AP Macro Unit 1 Basic Econ Concepts Notes

Economics is the science of **scarcity** and the study of **choices**

- Limited resources & unlimited human wants
- Study of how individuals and societies deal with **Scarcity**

Certeris Paribus **–** all other things being equal

Scarcity- we have unlimited wants but limited resources.

- Since we are unable to have everything we desire, we must make choices on how we will use our scarce resources.
- In order to be considered scarce, a good or service must be (1) limited, (2) desirable, (3) have a cost
- In economics we will study the choices of individuals, firms, and governments.

MICROeconomics - study of small economic units such as individuals, firms, and industries (ex: supply and demand in specific markets, production costs, labor markets, etc.)

MACROeconomics - study of the large economy as a whole or economic aggregates (ex: economic growth, government spending, inflation, unemployment, international trade)

Positive v. Normative Economics

Positive Statements- Based on facts. Avoids value judgements (what is).

Normative Statements- Includes value judgements (what ought to be).

5 Key Assumptions

1) Society has unlimited wants and limited resources (**scarcity**).
2) Due to scarcity, choices must be made. **Every choice has a cost** (a trade-off).
3) Everyone's goal is to make choices that maximize their satisfaction. **Everyone acts in their own "self-interest."**
4) Everyone makes decisions by **comparing the marginal costs and marginal benefits of every choice.**
5) Real-life situations can be explained and analyzed through simplified models and **graphs**.

Marginal analysis (aka: "thinking on the margin") making decisions based on increments

- In economics the term **marginal** = additional (1 more unit)
- You will continue to do something as long as the **marginal benefit** is greater than the **marginal cost**
- MB > MC = good decision
- MC > MB = bad decision/not worth it

Trade-offs and Opportunity Cost

All decisions involve **trade-offs**

- **Trade-offs -** ALL the alternatives that we give up when we make a choice
  - Ex: If you choose to study for an economics test, then you give up a chance to go to the movies or read a book (trade-offs)
- **Opportunity cost-** most desirable alternative given up when you make a choice.
  - #1 trade-off you give up

"THERE IS NO SUCH THING AS A FREE LUNCH!" (**TINSTAAFL**)
There's ALWAYS a COST!

Economic Terminology **(Must Know!)**

- **Utility** = Satisfaction
- **Marginal** = Additional
- **Allocate** = Distribute

What's the price? vs. How much does that cost?

- **Price** = Amount buyer (or consumer) pays
- **Cost** = Amount seller pays to produce a good

- **Investment =** the money spent by **BUSINESSES** to improve their production
  - Ex: $1 million investment in new factories or capital equipment
  - In economics, Investment **ALWAYS** refers to businesses purchasing **CAPITL GOODS**

Goods v. Services

Goods - physical objects that satisfy needs and wants

- **Consumer Goods -** created for direct consumption and individual's utility
  - Ex: pizza, tennis shoes, car, etc.
- **Capital Goods -** created for indirect consumption (ex: oven, knives, bulldozer)
  - **Goods used to make consumer goods**; without capital goods there will be no consumer goods

Services - actions or activities that one person performs for another (teaching, cleaning, cooking)

Factors of Production/Productive Resources

ALL **resources** can be classified as one of the following four factors of production:

1. **Land -**All **natural resources** that are used to produce goods and services. (Ex: water, sun, plants, animals)
2. **Labor -**Any effort a person devotes to a task for which that person is paid; **workforce** (Ex: manual laborers, doctors, teachers, waiters, etc.)
3. **Capital -**
   - **Physical Capital -** Any human-made resource that is used to create other goods and services (Ex: tools, tractors, machinery, buildings, factories, etc.)
   - **Human Capital -** Any skills or knowledge gained by a worker through education and experience
4. **Entrepreneurship -** ambitious leaders that combine the other factors of production to create goods and services.
   - Ex: Henry Ford, Bill Gates, Inventors, Store Owners, etc.
   - Entrepreneurs take the initiative, innovate, and are "**risk-takers**" in order to make a **PROFIT**

   Profit = Revenue – Costs

Economic Systems

Every society must answer the 3 basic economic questions?

