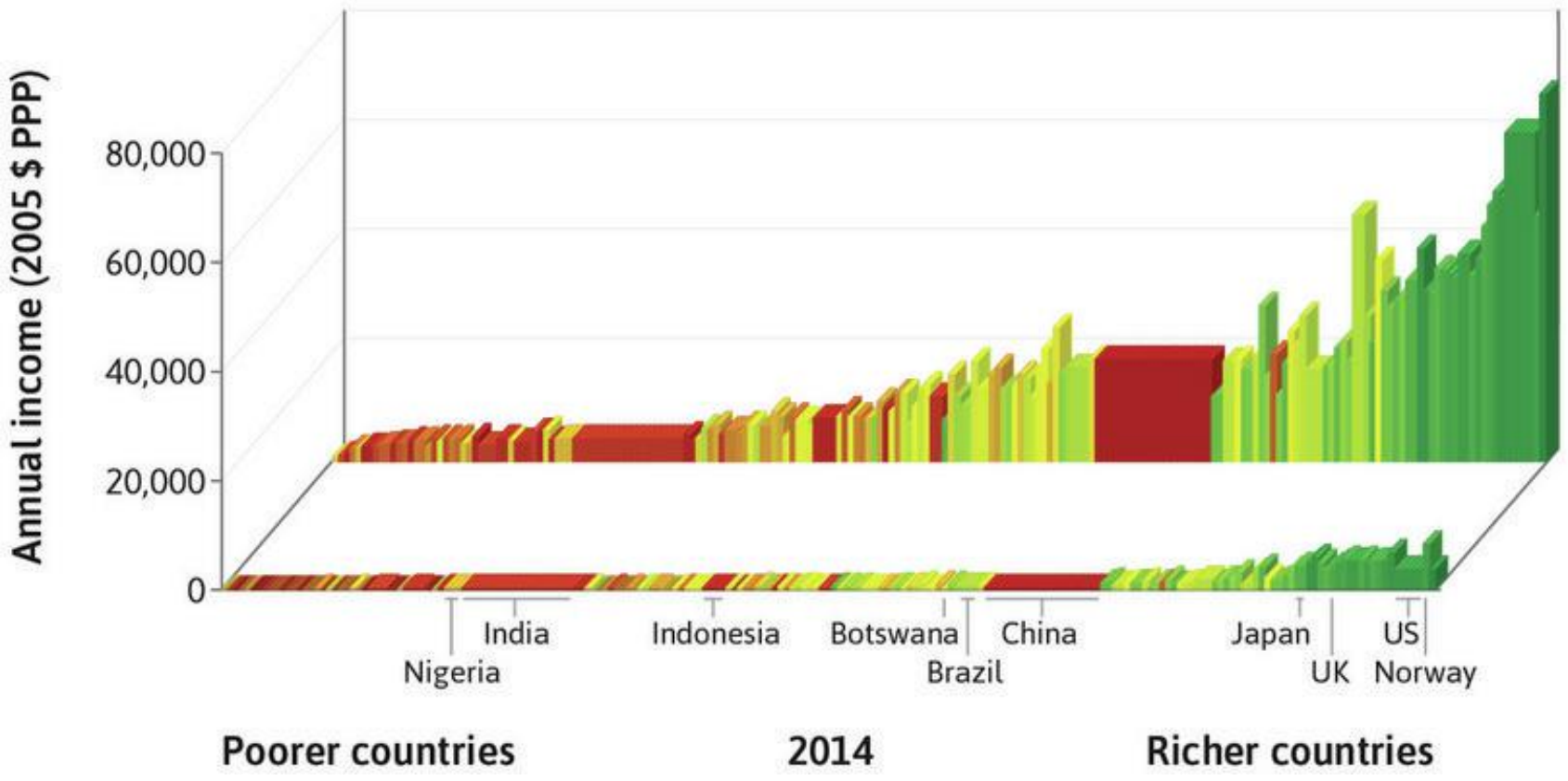
Inequality: 1990



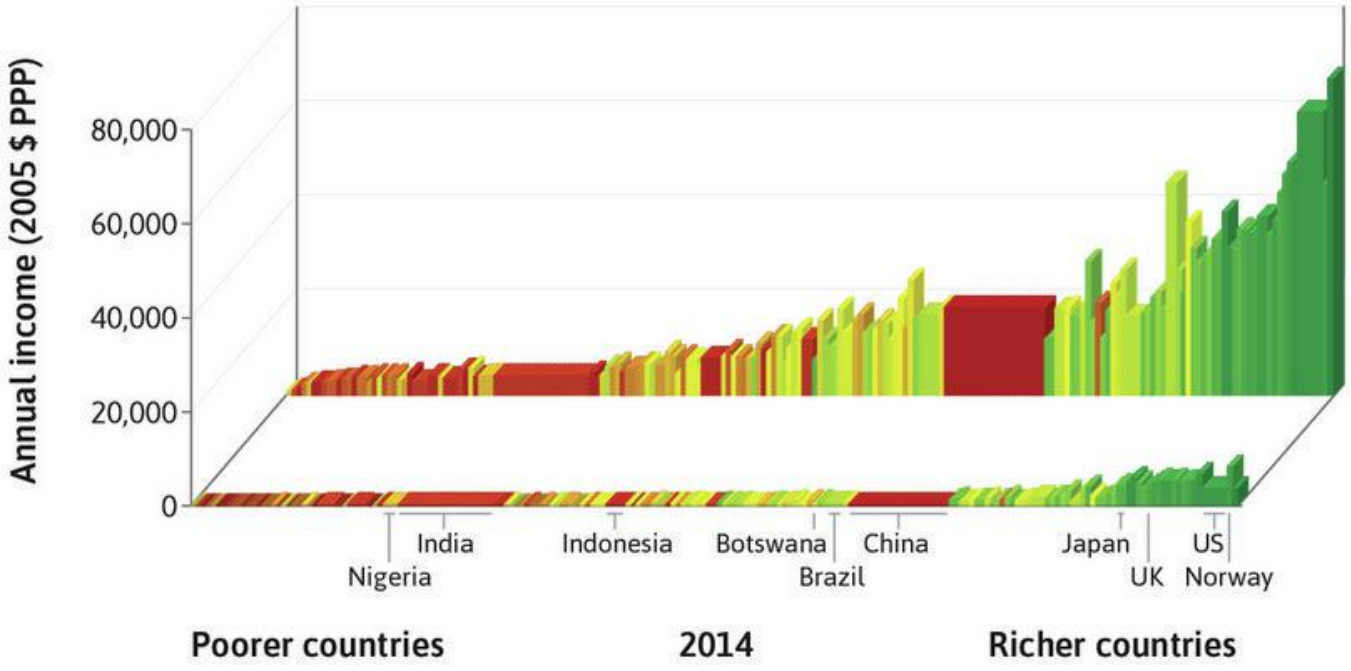
Inequality: 2014



Inequality: Top 10% and bottom 10%



Inequalities in numbers



Average Income	*Richest 10%*	*Poorest 10%*
Singapore	$67,436	$3,652
Liberia	$994	$17

Within and between country inequality

Extreme equality: 1,000 years ago, the world was "flat".

