Econ Unit 3: Micro Notes

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

- **Household** – 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
- **Firm** – 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
- **Factor/Resource Market** – markets where productive resources (F.O.P) are bought & sold
  - ■ **Households are sellers of inputs (F.O.P.) & Firms are the buyers**
    - ➢ **Labor** - Firms (businesses) hire workers & pay them salaries called **wages**
    - ➢ **Land** - Earn income from **rent**
    - ➢ **Capital** - Earn **interest**
- **Product Markets** – 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 **voluntary exchange**

Demand

Demand – amount of a good or service that a consumer **DESIRES** and is **ABLE & WILLING** to buy at **various/all prices** during a given time period

- **Quantity Demanded (Qd) –** amount of a good or service a consumer is willing & able to buy at **EACH PARTICULAR PRICE** during a given time period
  - ■ See the subtle but IMPORTANT difference between Demand & Qd?

LAW OF DEMAND states that when the price of a good or service falls, consumers buy more of it (& vice versa)

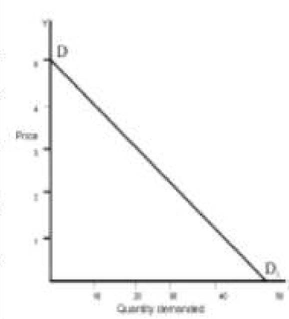
⇩**PRICE** = ⇧**Qd** or ⇧**PRICE** = ⇩**Qd**

- **INVERSE RELATIONSHIP** (opposite) between **PRICE & Qd,** so the more something costs the less people will buy (common sense, right?)
- Demand Schedule shows the **relationship between price & Qd**
- **Demand Curve** shows the same info & the curve **ALWAYS SLOPES DOWNWARD!!!!!!!!!!!!!!!!!**
  - ■ **Demand goes Down to the DIRT!**
- **Movement along the Demand Curve showing a change in Quantity** is caused by a **change in the price** of a product, which changes the Quantity Demanded (Qd) of a product

Demand schedule

Price (Rs)	Quantity Demanded (Units)
5	10
4	20
3	30
2	40
1	50

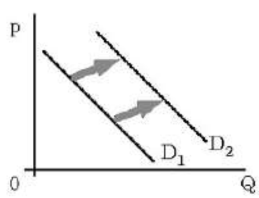
Demand Curve



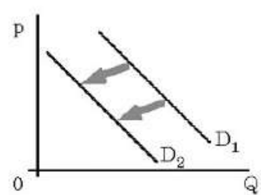
Reasons Why Demand Curves Slope Down

1) **Income Effect** – the change in consumption resulting from a **change in price**, "more bang for your buck"
   - ✓ Consumers **feel richer when prices drop**, **poorer when prices rise** & both affect the Qd of a product
2) **Substitution Effect** – people will **substitute** a SIMILAR, LOWER-PRICED product for a relatively more expensive one
3) **Diminished Marginal Utility** – the more of a product you use, the less satisfaction or **utility** (the power to satisfy a want) you'll get from each unit
   - ❑ This helps to explain why **demand for a product is not limitless**

- **Price changes Qd & not Demand**
- **Changes in Demand** are reflected as a **shift in the curve**
- Shifts to the **RIGHT** indicate an **INCREASE in demand**
- Shifts to the **LEFT** indicate a **DECREASE in demand**



An increase in demand



A decrease in demand

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5 Determinants ("Shifters") of Demand

1. **Consumer Income**
2. **Consumer tastes/preferences (Advertisement & Popularity)**
3. **Consumer expectations**
4. **Market size/Population**
5. **Prices of Related Products (Substitute & Complementary goods)**

1) A consumer's income affects their demand for goods & services
- ● Increase in income will cause an increase in consumption
- ● Decrease in income will cause a decrease in consumption
- ➢ **Normal good** – income rises, demand rises (Name Brand Good)
- ➢ **Inferior good** – income rises, demand falls (Off Brand or Generic Products)

2) Changes in Popularity of products are seen by the consmer "**dollar vote**"
- ● Advertising – influence of trends & marketing by firms can affect demand
- ➢ Popularity of product decreases, decreases in demand
- ➢ Popularity of a product increases, increases in demand

3) Consumer Expectations refers to the way people think about the future, as it relates to consumption
- ● Consumer Confidence for the future will affect consumption for the present

