Unit 1

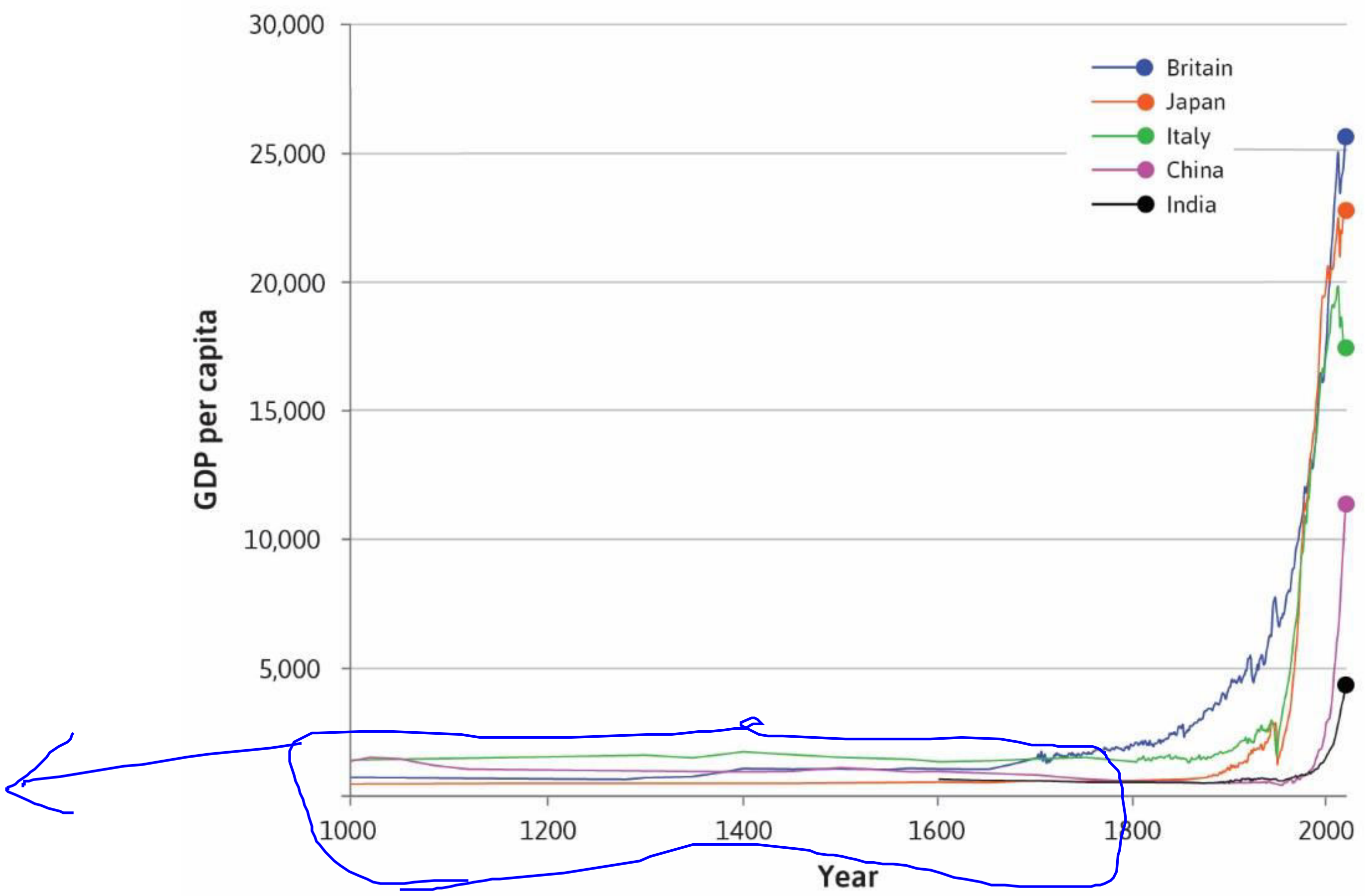
THE CAPITALIST REVOLUTION

OUTLINE

A. Introduction
B. Inequality
C. "Hockey-stick" growth
D. Capitalism
E. Economics

A. Introduction

The Context for This Unit



Rapid, sustained growth in average living standards since 1700.

How did this happen?

