



# Macroeconomics Unit 1 Study Guide

## Basic Economic Concepts

### Topic 1.1- Scarcity

1. Define scarcity. **Individuals, businesses, and governments have unlimited wants but limited resources.**
2. Identify the four factors of production. **The resources required to produce goods and services. Land, labor, capital, entrepreneurship**
3. Define capital goods. **Goods made for indirect consumption. Goods that make consumer goods (example: restaurant oven).**
4. Define human capital. **Skills, knowledge, traits, and experience that make workers more productive (example: education).**

### Topic 1.2- Opportunity Cost and the PPC

1. What is the difference between trade-offs and opportunity? **Trade-offs are ALL the options given up when an action is taken. Opportunity cost is the specific next best alternative. Decisions have infinite trade-offs but only one opportunity cost.**
2. How does the PPC illustrate the ideas of scarcity and trade-offs? **Scarcity- there are only enough resources to produce up to a given amount. Trade-offs- When more of one good is produced, less of the other good is produced.**

Use the chart to create a PPC on the graph

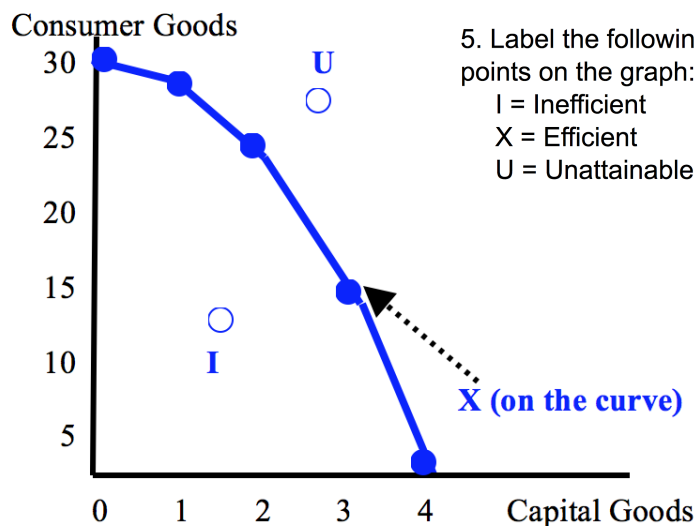
	A	B	C	D	E
Capital goods	0	1	2	3	4
Consumer goods	30	29	25	15	0

3. Assume combination D was produced rather than combination B. Will this economy's growth rate increase, decrease, or stay the same?

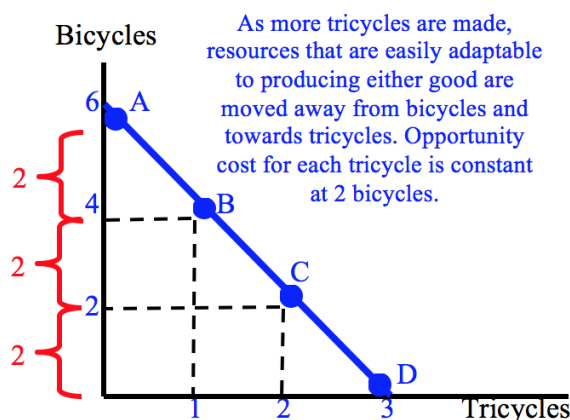
Explain. **There will be more economic growth at combination D because more capital goods are being produced. Capital goods are a resource and can be used to make more goods in the future.**

4. Calculate the opportunity cost for moving between these combinations:

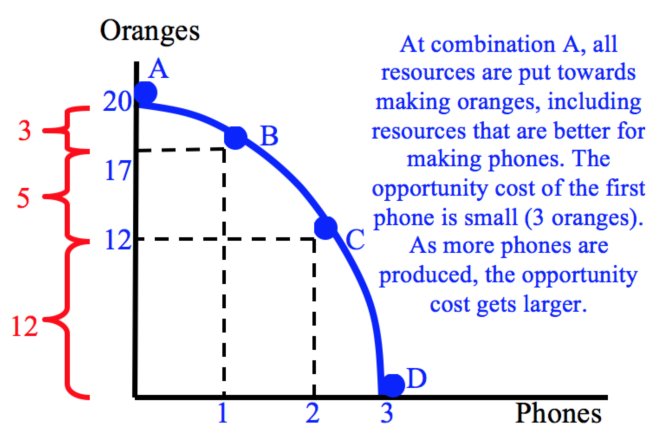
- A to B: **1 Consumer good**
- B to C: **4 Consumer goods**
- E to D: **1 Capital good**
- C to A: **2 Capital goods**