Unequal Growth

Sustained growth in some countries, others still in the flatlands

Big inequality both *within* and *across* countries.

both types of inequalities seemed to be growing

Is there a relationship between *unequal growth* and *economic system*?

Relationship status: *It's Complicated*

Inequality and growth

For a very long time, living standards
did not grow in any sustained way.

When sustained growth occurred it began
at different times in different places.

The countries that took off
economically a century or more ago
– UK, Japan, Italy -— are now *rich*.

The countries that took off only recently,
or not at all, are in the *flatlands*.

Measuring income and living standards

GDP per capita ≠ *Disposable income*

Gross Domestic Product (GDP):

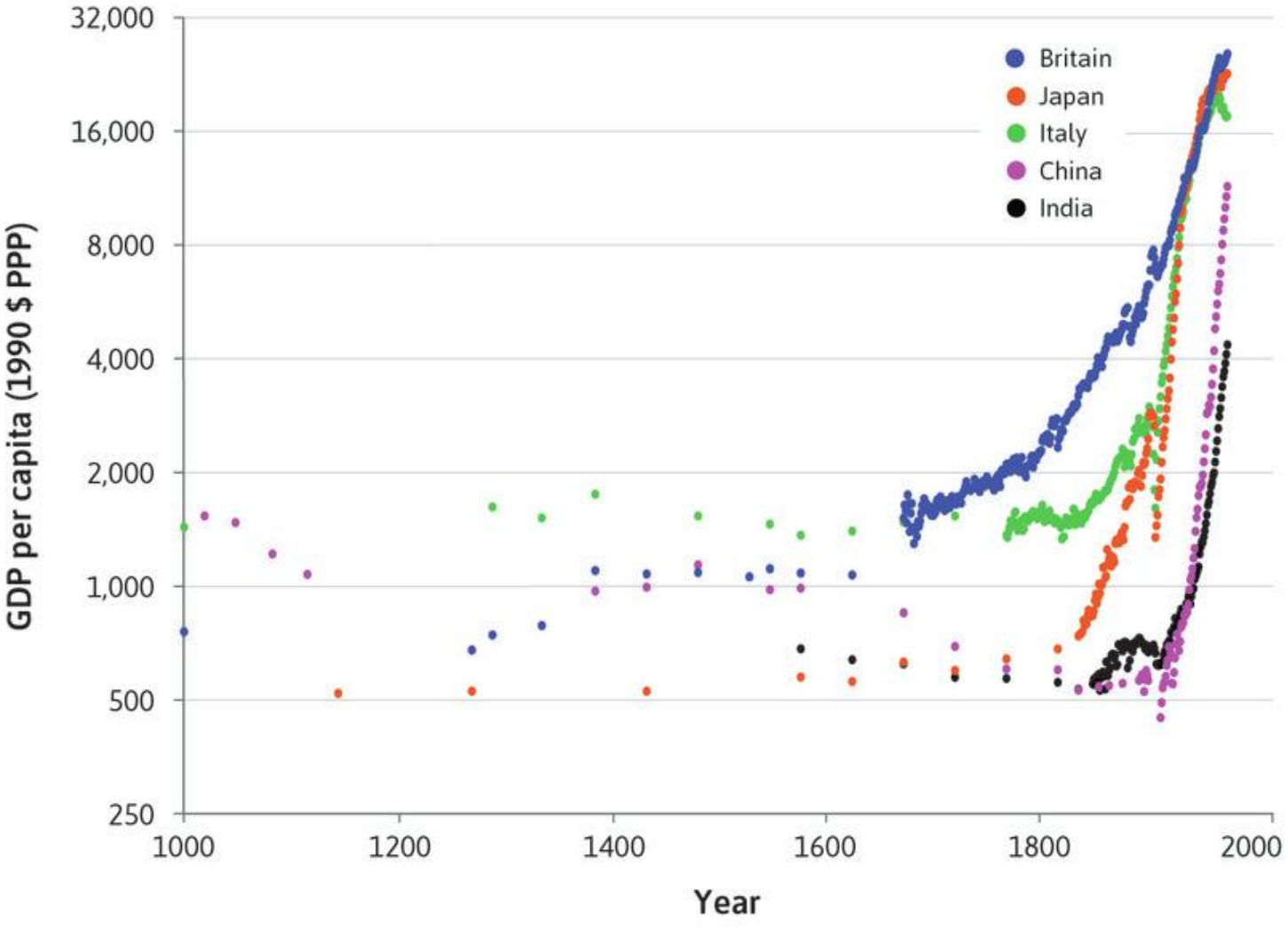
A measure of total income *or*
output of the economy in a given period.

Usually expressed in per-capita terms (as an average income)