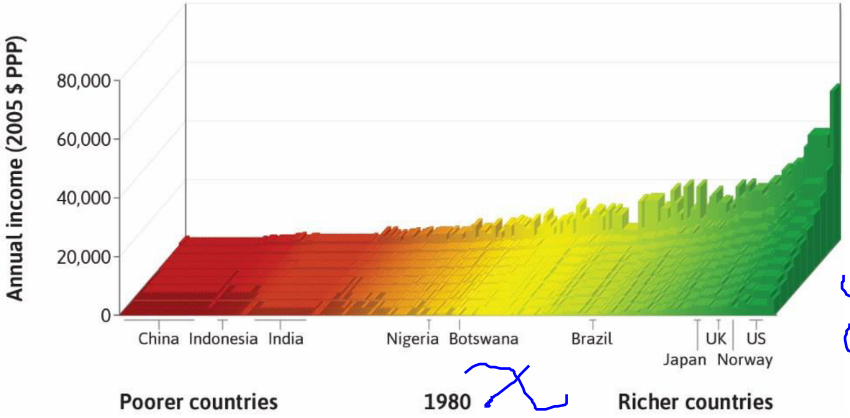
This Unit

- Economic inequality and divergence
- The technological revolution and growth
- The role of capitalism in economic growth
- Importance of the government in capitalist economies

B. Inequality

How unequal is the world?

1980



z

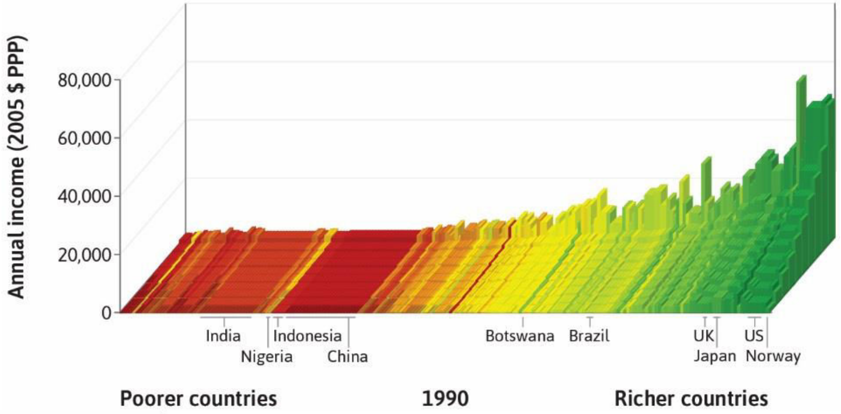
y

with-in country

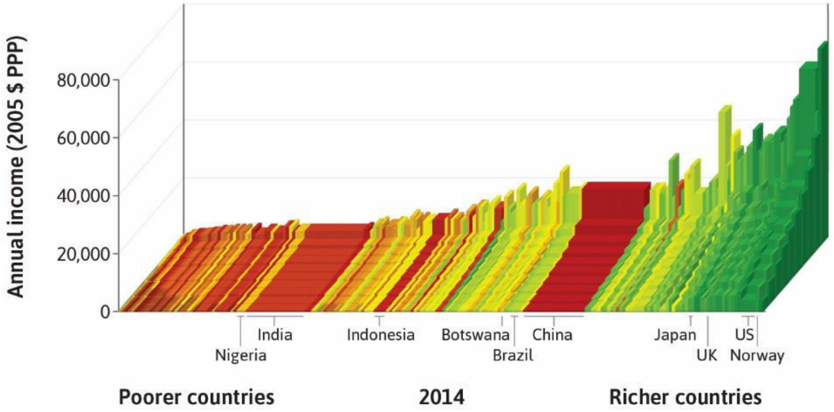
x

between country

1990



2014



In Singapore, the richest country on the furthest right, the average incomes of the richest and poorest 10% are $67,436 and $3,652 respectively.
In Liberia, the furthest left, the corresponding incomes are $994 and $17.

Within and between country inequality

1,000 years ago, the world was “flat”. Today, there are large differences both within and across countries.

While both types of inequality seemed to have increased, differences in average income between countries are much larger today than they were in the past.

We can link growing between-country inequality to the hockey-stick diagram.

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

Gross Domestic Product (GDP) = A measure of the market value of the output of final goods and services in the economy in a given period. Output of intermediate goods that are inputs to final production is excluded to prevent double counting.

