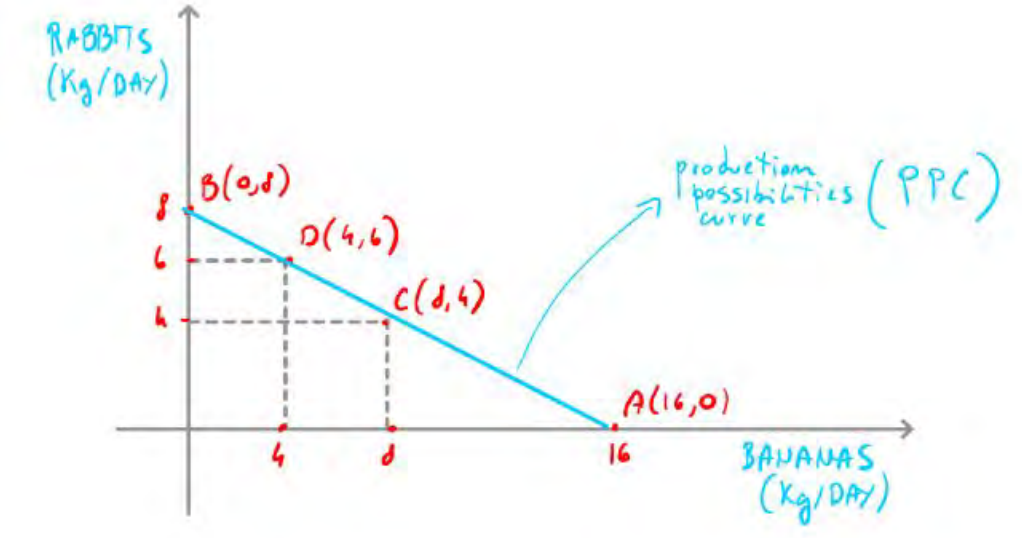
ECON1101 Notes

Chapter 1: Comparative Advantage and the Basis for Trade

- A **model** is a simplified representation of reality

ONE AGENT ECONOMY

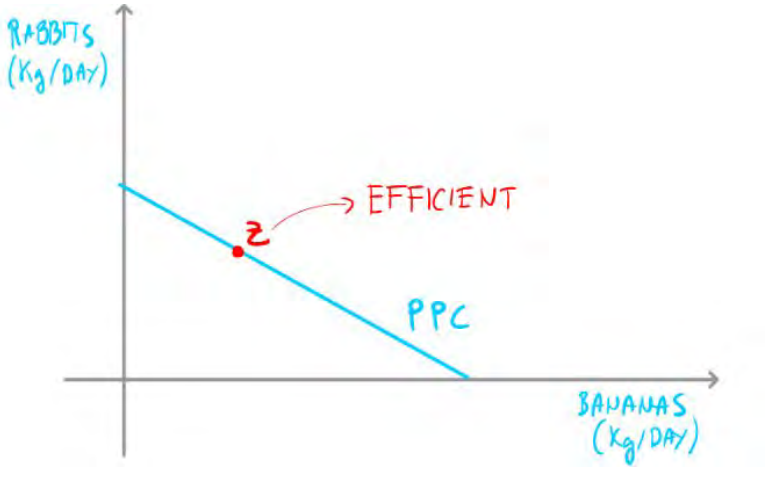
- The **Production Possibility Curve** represents all maximum output possibilities for two (or more) goods, given a set of inputs if these inputs are used efficiently
- The curves & scenarios below represent a **one agent economy**



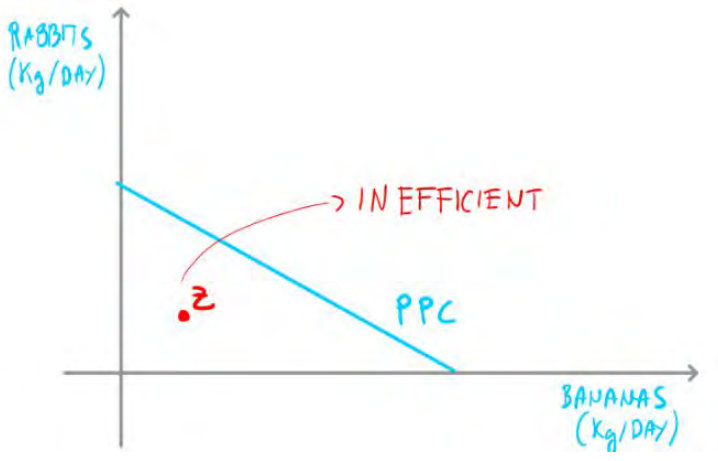
- The blue line is the PPC
    - The example above assumes that a day provides 16 working hours (8 hours of sleep) and 1 kg of bananas are obtained in 1 hour and 1 kg of rabbits are obtained in 2 hours
- There are 4 steps to construct a PPC
    - Draw the axis and define them