4) An increase in the number of consumers can cause an increase or decrease in the demand for products
- ● Increase in population, increase in demand
- ● Decrease in population, decrease in demand

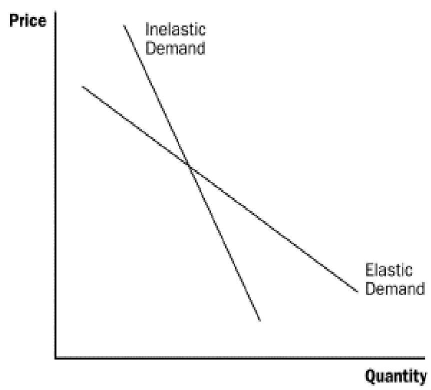
5) Demand for goods can be affected by the price for related goods:
- ● **Complements** – demand of one good increases as a result of the purchase of another good
- ● **Substitutes** – demand for one good decreases because another good is used in its place

Remember that PRICE NEVER EVER CHANGES DEMAND, but PRICE ALWAYS CHANGES Quantity demanded (Qd)

Elasticity of Demand is the degree to which changes in a good's price affect the quantity demanded (Qd)
- ● **Elastic Demand** exists when a **small change in a good's price** causes a **MAJOR, OPPOSITE change in Qd**
  - ■ small price increase = a LARGE drop in QD
  - ■ Elastic Demand follows the regular rules of the Law of Demand
- ● **Inelastic Demand** – demand for a good or service are **unaffected** when the price of that good or service changes

Determinants of Elasticity

1. **Necessities v. Luxuries:** Need v. Want
   - ➢ Medicine such as insulin for diabetics is inelastic because it's life or death
2. **Existence of Substitutes**
3. **Proportion of Income**: % of a person's total budget used to buy the good
   - ➢ That's why cheap items like salt, rubber bands, toy army men, etc. are inelastic
4. **Time allowed to adjust** for the price change
   - ➢ More time allowed, the greater the elasticity



Supply

Supply is the quantity of goods & services that producers (firms/businesses) are **WILLING** to offer at **ALL** possible prices during a given time period

- **Quantity Supplied (Qs)** is the amount of a good or service that a producer is willing to sell at **EACH PARTICULAR PRICE**

LAW OF SUPPLY – states that producers **supply more goods & services** when they can **sell them at higher prices** and **fewer goods & services** when they must **sell them at lower prices**

⇧PRICE = ⇧Qs or ⇩PRICE = ⇩Qs

- Notice the **DIRECT (POSITIVE) relationship** between price and Qs
- Producers' actions are based primarily on the pursuit of ***PROFITS!***

  Those Greedy Capitalists!

Profit = Total Revenue - Total Costs

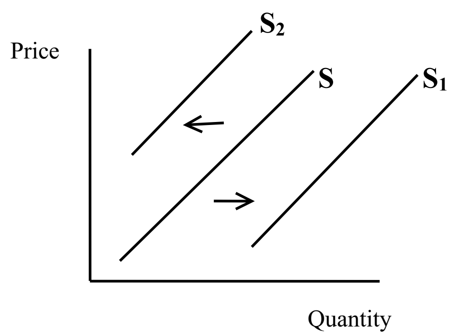
- **Supply schedule** – table that shows how much a good or service producers in a market are willing to offer for sale at each price
- **Supply curve** – shows the data from the supply schedule on a graph

The supply curve

PRICE	Q_S
$0.40	1
$0.60	2
$1.00	3
$1.50	4
$2.10	5
$2.50	6
$3.00	7
$4.00	8
$5.00	9

- **Supply curve ALWAYS slopes UPWARD reflecting Law of Supply**
  - ■ **Supply to the SKY!!!**
- A **change in price causes MOVEMENT along the Supply Curve**

Changes in Supply are reflected by a Rightward (Increase) or Leftward (Decrease) shift in the Supply Curve



S is the original Supply Curve
S_1 shows an increase (shift right) in supply
S_2 shows a decrease (shift left) in supply

6 Determinants ("Shifters") of Supply

1) Price of Resources/Input Costs
2) Technology
3) Government Tools: Taxes & Subsidies
4) Number of Sellers/Competition
5) Business Expectations
6) Supply Shocks

1. **Prices of Resources/Input Costs**

- **Input Costs** – the cost of producing the good increases/decreases based on the materials necessary to produce (inputs)
  - Inputs necessary to produce are land, labor, capital (productive resources)
  - Energy costs (oil) are a key factor in supply