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

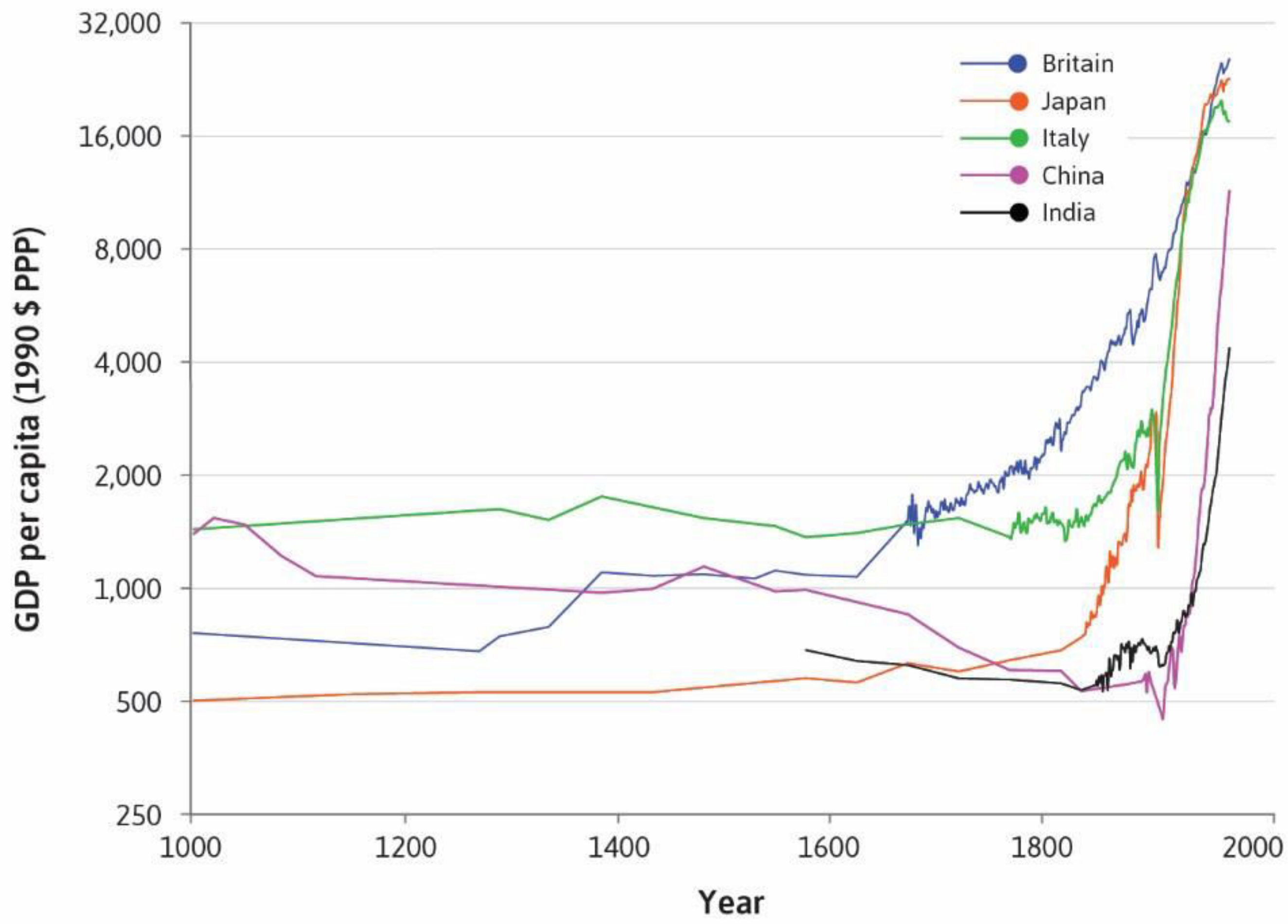
GDP per capita ≠ Disposable income

Disposable income = Total income – taxes + government transfers

Both are imperfect measures of well-being

C. “Hockey-stick” growth

GDP growth rates



"Hockey-stick" curves represent the sustained rapid growth in GDP per capita experienced by countries worldwide.

Timing of growth

Growth take-off occurred at different points in time for different countries:

- Britain was the first country to experience sustained economic growth. It began around 1650.
- In Japan, it occurred around 1870.
- The kink for China and India happened in the second half of the 20th century.

In some economies, substantial improvements in people's living standards did not occur until they gained independence from colonial rule or interference by European nations.

The Technological Revolution

Technology = The description of a process using a set of materials and other inputs, including the work of people and machines, to produce an output.

