Econ Midterm Study

Chapter 1

Scarcity: The limited nature of society's resources.

Economics: The study of how society manages its scarce resources.

Market = A group of buyers and sellers (need not be in a single location).

Efficiency: The property of society getting the maximum benefits from its scarce resources.

Equity: The property of distributing economic prosperity fairly among the members of society.

Opportunity cost: Whatever must be given up to obtain some item.

Incentive: Something that induces a person to act.

Marginal changes: Small incremental adjustments to a plan of action.

Property rights: The ability of an individual to own and exercise control over scarce resources.

Two broad reasons for a government to intervene in the economy:

1. The goal of efficiency
2. The goal of equity

Market failure: A situation in which a market left on its own fails to allocate resources efficiently.

Externality: The impact of one person's actions on the well-being of a bystander.

Productivity: The quantity of goods and services produced from each hour of a worker's time.

Inflation: An increase in the overall level of prices in the economy.

Business cycle: The irregular and largely unpredictable fluctuations in economic activity, as measured by the production of goods and services or the number of people employed.

we are usually evaluating two things: the marginal cost and marginal benefit

Ex. When you go to supermarket, if there is a sale two for one, you must take in other factors; what is the cost and benefit associated with the extra unit

If benefit outweighs the cost, then the rational decision is to purchase the good

---Countries also benefit from trade and specialization

Central Idea: **Trade can make everyone better off.**

Central Idea: Policymakers use **Fiscal Policy** and **Monetary Policy** to attempt to smooth out this economic volatility.

* **Fiscal policy** is the use of government revenue collection (taxation) and expenditure (spending) to influence the economy.
* **Monetary policy** is the process by which the government controls the supply of money, often targeting a rate of interest for the purpose of promoting economic growth and stability.

Two types of market failure:

externalities: positive and negative; if you live in the dorms, gasoline prices does not affect your decision, but if it goes down, you will be affected negatively because there is more pollution; getting an education is positive externality to society as a whole, a higher education leads to lower crime rates

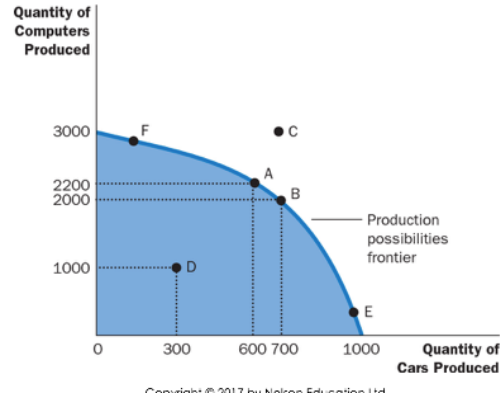
Market power: competitive market have many producers, one competitor enter or leaving the market does not as much market power to disrupt equilibrium; but if you have one huge firm enter or leave that has that much influence leads to market failure

Chapter 2,3

- **Positive statements:** Claims that attempt to describe the world as it is.
- **Normative statements:** Claims that attempt to prescribe how the world should be.

Positive statement can be confirmed or refused, but **Normative statement** can't!!!'
Normative Statement should contain words like "should", "need", "is needed".

Production Possibility Frontier (PPF)



Along the line, efficient
Below the line, not efficient (Unemployment)
Above the line, impossible (Not enough labour)

1. Straight line, no specialization. [opportunity cost remains constant]
2. Curve: specialization

Opportunity cost: Slope is bigger, opportunity cost is bigger

Factors of production = the resources the economy uses to produce goods & services, including labour, land, capital.

International Trade:

US has **an absolute advantage** in both wheat and computer, but could still benefit from trading with Japan due to **opportunity cost** for US to produce computer is high. US has a comparative advantage in wheat.

Absolute advantage measures the cost of a good in terms of the inputs required to produce it.

Comparative Advantage = The ability to produce a good at a lower opportunity cost than another producer = produce more at a lower opoortunity cost

Trade can make everyone better off.

Imports: Goods and services produced abroad and sold domestically.

Exports: Goods and services produced domestically and sold abroad.

Chapter 4

Market: A group of buyers and sellers of a particular good or service

Competitive market: A market in which there are many buyers and many sellers so that each has a negligible impact on the market price.

Buyers and sellers are ***price takers***. (Each is a price taker. They have no ability to influence price!)

Monopoly: Only seller in the market and this seller sets the price.

Oligopoly: (a few sellers dominating the market) Example: Microsoft and Apple

Quantity demanded: The amount of a good that buyers are willing and able to purchase (Move along the curve)

Law of demand: The claim that, other things equal, the quantity demanded of a good falls when the price of the good rises. (Price goes up, people buy less.)