2. **Technology/Productivity**

- Technological innovations **improve productivity** & increase ability to supply
- **Productivity** – amount of goods & services produced per unit of input

3. **Government Tools:**

- **Taxes/Regulations (Negative Impact)**
- **Subsidies (Positive Effect)**
  - **Subsidy** – Gov't payment that helps cover the cost of an economic activity that benefits the public
    - Energy Industries and Agricultural Products usually enjoy Gov't subsidies
  - Subsidies motivate firms to produce because they are guaranteed revenue from the government
    - shifts Supply Curve to the RIGHT

4. **Competition/Number of Sellers in Market**

- Number of sellers – an increase/decrease in the number of sellers can cause an increase or decrease in the supply of goods & services

5. **Business/Producer Expectations**

- Expectations – suppliers inventory will reflect how they view the economy in the future
- Suppliers will build up their inventory if they feel the economy will be strong showing **economic growth,** but reduce inventory if they feel an economic contraction is coming due to a **recession**

6. **Supply Shocks** – sudden shortage of a good due to a **natural disaster** or **human error**

- Natural disasters – drought, earthquake, hurricane, wildfire
- Human error – gulf oil spill, refinery fire, war, etc.

Make sure you understand the difference between a Change in Qs caused by a change in Price and a Change in Supply caused by 1 of the 6 non-price "Shifters"

- Quantity Supplied (Qs) – A change in the amount a supplier will produce as a result of a change in price
  - Reflected as **movement along the curve** (Law of Supply)

- Supply – A change in the amount a supplier can produce as a result of a change in one of the non-price determinates
  - Reflected as a **shift in the curve**

- **Elasticity of Supply** is the degree to which price changes affect the Qs
- Elastic Supply exists when products can be made (1) quickly, (2) inexpensively, (3) using a few readily available resources
- Inelastic Supply exists when a **change in a good's price** has **little** impact on the Qs, and occurs when a product (1) requires a great deal of time to produce, (2) is expensive to produce, (3) and resources are not readily available
  - Ex: islands in the Bahamas or moon rocks

LAW of DIMINISHING RETURNS states that as more of ONE input is added to a fixed supply of other resources, productivity increases up to a point; but at some point, marginal product will diminish

- **Increasing marginal returns** – Increases in output per worker added by the firm
- **Diminishing marginal returns** – Additional workers increase total output, but at a decreasing rate
- **Negative Marginal Returns** – Adding additional workers decreases output

Prices

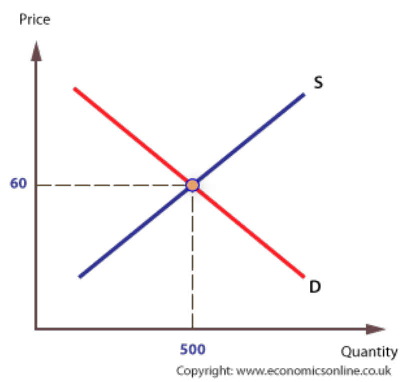
Price – the value of a product as established by Supply & Demand

- Prices serve as a link between producers & consumers

Characteristics of the Price System

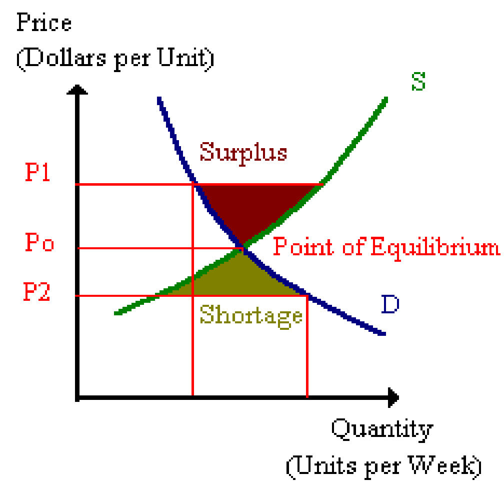
1) **Neutral** – Both the producer & consumer make choices that determine the equilibrium price
2) **Market Driven** – Market forces, not Gov't policy, determine prices, so the system basically runs itself
3) **Efficient** – Resources are allocated efficiently since prices adjust until the maximum number of goods & services are sold
4) **Flexible** – When market conditions charge, so do prices

Market Equilibrium – the point of balance where Demand & Supply come together (intersect), establishing the **market clearing price (P_e)** where **Qd = Qs**



