Demand

Charlene

- What is demand?

  A want?

- Is it totally the same as want?

  No.

  Whatever people have, they are likely want more.

- What's the difference between them?

  want + the ability to buy

  = efficient demand

Demand: the ***quantity*** that consumers are willing and able to buy ***at a given price*** in a given period of time.

Activity

- Identify a product that you buy often;
- Ask four friends the quantities they would be willing to buy of this product at five different prices;
- Complete the worksheet:

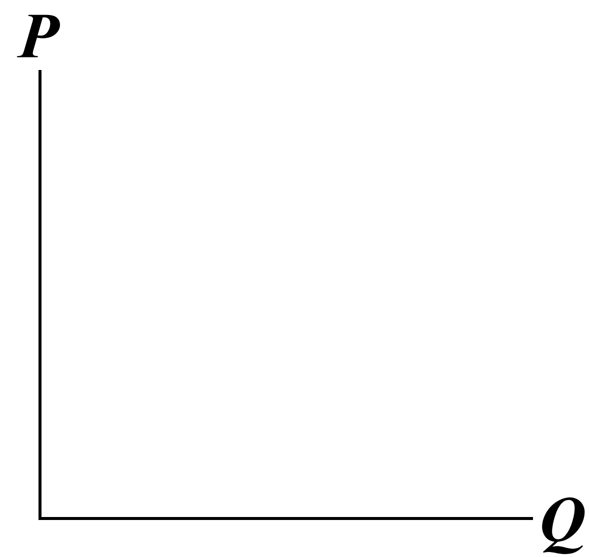
Q / P	Friend 1	Friend 2	Friend 3	Friend 4	total
Price 1					
Price 2					
Price 3					
Price 4					
Price 5					
Price 6					
Price 7					

Activity

- Questions

□ What's the relationship between the price and quantity?

□ Draw a diagram showing in the whole market how much would be bought at each price.



Demand curve

- Which data did you use to draw the diagram?

Market demand curve will be the sum of all individual demand curves.

Construct a demand curve

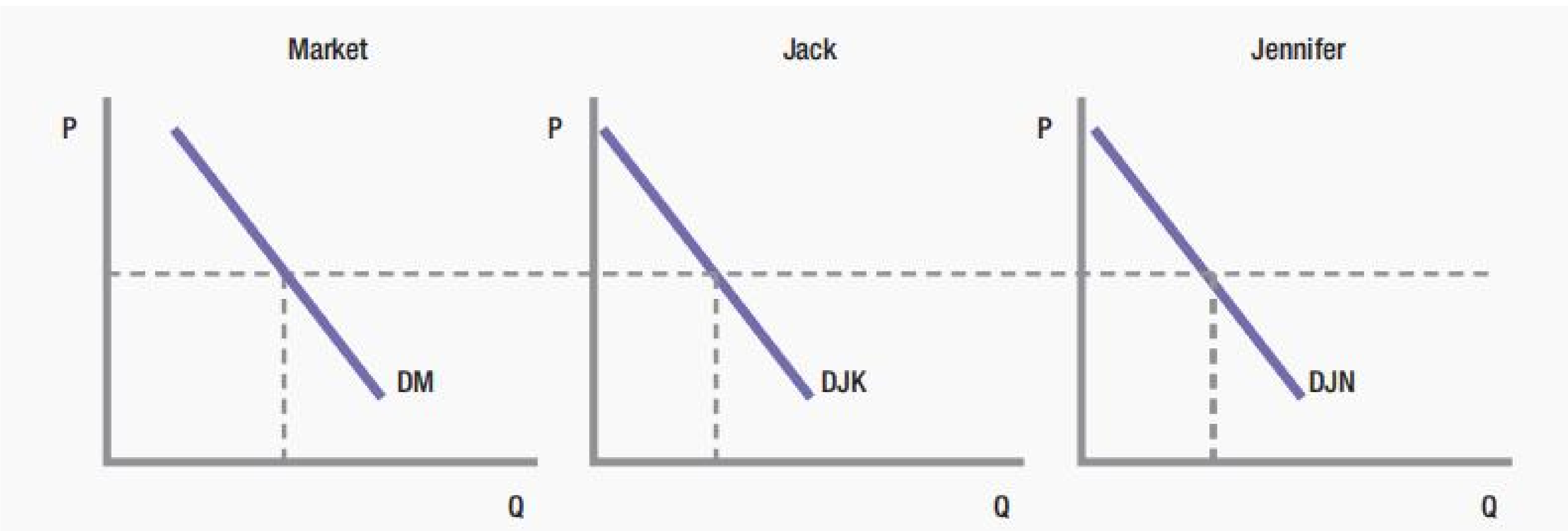
- It is possible to collect data for a specific good relating to its quantity demanded and price. The data can be used to construct a demand curve, as shown below:

(we assume that the total market consists of only two customers:)