Disposable income = Total income – taxes + government transfers

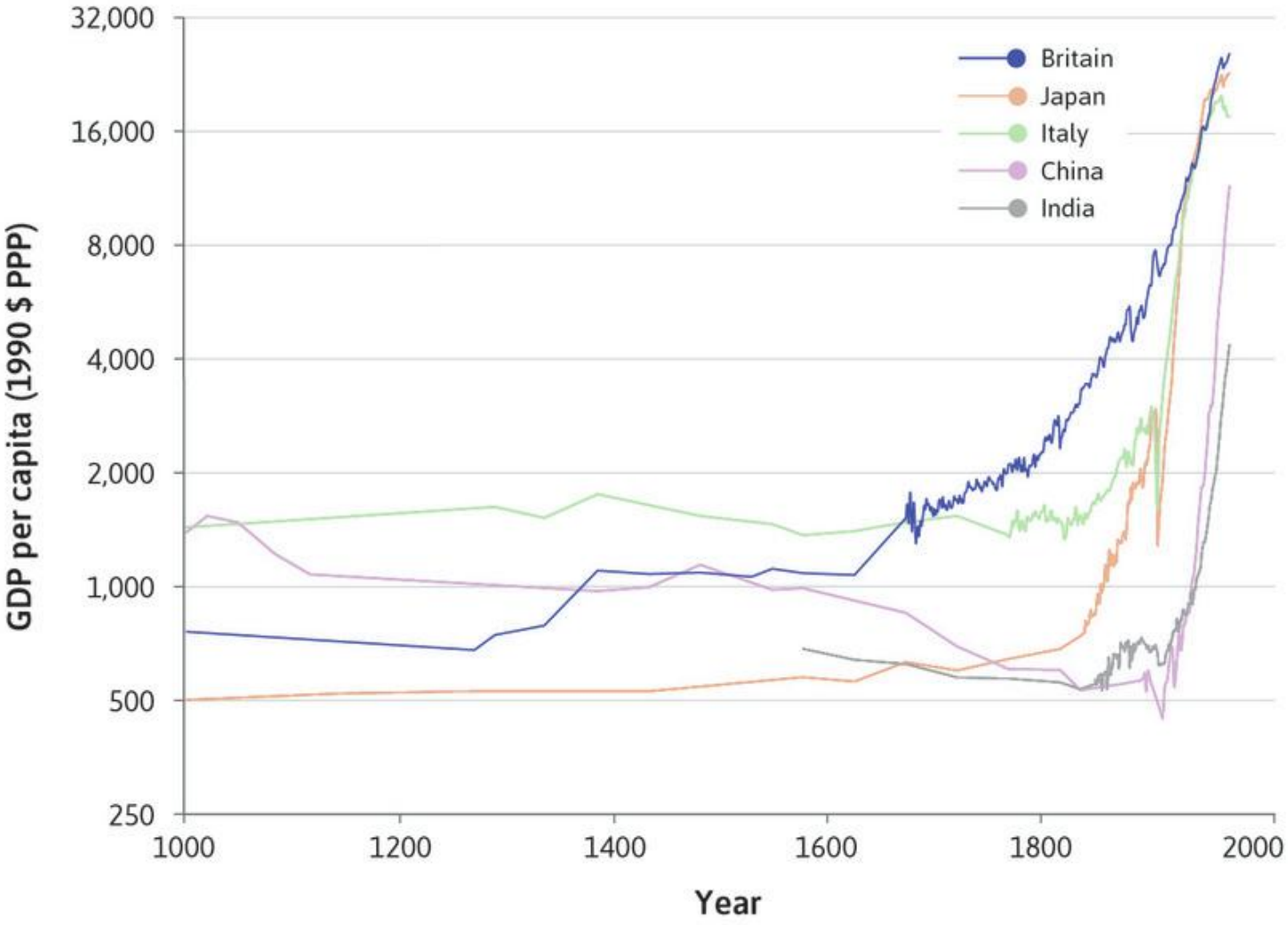
Both are imperfect measures of well-being

GDP GROWTH RATES



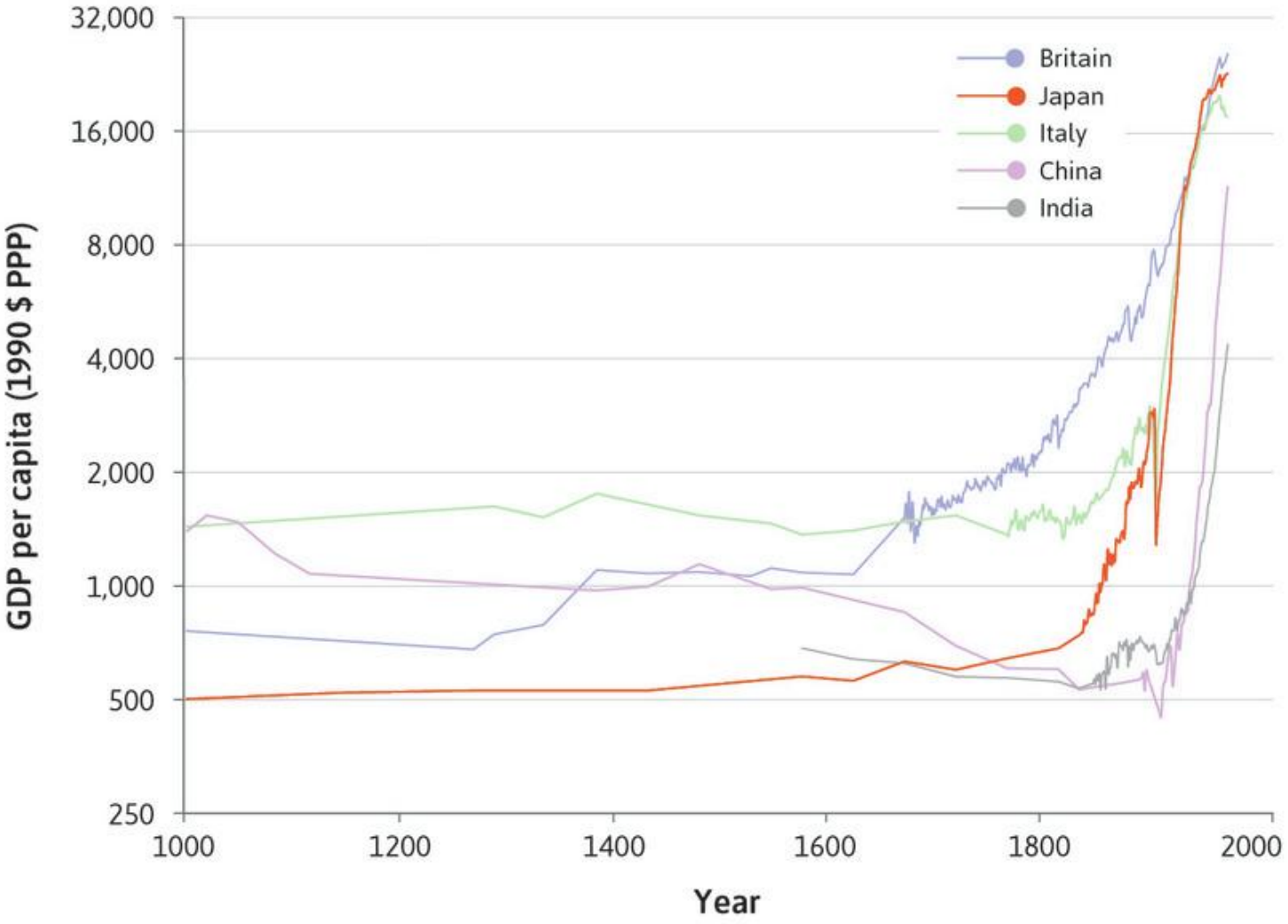
"Hockey-stick" growth: sustained rapid growth in some countries