    - Point out the extreme examples - the maximum output in efficiently producing just **one** good (note that this point will either be on the x or y axis)
    - Plot the points which combines the production of **two** goods
    - Connect the dots

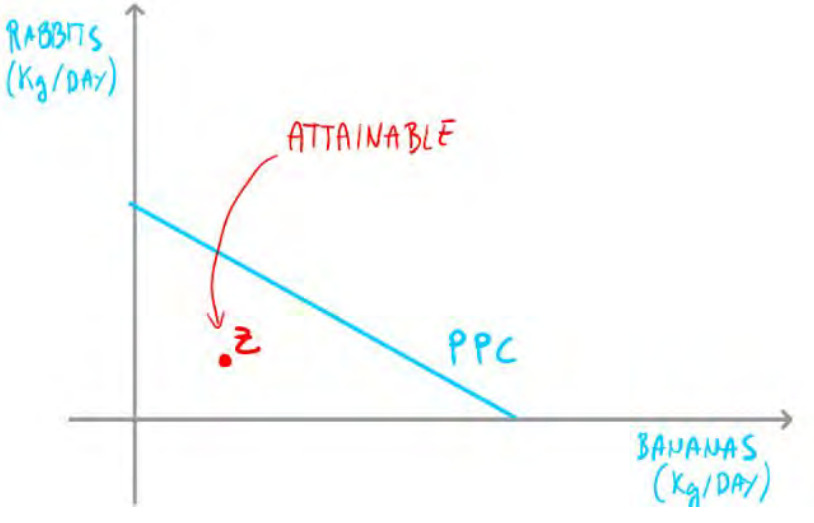
- An **Efficient Production Point** represents a combination of goods for which currently available inputs do not allow for an increase in production without a reduction in the production of another (all points ON the PPC as illustrated below)



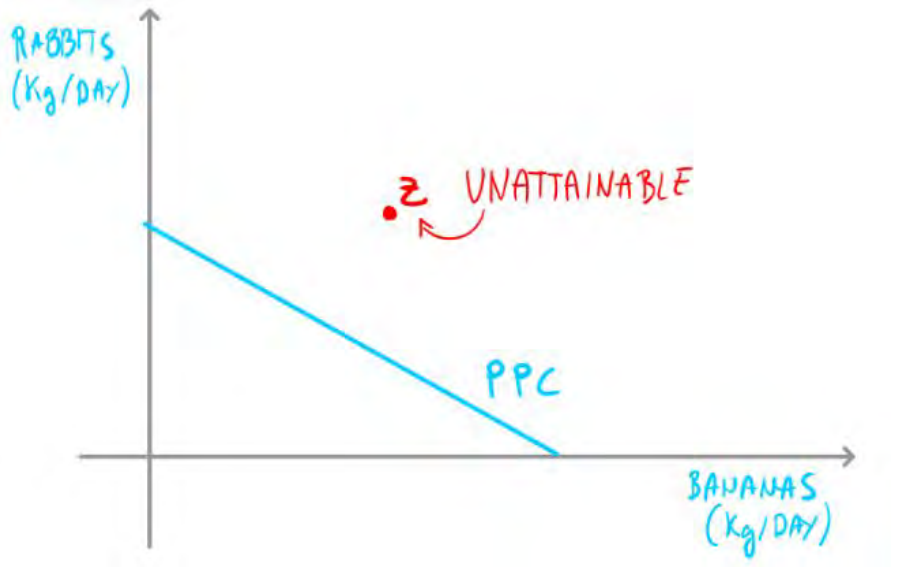
- An **Inefficient Production Point** represents a combination of goods for which currently available inputs allow the increase of production in one good without a reduction in the production of another (all points BELOW and TO THE LEFT of the PPC)



