

ECO101: Introduction to Microeconomics

Lectures 1-2

What is Economics?

- A social science that studies how individuals, businesses, governments, entire societies and nations make decisions given that we live in a world of **scarcity**
- *"The ultimate purpose of economics, of course, is to understand and promote the enhancement of well-being."* – Ben Bernanke
- Build models using a bunch of simplifying assumptions to understand the real world

Economic Concepts

Scarcity:

- Unlimited needs and wants, limited resources
- Having more of one thing requires having less of something else i.e. we have to give up X to get Y – a trade-off
- **Opportunity cost:** Next best alternative that we give up in order to get something.
- Choices depend on incentives – an incentive is a reward that encourages an action

In Broad Terms

Economics has two main branches:

- **Microeconomics:** focuses on the decisions of individuals and firms
- **Macroeconomics:** focuses on the national and global economy

Fundamental Questions of Microeconomics

- What goods and services should be produced?
- Who gets these goods and services?
 - Two main actors in the economy: **producers & consumers**
 - When these actors interact in a market, **prices** are determined
 - Prices then dictate what is produced, how it is produced and how goods and services are allocated

What gets produced? DVDs vs Netflix



MARKETS BUSINESS INVESTING TECH POLITICS CNBC TV INVESTING CLUB PRO



ENTERTAINMENT

The death of the DVD: Why sales dropped more than 86% in 13 years

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KEY POINTS

- Since 2008, DVD sales have declined more than 86%.
- A combination of the Great Recession, a rise in customers buying on-demand and digital copies of films and the launch of streaming services is what has caused DVD sales to plummet.
- Since 2011, platforms like Netflix, Hulu and HBO have seen sales balloon 1,231% to \$12.9 billion.

TRENDING



Positive vs Normative Economics



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SCHEMES

PRAGATI	SUROKKHA	SAMATA	PRABASH
			
Private sector employees	Self-employed persons	Low-income individuals	Expatriates

CRi

Positive Economics

- The way things are
- Universal Pension Scheme brings the growing elderly population under a social protection system by providing monthly stipends.

Normative Economics

- The way things ought to be
- Citizens over the age of 50 should also be included in the universal pension scheme.

Production Possibilities Frontier

What goods can we produce?

- Trade-off: To produce more of something, we need to produce less of something else
- We face scarcity in terms of **resources** and **technology**

A 2 goods model

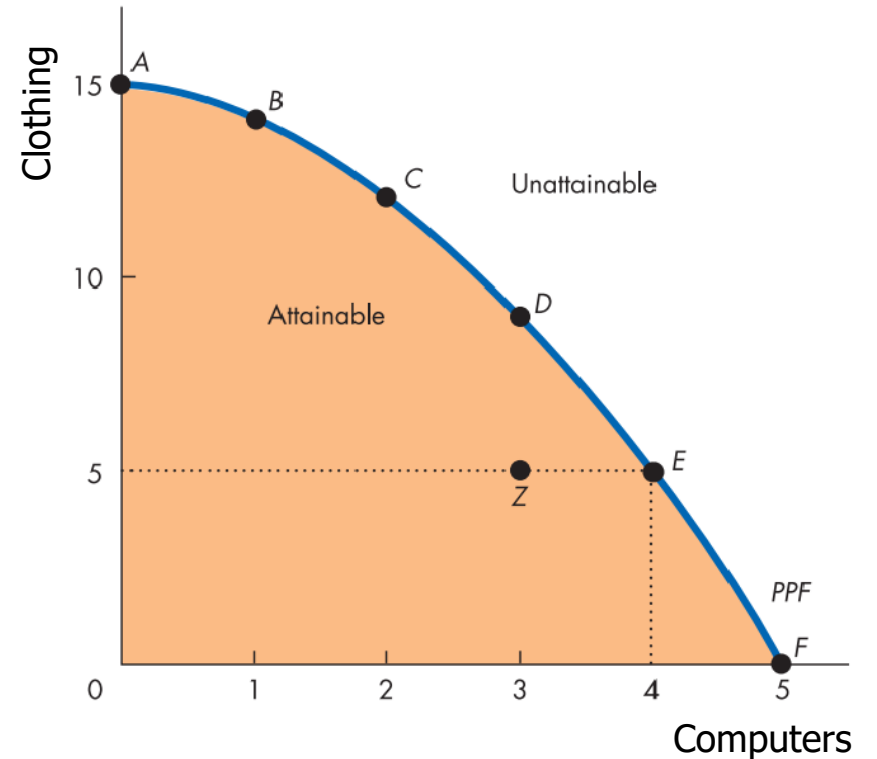
- Imagine a world where Bangladesh produces two goods only: clothing and computers
- In this model economy, everything else remains the same (ceteris paribus) except the production of these two goods
- A **Production Possibility Frontier (PPF)** shows the different combinations of these two goods that can be produced in a given time period, given the total resources available.
- A PPF represents most key concepts that we have covered so far: scarcity, trade-offs, opportunity costs.

