ECO 181 Lecture 02

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May 5, 2023

Market Equilibrium

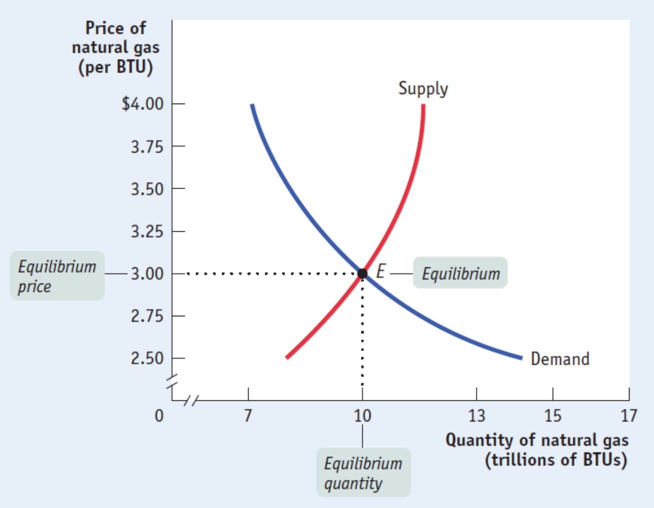
- What determines the price at which a good or service is bought and sold?
- What determines the quantity transacted of the good or service?

Market move toward equilibrium *(a situation in which no individual would be better off taking a different action)*

Market Equilibrium

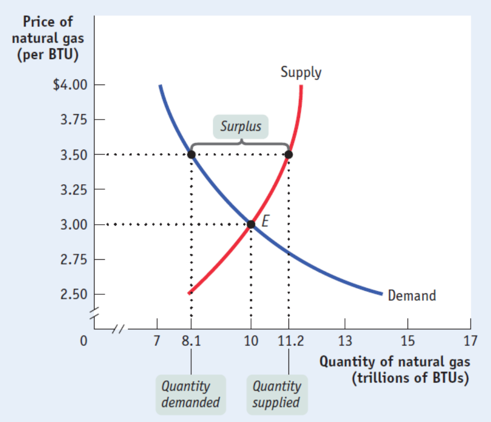
- **Market**: an interaction of buyers and sellers where goods, services, or resources are exchanged.
- **Equilibrium**: In a market setting, equilibrium occurs when the price has adjusted until the quantity supplied is equal to the quantity demanded. The price at which this takes place is the **equilibrium price**, also referred to as the **market-clearing price**. The quantity of the good or service bought and sold at that price is the **equilibrium quantity**.

Market Equilibrium



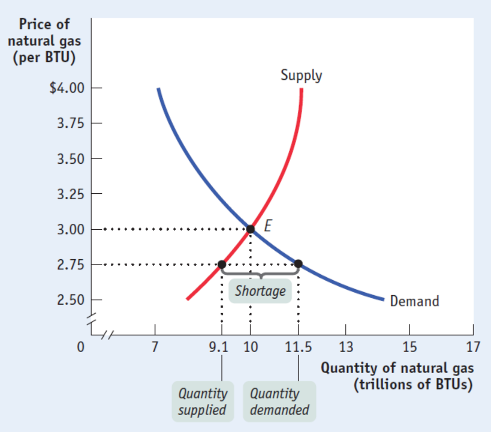
Market Equilibrium - Surplus

- There is a **surplus** of a good or service when the quantity supplied exceeds the quantity demanded. Surpluses occur when the price is above its equilibrium level.



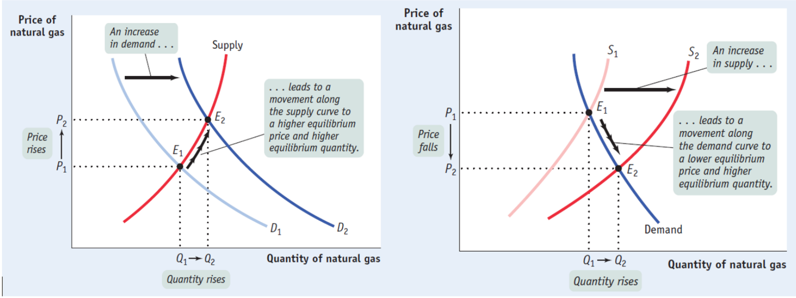
Market Equilibrium - Shortage

- There is a **shortage** of a good or service when the quantity demanded exceeds the quantity supplied. Shortages occur when the price is below its equilibrium level.