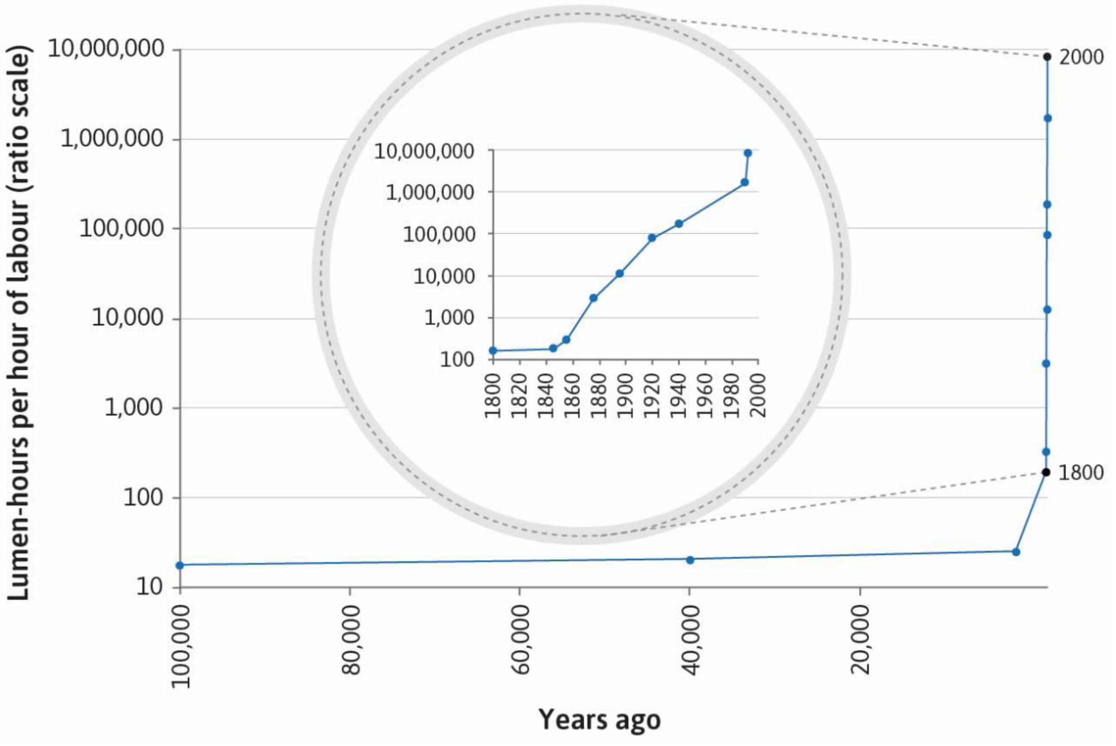
By reducing the amount of work-time it takes to produce the things we need, technological changes allowed significant increases in living standards.

Remarkable scientific and technological advances occurred more or less at the same time as the upward kink in the hockey stick in Britain in the middle of the 18th century.