Disequilibrium – occurs when the quantity supplied is not equal to the quantity demanded

- **Surplus** – result of **Qs > Qd,** usually because **prices are too high**
- **Shortage** – result of **Qd > Qs**, usually because **prices are too low**



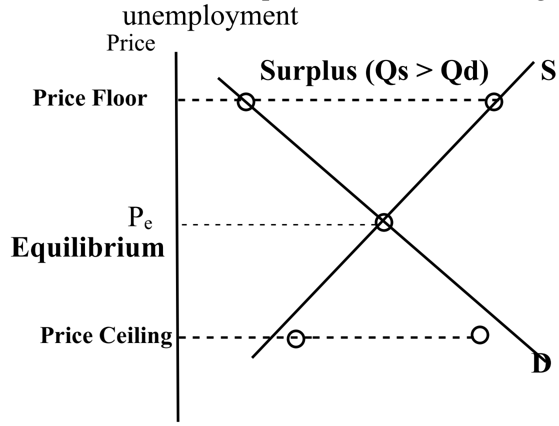
- When the Free Market experiences disequilibrium (Surplus or Shortage), a new equilibrium clearing price must be established by **producers decreasing or increasing the price & production**
  - Remeber **Adam Smith's Invisible Hand?**
- And then there are those that believe the **GOVERNMENT MUST INTERVENE** to fix the system through **Price Controls**

1) **Price Ceilings** – Gov't imposed **maximum price that can be legally charged** for a good/service

➢ **Price ceilings always cause a shortage in the market** (Remember this!!!)
  - New York introduced rent control in the early 1940s as a way to provide affordable housing; the result led to massive apartment shortages

2) **Price Floors** – Gov't imposed, **minimum price that can be legally charged** for a good or service

➢ **Price floors always cause a surplus in the market** (Got that???)
  - **Minimum wage is a price floor** that causes a surplus of workers & rising unemployment



Shortage (Qd > Qs)

Q_e Quantity

Price Floor is set at the TOP of the graph because you can't go below the set price. Think about the floor that you walk on; you can't go below, but you can jump up or climb higher

Price Ceiling is set at the BOTTOM of the graph because you can't go higher than the ceiling. Think of a balloon that you let go inside the room. The balloon wants to float higher to fight equilibrium, but the ceiling prevents it from going any higher

4 Types of Market Structures

1. **Perfect (Pure) Competition** is the simplest & most competitive market structure; a large number of firms producing **identical products**

4 characteristics:

1) **Identical Products**
2) Many buyers and sellers (most competitive)
3) No barriers to entry
4) Market Price is controlled by Supply & Demand (Invisible Hand)
   - **Firms are "Price Takers"**
   - Examples include fresh produce (fruits & vegetables)

2. **Monopolistic Competition** – many companies ("little monopolies") selling similar products

- **Don't confuse monopolistic competition with a monopoly**

4 Characteristics:

1) **Similar Products** (not identical)
2) Many buyer and sellers
3) Low barrier to entry
4) Slight control over price

❖ **Brand Differentiation** is the main difference between perfect & monopolistic competition
   - Examples include fast food restaurant chains, clothing retailers, etc.
   - Why do you buy the types of clothing or frequent the specific restaurants that you usually go to?
   - Because you personally prefer the brand of Levi's jeans over Wrangler or Chick-Fil-A over Zaxby's; it has little to do with prices

3. **Oligopoly** – a market structure in which a **few large firms dominate a market**; a few of the largest firms **produce at least 70-80% of the output**.

4 Characteristics:

1) Identical/slightly different products
2) **A few firms (2-3)**
3) High Barriers to Entry
4) Market Power over the price
   - Examples: Automobile industry, commercial airlines, oil cartels, web browsers, smartphones, etc.

- **Collusion** – businesses work together to agree to **price fix**, which **damages the free market** (sell at the same or very similar prices)
- **Cartel** – a formal organization of producers that fix prices and control supply
  - ■ **OPEC**: Organization of Petroleum Exporting Countries
  - ■ Now you understand why they're called "Drug Cartels"

Most all products sold in US come from either monopolistic competition or oligopolies. Monopolistic competition and oligopolies try to **avoid PRICE WARS** (lowering prices to attract consumers) between each other, so these market structures use **non-price competition techniques** to encourage consumers to buy their products or use their services instead of the competition

✓ Ex: Free shipping, Coupons, etc.