6. Draw a PPC showing constant opportunity cost



7. Draw a PPC showing increasing opportunity cost



8. What is the difference between constant opportunity cost and increasing opportunity costs?  

**The production of two products might result in a constant opportunity cost if the products have similar resources. That is, if the resources to make each product are easily adaptable between both products.**



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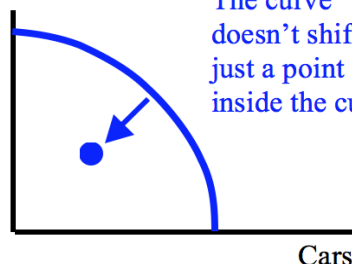
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### Topic 1.2- (continued)- Answer the question then show what happens as a result of each scenario

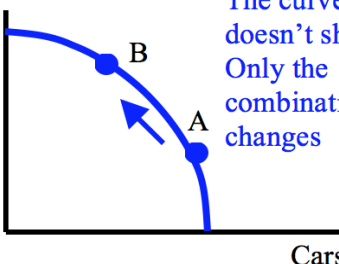
9. Identify three things that shift the PPC. 1. Change in resource quantity or quality 2. Change in technology 3. Change in trade (Trade doesn't change the amount that can be produced, but changes the amount that can be consumed)

10. A recession causes une Pizza



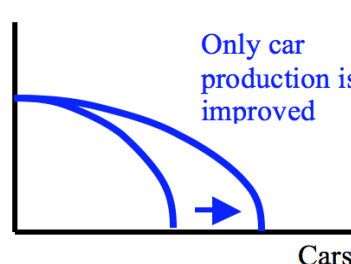
The curve doesn't shift. It is just a point inside the curve

11. Consumers want more pizza Pizza



The curve doesn't shift. Only the combination changes

12. More resources to produce cars Pizza



Only car production is improved

### Topic 1.3- Comparative Advantage and Trade

The table shows the amount of sugar and cars each country can make with the same number of resources

	Sugar (tons)	# Cars
Cuba	40(1S costs ¼ Car)	10(1C costs 4 Sugar)
Mexico	50(1S costs 2 Cars)	100(1C costs ½ Sugar)

The table shows the number of hours it takes to produce a ton of sausage and a ton of computers

	Sausage	Computers
Canada	2(1S costs 1/3 comp)	6(1C costs 3 sausg)
UK	10(1S costs 1 comp)	10(1C costs 1 sausg)

- Which country has an absolute advantage in sugar?  
Mexico because they can produce more sugar
- What is Cuba's opportunity cost for producing one car? 4 sugar
- Which country has a comparative advantage in cars and which has a comparative advantage in sugar?  
Mexico has it for cars. Cuba has it for sugar.
- Identify the terms of trade that can benefit both countries. 1 car for 1 tons of sugar. (any number between 4 and ½)

- Which country has an absolute advantage in sausage?  
Canada. They take less time (This is an INPUT question)
- What is Canada's opportunity cost for producing one computer? 3 sausage
- Which has a comparative advantage in computers and which has a comparative advantage in sausage?  
The UK has it for computers. Canada has it for Sausage.
- Identify the terms of trade that can benefit both countries. 1 computer for 2 tons of sausage. (between 3 and 1)

### Topic 1.4- Demand

1. What is the law of demand?

There is an Inverse relationship between Price and quantity demanded

$P \uparrow Q_d \downarrow$   
 $P \downarrow Q_d \uparrow$

2. Why is the market demand curve downward sloping?  
Buyers (consumers) are willing to buy more units when the price falls and less units when the price increases.