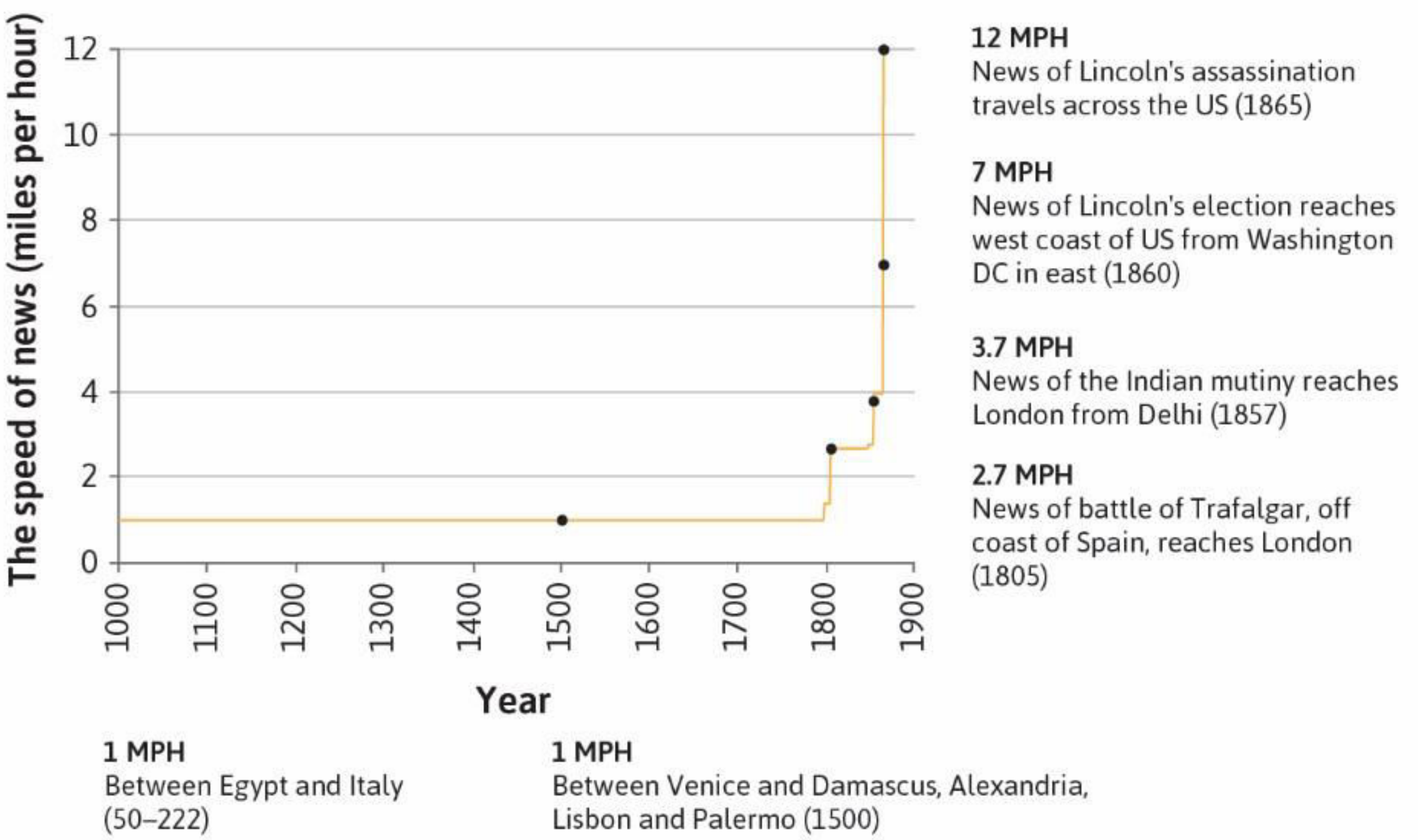
The Industrial Revolution

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.

For example, today the productivity of labour in producing light is half a million times greater than it was among our ancestors around their campfire.

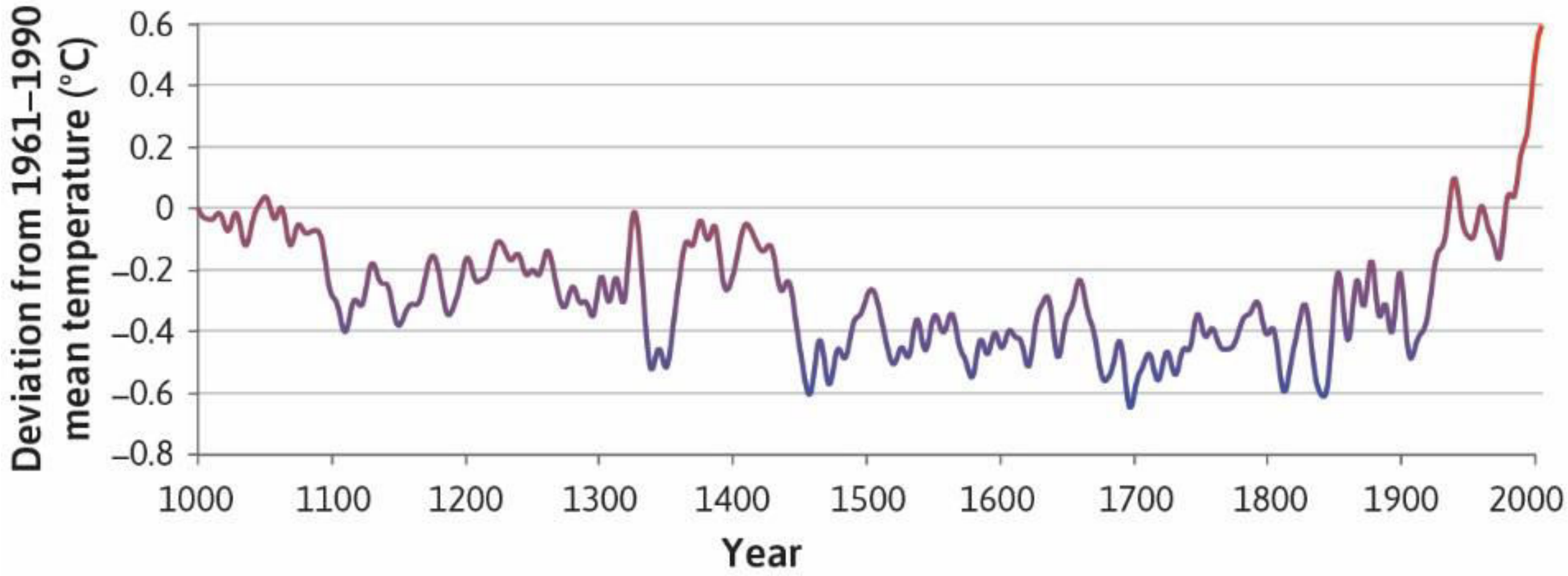


A Connected World



Technological progress also greatly improved the speed at which information travels, making the world more connected.

Environmental consequences



Increased production and population growth affects the environment

- Global impacts – climate change
- Local impacts – pollution in cities, deforestation

Technology may provide the solution

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 organized (what kinds of things are valued and conserved, for example).