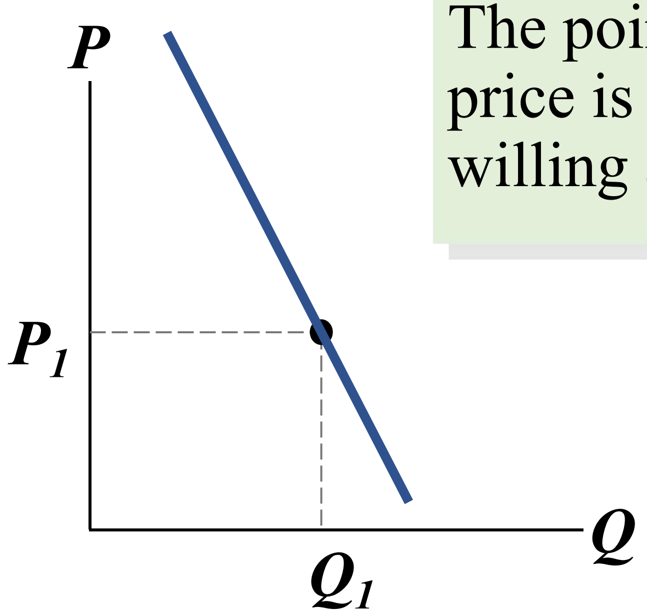
Price (£)	Jack's Demand	Jennifer's Demand	Market Demand
100	3	2	5
80	6	4	10
60	12	8	20
40	24	16	40
20	48	32	80

Construct a demand curve

- The corresponding demand curves are illustrated below:
  - *Demand curve for an individual* ***VS.*** *Demand curve for a market*