Production Possibilities Frontier

A 2 goods model

- On the x-axis, we have the quantity of computers produced and on the y-axis, we have the quantity of clothing produced
- All points inside the PPF and on the PPF are **attainable** i.e. these bundles can be produced
- All points outside the PPF are **unattainable**
- At point E, we are producing 5 million units of clothing and 4 million computers.
- What happens if we move from point E to point B on the PPF?
- What if we no longer wish to produce any computers?
- What happens at point Z?

The Production Possibilities Frontier

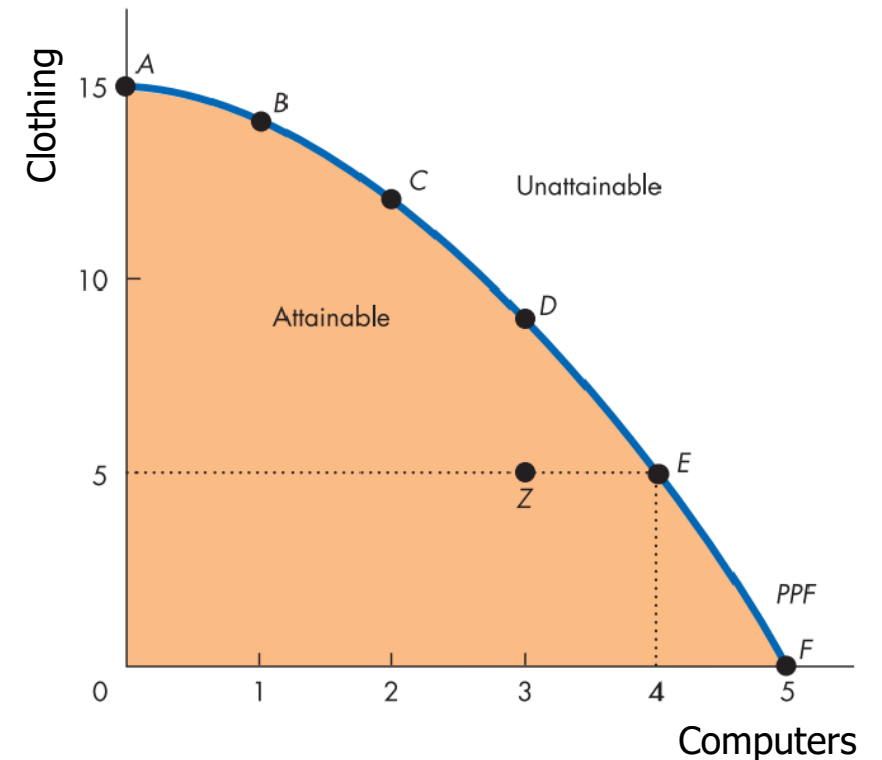


Production Possibilities Frontier

A 2 goods model

- Points on the PPF are **feasible** i.e. they can be produced and **efficient** i.e. they represent full employment of available resources.
- Production efficiency is achieved when we cannot produce more of one good without producing less of another good.
- All points inside the PPF are **inefficient** i.e. resources are not utilized properly.
- Movements along the PPF represent trade-offs e.g. we must give up some computers to produce more units of clothing
- Recall, the concept of opportunity cost : next best alternative that we give up in order to get more of something else

