COMPARATIVE ADVANTAGE AND BASIS FOR TRADE

INTRODUCTION TO ECONOMICS

- What is Economics?

The study of human behaviour in a world with scarce resources.

Understanding society and the community and how they interact to form The Economy.

Resources: May be time or other requirements for activities which are usually scarce/ in high demand.

Microeconomics: the study of how households and firms make decisions and how they interact in markets.

Macroeconomics: the study of economy-wide phenomena which includes inflation, unemployment and economic growth.

- Economic Models

Stylised representations of the world, most often composed as diagrams or equations however, use assumptions to simplify reality.

Assumptions: the things that simplify life to something that can be worked with without substantially affecting the answer.

The art of scientific method is deciding which assumptions to make. Bad assumptions do not necessarily mean a bad model and vice versa.

TOPIC 1

1.1 First model- Production Possibilities

- Four numbers model

Assumptions:
- There are 2 possible activities
- There are 2 individuals
- No transaction costs
- No other barriers

Productive activities involve the use of resources. Capacity constraints often apply e.g. time is scarce.

Productivity: the amount of resources used to perform a productive activity.

1.2 One-Agent Economy

Extreme scenario: uses full amount of time available for one activity

e.g. 16h collecting bananas

= 16kg bananas

= 0kg rabbit

e.g. 16h catching rabbit

= 0kg bananas

= 8kg rabbit

Intermediate scenarios: lie between the extremes and are a combination of all available activities.

- PPC & PPF

Production Possibility Curve (PPC): represents all maximum output possibilities for two (or more) goods, given a set of inputs (or resources — in our case time) if all the available inputs are used.

Production Possibility Frontier (PPF): captures all maximum output possibilities for two (or more) goods, given a set of inputs (or resources) if inputs are used efficiently.
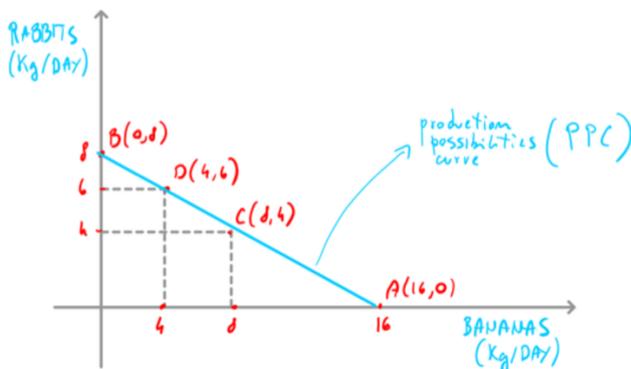

Figure 1.2: A representation of the PPC for one agent.

- Efficient Production

Efficient Production Point: represents a combination of goods for which currently available resources do not allow an increase in the production of one good without a reduction in the production of the other. All the points on the PPC are efficient.

Inefficient Production Point: represents a combination of goods for which currently available resources allow an increase in the production of one good without a reduction in the production of another. All points below and to the left of the PPC are inefficient.

- Attainable Production

Attainable Production Point: represents any combination of goods that can be produced with the currently available resources. All the points on the PPC or below and to the left of the PPC are attainable.

Unattainable Production Point: represents any combination of goods that cannot be produced with the currently available resources. All points that lie outside of the PPC are unattainable.
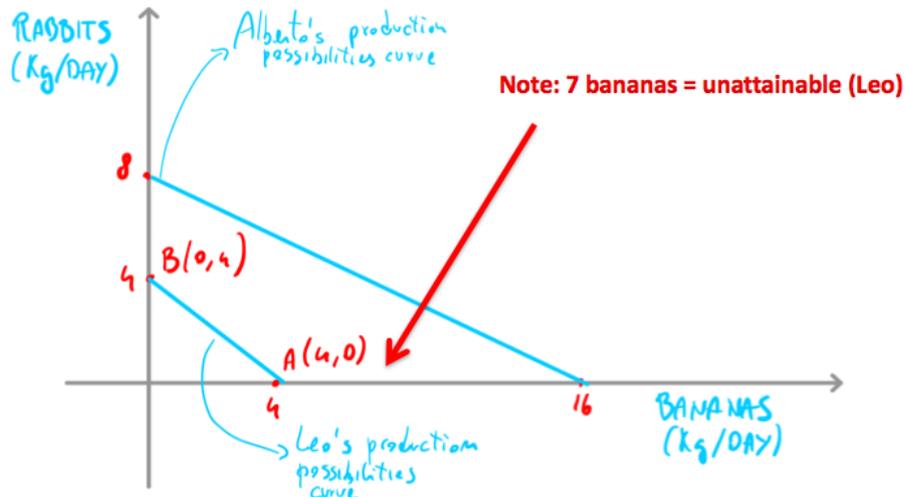
To reach an unattainable production point, increase the **amount** of resources or the **production** of resources.