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

D. Capitalism

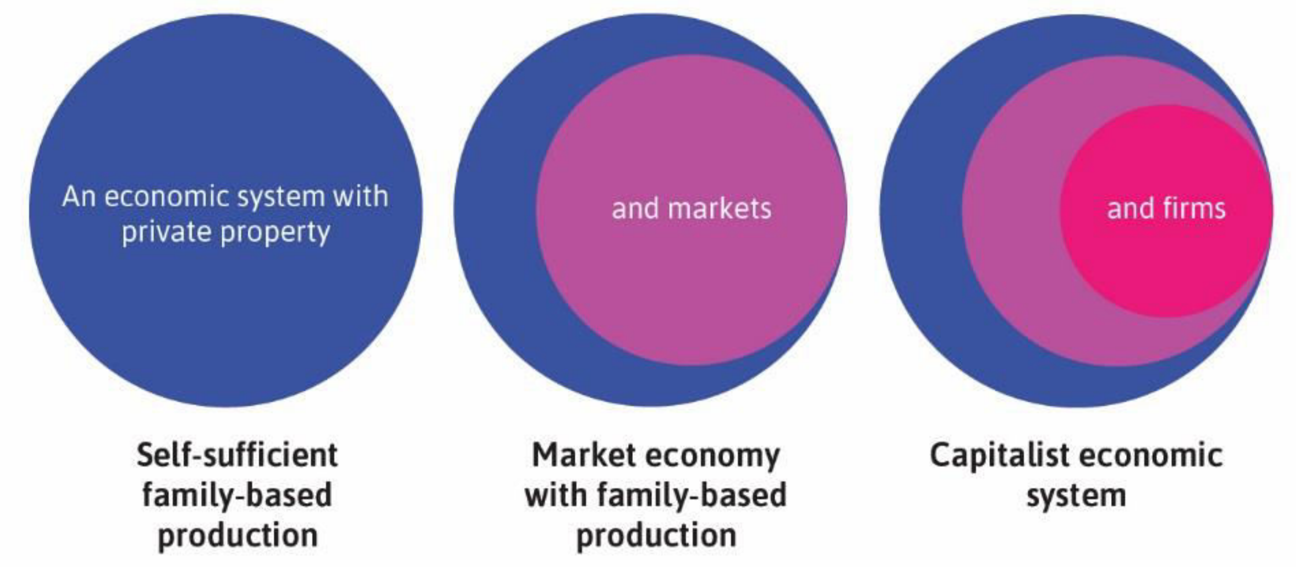
Economic systems and institutions

- **Institutions:** the laws and informal rules that regulate social interactions among people and between people and the biosphere, sometimes also termed the rules of the game.

- **Economic system:** a way of organizing the economy that is distinctive in its basic institutions. Economic systems of the past and present include: central economic planning (e.g. the Soviet Union in the 20th century), feudalism (e.g. much of Europe in the early Middle Ages), slave economy (e.g. the US South and the Caribbean plantation economies prior to the abolition of slavery in the 19th century), and capitalism (most of the world's economies today).

Capitalism

Capitalism = an economic system in which the main form of economic organization is **the firm**, in which the private owners of capital goods hire labour to produce goods and services for sale on markets with the intent of making a profit. The main economic institutions in a capitalist economic system, then, are private property, markets, and firms.



Key Concepts: Firms

- **Firms** = Economic organizations in which private owners of capital goods hire and direct labour to produce goods and services for sale on markets to make a profit.
- Other forms of economic organization coexist with firms in a capitalist economic system, but they are not firms:
  - Family or individual production (they do not hire others)
  - Nonprofit organizations (they do not seek to make profit or sell their output on a market)
  - Cooperatives (labour is not hired, work is done by members)
  - Government bodies (they do not seek profit; capital goods are not privately owned)

Key Concepts: Private Property & Markets

Private property = something is private property if the person possessing it has the right to exclude others from it, to benefit from the use of it, and to exchange it with others.

Capital goods = the durable and costly non-labour inputs used in production (machinery, buildings) not including some essential inputs, e.g. air, water, knowledge that are used in production at zero cost to the user

Markets = a way that people exchange goods and services by means of directly reciprocated transfers (unlike gifts), voluntarily entered into for mutual benefit (unlike theft, taxation), that is often impersonal (unlike transfers among friends, family)

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
- specialization: the growth of firms and the expansion of markets linking the entire world allowed historically unprecedented specialization in tasks and production

Together with the technological revolution, this increased worker productivity.

The gains from specialization

Specialization 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 specialize if they have a way to acquire the other goods they need. In a capitalist society, this is done via markets.

Comparative advantage

	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: 1 apple = 50/1250 = 0.4 whe

- Greta has **absolute advantage** in production of both crops
- Greta has a comparative advantage in wheat
- Carlos has a **comparative advantage** in apples = he is least disadvantaged in production of apples.

