PART I: Comparative Advantage & the Basis for Trade
Core Concepts

Term/Concept	Definition/ Formula
Ceteris Paribus "all else equal"	The assumption that everything that could affect a variable of interest, other than the thing being studied, stays the same
Comparative and Absolute Advantage	**Comparative Advantage**: When one agents' OC of producing one good is lower than another's. *Note: They often don't have an Absolute Advantage too* **Principle of Comparative Advantage**: Everyone can do better when each agent concentrates (specialises) on the production of the goods for which they have the lowest OC (or for which they have a comparative Advantage) **Absolute Advantage**: When one agent can produce *"more for less"* ie. They are able to produce a good with fewer resources than another person.
Consumption Possibility Curve (CPC)	The Consumption Possibility Curve (CPC) represents all possible combinations of two goods that the agents in an economy can produce. *Note:* *A countries economic welfare does not depend on what it produces (PPC), but what it consumes (CPC)* • Trade allows economies (countries) to consume goods and services outside their PPC, ie: they can now consume at points considered 'unattainable' within their own PPC's • If an economies (countries) consumption needs are greater than what it can produce itself it must trade.
Cost-benefit principle	An individual (or firm) should undertake a particular action if, and only if, the extra benefits of undertaking that action are at least as great as the extra costs → *Keep increasing the level of production as long as the MB of an activity exceeds its MC* ∴ *An action should only be taken if MB ≥ MC*
Incentive Principle	A person (or firm/society) is more (less) likely to undertake an action if its benefit (cost) rises, and less (more) likely to undertake it if is cost (benefit) rises.

Open/Closed Economy (PPC vs CPC)	Open Economy: CPC is off to the right of the PPC and above it Closed Economy: PPC and CPC are the same → you consume what you can produce
Opportunity Cost	The value of the next best (*single*) alternative to undertaking a particular action → OC for B = Loss in A/Gain in B Gradient of the PPC=the OC ∴ m=OC *Note: The OC of taking an action is not the combined value of all possible activities you could have taken, but your best alternative- the one you would have chosen had you not had the new option.* • OC and Specialisation: - The greater the difference in Opportunity Costs between people in an economy, the greater the gains from specialisation.
Opportunity Cost: **Principle for increasing OC** **The "Low hanging fruit principle"**	In the process of increasing/expanding the production of any good, first employ the agent (those resources) with the lowest OC then, only once these are exhausted, turn to agents (resources) with higher OC's.
Positive and Normative Economic analysis	Positive Economics: Positive economic analysis explains what happens and why, but does not state what should happen. Normative Economics: Normative economic analysis states what should or ought to happen.
Production Possibility Curve (PPC)	In an economy that produces only two goods, the PPC represents the maximum and all other possible levels of production, for those goods that can be produced when an agent/agents are operating at total efficiency. **Slope/curve of the PPC**: – The gradient (slope) of the PPC represents the maximum amount of one good ('x') that can be produced for every possible level of production of the other ('y'). – The gradient of the PPC represents the OC of producing one good (product 'y') over (product 'x') the other. – As the slope of the PPC gets steeper the OC for the production of that good is rising → Links to: - Specialisation - Principle for Increasing OC's - 'Low-hanging fruit' principle

<table>
<tr>
<td></td>
<td>

Points on/along the PPC:

- Attainable production points: Any point on or below the PPC
- Unattainable production points: Any point above or to the right of the PPC
- *Efficient: On the PPC*
- *Inefficient: Below the PPC*

Shape of the PPC:

- Bow-shaped: means that the OC for producing the good on the x-axis increases as the economy produces more of it. → (Links to 'Low-hanging fruit principle and Increasing OC)

Factors that shift the PPC:

- Economic Growth**:** Outward shift of the PPC.
  → The main factors driving economic growth are an increase in infrastructure, population or resources, and advancements in knowledge and technology.