GDP growth rates: Britain



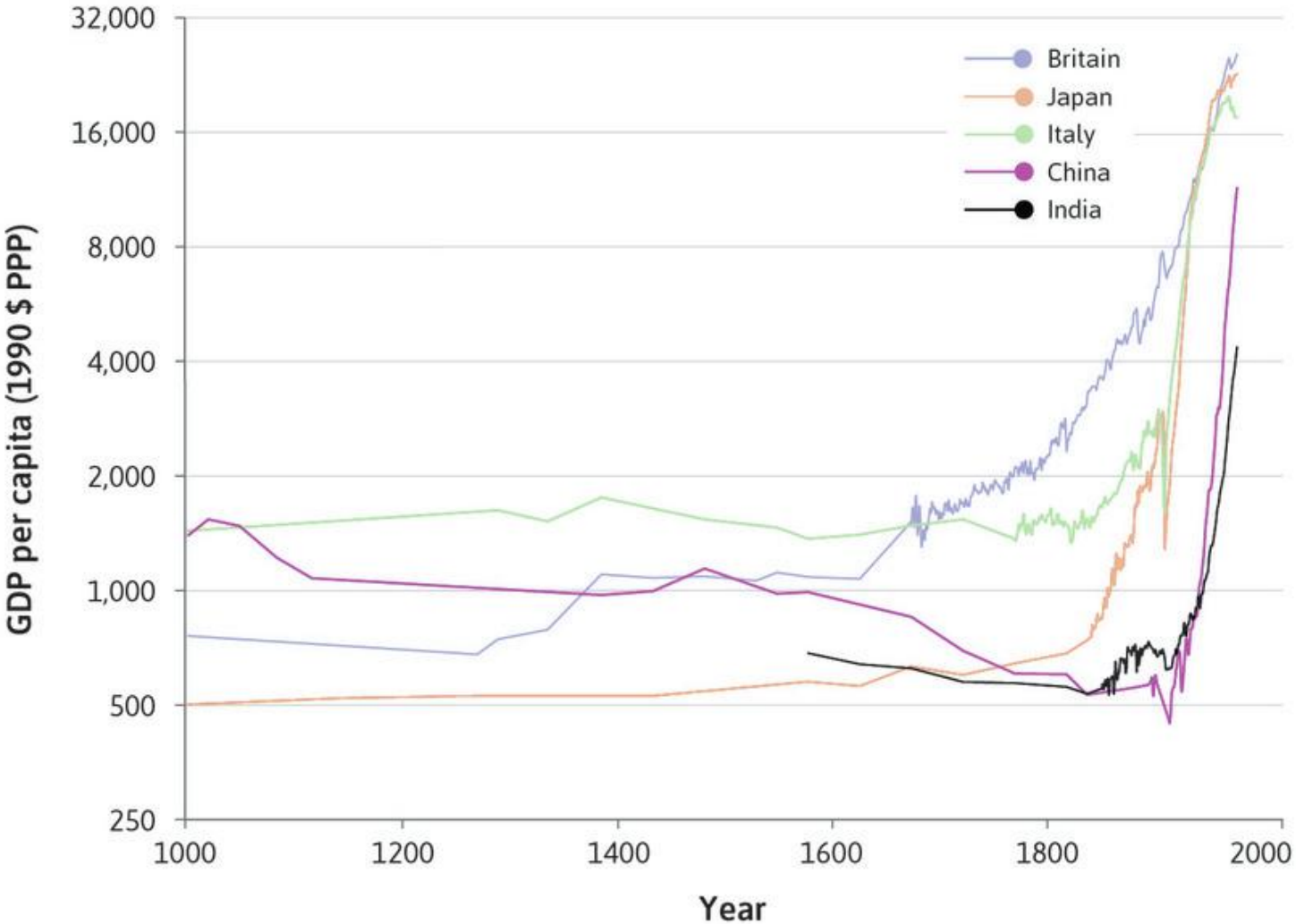
Sustained growth since 1650 century

GDP growth rates: Japan



Sustained growth since 1870 century

GDP growth rates: India, China



Sustained growth after 1950

Timing of growth

Growth take-off occurred at

different points in time

for different countries

Britain, after 1650.

Japan, after 1870.

China and India, after 1950 century.

Substantial *improvements in living standards* after independence from colonial rule in colonies and dependent territories

The Technological Revolution

Technology: Idea that sets out how inputs can be used to produce an output.

Inputs $\longrightarrow$ *Technology* $\longrightarrow$ Outputs

Tables
Chairs
Cutlery
Stove
Over
Manager
Waiters
Accountant

$\longrightarrow$ *restaurant's plan* $\longrightarrow$

Food
Ambience

The Technological Revolution

Improvement in technology reduces work-time to produce the things we need,

> *technological changes* allowed significant *increases in living standards.*

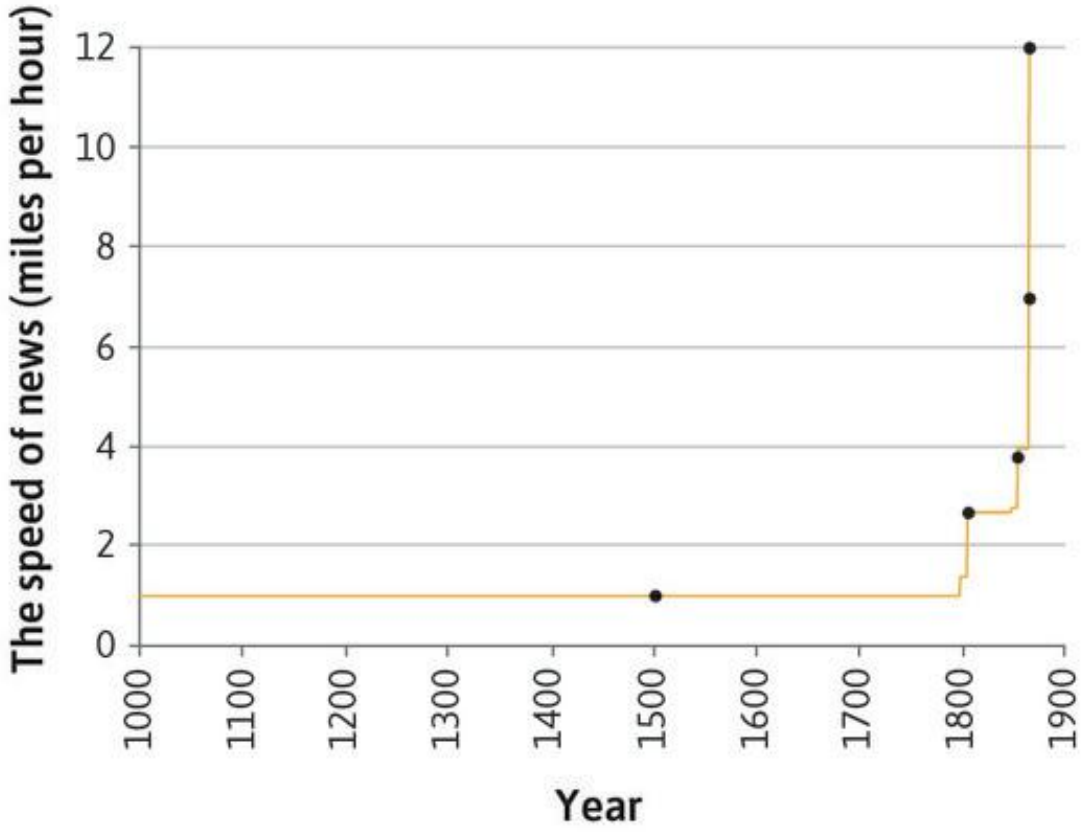
Remarkable scientific and technological advances occurs concomitantly more with *upward lurch in growth* in Britain in the middle of the 18th century.