Market Equilibrium

- What happens when the demand curve or/and supply curve shifts?



Consumer Surplus

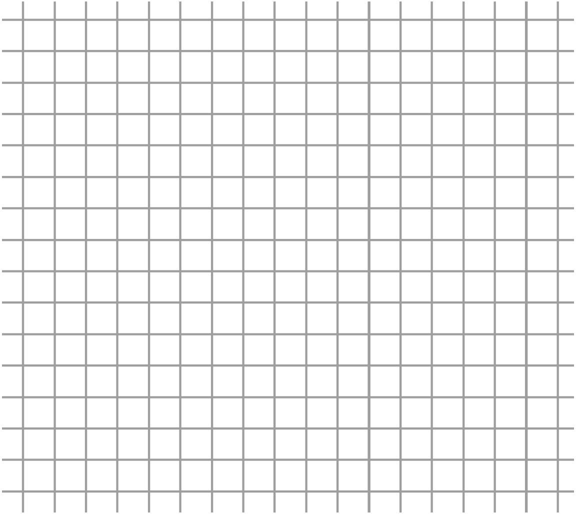
- A consumer's **willingness to pay** for good is the maximum price at which he or she would buy that good.
- **Individual consumer surplus**: is the net gain to an individual buyer from the purchase of a good. (the difference between the buyer's willingness to pay and the price paid)
- **Total consumer surplus**: is the sum of the individual consumer surpluses of all the buyers of a good in a market.
- The term **consumer surplus** is often used to refer both to individual and to total consumer surplus.

Consumer Surplus

- **Example**: Assume the price of my ebook = 25$

Potential buyers	Willing to pay	Price paid	Individual Consumer Surplus
Person A	60		
Person B	40		
Person C	30		
Person D	20		
Person E	10		

Consumer Surplus



Consumer Surplus

- The total consumer surplus generated by purchases of a good at a given price is equal to the area below the demand curve but above the price.

Producer Surplus

- A seller's **cost** is the lowest price at which he or she is willing to sell a good.
- **Individual producer surplus**: is the net gain to an individual seller from selling a good. (the difference between the price received and the seller's cost)
- **Total producer surplus**: is the sum of the individual producer surpluses of all the sellers of a good in a market.
- The term **producer surplus** is often used to refer both to individual and to total consumer surplus.

Producer Surplus

- **Example**: Assume the price of a used textbook = 30$

Potential seller	Willing to sell(cost)	Price received	Individual Producer Surplus
Person A	5		
Person B	15		
Person C	25		
Person D	35		
Person E	45		

Producer Surplus

Producer Surplus

- The total producer surplus from sales of a good at a given price is the area above the supply curve but below that price.

Total Surplus

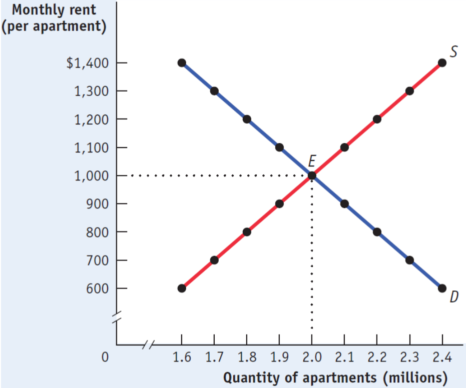
- The **total surplus** generated in a market is the total net gain to consumers and producers from trading in the market. It is the sum of the producer and the consumer surplus.

Price Controls

- Why governments control prices?
- **Price controls**: are legal restrictions on how high or low a market price may go. They can take two forms: a **price ceiling**, the maximum price sellers are allowed to charge for a good or service, or a **price floor**, the minimum price buyers are required to pay for a good or service.

Price Ceilings

- **Example**: Rent control in New York
- Modeling a Price Ceiling: Suppose that the government imposes a price ceiling, limiting rents to a price below the equilibrium price – say, no more than$ 800



Monthly rent (per apartment)	Quantity of apartments (millions)	
	Quantity demanded	Quantity supplied
$1,400	1.6	2.4
1,300	1.7	2.3
1,200	1.8	2.2
1,100	1.9	2.1
1,000	2.0	2.0
900	2.1	1.9
800	2.2	1.8
700	2.3	1.7
600	2.4	1.6

Price Ceilings

- Do price ceiling always cause shortages?