1.3 Two Agent Economy

Adding another agent into the economy:

	Time to get	
	1kg of bananas	1kg of rabbit
Alberto	1 hour	2 hours
Leo	4 hours	4 hours
Resources	>16 hours	>16 hours

Two-Agent Economy

Absolute advantage: an agent (economy) has an absolute advantage in a productive activity when they can carry out the activity with less resources (i.e. time) than another agent.

Opportunity Cost: the value of the next best alternative to a given action.

$$OC_{bananas} = \left(\frac{loss\ in\ rabbit}{gain\ in\ bananas}\right) or\ OC_{rabbit} = \left(\frac{loss\ in\ bananas}{gain\ in\ rabbit}\right)$$

Comparative Advantage: an agent (economy) has a comparative advantage in a productive activity when they have a lower opportunity cost of carrying this activity than another agent.

	Opportunity costs of	
	1kg of bananas	1kg of rabbit
Alberto	0.5kg of rabbit	2kg of bananas
Leo	1kg of rabbit	1kg of bananas

Principle of Comparative Advantage: everyone is better off if each agent (or country) specialises in the activities for which they have a comparative advantage. The gains from specialisation grow larger as the difference in opportunity cost increases.

1.4 Trading in a Two-Agent Economy

By specialising according to comparative advantage, respective goals can be achieved. It shows how powerful the concept of opportunity cost can be when used correctly when trade is also directly involved.

1.5 Economy-wide PPC in a Two-Agent Economy

Find the total amount of 'y-axis production' and then start getting the agent who has the comparative advantage for the 'x-axis product' (in this case, Alberto loses less rabbits when producing bananas) to produce the other product until they are 'exhausted' and then move onto the second agent.
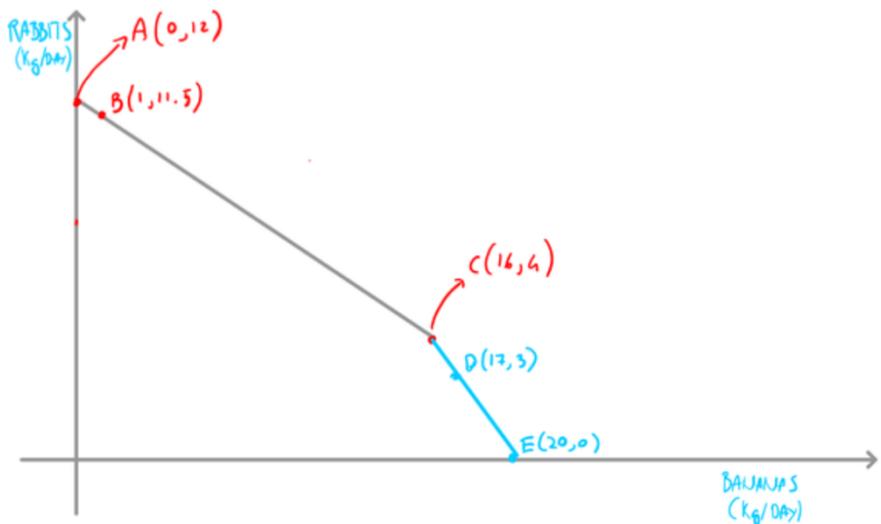

Figure 1.4: A representation of the economy-wide PPC in a two agents economy.