3. What are the five shifters of demand?

Tastes and preferences, number of consumers, price of related goods (Substitutes and complements), income, future expectations

### Topic 1.5- Supply

1. What is the law of supply?

There is a direct relationship between price and quantity supplied

$P \uparrow Q_s \uparrow$   
 $P \downarrow Q_s \downarrow$

2. Why is the market supply curve upward-sloping?  
Higher prices give profit-seeking firms an incentive to produce more output

3. What are the five shifters of supply?

Prices of resources, number of producers, technology, government action (taxes, subsidies, regulations), expectations of future profit



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### Topic 1.6- Market Equilibrium, Disequilibrium, and Changes in Equilibrium

<p>Graph #1</p>	<p>Graph #2</p>	<ol style="list-style-type: none"> <li>1. Draw a shortage on graph #1. Label price (<math>P_1</math>), quantity supplied (<math>Q_s</math>), and quantity demanded (<math>Q_d</math>).</li> <li>2. Draw a surplus on graph #2. Label price (<math>P_2</math>), quantity supplied (<math>Q_s</math>), and quantity demanded (<math>Q_d</math>).</li> <li>3. On graph #2, what happens to the quantity demanded (<math>Q_d</math>) and quantity supplied (<math>Q_s</math>) if market forces return the market to equilibrium?  <math>Q_d</math> <u>↑</u> <math>Q_s</math> <u>↓</u></li> </ol>
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<p>4. Draw a demand decrease</p>	<p>5. Draw a demand increase</p>
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8. What is the double shift rule?

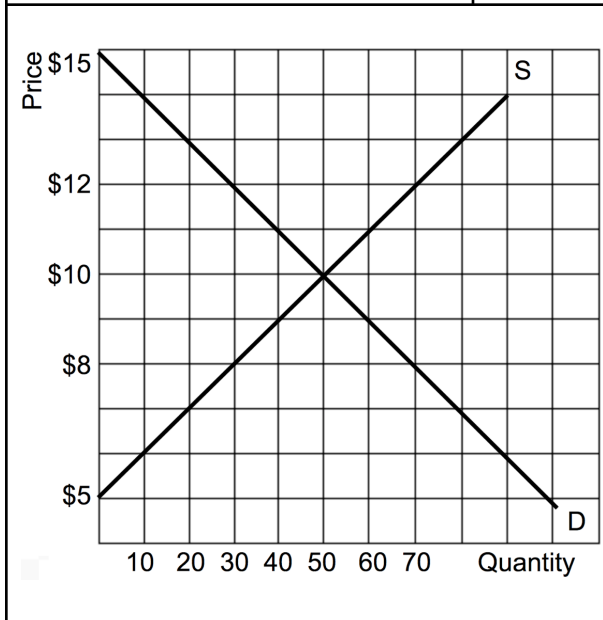
When two curves shift at the same time, EITHER price or quantity will be indeterminate.

9. Draw an increase in demand AND an increase in supply. What happens to the equilibrium price and quantity?  
 Price indeterminate, quantity up

<p>6. Draw a supply decrease</p>	<p>7. Draw a supply increase</p>
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Price

Quantity



Use the market for pizza to the left to complete the following:

10. Calculate the amount of the shortage when the price is \$8.  
40 pizzas
11. Calculate the amount of the surplus when the price is \$11.  
20 pizzas
12. Identify a specific scenario that would cause the equilibrium price to increase and the equilibrium quantity to decrease. Anything that causes the supply to decrease (e.g. tax on pizzas, increase in cost of cheese, etc.)
13. Identify a specific scenario that would cause the equilibrium price and quantity to decrease. Anything that causes the demand to decrease (e.g. fewer consumers, decrease the price of a substitute good, people prefer less pizza, etc.)
14. Explain the difference between a change in demand and a change in quantity demanded. A change in quantity demanded is movement along the curve due to a change in the own-price. A change in demand is when the entire demand curve shifts due to a change in one of the shifters