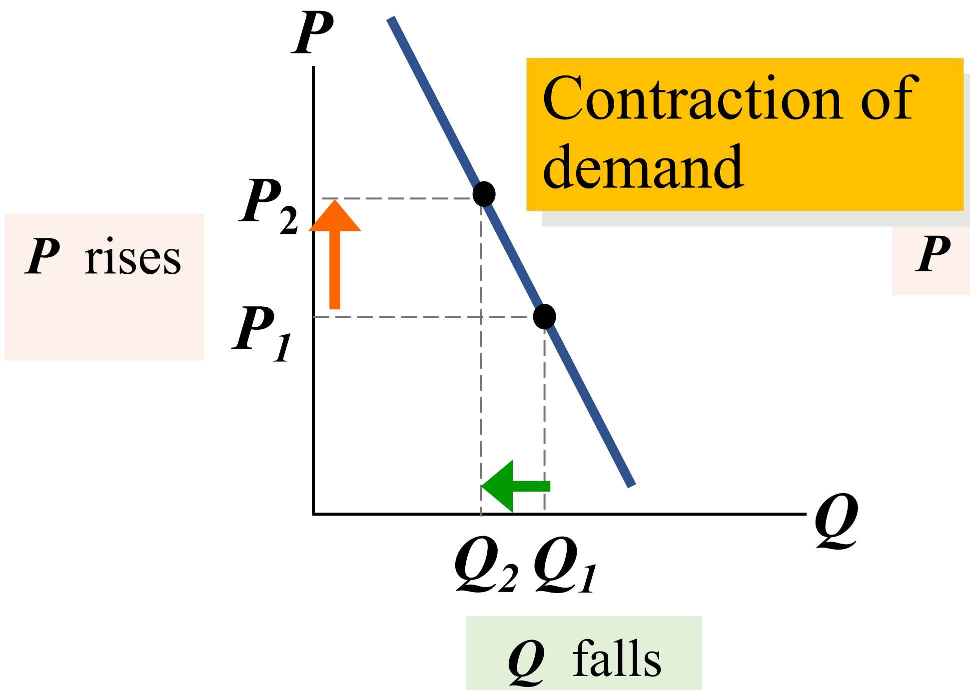
Demand curve

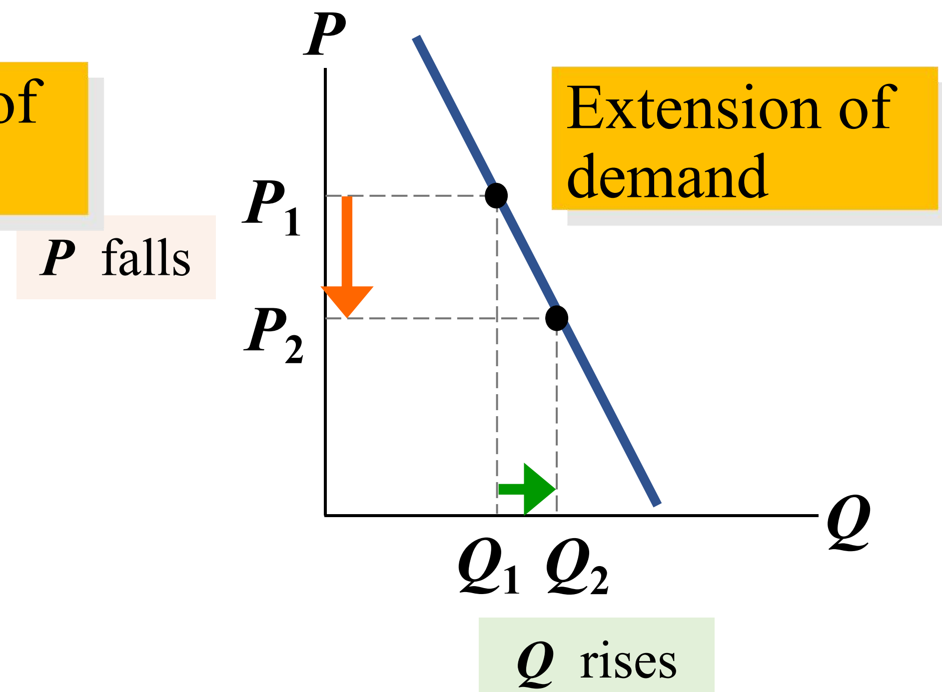


The point on the curve: shows when the price is P_1, the quantity consumers are willing and able to buy is Q_1.

Demand curve

The relationship between price and quantity demanded is ***inverse.*** The ***higher*** the price, the ***lower*** the quantity demanded and the ***lower*** the price, the ***higher*** the quantity demanded





Factors that determines demand

- ***Price***
- What else?
  - Disposable income
  - Wealth
  - The prices of other goods
  - Individual tastes & preference
  - Population size
  - Interest rate

Conditions of demand

Conditions of demand - Disposable income

- What is income?

  Money you earn

- How will disposable income affect demand?

  Generally, the higher the disposable income the higher the demands

Income: *a flow of money*, *received* by an economic agent (an individual, firm or the country) over a period of time.

Disposable income: *post-tax income*

Conditions of demand - Disposable income

Normal good: a product where demand increases if income rises.

Inferior good: a product where demand decreases if income rises.

Conditions of demand - wealth

- What is wealth? Examples?

  Property – house, car…

  Money saved in bank

- How will wealth affect demand?

  Generally, the higher the wealth the higher the demands

Wealth: a stock of assets owned by an economic agent at a point in time.

Why generally?

Besides inferior goods, is there any other reason?

Conditions of demand - wealth

- What if one's wealth increase, at the same time his income drops a lot?

Other things being equal (ceteris paribus): the assumption that nothing else changes.

Ceteris paribus*, the higher the wealth the higher the demands*

Conditions of demand - the price of other goods

Substitute goods or ***goods in competitive demand***: alternative products

- If Coca Cola increases its price what will happen?
- ***Ceteris paribus***, the price of one good increases, so will demand for the other, they are in ***competitive demand***.

Conditions of demand - the price of other goods

Racket

Complementary goods or ***goods in joint demand***: products that are bought or used together.

Shuttlecock

- If shuttlecock lowers its price what will happen?
- ***Ceteris paribus***, if the demand for one good increases, so will demand for the other. ***They are in joint demand***.

Conditions of demand - individual preferences

- Speaking of smart phones, which brand do you prefer?

  Huawei, Oppo, Xiaomi, iPhone?

  -different preference

- Is there anything may influence people's preference?

  Advertising

  Social and emotional factors

  -not rational

Conditions of demand - population size

- Why China is seen as a huge market by many foreign brands?
- The larger population in a country, the greater demand it is likely to be.

Conditions of demand - Interest rate

- What is interest?

- A higher interest rate means:
  - ☐ the more reward an individual can receive from saving
  - ☐ the more cost an individual has to pay for borrowing

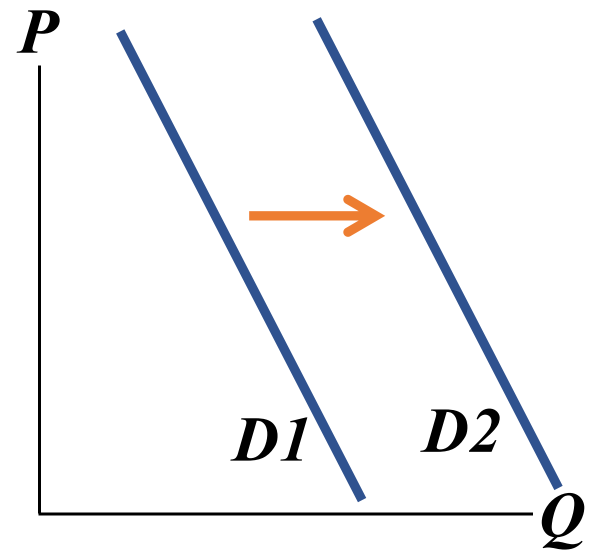
Interest: the reward for saving and the cost of borrowing

Conditions of demand - Interest rate

- If interest rate decreases, will an individual prefer saving or borrowing?
  - borrowing
- What do they borrow for?
  - spending
- In this case, will the demand for a normal good increase or decrease?
  - increase

Demand curve

- If there is an increase in income, and ***ceteris paribus***, how will the demand curve change?
- Can you show it on the diagram?



Demand curve

- How about a change in wealth, the price of related goods and services, individual preference or population?

A change in ***non-price factor*** could affect the demand for a product, then the ***demand curve will shift***.