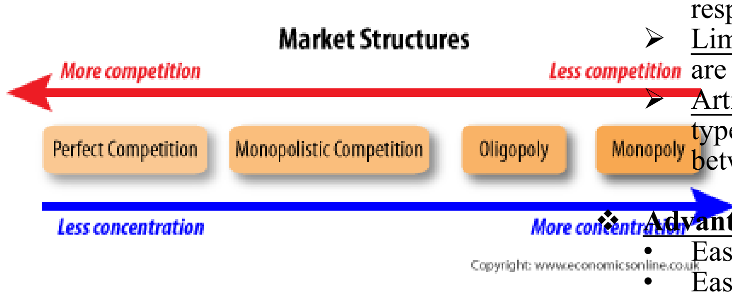
4. **Monopoly** – when **one single company controls the market** of a good/service and can **effectively dictate prices**

4 Characteristics:

1) No substitutes
2) **One Seller (least competitive)**
3) Complete Barrier to Entry
4) Total Market Power ("**Price Makers**")
   - Examples: Comcast, Windows in the 1990s, Standard Oil in late 1800s

Natural Monopolies consist of utility companies (power, water, cable, etc.) and are allowed to exist by the government because they offer a product/service at a lower cost than if several competitors were to compete against one another

- Gov't still regulates natural monopolies to prevent the monopoly from raising prices too high for customers



<u>Business Organizations</u>

<u>Business organization</u> (firm) – establishment formed to bring goods & services to consumers in the market

3 types: 1) **Sole proprietorship**, 2) **Partnership**, 3) **Corporation**

- **<u>Liability</u>** – legal obligation to pay debts/injury settlements incurred by the business

1. **<u>Sole proprietorship</u> – a business owned by one person**

- ➢ **Most common type of business organization**
- ➢ **75% of all U.S. businesses are sole proprietorships**

❖ <u>Advantages</u>
- **Easy to start up**
- Easy to manage
- **You keep ALL the PROFITS**
- There are no separate business taxes
- **Easy to close down shop (dissolve/liquidate)**

❖ <u>Disadvantages</u>
- **UNLIMITED LIABILITY**
- **Difficult to raise financial capital**
- Limited managerial experience
- Hard to attract qualified employees
- Limited life of company (dissolves when owner is gone)

2. **<u>Partnership</u> – business owned by 2 or more people**

- ➢ This is the **least common business organization** (only about 5%)
  - ➢ <u>General Partnership</u> – each partner is responsible for everything
  - ➢ <u>Limited Partnership</u> – some partners are not "active"
  - ➢ <u>Articles of Partnership</u> – outline the type of partnership, to the state, between partners.

❖ <u>Advantages</u>
- Easy to start
- Easier to manage (partners bring different strengths & expertise)
- Easier to find financial capital
- More efficient operations (larger, more capital & specialization)
- Easier to attract better/qualified employees

❖ <u>Disadvantages</u>
- Each partner is responsible for the other partner's actions & decisions
- Limited life of business
- Possible conflict between partners

3. **<u>Corporation</u> – business organization owned by individual shareholders, each of whom faces limited liability for the firms debt**

- ➢ Account for 20% of all businesses, but 90% of all products sold
- ➢ Considered a separate legal entity
- ➢ Corporations issue **<u>STOCK</u>** (Shares) to investors (**<u>Shareholders</u>**)
- ➢ Shareholders can receive **<u>DIVIDENDS</u>** (profits from stock) & are the OWNERS of the business, but face no liability for the firm's obligations
  - ■ <u>Common stock</u> – get one vote per share when electing the Board of Directors
  - ■ <u>Preferred stock</u> – non-voting shares but you get any dividends before common stock holders
- ✧ **If own the majority (51%) of stock, then you control the company**

❖ <u>Advantages</u>
- **Easy to raise financial capital by selling stock or issuing bonds**

- Ability **to offer higher salaries & greater benefits** allows corporations to recruit the best, brightest, most talented, ambitious, and professional employees & managers
- **Limited liability to shareholders**
- **Unlimited life** (transfer ownership by selling stock)

❖ <u>**Disadvantages**</u>

- Can be difficult and expensive to get a <u>**CHARTER**</u> to start corporation
- Shareholders usually have little input in the corporation
- **DOUBLE TAXATION** of corporation profits
- Much more **GOVERNMENT REGULATION**