1) **What** goods and services should be produced?
2) **How** should these goods and services be produced?
3) **Who** consumes these goods and services?

The way these questions are answered determines the economic system

Economic system is the method used by a society to produce and distribute/allocate goods and services.

1. **Centrally Planned (Command) Economy- the government (Communism)…**
   - owns all the resources
   - answers the 3 economic questions

Ex: Cuba, China, North Korea, former USSR

Why do centrally planned economies face problems of poor-quality goods, shortages, and unhappy citizens?

- **Little incentive to work harder** and central planners have a hard time predicting preferences

Advantages of Communism:

- Low unemployment-everyone has a job
- Great Job Security-the government doesn't go out of business
- Equal incomes means no extremely poor people
- Free Health Care

Disadvantages of Communism:

- No incentive to work harder
- No incentive to innovate or come up with good ideas
- No Competition keeps quality of goods poor.
- Corrupt leaders
- Few individual freedoms
- **The End Result: There is a shortage of goods that consumers want, produced at the highest prices and the lowest quality**

2. **<u>Free Market System (aka: Capitalism)</u>**
   - Little government involvement in the economy. (***Laissez Faire*** = Let it be)
   - Individuals OWN resources and answer the three economic questions.
   - The opportunity to make PROFIT gives people INCENTIVE to produce quality items efficiently.
   - Wide variety of goods available to consumers.
   - Competition and Self-Interest work together to regulate the economy (keep prices down and quality up).
   - **The End Result: Most efficient production of the goods that consumers want, produced at the lowest prices and the highest quality.**

Adam Smith's <u>Invisible Hand</u> Theory:
The concept that society's goals will be met as individuals seek their own self-interest. Competition and self-interest act as an invisible hand that regulates the free market.

3. **<u>Mixed Economies</u> -** A system with free markets but also some government intervention.

❖ Almost all countries, including the US, have mixed economies

Productivity creates WEALTH!
Countries with free markets, property rights, and The Rule of Law, have historically seen greater economic growth because they are more productive

<u>7 Economic & Social Goals</u>

1. **<u>Economic Freedom</u>** – freedom to buy or sell what we want, make choices with little interference by the government
2. **<u>Economic Efficiency/Innovation</u>** – making the most of scarce resources, using your resources wisely and productively by improving upon existing technology
3. **<u>Economic Growth</u>** – improving the economy from year to year, improving people's standard of living
4. **<u>Full Employment</u>** – highest amount of the labor force that could be employed within an economy at any given time (95% employment rate or better)
5. **<u>Economic Security</u>** – government will provide a safety net in times of economic downturns
6. **<u>Price Stability</u>** – knowing that goods & services will consistently be available at stable prices (Beware Inflation!!!)
7. **<u>Economic Equity</u>** – Fair pay for equal work; being paid according to your skill level & not discriminating based on race/ethnicity, gender, age, religion, etc.

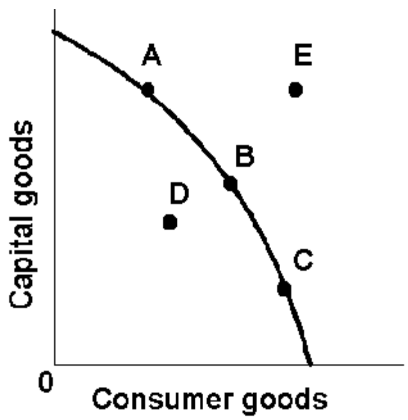
Production Possibilities Curve (Frontier)

A **production possibilities curve** (PPC) is a model that shows alternative ways that an economy can use its scarce resources

- ❖ This model graphically demonstrates **scarcity, trade-offs, opportunity costs, and efficiency**

4 Assumptions of the PPC

1. Only two goods can be produced
2. Full employment of resources
3. Fixed Resources (***Ceteris Paribus*** – all other things being equal)
4. Fixed Technology