Practice

Use the information in the table below to construct a market demand curve for chocolate bars (remember to fully label your diagram).	
Price (£)	**Demand (000s per year)**
0.20	4
0.30	3
0.40	2
0.50	1

Explain what would happen to the demand for chocolate bars in the following instances:

- An increase in advertising spending by the chocolate manufacturer
- A television campaign outlining the dangers associated with eating too many sugary foods; and
- A reduction in consumers' disposable income.

Summary

- Demand
- Demand curve
- Factors that determines demand

Supply

- What is supply?

  Something related to production (the amount produced)?

- Is supply the same as production?

  No.

  production+willing to sell

Supply: the ***quantity*** that firms are able and willing to sell ***at a given price*** in a given period of time.

Supply

- What is the relationship between firms' supply and the price?
  - Firms will supply more of a good at a higher price.
- Why?
  - Because firms desire to maximise their profits.
  - A firm's profits are the difference between a good's selling price and its cost of production
  - Firms will increase supply in order to take advantage of the higher prices, and potentially higher profits.

Construct a supply curve

- An individual supply is a firm's supply of a good or service.
- A market supply is the total supply of a good or service.
    - Market supply is the sum total of the individual supply for a particular good or service.

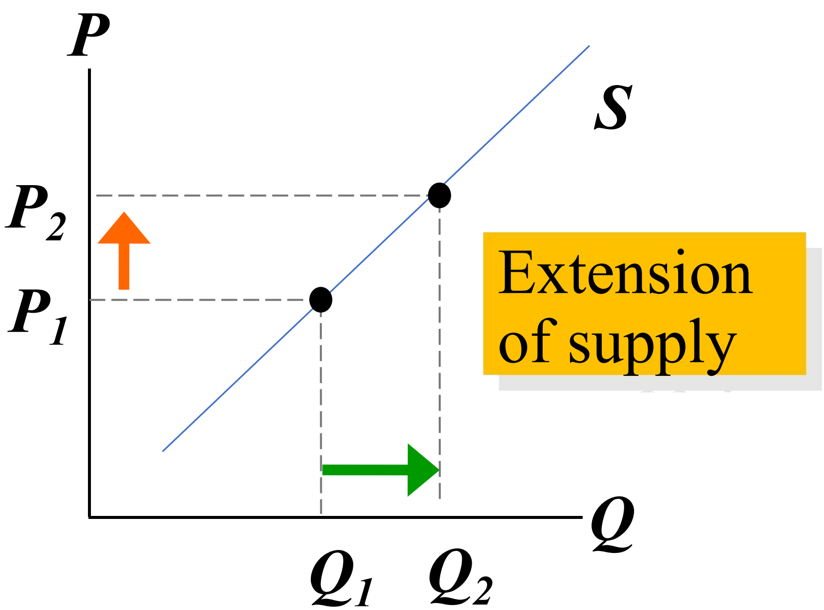
Construct a supply curve

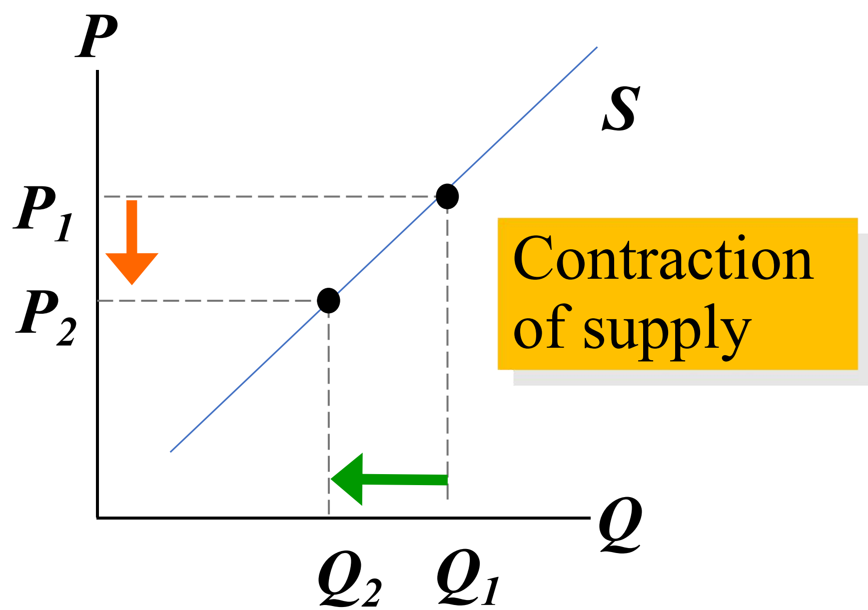
- Consider the following example where we assume that there are only two firms in the industry.

Price (£)	Firm A	Firm B	Market Supply
100	48	32	80
80	24	16	40
60	12	8	20
40	6	4	10
20	3	2	5

Supply curve

The relationship between price and quantity supplied is ***direct.*** The ***higher*** the price, the ***higer*** the quantity supplied and the ***lower*** the price, the ***lower*** the quantity supplied





Factors that determines supply

- ***Price***
- What else?
  - cost of production
  - technology
  - the number of firms in the market
  - weather and other events
  - taxes and subsidies
  - the prices of other goods

Conditions of supply

Conditions of supply - cost of production

- What kinds of costs may be involved in production?
  - raw materials
  - energy
  - wages
  - transport
  - interest on loan

How will cost of production affect supply?