The Industrial Revolution

Industrial Revolution: *a wave of technological advances* starting in Britain in the 18th century, which *transformed an agrarian and craft–based economy* into a *commercial and industrial economy*.

> E.g., productivity of labour today in producing light is *half a million times greater* than it was among our ancestors around their campfire.

A Connected World: Information



12 MPH
News of Lincoln's assassination travels across the US (1865)

7 MPH
News of Lincoln's election reaches west coast of US from Washington DC in east (1860)

3.7 MPH
News of the Indian mutiny reaches London from Delhi (1857)

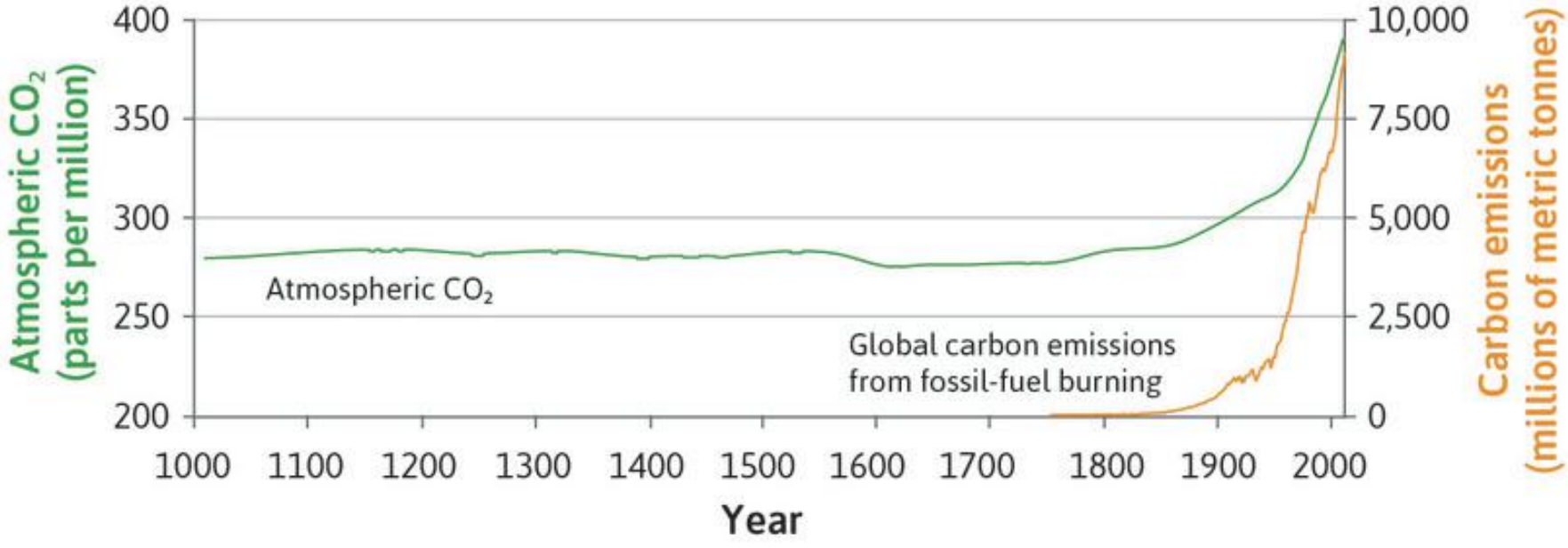
2.7 MPH
News of battle of Trafalgar, off coast of Spain, reaches London (1805)

1 MPH
Between Egypt and Italy (50–222)

1 MPH
Between Venice and Damascus, Alexandria, Lisbon and Palermo (1500)

Speed at which information travels increased with *technological progress*

Environmental consequences

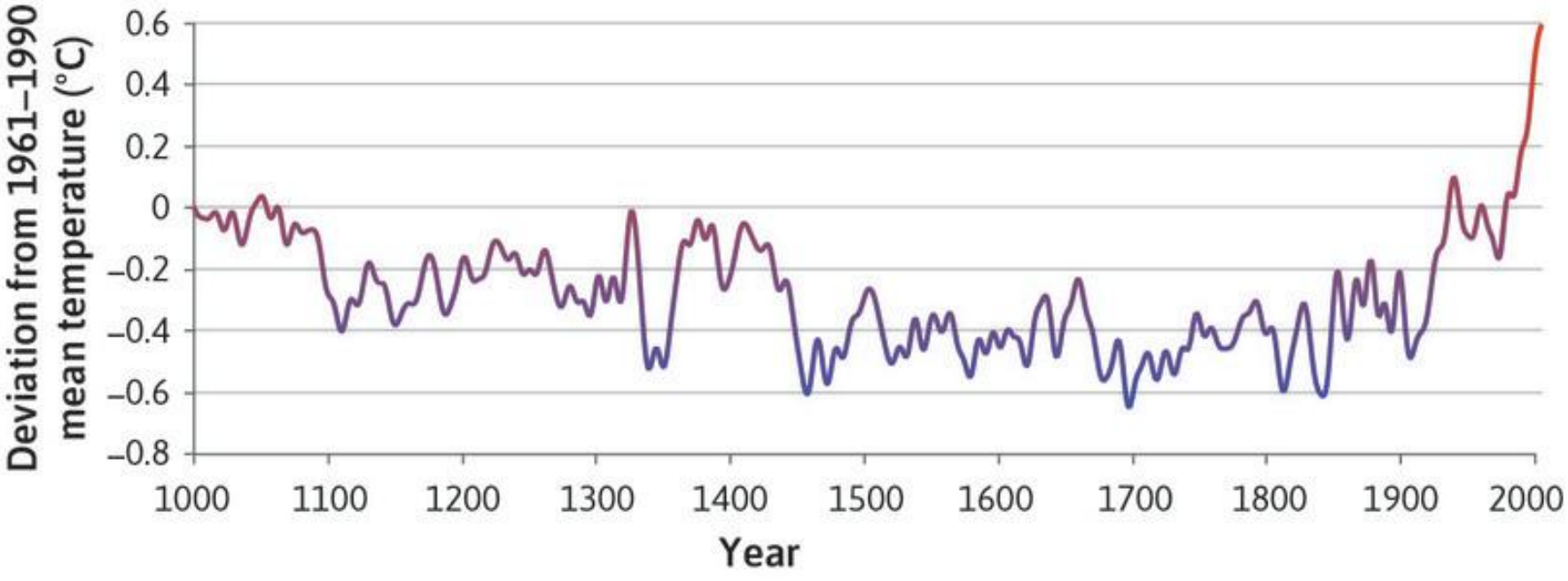


Increased production and population growth affects the environment

Global impacts (climate change) and

local impacts (pollution in cities, deforestation)