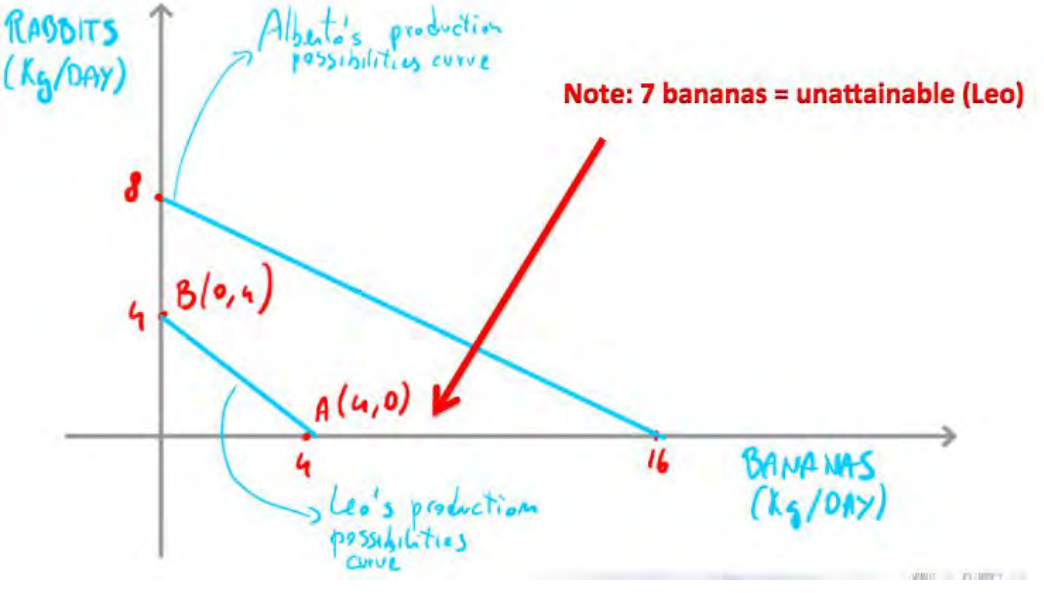
- An **Attainable Production Point** represents any combination of goods that CAN be produced with currently available inputs (all points ON the PPC, BELOW and LEFT of the PPC)



- An **Unattainable Production Point** represents any combination of goods that cannot be produced with the currently available inputs (all points ABOVE or TO THE RIGHT of the PPC)



TWO AGENT ECONOMY



- Now assume that there are two people in the economy
- The PPC of this second person is 4 kg of bananas in a day (16 hrs) and 4 kg of rabbits in a day (4 hrs for 1 banana or rabbit)

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

- An agent (or economy) has an **absolute advantage** in a productive activity when they can carry this activity with less inputs than another agency (in the example above, Alberto has an absolute advantage over Leo because he can carry out the same activity with less inputs, being time)
- The **opportunity cost** of a given action is the value of the next best alternative to this particular action (for Alberto, collecting 16 bananas means not being able to collect 8 rabbits. As such, the opportunity cost of 1 kg of banana is 0.5 kg of rabbits and the opportunity cost of 1 kg of rabbit is 2 kg of bananas) (see diagram below)
    - The opportunity cost can also be calculated using the PPC. To do so, simply find the slope (gradient) by dividing the rise by the run

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

Table 1.2: Productivities expressed terms of opportunity costs.

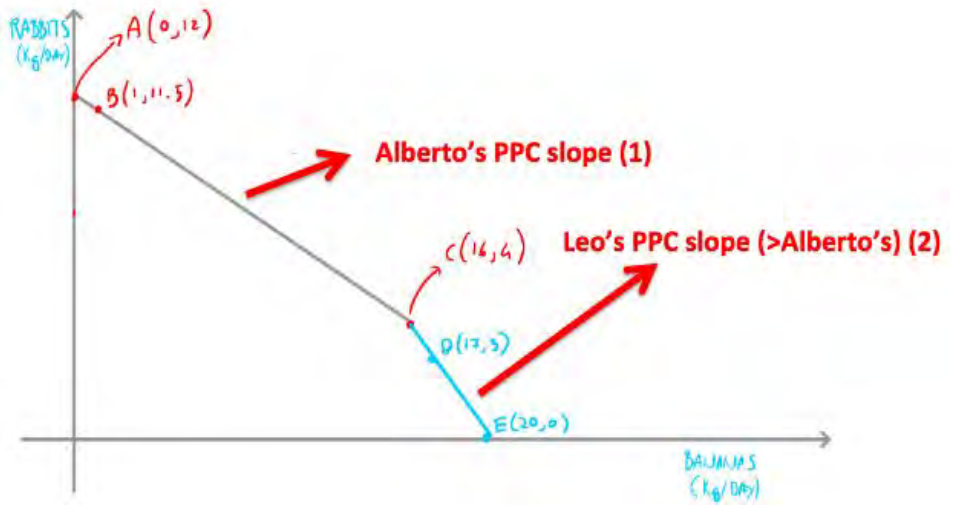
- An agent has a **comparative advantage** in a productive activity when they have a lower opportunity cost of carrying out the activity than another agent
    - Leo has a comparative advantage in producing rabbits
- **Principle of Comparative Advantage:** The Principle of Comparative Advantage states that everyone is better off if each agent specialises in the activities for which they have a comparative advantage