Ceteris paribus, if costs of production rise, supply will decrease.

Conditions of supply - technology

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- Examples for technological progess:
    - development of better machines or methods of production
    - technological progress / techonology improvement enables firms to become more productive and hence they are able to increase the supply of goods and/or services

Conditions of supply
- number of firms in the market

- An increase in the number of firms in an industry will increase the supply of goods and/or services.

Conditions of supply
- weather and other events

- Farmers are particularly reliant on the weather for their harvests.
  - Favourable weather conditions will boost harvests and consequently increase the supply of crops.

Conditions of supply
- taxes and subsidies

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- A tax (i.e. VAT or indirect tax) will reduce supply.

- A subsidy will increase supply.

Tax: charge of money or property that imposed by a government upon individuals or entities

Subsidy: a payment to producers to reduce costs and increase supply

Conditions of supply
- the prices of other goods

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- Changes in the price of substitute goods may encourage producers to switch production.
    - If the price of a good rises, producers will see a potential profit making opportunity and may reallocate resources to the production of this good.
- Consequently, supply of the good will increase

Conditions of supply
- the prices of other goods

- Changes in the price of substitute goods may encourage producers to switch production.
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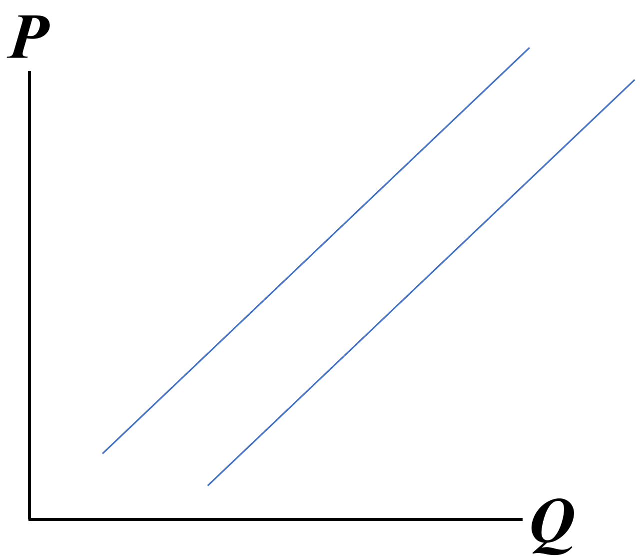
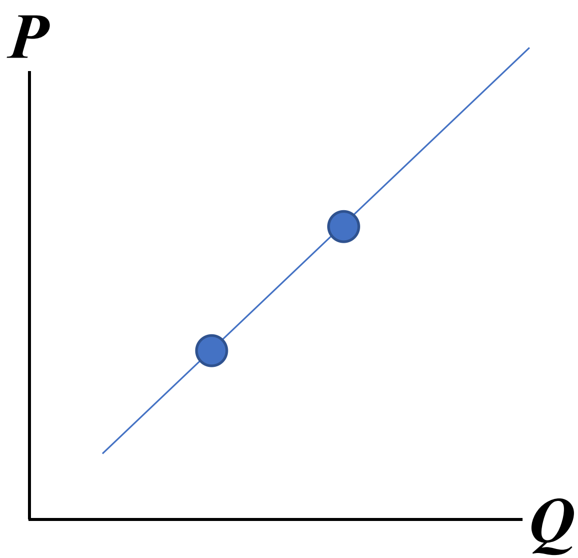
  - Consequently, supply of the good will increase.

A shift of the curve



- If there is a change in any ***non-price*** factor that influences the supply of a product, then there is a ***shift of the supply curve***.

Movement along the curve



- When ***price changes***, we will see ***a movement along the supply curve*** because the supply curve shows how much will be supplied at different prices.

Practice

Use the information in the table below to construct a market supply curve for chocolate bars (remember to fully label your diagram).

Price (£)	Demand (000s per year)
0.20	2
0.30	4
0.40	6
0.50	8

Explain what would happen to the supply of chocolate bars in the following instances:

- An increase in the number of firms in the industry;
- An increase in the national minimum wage; and
- An increase in the rate of VAT.