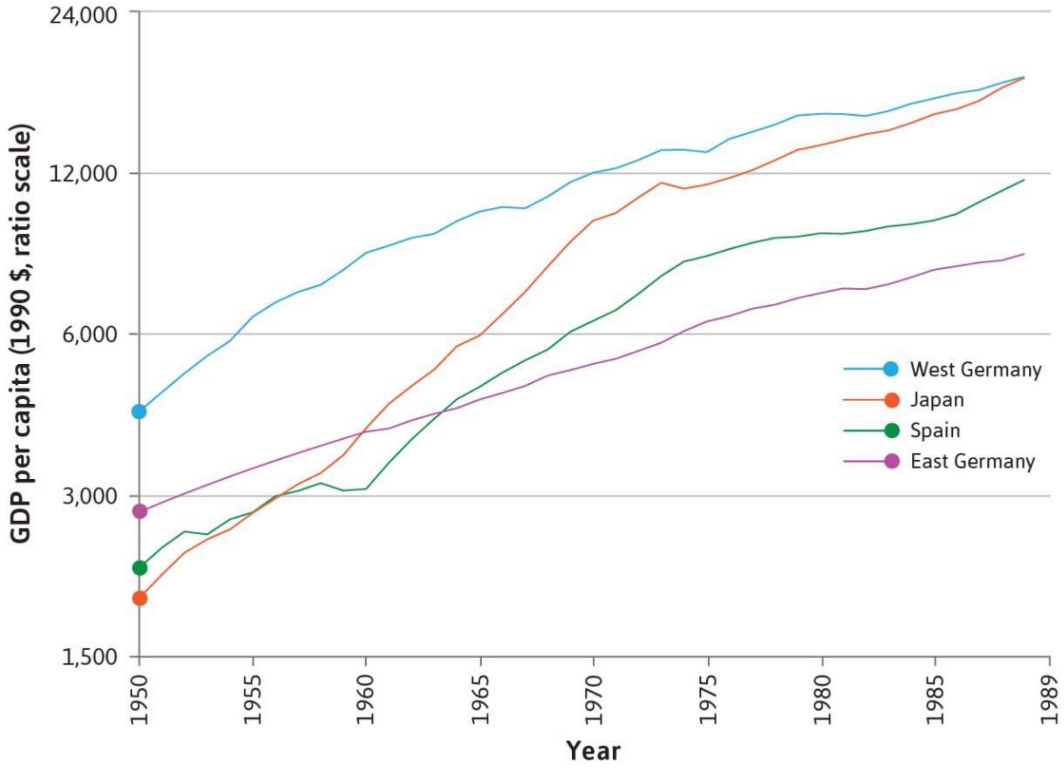
Comparative advantage

All producers can benefit by specializing and trading goods, even when this means that one producer specializes in a good that another could produce at lower cost.

Markets contribute to increasing the productivity of labour by allowing people to specialize.

Did capitalism *cause* the hockey-stick growth?

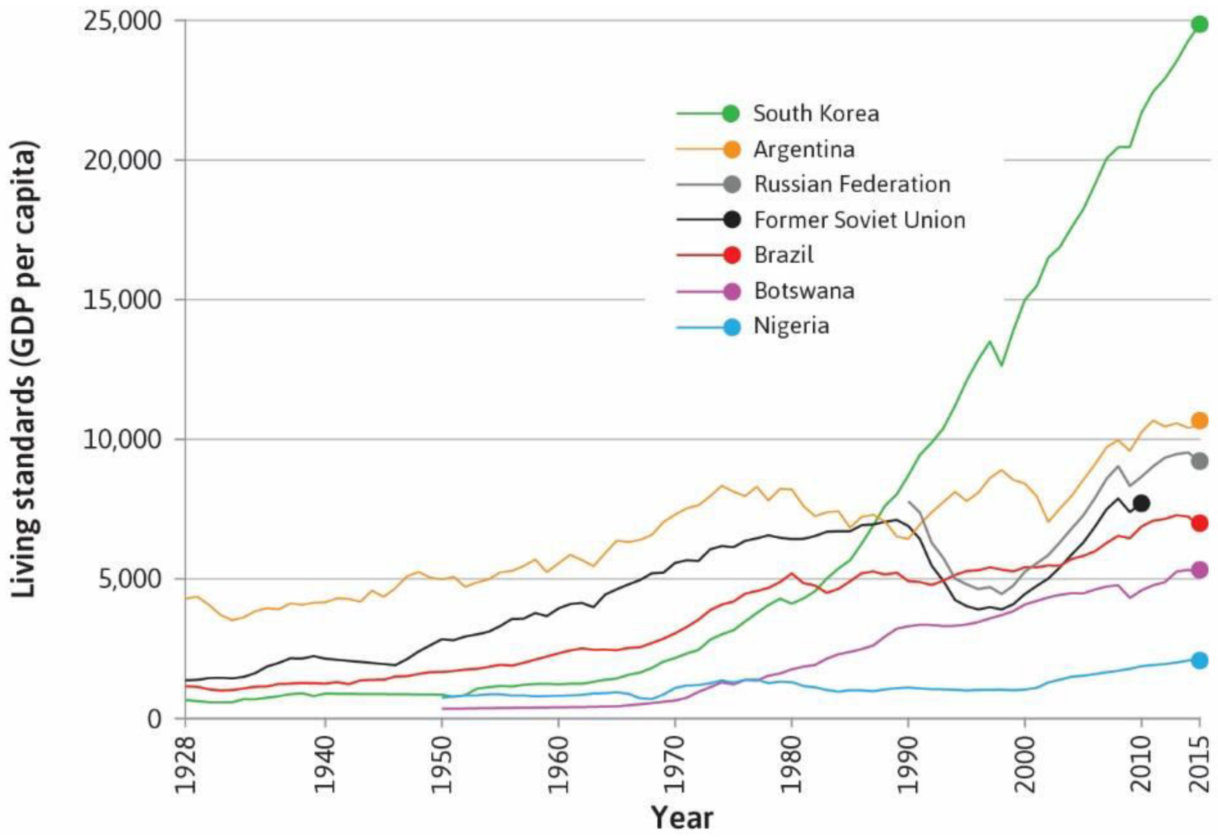
Natural experiment: the division of Germany at the end of World War II into two separate economic systems, capitalist in the west and centrally planned in the east.