Demand schedule: A table that shows the relationship between the price of a good and the quantity demanded.

Demand curve: A graph of the relationship between the price of a good and the quantity demanded

Market demand: The sum of all the individual demands for a particular good or service.

Change in demand: shift curve

Increase in quantity demand: move along the curve

Normal goods: income goes up, buy more

Inferior goods: income goes up, buy less (junk food, bus rides)

Substitutes: Two goods for which an increase in the price of one leads to an increase in the demand for the other

Complements: Two goods for which an increase in the price of one leads to a decrease in the demand for the other. (coffee, milk; computer, software)

****Demand Curve**: 1. Taste 2. Expectations 3. Number of buyers (More people, more demand) 4. Price of related goods (substitues or complements) 5. Income (Normal goods, inferior goods)

Price of good itself doesn't shift curve. It moves along the curve

Quantity supplied: The amount of a good that sellers are willing and able to sell.

Law of supply: The claim that, other things equal, the quantity supplied of a good rises when the price of the good rises.

****Supply Curve**: 1. Input prices (cost to produce. Example: employee wages, raw materials) 2. Technology 3. Expectation (sellers' expectation of future price change.) 4. Number of sellers (An increase in number of sellers, more supply, shift curve to right) 5. Time period 6. Entry or Exit of Sellers (Entry, more sellers, increase supply) 7. Change in opportunity cost (Increase of profit in small cars will decrease supply of SUV)

--- example: middle east problem, oil price goes higher in the future. Texas oiler reduce supply to save inventory for the future. Curve shift to left.

Tax and Subsidy: Tax on producer—increase on production cost, so curve shift to left

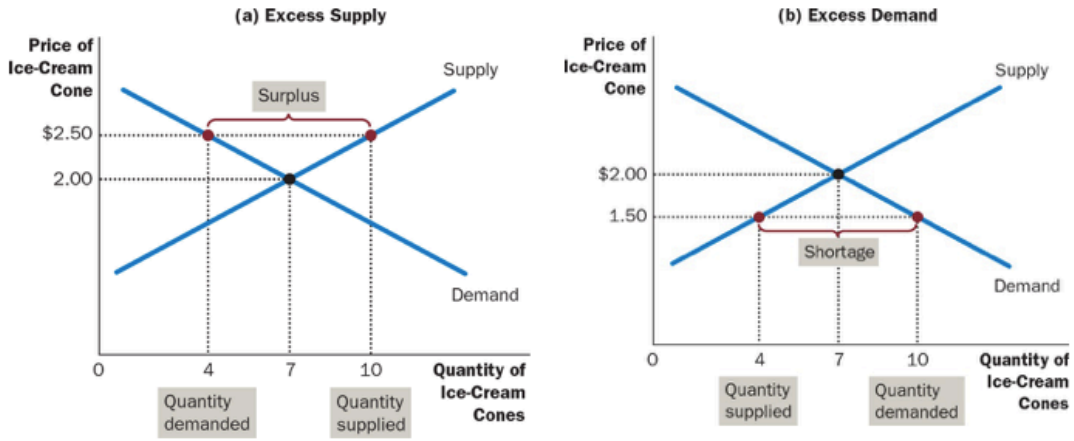
Subsidy (补助金): makes seller more willing to produce, so curve shift to right.

Price of goods do not affect the curve. (Move along the curve)

Schedule: Table of data

Curve: Line graph
Market supply: The sum of supplies of all sellers.
Increase in supply: shift curve to right
Increase in quantity: demand: Move along the curve
Tricky Example: Professional Taxer preparers raise their price? ---- Doesn't affect supply curve because this is substitute, only affect demand curve.
Equilibrium: A situation in which the price has reached the level where quantity supplied ***equals*** quantity demanded

- **Surplus:** Quantity supplied is greater than quantity demanded. Will reduce the price to get more buyers.
- **Shortage:** Quantity demanded is greater than quantity supplied. Will increase the price to reduce shortage.



Law of supply and demand: The claim that the price of any good adjusts to bring the quantity supplied and the quantity demanded for that good into balance
Three-step-program to analyze supply-demand equilibrium

1. Decide if supply or demand curve shift or both
2. Decide where it shifts to
3. New equilibrium

Chapter 5 Elasticity and Application

Elasticity is a measure of how much buyers and sellers respond to changes in market conditions.