Equilibrium Price

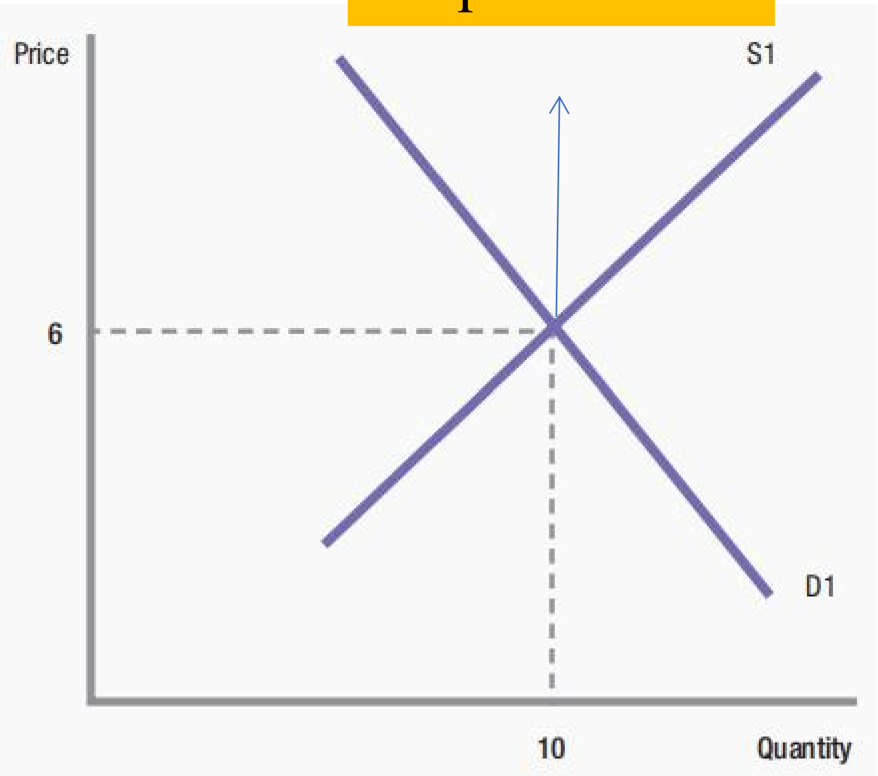
Equilibrium Price and Quantity

- A market brings buyers into contact with sellers.
  - In other words, firms which supply goods and/or services are able to trade with the buyers who demand the goods and/or services.

Equilibrium Price and Quantity

- The point at which demand is equal to supply is referred to as the **market-clearing price** or the **equilibrium price**. In the diagram below, the equilibrium price is £6.

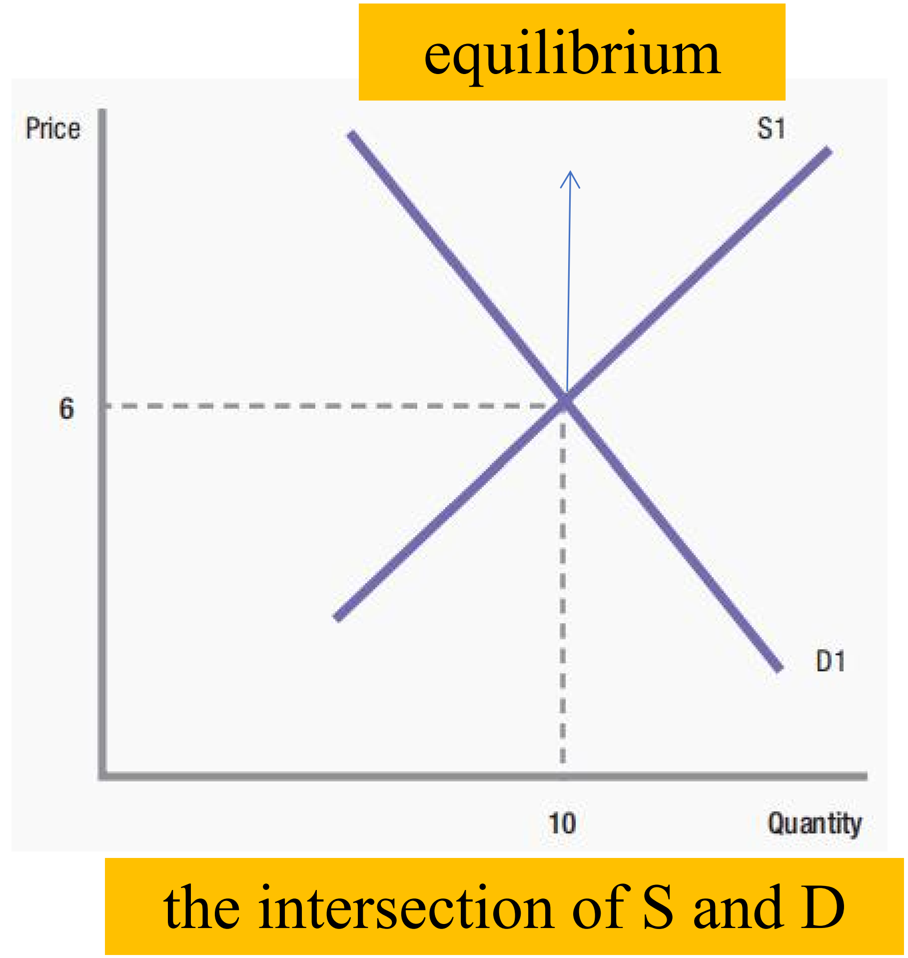
equilibrium



the intersection of S and D

Equilibrium Price and Quantity

- The price and the quantity sold of a product are determined by the demand and supply -- **market force**