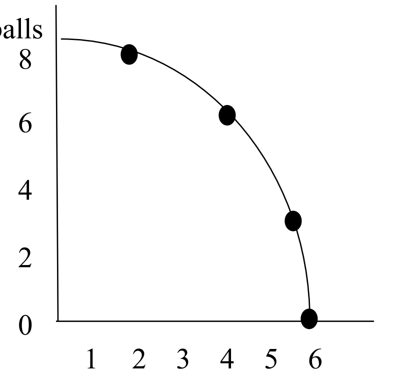
PPC shows that **nothing is free** & **everything has an opportunity cost**, if society wants more of one thing it must give up something in return

- ❖ **Efficiency** – condition in which economic resources are being used to produce the maximum amount of goods & services (**on the curve – Full Employment**)
- ❖ **Underutilization** – condition in which economic resources aren't being used to their full potential (**inefficient; inside the curve - Recession)**
- ❖ **Unattainable** – production cannot be attainable for an extended period of time with current resources and technology **(outside the curve/frontier)**

- ❖ Points **A, B, C** are all efficient, operating **at Full Employment** (on the curve)
- ❖ Point **D** is inefficient, showing the economy is in a **Recession** (inside line)
- ❖ Point **E** is unattainable for long periods of time (**outside the line**) and represents an economy experiencing an **Inflationary Gap**

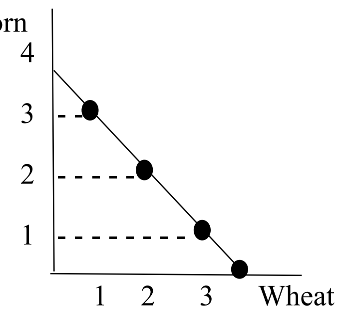
Law of increasing opportunity costs states that as production switches from one product to another, increasingly more resources are needed to increase the production of the second product, which causes opportunity cost to rise

- **PPC has a concave (bowed-out) curve**



Constant Opportunity Cost - Resources are easily adaptable for producing either good. Result is a straight line PPC (not common)

- **PPC has a straight line**



PER UNIT Opportunity Cost

How much each marginal unit costs = Opportunity Cost / Units Gained

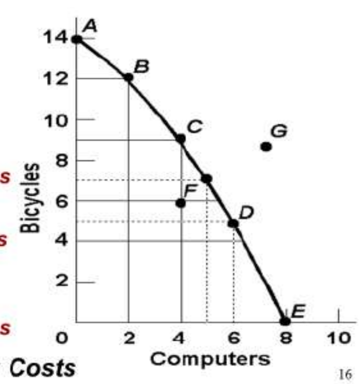
Example:

1. The PER UNIT opportunity cost of moving from a to b is... ***1 Bike***

2. The PER UNIT opportunity cost of moving from b to c is... ***1.5 (3/2) Bikes***

3. The PER UNIT opportunity cost of moving from c to d is... ***2 Bikes***

4. The PER UNIT opportunity cost of moving from d to e is... ***2.5 (5/2) Bikes***



NOTICE: Increasing Opportunity Costs

2 Types of Efficiency

Productive Efficiency - products are being produced in the least costly way.

- **Any point ON the Production Possibilities Curve**

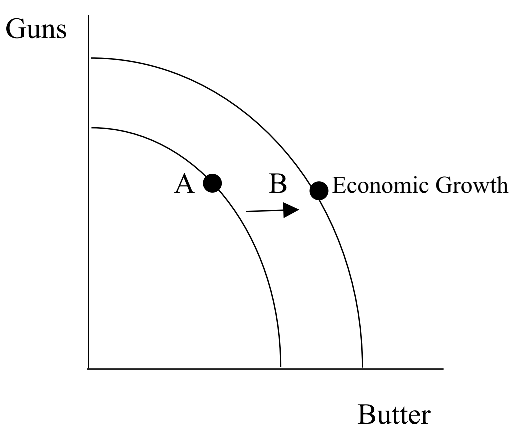
Allocative Efficiency - products being produced are the ones most desired by society.