The Production Possibilities Frontier

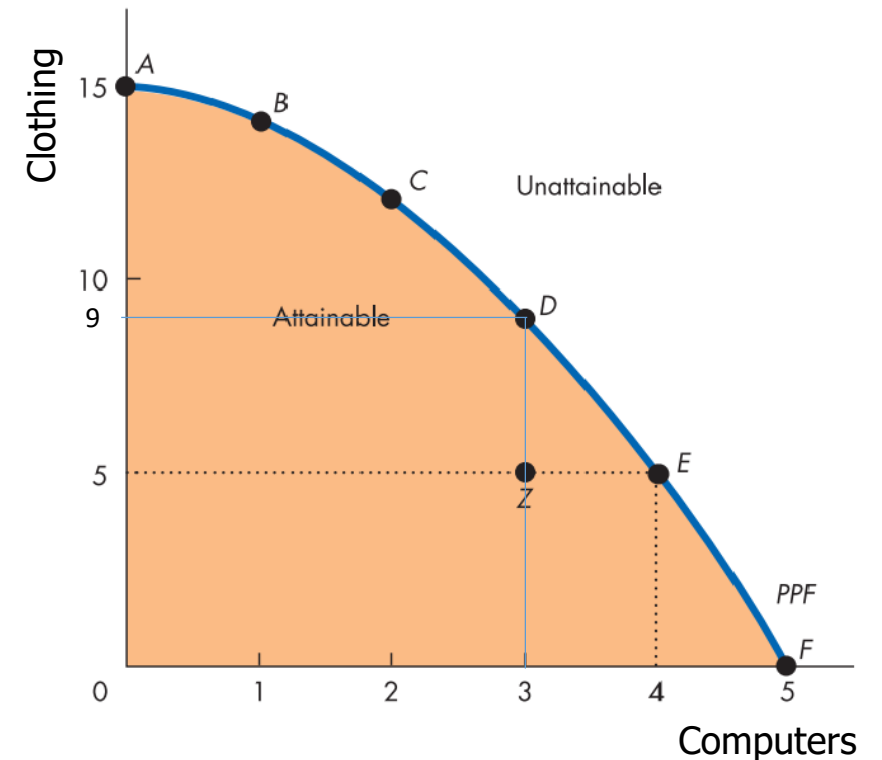


Production Possibilities Frontier

A 2 goods model

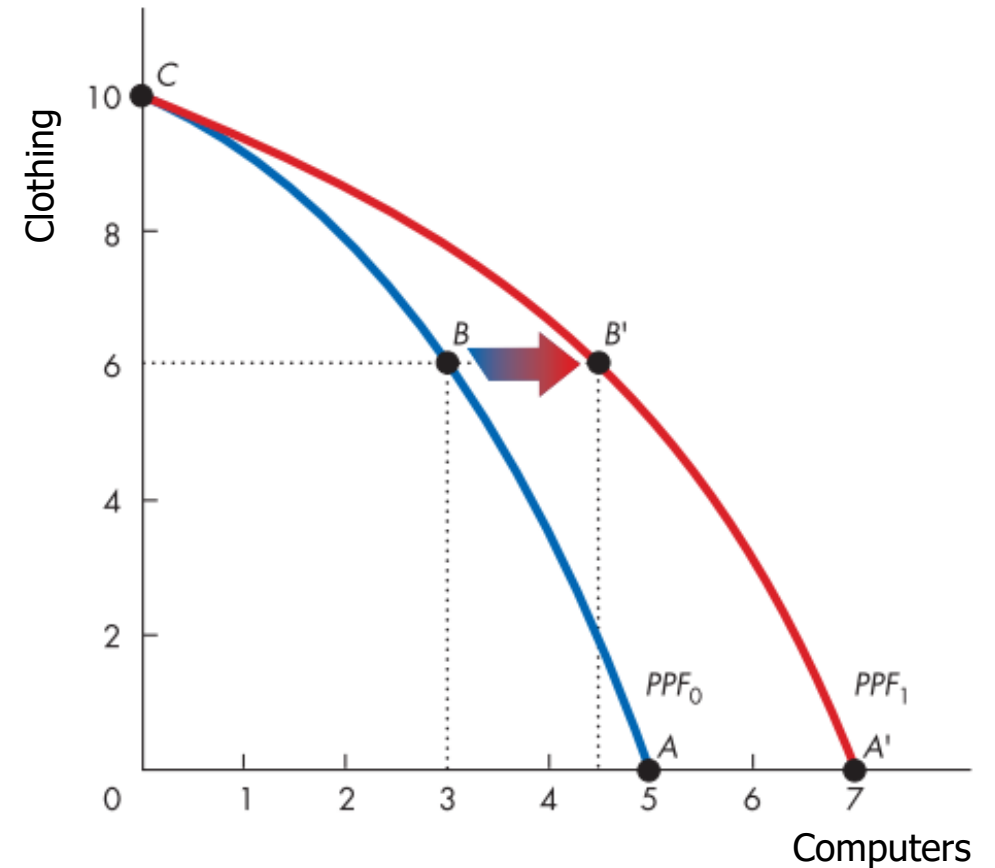
- Opportunity cost of producing an additional unit of computer equals the units of clothing that we give up.
- When we move from point D to E, we are producing one additional unit of computer and giving up 4 units of clothing i.e. 1 computer costs 4 pieces of clothing.
- What is the opportunity cost of moving from E to D?
- Notice the shape of the PPF – it is bowed outwards i.e. **concave to the origin**.
- The shape of PPF represents **increasing opportunity cost** – the more of either good that we produce, the larger the opportunity cost of producing an additional unit of that good. What is the intuition behind this?

The Production Possibilities Frontier



Production Possibilities Frontier

- Expansion of production possibilities is possible through **technological progress & economic growth**.
- If Bangladesh devotes resources to capital accumulation and technological development, we become more capable in producing computers – the PPF **rotates outwards** from PPF_0 to PPF_1
- To expand our production possibilities in the future, we must devote fewer resources to producing consumption goods and some resources to accumulating capital and developing technologies so that we can produce more consumption goods in the future.



Exports: Goods and services that we sell to other countries

Imports: Goods and services that we buy from other countries

International Trade

- Why does Bangladesh import onions?
- Who gains from international trade?
- Who loses?

Onion prices go up as India slaps fresh duty!



2X2 Model

- 2 goods: clothing & computers
- 2 countries: Bangladesh and the UK
- It is much easier to produce computers in the UK due to the availability of a high-skilled labor force and it is much easier to produce clothing in Bangladesh due to a large pool of low-wage workers