</td>
</tr>
<tr>
<td>Production Possibility Curve: Constructing an Economy Wide PPC</td>
<td>

Two key associated principles:

1. Principle of Comparative Advantage
2. Principle of increasing Opportunity Costs and the "low hanging fruit principle"

Constructing an Economy Wide PPC: **4 Step Process**

Example from prescribed text (Pg 21-27):

- *Two productive activities:*
  - *Catching Rabbits,*
  - *Collecting Bananas*
- *16hr working day*
- *Agents: Leo & Alberto*

	Time to get	
	1kg Bananas	*1kg Rabbits*
Alberto	1 hr	2 hrs
Leo	4 hrs	4 hrs

Reduce to same time frame (1hr)

	Time to get ** Restricted to 1hr**	
	1kg Bananas	*1kg Rabbits*
Alberto To get Alberto's production of Rabbits for 1hr divide by 2	1 hr Time: 1/1 = 1hr ∴ Bananas: 1/1 = 1kg	2 hrs Time: 1/2 = ½hr ∴ Rabbits: 1/2 = 0.5kg

</td>
</tr>
</table>

Leo To get Leos production for 1hr divide by 4	4 hrs Time: 4/4 = 1hr ∴ Bananas: ¼ = 0.25kg	4hrs Time: 4/4 = 1hr ∴ Rabbits: ¼ = 0.25kg

- *Opportunity Costs:*

	Opportunity Costs of	
	1kg Bananas	*1kg Rabbits*
Alberto	0.5/1 = 0.5kg Rabbit	1/0.5 = 2kg Bananas
Leo	0.25/0.25 = 1kg Rabbit	0.25/0.25 = 1kg Bananas

HOW TO CONSTRUCT AN ECONOMY WIDE PPC

Constructing a (Two-person) Economy wide PPC: 4 Steps

1. Find the maximums (total amount) of Rabbits and Bananas the agents (Leo and Alberto) can produce if they spend all their time producing only one product (specialise).
   - Do this for each productive activity

   ∴ Specialise in Rabbits = 0kg Bananas, 12kg Rabbits [Point A → (12,0)]
   Specialise in Bananas = 20kg Bananas, 0kg Rabbits [Point E → (0,20)]

2. Expand production
   (By one unit of the good on the 'x' axis)
   - Starting from the production of only Rabbits first, expand production to produce 1kg of Bananas.
   - *Note:*
     - *Consider who should produce this first kg of Bananas → The agent with the lowest OC (Principle of Comparative Advantage)*

     ∴ Alberto should produce the first kg
     (OC of 1kg Bananas=1/2kg Rabbit)
     SO
     The economy is now producing 1kg (more) of Bananas and ½ kg (less) of Rabbit
     → 12kg - 0.5kg = 11.5kg Rabbit
     [Point B → (11.5, 1)]

3. Continue to expand production
   - At a certain point Alberto will run out of working hours (when he produces 16kg Bananas)
     → 1kg/hr x 16hr day = 1 x 16

	= 16kg/day Banana • In this same amount of time (16hrs) Leo, who is producing only Rabbits, can only produce 4 Rabbits. → 0.25kg/hr x 16hr day = 0.25 x 16 = 4kg/day Rabbit [Point C → (16,4)] **4.** If we want to continue to expand the production of Bananas beyond the first agents maximum output (Alberto's 16kg) we must now employ another agent (Leo). • Alberto ran out of production time after the 16th Banana • Leo's OC for 1kg Banana is 1kg Rabbit ∴ If we want Leo to produce the 17th kg of Banana the economy will now be producing 17kg Banana (1kg more of Banana) and 1kg (less) of Rabbit → Leo is now spending 1hr less collecting Bananas and is collecting Rabbits instead. → 4kg – 1kg = 3kg Rabbit [Point D → (17, 3)
Specialisation [Linked to OC]	– Boosts productivity → An agent should specialise in the production of the good for which they have the lowest OC then trade. – The greater the difference in Opportunity Costs between people in an economy, the greater the gains from specialisation.
Sunk Cost	A cost that once paid cannot be recovered.

**** END PART I: Comparative Advantage & The Basis for Trade ****