TRADING IN A TWO AGENT ECONOMY

- When purchasing a product, it will be worthwhile to buy as long as the price of the product is less than the opportunity cost of producing that product
    - E.g. Leo is buying bananas since he specialises in rabbits (see diagram above for context of scenario)
    - OC of 1 kg of rabbit is 1 kg of banana
    - Therefore, Leo will want to buy 1 kg of bananas for no more than 1 kg of rabbits
- When selling a product, it will be worthwhile to sell at a price that is more than the opportunity cost for producing that product
    - E.g. Alberto is selling bananas since he specialises in this (see diagram above for context of scenario)
    - OC of 1 kg of bananas is 0.5 kg of rabbits
    - Therefore, Alberto will want to sell 1 kg of bananas for **at least** 0.5 kg of rabbits
- The cost of a product should be greater than or equal to the opportunity cost of buyer and less than or equal to opportunity cost of seller

ECONOMY WIDE PPC IN A TWO AGENT ECONOMY

- To find out how to derive an economy-wide PPC, look at the steps in the following link: http://lionsheartstudios-publishing.com/unsw/ch_1_pg_3/
- Any combination of goods that lies on this economy-wide PPC will result in the use of ALL inputs
- Any combination of goods that lies below/to the left of this economy-wide PPC indicates an underutilisation or inefficient use of resources



- Looking at the diagram above, we see that the opportunity cost of bananas increases (the gradient of the blue slope becomes steeper).
    - This is due to the fact that resources are **scarce**
- **The Low-Hanging Fruit Principle (or increasing Opportunity Cost):** This principle states that in the process of increasing production of any good, one first employs those resources with the lowest opportunity cost. Once these resources are exhausted, it is then viable to turn to resources with a higher opportunity cost
- The main factors driving economic growth (pushing the economy-wide PPC out and to the right) come from an increase in inputs. This can come in the form of:
    - an increase in infrastructure such as factories, equipment, etc
    - an increase in the population, such so in the labour force
    - advancements in knowledge and technology (education, R&D, IT and communications technologies)

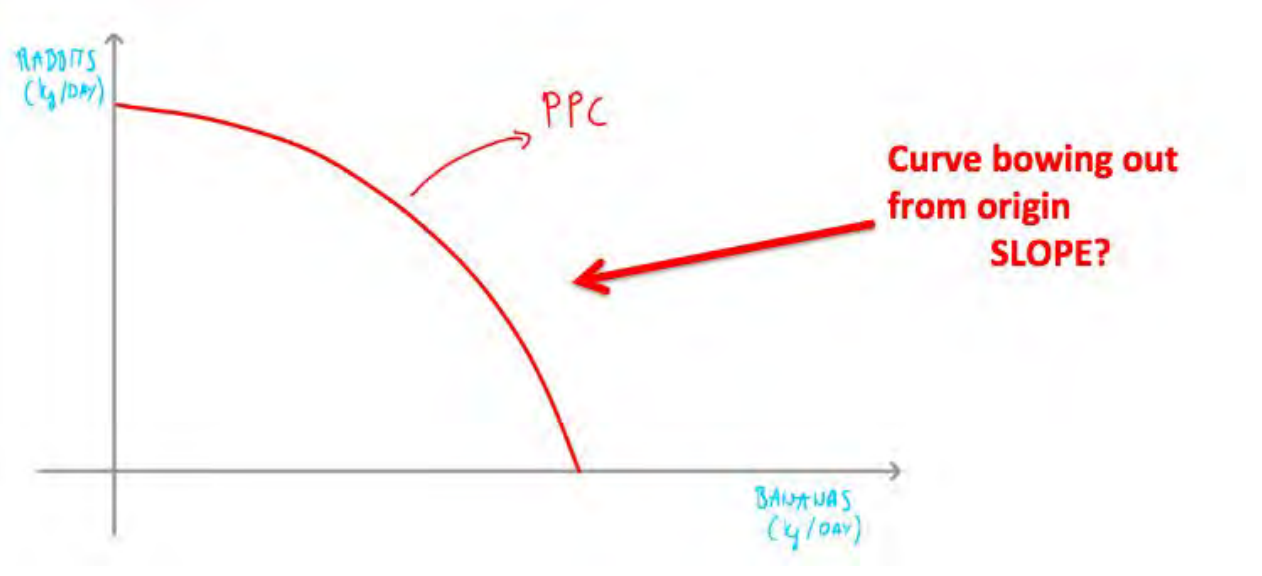
TRADING BETWEEN ECONOMIES: INTERNATIONAL TRADE