The slope of the PPC reflects the opportunity cost of 1kg of bananas in terms of forgone rabbits. The slope of the curve is increasing (hence the aspect of a bow): as we increase the quantity of bananas produced, the PPC slope increases, meaning that the opportunity costs of collecting additional bananas (measured in terms of the corresponding loss in rabbits) also rises. This shape is essentially because resources are *scarce*.

Principle of Increasing Opportunity Cost: the process of increasing the production of any good, first employ the resources with the lowest opportunity cost and only once these are exhausted turn to resources with a higher cost.

1.6 Trading Between Economies: International Trade

The main factors driving economic growth i.e. pushing PPC out are
- o Infrastructure
- o Population
- o Knowledge & technology advancements

Economies trade for the sake of their economic welfare. Their economic welfare is not dependent on what is produced (PPC) but rather what is consumes (CPC).

Consumption Possibility Curve (CPC): represents all possible combinations of two goods that agents in an economy can feasibly consume when it is open to international trade.
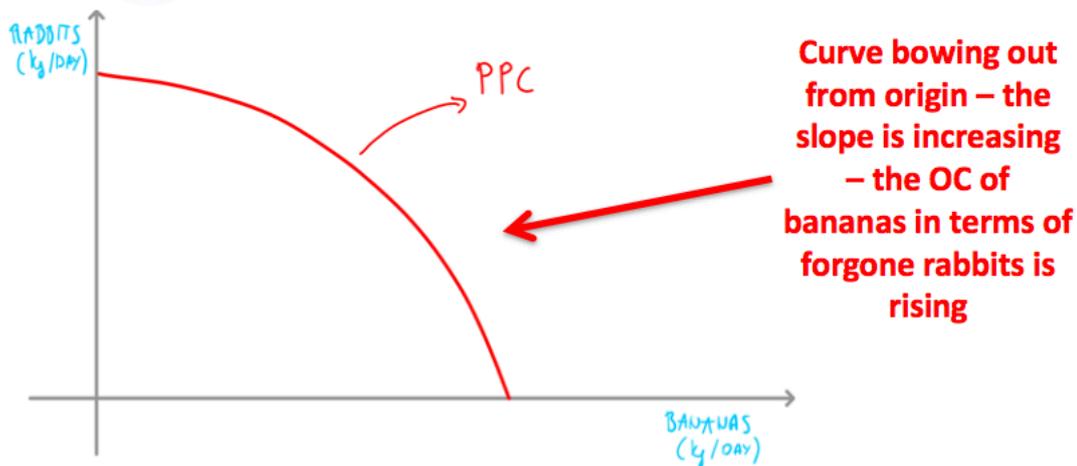
Opening up to trade expands consumption possibilities.
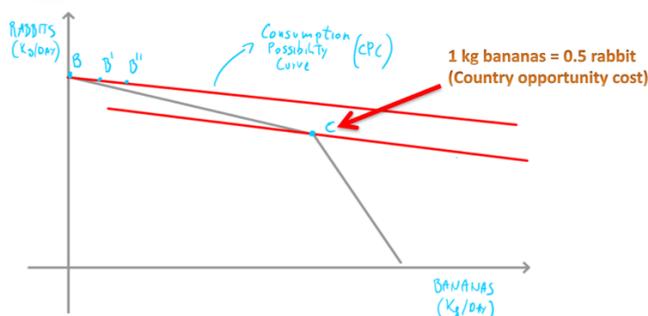
In a closed economy, PPC and CPC are identical. In an open economy, CPC is to the right and above PPC.

1.7 Economy-wide PPC in a Many-agent Economy

RADDITS
(kg/DAY)

PPC

BANANAS
(kg/DAY)

Curve bowing out
from origin – the
slope is increasing
– the OC of
bananas in terms of
forgone rabbits is
rising

Towards the right, more of Y is required for less of X.

1.8 Classic Critiques to the Model

No psychological cost: associated to performing the same activity the entire day

No transaction cost: connected with trading such as negotiation or transportation costs

No import quotas or tariffs: would limit the gains form specialisation by making specialisation beyond a certain level pointless

No change in preferences: for goods and services in which a country specialises in and no accounting social norms that might prevent trading.