Difference between equilibrium and disequilibrium

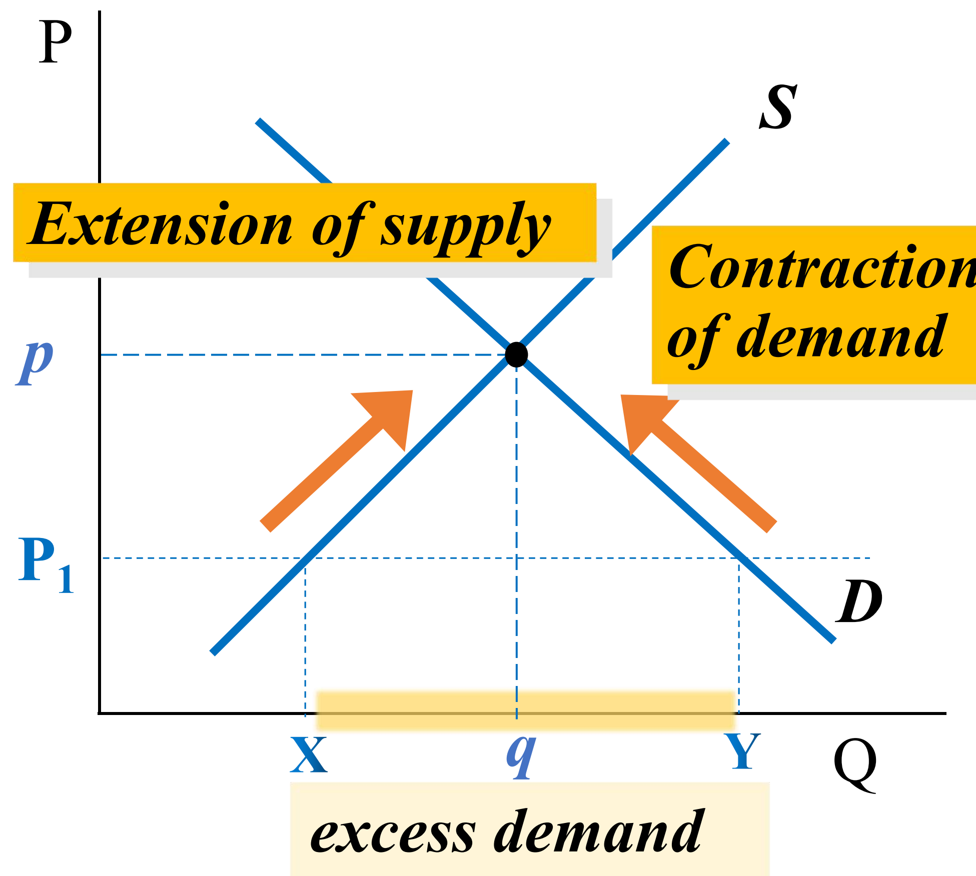
- Will the price and quantity stay at disequilibrium?
  - *No*

Equilibrium: refers to a situation where two related variables, such as supply and demand, are equal.

Disequilibrium: refers to a situation where two related variables, such as supply and demand, are not equal.

Excess demand lead to a change in price

- Shortage/excess demand of a product: where demand is greater than supply at a given price.
- In this case, consumers would like to pay more for the product, and suppliers would like to raise to price to earn more profits.
- Prise rises, there is a contraction of demand and an extension of supply - reach equilibrium