Environmental consequences



Increased production and population growth affects the environment

Global impacts (climate change) and

local impacts (pollution in cities, deforestation)

Environmental consequences

These effects are results of both

the expansion of the economy

– *illustrated by the growth in total output*

the way the economy is organised

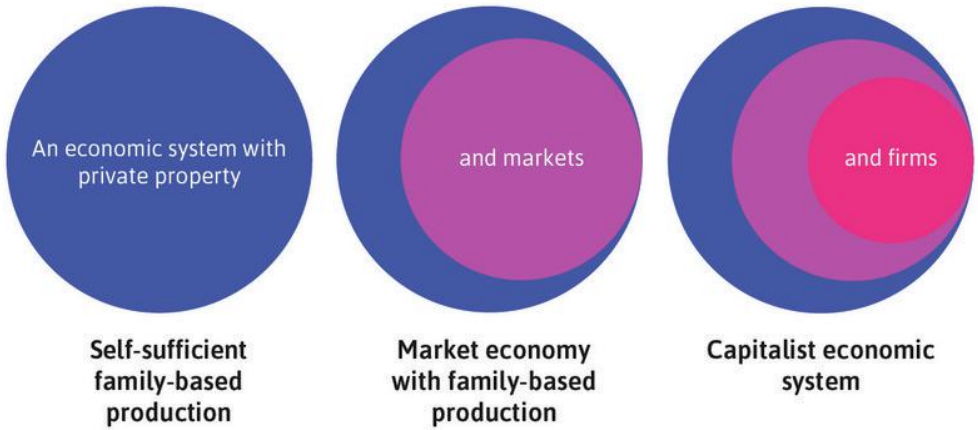
– *what kinds of things are valued and conserved*

The *permanent technological revolution* may also be part of the solution, by making it possible to *use less resources to produce more output*.

Capitalism

Institutions: are the laws and social customs governing the production and distribution of goods and services.

Capitalism: an economic system where the main institutions are *private property*, *markets*, and *firms*.



Key Concepts

Private property: ownership rights over possessions

Types of private property

capital goods: the non-labour inputs used in production.

. . . does not include some essentials, e.g. air, knowledge

Markets: a way for people to exchange products and services for their mutual benefit.

Unlike other types of exchange, markets

- are *reciprocated transfers*
- *voluntary*
- usually there is *competition*

Key Concepts

Firms: business organisation that uses inputs to produce outputs, and sets prices to at least cover production costs.

- Inputs and outputs are *private property*
- Firms use *markets* to sell outputs
- The aim is usually to make *profit*

Firms, different from families and governments . . .

- . . . they rapidly emerge, expand, contract and exit.

The Capitalist Revolution

Capitalism led to growth in living standards because of:

impact on technology: firms competing in *markets* had strong incentives to adopt and *develop new technologies*

specialisation: the *growth of firms* & the *expansion of markets* linking the entire world allowed historically unprecedented *specialisation* in tasks and production

Together with the technological revolution, this increased worker productivity.

The gains from specialization

Specialisation increases productivity of labour because we become better at producing things when we each focus on a limited range of activities

- *learning by doing*
- taking advantage of *natural differences in skill* and talent
- *economies of scale*

People can only *specialise* if they can stop self-production and obtain goods some other way.

Capitalist society: this is done via markets.

Comparative advantage & Exchange

Greta has *absolute advantage* in production of both crops

	Production if 100% of time is spent on one good
Greta	1250 apples or 50 tonnes of wheat
Carlos	1000 apples or 20 tonnes of wheat

Greta has a *comparative advantage* in wheat

Carlos has a *comparative advantage* in apples

Carlos' comparative productivity is higher in apples.

Important result: if Greta and Carlos produce what they have comparative advantage in, the collective output is maximised.