Bangladesh	
Clothing	Computer
30	0
0	10

Opportunity cost of producing clothing = $\frac{1}{3}$ computers

Opportunity cost of producing computers = 3 pieces of clothing

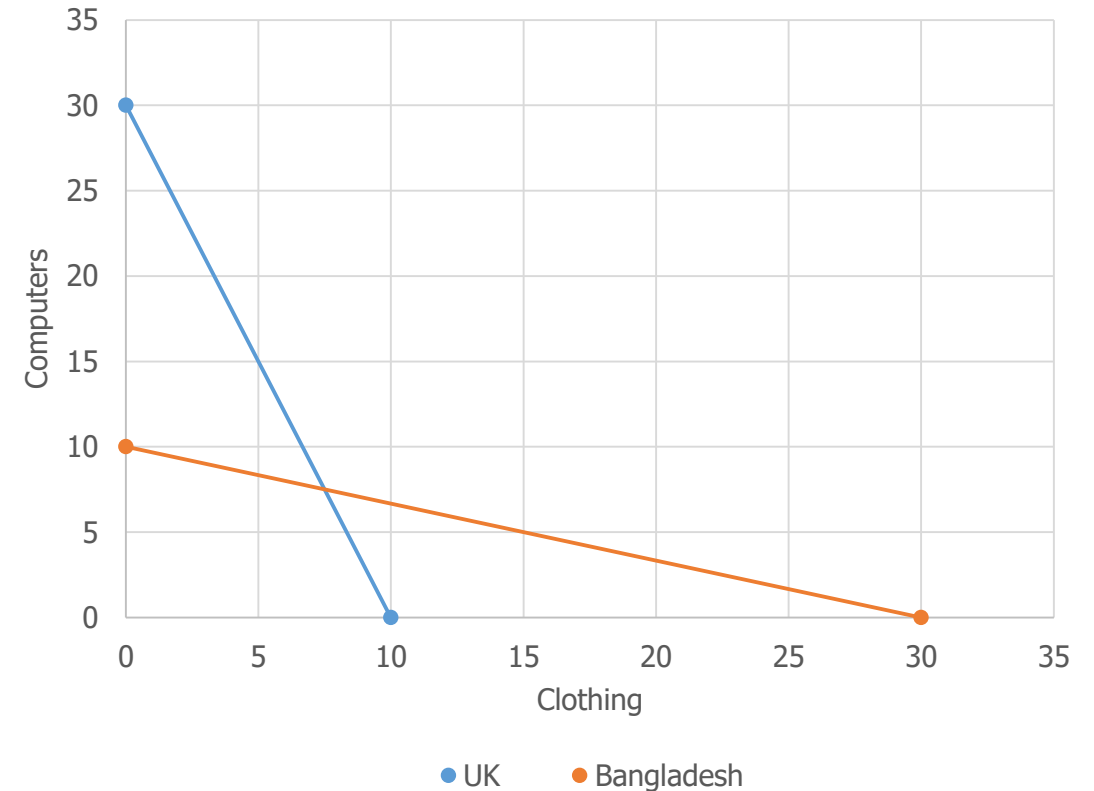
United Kingdom	
Clothing	Computer
10	0
0	30