  (Please think about two different situations: 1) price ceiling = \$ 1200; 2) price ceiling = \$ 800)

How a Price Ceiling Causes Inefficiency

1. Inefficiently Low Quantity
   - **Deadweight loss** is the loss in total surplus that occurs whenever an action or a policy reduces the quantity transacted below the efficient market equilibrium quantity.

How a Price Ceiling Causes Inefficiency

2. Inefficient Allocation to Consumers
   - Some people who want the good bad and are willing to pay a high price don't get it, and some who care relatively little about the good and are only willing to pay a low price do get it.
3. Wasted Resources
   - People expend money, effort, and time to cope with the shortages caused by the price ceiling.
4. Inefficient Low Quality
   - Sellers offer low-quality goods at a low price even though buyers would prefer a higher quality at a high price.

Why Are There Price Ceiling?

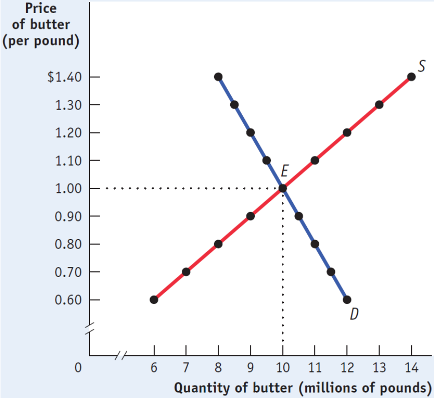
1. A persistent shortage of the good
2. Inefficiency arising from this persistent shortage in the form of inefficiently low quantity (deadweight loss), inefficient allocation of the good to consumers, resources wasted in searching for the good, and the inefficiently low quality of the good offered for sale
3. The emergence of illegal, black market activity
   - **Black Market:** is a market in which goods or services are bought and sold illegally—either because it is illegal to sell them at all or because the prices charged are legally prohibited by a price ceiling.

Price Floors

Sometimes governments intervene to push market prices up instead of down. Price floors have been widely legislated for agricultural products, such as wheat and milk, as a way to support the incomes of farmers.

- **Example**: Minimum Wage
- Modeling a Price Floor: Now suppose that the government, in order to help dairy farmers, imposes a price floor on butter of $1.20 per pound.

Price Floors



Price of butter (per pound)	Quantity of butter (millions of pounds)	
	Quantity demanded	Quantity supplied
$1.40	8.0	14.0
1.30	8.5	13.0
1.20	9.0	12.0
1.10	9.5	11.0
1.00	10.0	10.0
0.90	10.5	9.0
0.80	11.0	8.0
0.70	11.5	7.0
0.60	12.0	6.0

Price Floors

- Do price floor always cause surplus?

  (Please think about two different situations: 1) price floor = \$ 1.20; 2) price ceiling = \$ 0.8)

How a Price Floor Causes Inefficiency

1. Inefficiently Low Quantity

How a Price Floor Causes Inefficiency

2. Inefficient Allocation of Sales Among Sellers
   - Sellers who are willing to sell at the lowest price are unable to make sales, while sales go to sellers who are only willing to sell at a higher price.
3. Wasted Resources
4. Inefficiently High Quality
   - Sellers offer high-quality goods at a high price, even though buyers would prefer a lower quality at a lower price.
5. Illegal Actitivy

Why Are There Price Floors

1. A persistent surplus of the good
2. Inefficiency arising from the persistent surplus in the form of inefficiently low quantity (deadweight loss), inefficient allocation of sales among sellers, wasted resources, and an inefficiently high level of quality offered by suppliers
3. The temptation to engage in illegal activity, particularly bribery and corruption of government officials

International Trade

- **Comparative Advantage and International Trade**
  - Goods and services purchased from abroad are **imports**; goods and services sold abroad are **exports**.
  - **Globalization** is the phenomenon of growing economic linkages among countries.
  - **Hyperglobalization** is the phenomenon of extremely high levels of international trade. Globalization means that world trade and financial markets are becoming more integrated. The term 'Hyper-globalisation' is used to describe the dramatic increase in international trade witnessed for about a decade and a half from the early 1990s.

Production Possibilities and Comparative Advantage

- A country has a comparative advantage in producing a good or service if the opportunity cost of producing the good or service is lower for that country than for other countries.
- **The Ricardian model of international trade** analyzes international trade under the assumption that opportunity costs are constant.