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



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.

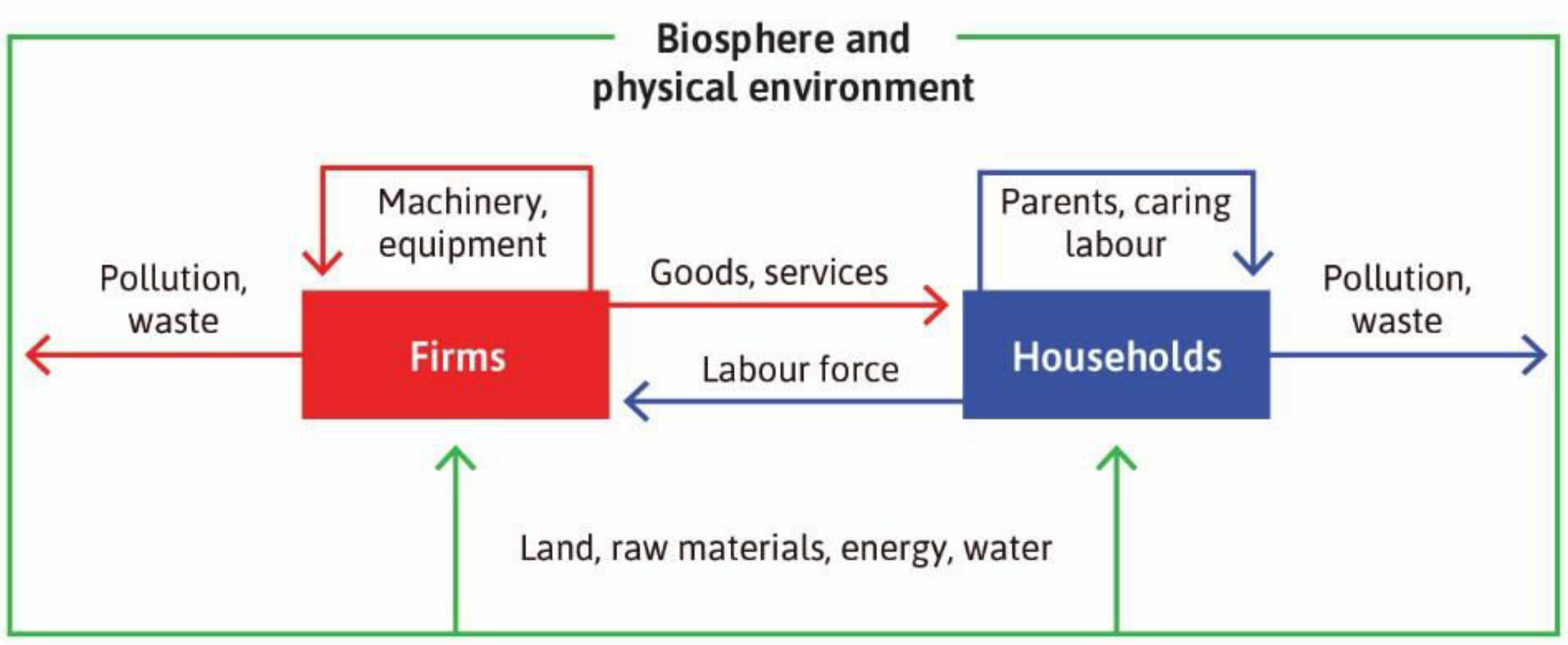
In most countries today, capitalism coexists with **democracy**

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

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

E. Economics

What is 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

1. Important trends in economic variables over time
- Income inequality across regions has increased a lot over time
- “Hockey-stick” growth in GDP, and its negative consequences
- **Technological progress** helped bring about these trends

2. The adoption of capitalism was another key factor
- **Capitalism = Private property** + **Markets** + **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 unit

- 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