Opportunity cost of producing clothing = 3 computers

Opportunity cost of producing computers = $\frac{1}{3}$ pieces of clothing

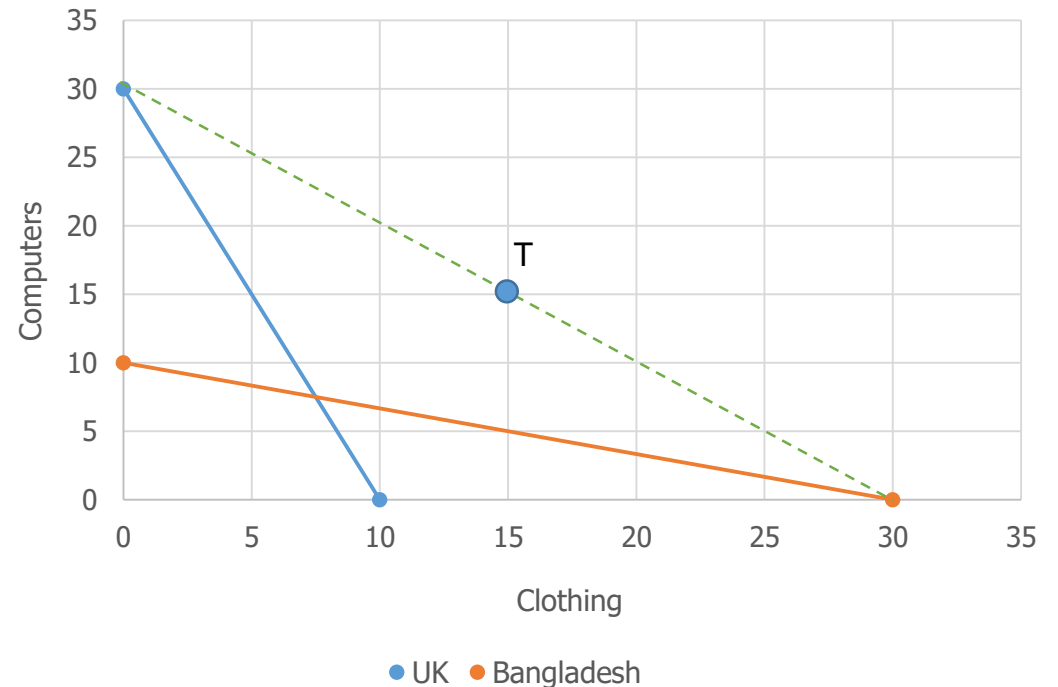
Comparative Advantage

- The opportunity cost of producing clothing for Bangladesh is lower than that for the United Kingdom i.e. it is cheaper for Bangladesh to produce clothing
- Therefore, Bangladesh has a comparative advantage in the production of clothing relative to the UK
- An individual/country has a comparative advantage in an activity if they can perform the activity at a lower opportunity cost than others.
- Who has a comparative advantage in the production of computers? Why?



Comparative Advantage

- If both parties specialize in the production of the good in which they have a comparative advantage and then trade with each other, they can get an outcome that is beyond their individual production possibilities frontier.
- If Bangladesh specializes in clothing and the UK specializes the production of computers, Bangladesh produces 30 units of clothing each day and the UK produces 30 units of computer each day.
- However, both countries want to consume some combination of each good so they decide to trade with each other at some price below their opportunity cost.
- Assuming they decide to trade at: 1 clothing = 1 computer – they trade 15 computers for 15 units of clothing i.e. point T of the new line (trade line)
- Both countries are better off once they trade



Absolute Advantage

- An individual or a country has an absolute advantage in the production of a good/service if they can produce a **higher quantity** of that good/service given the same resources compared to another individual.
- Assume, Bangladesh has an influx of new technology and improves dramatically in its capability to produce both goods
- Therefore, Bangladesh now has an absolute advantage in the production of both clothing and computer compared to the UK.
- Does it still make sense for the two countries to specialize and trade?

Bangladesh	
Clothing	Computer
40	0
0	40

United Kingdom	
Clothing	Computer
10	0
0	30

Absolute Advantage

Bangladesh	
Clothing	Computer
40	0
0	40

Opportunity cost of producing clothing = 1 computers

Opportunity cost of producing computers = 1 pieces of clothing

United Kingdom	
Clothing	Computer
10	0
0	30

Opportunity cost of producing clothing = 3 computers

Opportunity cost of producing computers = 1/3 pieces of clothing

A country can have an absolute advantage in both goods and still benefit from trade.

- *Differences in productivity give rise to absolute advantage.*
- *Differences in opportunity costs give rise to comparative advantage.*
- *By trading, countries are able to consume at a point which is beyond their individual PPF – gains from trade*

Example

In an hour, Sue can produce 40 caps or 4 jackets and Tessa can produce 80 caps or 4 jackets.

- a. Calculate Sue's opportunity cost of producing a cap.
- b. Calculate Tessa's opportunity cost of producing a cap.
- c. Who has a comparative advantage in producing caps?
- d. If Sue and Tessa specialize in producing the good in which each of them has a comparative advantage, and they trade 1 jacket for 15 caps, who gains from the specialization and trade?

Example

Country	Hours/Sweater	Hours/Gown
Bangladesh	18	6
Vietnam	16	4

1. Which country has absolute advantage in which product?
2. Calculate the opportunity costs for each country in producing these items.
3. Identify which country has a comparative advantage in which product.