http://lionsheartstudios-publishing.com/unsw/ch_1_pg_66/

- A country's economic welfare does not depend on what it produces (PPC) but what it consumes (CPC, Consumption Possibility Curve)

- The **Consumption Possibility Curve** represents all possible combinations of two goods that the agents in the economy can consume
    - Different definition when it is open to international trade: The **Consumption Possibility Curve** represents all possible combinations of two goods that the economy can feasibly consume when it is open to international trade
- If a country is a closed economy (doesn't trade internationally), the PPC and CPC are the same because the agents must consume whatever they produce
- If a country is an open economy (trades on an international scale), the CPC is usually greater than the PPC because part of what domestic agents produce can be traded for other goods which relieves restrictions on consumption
- Changes in the international price can change the CPC
- Since PPC is always below CPC, we can conclude that consumption opportunities in an open economy are always wider than in a closed one
- What should an economy consume? This depends on needs and wants (economic term is *preferences)*

ECONOMY WIDE PPC IN A MANY-AGENTS ECONOMY



- There are now millions of agents

- The principles of the two agent economy applies in this scenario as well
- Start by considering the two scenarios in which all workers collect bananas or catch rabbits. This gives you the points on the x & y axis
- With just two agents, the curve started to arc from its origin. With millions of agents, this will translate to a smooth arc
- Remember that this slope reflects the opportunity cost of 1 kg of bananas in terms of forgone rabbits
    - As we increase the quantity of bananas produced, the PPC slope also increases, meaning the opportunity cost rises
    - As in the two-agent case, if we need more bananas, we will assign the task to the agent with the lowest opportunity cost at picking bananas in the economy. If society wants even more bananas, it will be necessary to employ another agent that has a higher opportunity cost than the first agent

CRITIQUES TO THE MODEL

1. **No psychological cost:** Human beings enjoy variety and performing the same activity can result in dissatisfaction
2. **No transaction cost:** Did not account for transaction costs associated with trading (negotiation costs, transportation costs) as well as tariffs and quotas
3. **No change in preferences:** Demand for goods which an economy specialises in can change and furthermore, social norms (political, religious) can also prevent trade

General Notes

- For the chapter 1 question 2, the answer is $79 because she has spent $19 for the movie and lost $60 in terms of the opportunity to babysit ($60 is the second best option)
- To calculate OC, the formula is loss OVER gain (loss is the whatever the question wants in terms of and gain is the item which you are calculating the opportunity cost for. For example, let's say one person produces 24

bananas and 8 rabbits. To find the opportunity cost of producing 1 banana, this will be equal to 8 (loss) / 24 (gain), giving us an answer of ⅓.

Chapter 2: Supply in Perfectly Competitive Markets

- **Market:** The market for a given good or service is the set of *all the consumers and suppliers who are willing to buy and sell* that good or service at a given price
- **Market Equilibrium:** Market equilibrium occurs when the price and the quantity sold of a given good is stable
    - The equilibrium price is such that the quantity that consumers want today is the same as the quantity that suppliers want to sell

Characteristics of a Perfectly Competitive Market

1) **Consumers and Suppliers are price takers:** Both suppliers and consumers are not willing/able to affect the equilibrium price (if suppliers increased price, consumers will buy from competitor and suppliers will lose profits if they reduced prices. If consumers try to ask for lower price, supplier will just serve another customer and there is no incentive for customer to pay a higher price)
2) **Homogenous goods:** all suppliers sell exactly the same product
3) **No externality:** an externality is a cost or benefit that is incurred by someone who is not involved in the production or consumption of a certain good
4) **Goods are excludable and rival:** suppliers can prevent consumers from consuming a certain good (excludability) and once consumed, that good becomes unavailable to other customers (rivalry)
5) **Full information:** the suppliers and the consumers are perfectly informed regarding the characteristics of the good (price and quality of good)
6) **Free entry and exit:** there is no cost to entry and no penalty for leaving