- A measure of the responsiveness of quantity demanded or quantity supplied to one of its determinants.
- Moves along the curve

Price elasticity of demand: A measure of how much the quantity demanded of a good responds to a change in the price of that good, computed as the percentage change in quantity demanded divided by the percentage change in price.

$$\text{Price elasticity of demand} = \frac{(Q_2 - Q_1)/[(Q_2 + Q_1)/2]}{(P_2 - P_1)/[(P_2 + P_1)/2]}$$

Price of Elasticity >1: Elastic
Price of Elasticity <1: Inelastic
Price of elasticity= 0: perfectly inelastic
Price of elasticity=1: Unit elastic
Price of elasticity >>>> infinity: Perfectly elastic

Example: Seller increased P, Q decreased. If demand is elastic, >1 than change of Q > Change of P. So if loss of Q is more than gain of P. Therefore, revenue falls.

When demand is elastic, Quantity dominates
When demand is inelastic, Price dominates.

Can you tell by how much revenue falls if given elasticity?

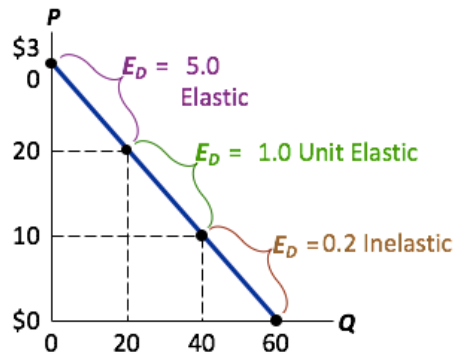
Yes. Example: Ela: -1.8, then 1% increase in P, 1.8% drop in Q. If P has increased by 22.2%, Q fall by 40%

Insulin, medication, etc are very inelastic

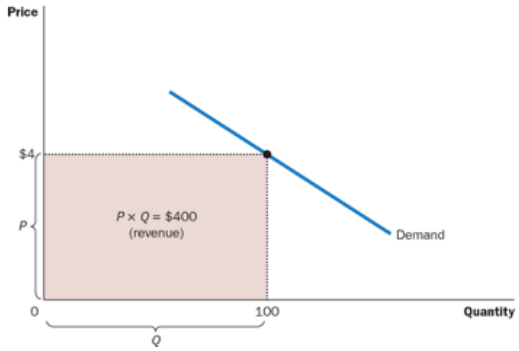
Factors affect elasticity of demand

1. Availability of close substitutes (More elastic when there's more substitutes: sweater>clothes)
2. Necessities versus luxuries (N: inelastic L: More elastic)
3. Definition of the market
4. Time horizon (In long run: more elastic because you have more options)

Slope vs Elasticity: Small slope, flat: more elastic Slope is constant, elasticity changes



Total Revenue: Area of the box under the line



Income elasticity of demand: A measure of how much the quantity demanded of a good responds to a change in consumers' income, computed as the percentage change in quantity demanded divided by the percentage change in income.

$$\text{Income elasticity of demand} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in income}}$$

Normal Goods: Income elasticity >0
Luxury goods: income elasticity >1
Inferior goods: income elasticity <0

Cross-Price Elasticity of Demand = measures the response of demand for one good to changes in the price of another good.

$$\text{Cross-price elasticity of demand} = \frac{\%\text{ change in } Q_D \text{ for good 1}}{\%\text{ change in price of good 2}}$$

For substitutes, cross-price elasticity > 0
(e.g., an increase in price of beef causes an increase in demand for chicken).
For complements, cross-price elasticity < 0
(e.g., an increase in price of computers causes decrease in demand for software).
Price of Elasticity of Supply:

… elastic if the quantity supplied responds substantially to changes in the price.
… inelastic if the quantity supplied responds only slightly to changes in the price.

In most markets, a key determinant of PE of supply is the time period. Longer: more elastic
When supply is *inelastic*, an increase in demand has a bigger impact on price than on quantity
When supply is *elastic*, an increase in demand has a bigger impact on quantity than on price.

Factors affect elasticity of supply

1. The more easily sellers can change the Q they produce, more elastic (Harder to change beach houses than cars)
2. Supply elasticity is more in the long run. (New factories, new firm enter market)
3. Global supply is less elastic, local is more elastic
4. If production can increase with little extra cost, it's elastic

Drug interdiction increase drug-related crimes

Absolute Value of Elasticity	Name	Price and Revenue
$\|E_D\|<1$	Inelastic	P and R Move Together
$\|E_D\|>1$	Elastic	P and R Move Opposite
$\|E_D\|=1$	Unit Elastic	P Moves but R Stays the Same

On the elastic part, if P goes up, Q is gonna go down even more so R goes down.
Vice versa

Chapter 6 Supply, Demand, Government Policies

Price ceiling: A legal maximum on the price at which a good can be sold. (You can't go above)
Competition between buyers