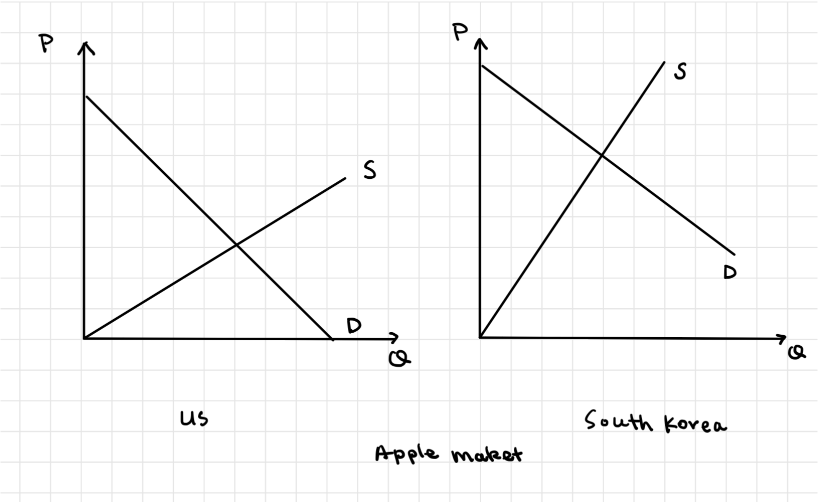
International Trade

- **International Trade**: is the exchange of goods and services beyond national borders.
  - Using demand and supply Model to explain international trade
- **Autarky**: is a situation in which a country does not trade with other countries.
- **World Price**: The world price of a good is the price at which that good can be bought or sold abroad.
- **Free Trade**: An economy has free trade when the government does not attempt either to reduce or to increase the levels of exports and imports that occur naturally as a result of supply and demand.

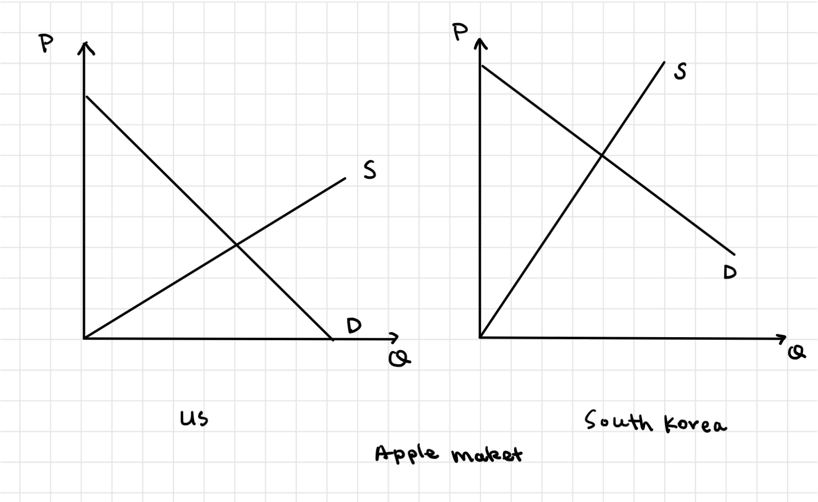
International Trade

- Assumption: The US has a comparative advantage in apples and exports apples to the rest of the world, including South Korea, where apple producers are less efficient than in America.

