**Chapters 5 and 6**

**Elasticity refers to the degree of responsiveness in supply or demand in relation to changes in price.**

1. If a curve is more elastic, then small changes in price will cause large changes in quantity consumed. A more elastic curve will be horizontal.
2. If a curve is less elastic, then it will take large changes in price to effect a change in quantity consumed. Graphically, elasticity can be represented by the appearance of the supply or demand curve. A less elastic curve will tilt more vertically

**Price elasticity of demand (elasticity of demand) :the degree of responsiveness in demand quantity with respect to price.**

1. When demand is very elastic, a slight raise in the price decreases the quantity a lot.

There are many possible reasons for this phenomenon:

1. Buyers might be able to easily substitute away from the good.
2. Buyers don't want the good that much (inferior goods)
3. Time Dimension
4. If demand is very inelastic, then large changes in price won't do very much to the quantity demanded.

With inelastic curves, it takes a very big jump in price to change how much demand there is.

Possible explanations for this situation could be that:

1. The good is an essential good that is not easily substituted for by other goods. This means that consumers will need to buy the same amount of the good from week to week, regardless of the price.

**How Is Elasticity Measured?**

In this formula, the price elasticity of demand will always be a negative number because of the inverse relationship between price and quantity demanded. As price went up, quantity demanded went down, or vice versa. When price goes down, quantity demanded goes up. Price and quantity demanded always move in opposite directions, hence the price elasticity of demand is always negative.

***Elasticity = (Change in quantity/Average quantity) / (Change in price/Average price)***

***Elasticity = ((Q1 - Q2) / (Q1 + Q2)/2 )) / ((P1 - P2)/( (P1 + P2)/2))***

**Unitary: Midpoint formula:**

**% Quantity change= (Q2 –Q1)/ Q1**

**% Price change= (P2-P1)/P2**

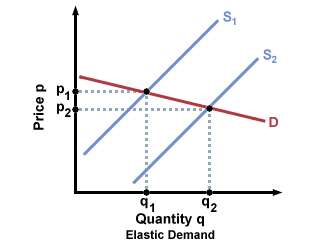
What the number tells you is a 1 percent decrease in price causes a 1.67 percent increase in quantity

**Once calculated, the price elasticity of demand indicates how responsive quantity demanded is to a change in the good’s price:**

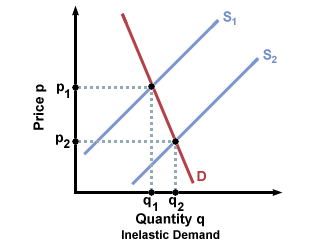
1. **Inelastic:**
   1. **Perfectly inelastic:** The price elasticity of demand equals zero, indicating that quantity demanded doesn’t change in response to a change in the good’s price.
   2. **Inelastic:**The price elasticity of demand is between –1 and 0, indicating that quantity demanded isn’t very responsive to a change in the good’s price.
   3. Price and revenue are proportional. An increase in price leads to an increase in revenue.
2. **Unitary elastic:**The price elasticity of demand equals –1, indicating the percentage change in quantity demanded equals the percentage change in price.
3. **Elastic:**
   1. **Elastic**The price elasticity of demand is less than –1, indicating that quantity demanded is very responsive to a change in the good’s price.
   2. **Perfectly elastic:** If demand is perfectly elastic, the demand curve is a horizontal line instead of the usual downward-sloping demand curve.
   3. Elastic Demand: Price and revenue are inversely proportional. Decrease in price leads to an increase of revenue. P(+) x Q(--) = R(-)

**Revenue= Price x Quantity**

**The Effects of Elasticity on Equilibrium Price and Quantity**

If demand is very elastic, then shifts in the supply curve will result in large changes in quantity demanded and small changes in price at the equilibrium point.

If demand is very inelastic, however, then shifts in the supply curve will result in large changes in price and small changes in quantity at the equilibrium point.



**Income elasticity of demand**

Income elasticity of demand (YED) shows the effect of a change in income on quantity demanded.

**% change in (∆) quantity demanded**

**% change in (∆) income (Y)**

***Normal goods***

When the equation gives a positive result, the good is a *normal good*. A normal good is one where demand is directly proportional to income.

**Inferior goods**

When YED is *negative*, the good is classified as *inferior*.

Cross Price elasticity od demand is the measure of response of quantity of one good demanded with respect to a change in the price of another good.

**C.P.E= % change in Quantity of Y demanded**

**% change in Price of X**

**Elasticity of Supply = % change in Quantity of Supply**

**% change in Price**

**Elasticity of labor supply= % change in the quantity of labor / % change in wages**

For each hour of leisure that you decide to consume, you give up one hour’s wages.

Thus, the wage rate is the *price of leisure*.

**House Hold Choices in output markets: ( 3 basic decisions)**

1. How much of each product to demand
2. How much labor to supply
3. How much to pay today and how much to save for the future

**Factors that influence the quantity of a good demanded by a single household:**

1. Price of that good
2. Income
3. Wealth
4. Price of the other products needed for household
5. Taste
6. Expectation

**Households in input markets: ( 3 decisions):**

1. Weather to work
2. How much to work
3. What kind of job to work at

**Factors that influence the households in input markets:**

1. Wages offered
2. Available jobs
3. Skills they posses
4. Only 168 hours per week

**Budget constraint**

**The limits imposed on household’s choices by income, wealth and product price.**

**pizza**

Income =18

9

Price pizza= 2$

Price beer= 3$

6

**Beer**

(Indifference curve)

**Opportunity set** is the set of options that is defined and limited by a budget constraint

**Equation of the Budget line :**

**PxQx \* PyQy = Income**

**Utility:** ( The basis of choice ) :

**Marginal Utility (MU):** The additional satisfaction gained by using one more unit of a good or service.

**Total Utility:** The total amount gained from the consumption of a good or service.

**Law of diminishing marginal utility:** The more of any good consumed the less the utility or satisfaction gained by consuming each additional (marginal) unit of the same good.

**The Utility maximizing rule:**

**MUx/Px = MUy/Py**

**The diamond/water paradox:** A paradox stating the things with the greatest value in use have the least or no value in exchange and the things that have the less value of use have the greatest or most value in exchange.

**The Substitution Effect**

Everything works in the opposite direction when a price rises, *ceteris paribus*. When the price of a product rises, that item becomes more expensive relative to potential substitutes and the household is likely to substitute other goods for it.

**Marginal rate of substitution** is defined as ***MUX/MUY*,**

or the ratio at which a household is willing to substitute *X* for *Y*. We assume a diminishing marginal rate of substitution.