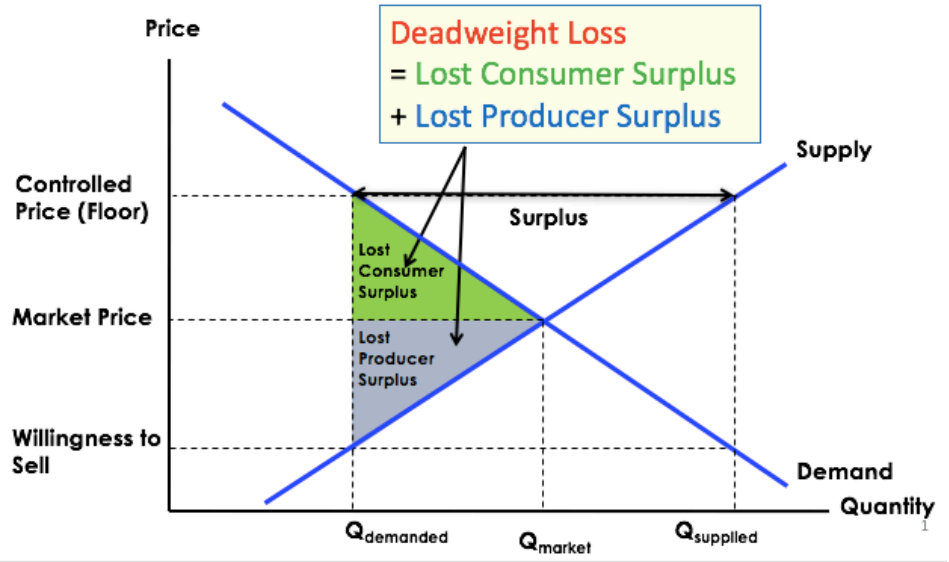
Price floor: A legal minimum on the price at which a good can be sold. (you can't go below)
Competition between sellers

Must remember: a good, biding price ceiling must be on the bottom
A good, binding price floor must be on the top

Price floors have four common effects:

1. Surpluses
2. Lost gains from trade (deadweight loss)
3. Wasteful increases in quality
4. A misallocation of resources

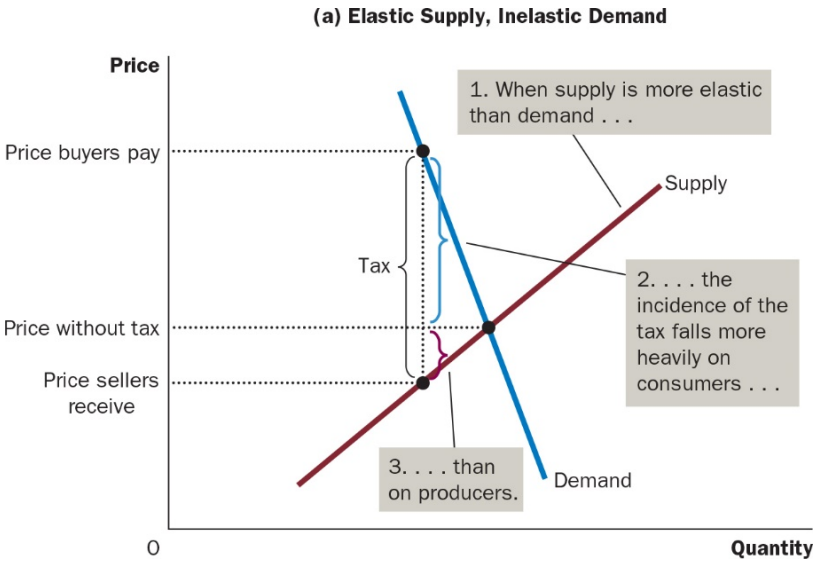
Minimum wage= price floor. If it's too high, there's a labour surplus: unemployment



Price control reduces gain from trade—create deadweight loss
Lost consumer surplus: Below demand curve
Lost producer surplus: above supply curve
Price controlling of rent price --- price floor
Long run gives a larger shortage
How does price floors affect market outcome?

1. Price floor not binding, market price will equal the equilibrium price
2. Price floor binding, market price will equal price floor

Price control is aimed to help the poor, but often hurt those they're trying to help.
Market is the most efficient.
Taxes:
Tax incidence: The manner in which the burden of a tax is shared among participants in a market.
Taxes discourage market activity. When a good is taxed, the quantity of the good sold is smaller in the new equilibrium.
Buyers and sellers share the burden of taxes. In the new equilibrium, buyers pay more for the good, and sellers receive less.



Tax buyers pay: Under demand curve
Tax sellers pay: Above supply curve