- **This *optimal* point on the PPC depends on the desires of society.**

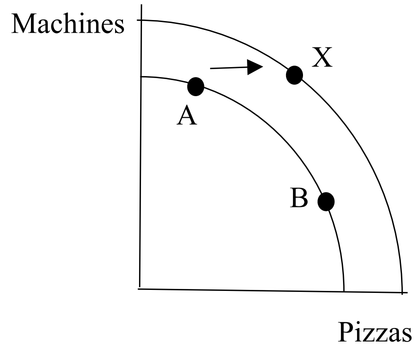
3 Changes can Cause the PPC to Shift Right

PPC can shift outward to the right showing long term economic growth:

1. **Increase productive resources** (quantity or quality)
    - F.O.P: land, labor, **capital** (physical & **human capital**), entrepreneurship
2. **New technology** = efficiency & productivity
3. **International Trade*** (based on Comparative Advantage)



Countries that produce more capital goods will have more growth in the future because capital goods produce other goods while consumer goods are made to increase individual's utility (satisfaction)



Point A would be more beneficial for this society to experience economic growth in the long-run and extend the PPC to Point X because its producing more machines (capital goods) and less pizzas (consumer goods).

Because each nation has certain productive resources & cannot produce everything it wants, individuals, businesses, & nations must decide what goods & services to focus on

- **Specialization** – a situation that occurs when individuals or businesses produce a narrow range of products to **maximize resources,** increase **productivity,** & make a **profit**
- **Economic interdependence** – a situation in which producers in one nation depend on others to provide goods & services they don't produce (opposite of **isolationism)**

Absolute v. Comparative Advantage

Absolute Advantage - the producer that can **produce the most output** OR **requires the least amount of inputs** (resources)

- Ex: Papa John has an absolute advantage in pizzas because he can produce 100 and Ronald can only make 20.

Comparative Advantage - The producer with the **lowest opportunity cost**

- Ex: Ronald has a comparative advantage in burgers because he has a lowest PER UNIT opportunity cost.

Countries should trade if they have a relatively lower opportunity cost

- They should specialize in the good that is "cheaper" for them to produce
- **Law of comparative advantage** – a nation or person is better off when it produces goods and services for which it has a comparative advantage

Absolute/Comparative Advantage Rules

- **Input** vs. **Output** Problems
- **Output** problems state that you get a certain amount of a product out of a given number of inputs (resources)
  - **Ex:** miles per gallon of gas, pieces of gum per dollar
- **Input** problems state that it takes a certain amount of inputs (resources) to get a given output (product)
  - **Ex:** hours to paint the house, apples to make a pie

Absolute Advantage

- For **Output** problems, you look to see who (nation, business, individual) can **produce the most** outputs with the same resources
- For **Input** problems, you look at who uses the **least amount** of inputs to get the output

Comparative Advantage

- For **Output** problems, it's **Other Over**
  - Hint: **O**utput = **OOO** (Triple O's!)
- For **Input** problems, it's **Other Under**
- You look for the **smallest number**, which signifies the **least Opportunity Cost**
- There can never be a Comparative Advantage **in both products**

Product from 1 ton of peanuts **(Output)**

	Peanut Butter	Peanut Oil
Company A	40	30
Company B	60	20

Company A has the **Absolute Advantage (AA)** in producing Peanut Oil, and Company B has the **AA** in Peanut Butter

Company B has the **Comparative Advantage (CA)** in Peanut Butter (20/60 = 1/3 is less than 30/40 = 3/4) and Company A has the **CA** in Peanut Oil (40/30 = 4/3 is less than 60/20 = 3)

- Company A: 1 PB =3/4 PO
- Company B: **1 PB = 1/3 PO**

Company B has lowest Opportunity Cost and should only produce peanut butter with the peanuts

- Company A: **1 PO = 4/3 PB**
- Company B: 1 PO = 3 PB

Company A has lowest Opportunity Cost and should only produce peanut oil with the peanuts