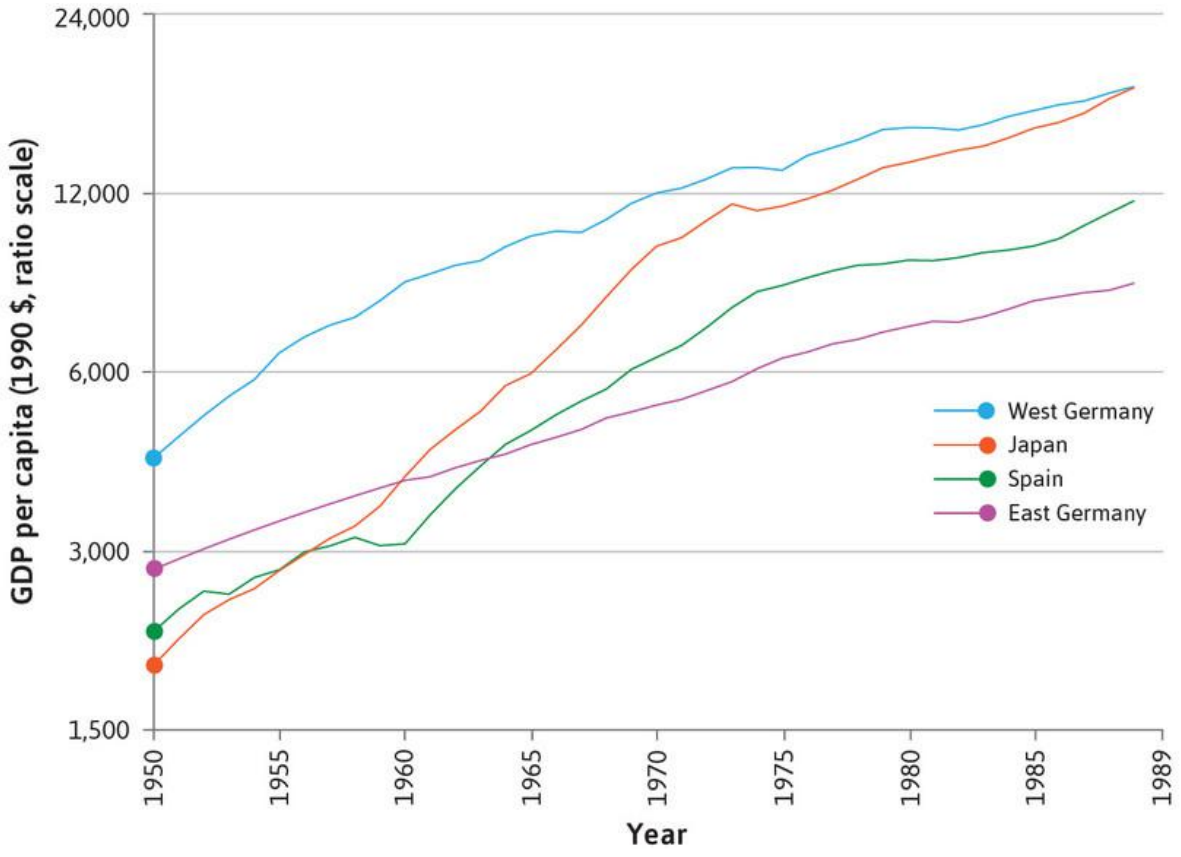
Comparative advantage & Exchange

All producers can benefit by *specialising* and *trading* goods,

even when producers specialises in goods
that others could produce at lower cost

Markets allow exchange, which in turn allows *specialisation* that increases the *labour productivity*

Did capitalism cause the hockey-stick growth?



Natural experiment: Capitalist West Germany versus Centrally planned East Germany.

Divergence in growth

Not all capitalist economies are equally successful

Economic conditions:

firms, private property, or markets may fail

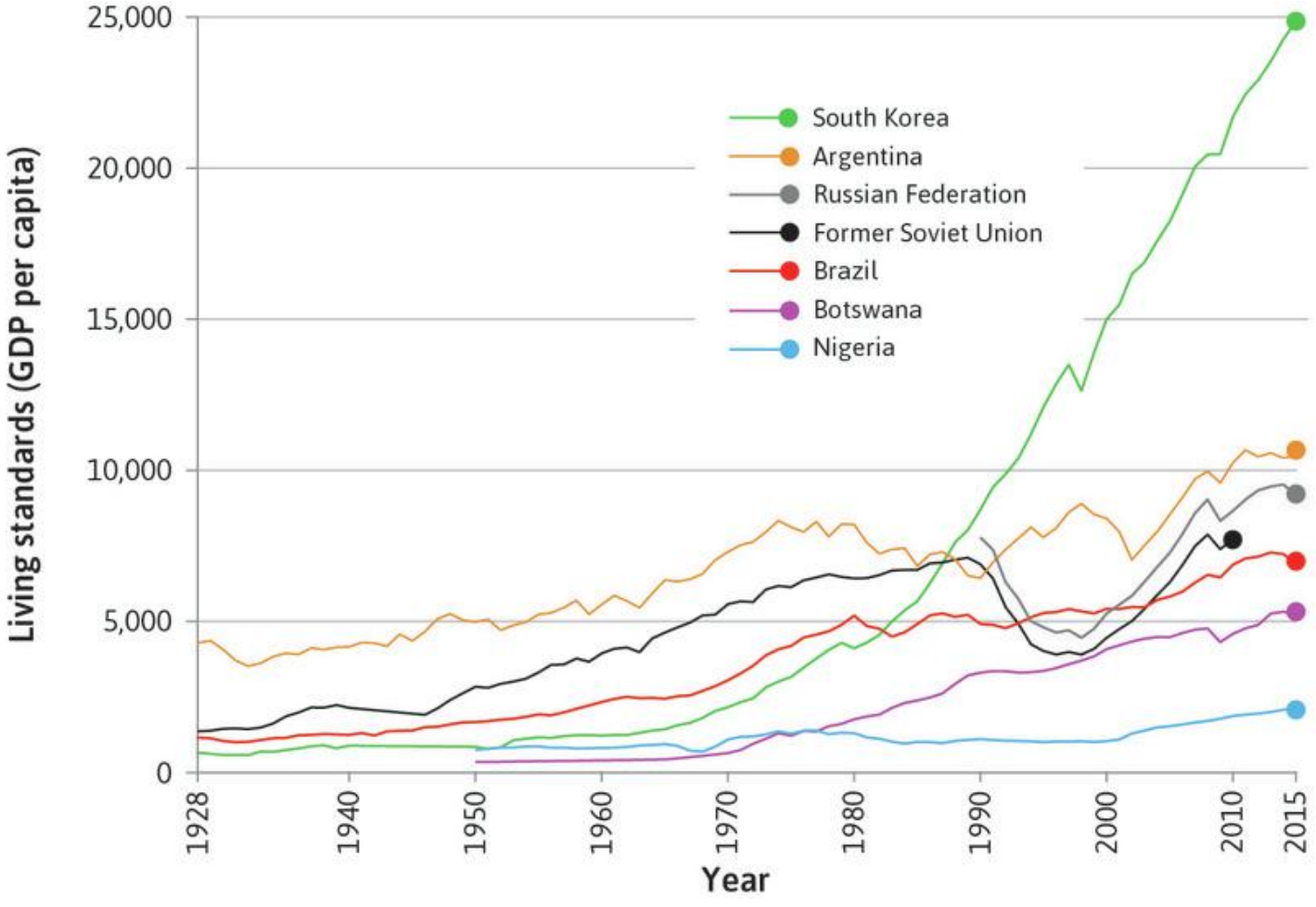
Political conditions:

capitalist institutions are regulated by the government

Public Goods:

the government also provides essential goods and services (infrastructure, education)

Divergence in growth



Different types of capitalist system

Political systems

Capitalism coexists with many political systems.

A *political system* determines how governments will be selected, and how those governments will make and implement decisions.