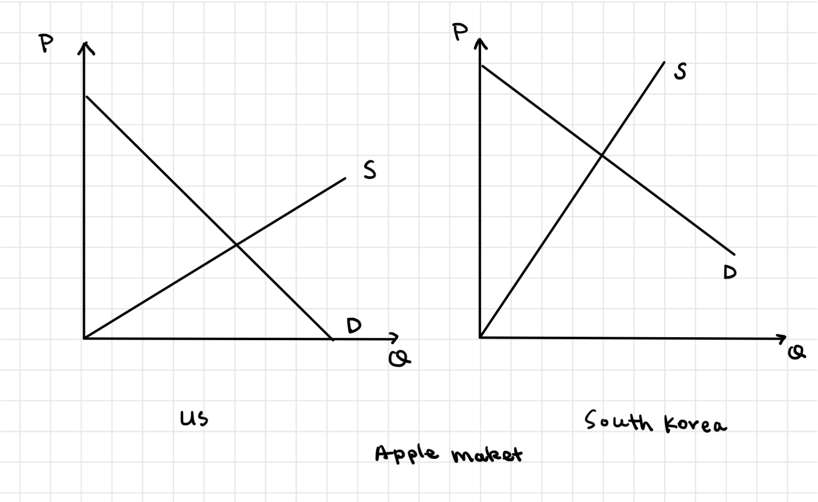
Autarky Price



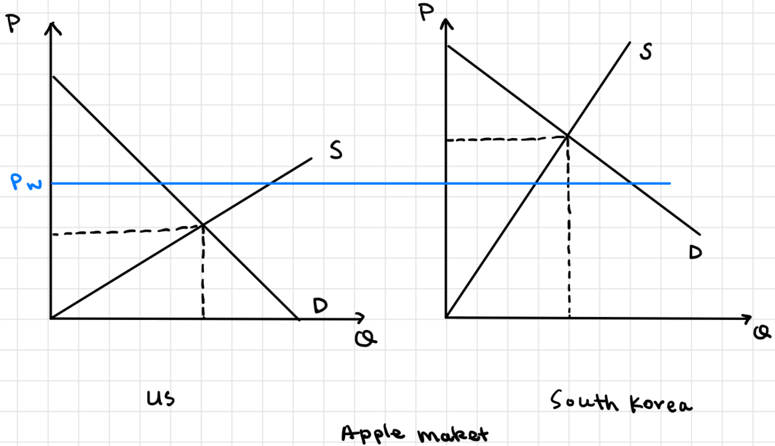
World Price vs. Autarky Price



Imports and Exports

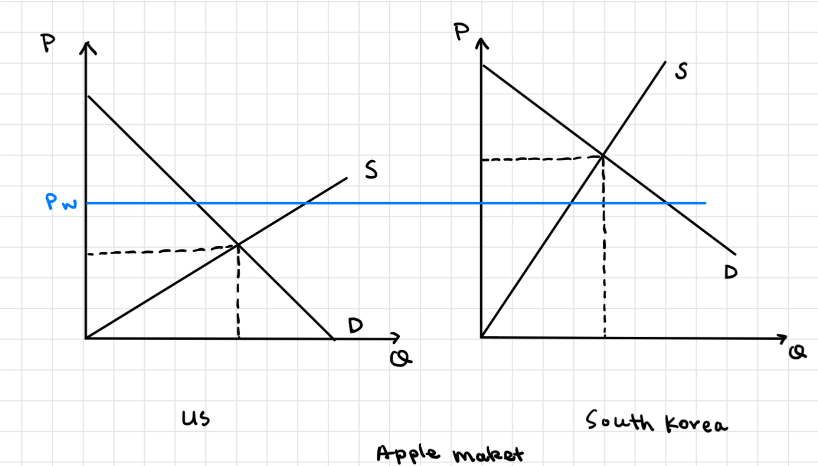


Consumer Surplus



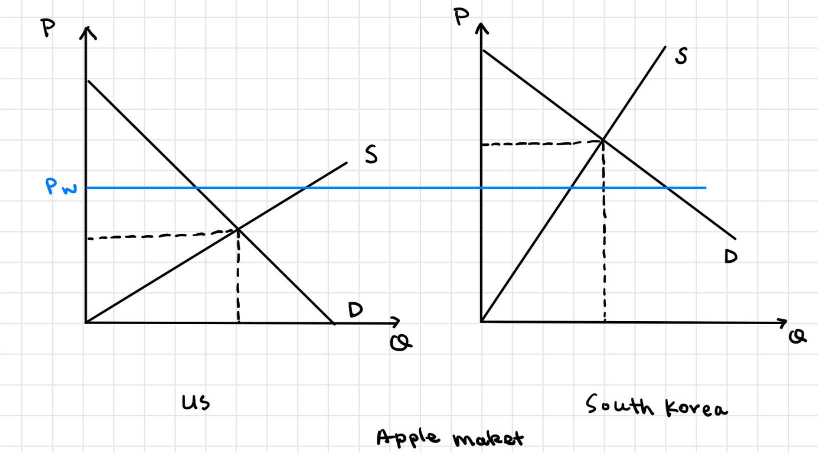
1. Autarky :
2. Free Trade :

Producer Surplus



1. Autarky :
2. Free Trade :

Total Surplus



1. Autarky :
2. Free Trade :

Trade Protection - Tariff

- **Trade Protection**: Policies that limit imports, usually with the goal of protecting domestic producers in import-competing industries from foreign competition
- **Tariff**: A tariff is a form of excise tax, one that is levied only on sales of imported goods.

Importing Country