Apples to make one **(Input)**

	Pie	Juice
Glenda	5	3
David	6	3

Glenda has an **AA** in Pies, and neither have an **AA** in Juice (same # of inputs)

Glenda has **CA** in Pies (5/3 = 1 2/3 is less than 6/3 = 2), and David has **CA** in Juice (3/6 = ½ is less than 3/5)

- **Glenda: 1 Pie = 1 2/3 Juice**
- David: 1 Pie = 2 Juice

Glenda has the lowest opportunity cost and should only produce Pies with her apples

- Glenda: 1 Juice = 3/5 Pie
- **David: 1 Juice = ½ Pie**

David has the lowest opportunity cost and should only produce Juice with his apples

Both countries can benefit from trade if they each have relatively lower opportunity costs.
Terms of Trade - The agreed upon conditions that would benefit both countries

- Ex: Trade 1 ton of wheat for 1.5 tons of sugar

Circular Flow Model

Microeconomics can be summarized by the relationship & interaction between households, businesses, and government in the Factor/Resource Market and the Product Market

Product Market - "place" where **goods and services** produced by businesses are sold to households

Resource (Factor) Market - "place" where **resources** (land, labor, capital, and entrepreneurship) are sold to businesses by individuals/households

Circular Flow Key Vocabulary

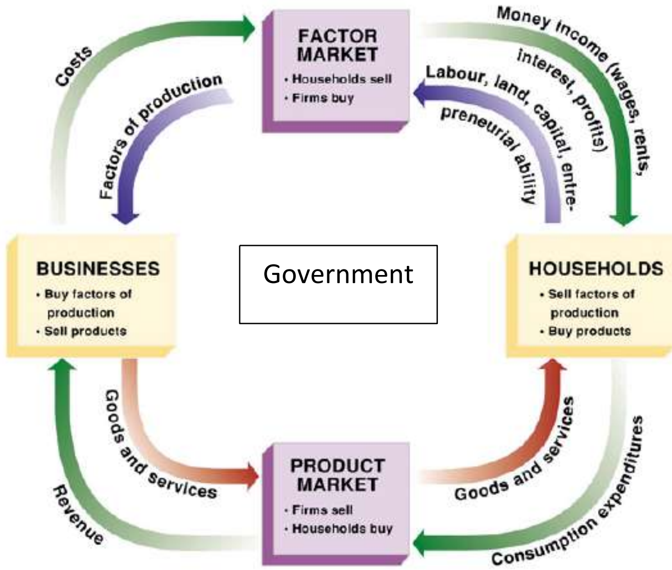
Private Sector- Part of the economy that is run by individuals and businesses

Public Sector- Part of the economy that is controlled by the government

Factor Payments- Payment for the factors of production, namely rent, wages, interest, and profit (how households earn an income)

Transfer Payments- When the government redistributes income (ex: welfare, social security)

Subsidies- Government payments to businesses to produce



- **<u>Household</u>** – Person/group of people living in a residence (not always a family)
  - **Consumers** use the final goods & services (outputs) to **satisfy wants & needs (utility)**
  - Consumers do the **demanding** in a market economy
- **<u>Firm</u>** – business organization that uses resources to produce goods/services, which it then sells
  - **Suppliers** transform **"inputs"** (F.O.P.) into **"outputs"** (products)
  - Producers do the **supplying** in a market economy
- **<u>Factor/Resource Market</u>** – markets where resources (F.O.P) are bought & sold
  - **Households are sellers of inputs (F.O.P.) & Firms are the buyers**
    - **Labor -** Firms hire workers & pay them salaries called **wages**
    - **Land** - Earn income from **rent**
    - **Capital** - Earn **interest**
    - **Entrepreneurship** – earn **profits**
- **<u>Product Markets</u>** – Households & firms interact; producers sell their goods & services to consumers
  - **Households are buyers** & **Firms are sellers** of outputs

Money serves as the **MEDIUM of EXCHANGE** in a Market Economy & these transactions take place between producers and consumers through non-fraudulent **voluntary exchange** to seek mutual benefits.

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