In most countries today, capitalism coexists with *democracy*

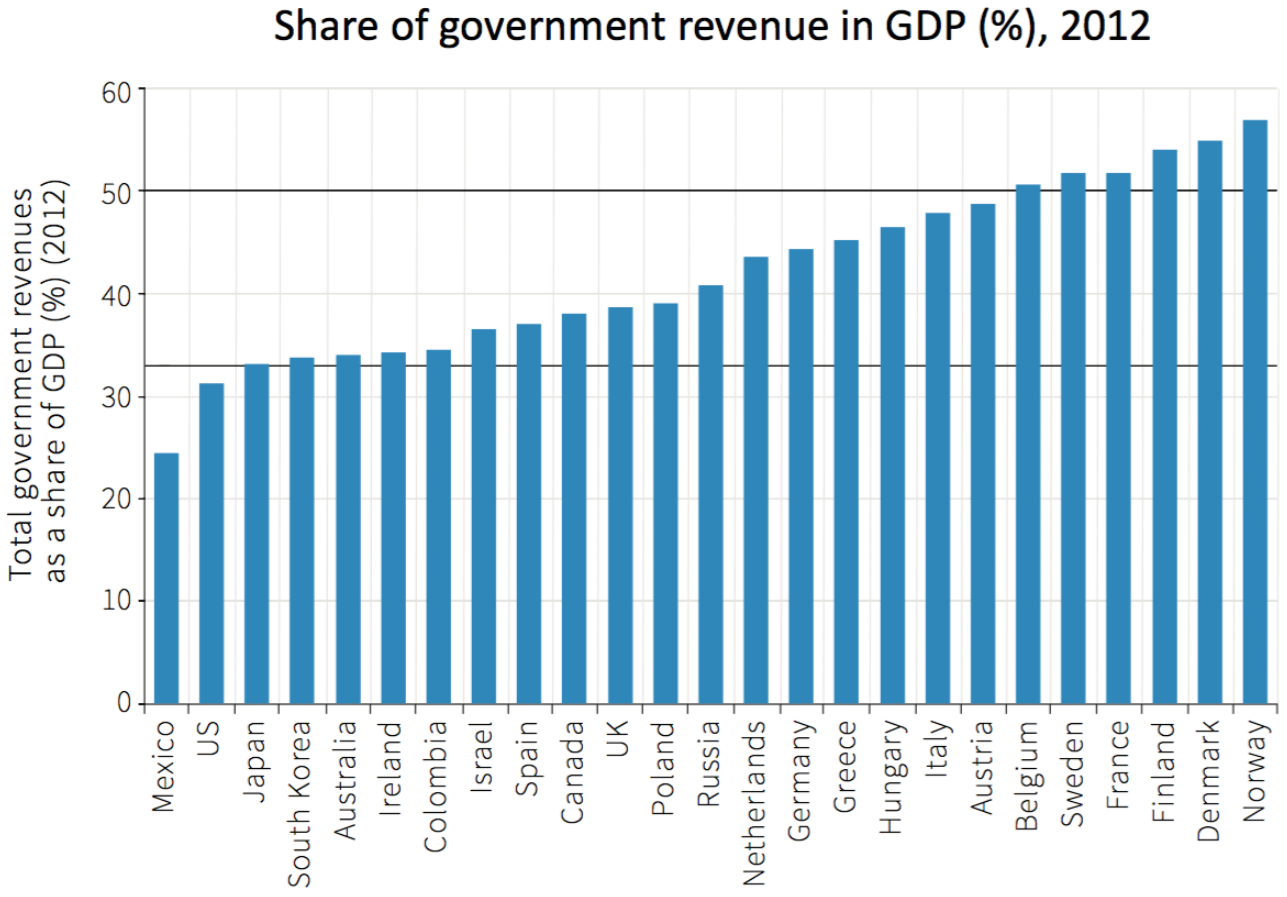
- individual rights of citizens (e.g. freedom of speech)
- fair elections

But capitalism has coexisted with non-democratic systems, too.

The role of governments

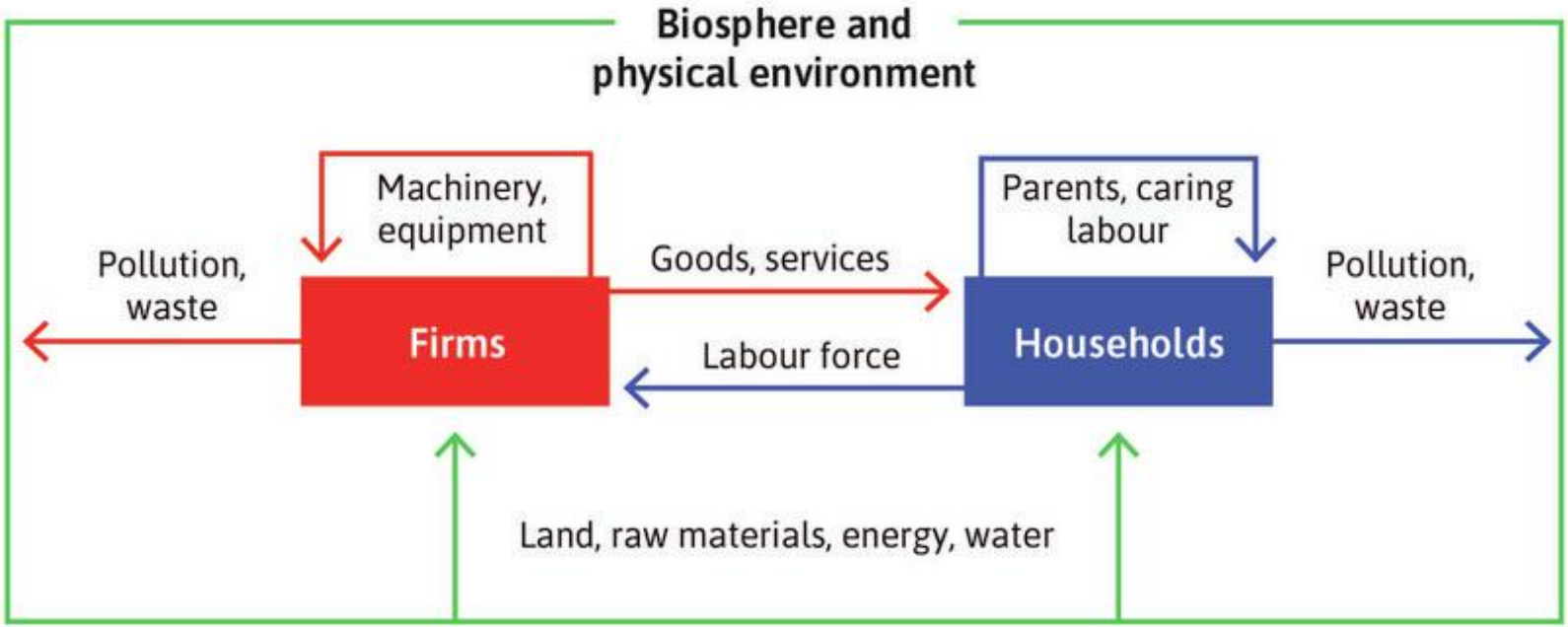
Versions of capitalism depending on versions of *political system*

Government's role in capitalism changes with political systems



Economics

Economics is the study of how people *interact* with each other and with their natural surroundings in *producing* their livelihoods, and how this *changes* over time.



Summary

Important trends in economic variables over time

- *Income inequality across* and *within* countries has increased time
- Positive/Negative *consequences of sustained growth* in GDP
- Role of *technological progress* in these trends

Capitalism depends on *three specific institutions* and its versions vary across the world according to its underlying institutions

- These are *private property*, *markets* and *firms*
- Failure of these institutions can explain divergence in economic growth across countries
- Political systems and the role of government also determine the type of capitalist society

In the next lecture

Using economic models to explain the trends in technological growth over time

The role of firms in technological development

Malthusian economics:

studying the interaction between population, technology, and economic growth