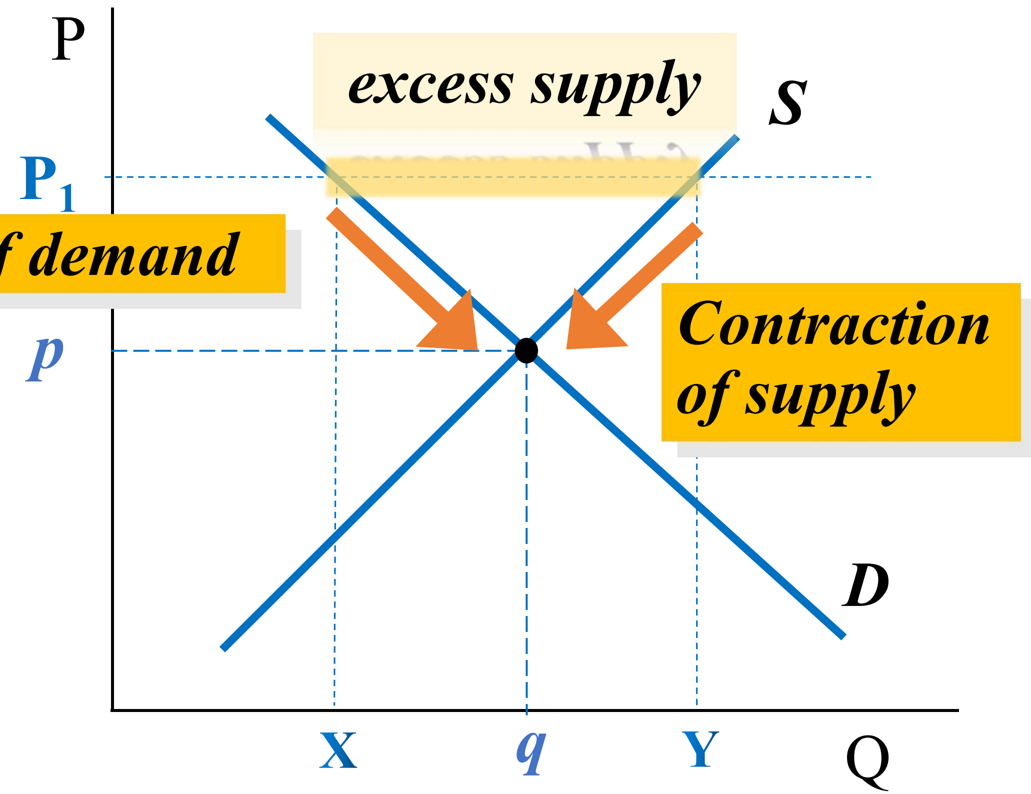
Excess demand lead to a change in price

- In theory, an excess demand for a good and/or service should cause the price to rise in order to ration the good and/or service. Consequently, price should increase until the market clears at its equilibrium level.

Excess supply lead to a change in price

- Surplus/excess supply of a product: where supply is greater than demand at a given price.

- In this case, suppliers would like to lower price to sell the products.
- Price drops, there is a contraction of supply and an extension of demand - reach equilibrium



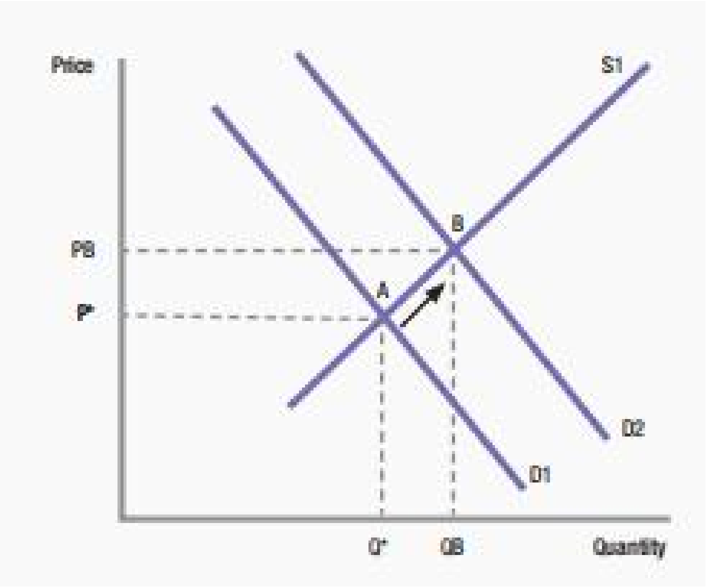
Excess demand lead to a change in price

- An excess supply of goods and/or services should encourage producers to lower their prices in order to clear the market. Consequently, price should fall until the market clears at its equilibrium level.

Practice

- Draw a diagram to illustrate the effects of an increase in personal disposable incomes on equilibrium price and quantity of a good.

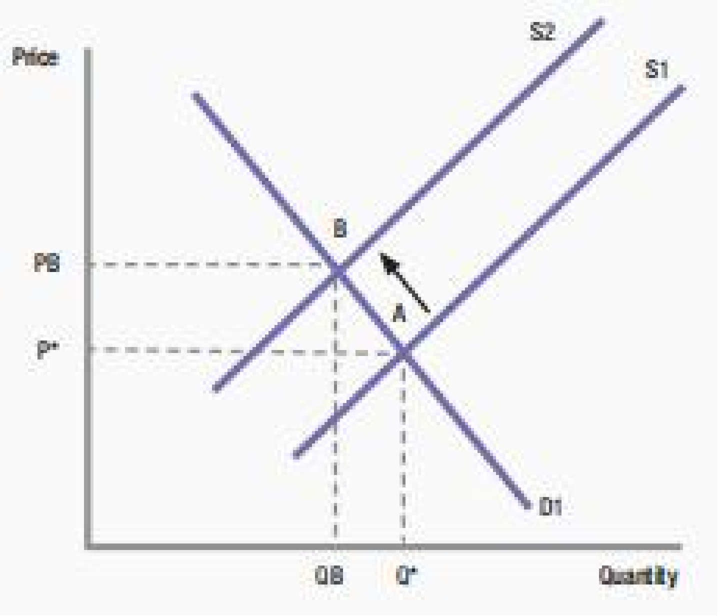
- Initial equilibrium is at point A where price is P* and quantity demanded and supplied is at Q*. An increase in personal disposable incomes causes the demand curve to shift to the right and a new equilibrium is formed where the market clears at point B. As a result of the demand curve shifting to the right, price rises to PB and quantity demand and supplied increase to QB. The demand curve has shifted and there has been an expansion of supply.



Practice

- Draw a diagram to illustrate the effects of an increase in wage costs on equilibrium price and quantity of a good.

Initial equilibrium is at point A where price is P* and quantity demanded and supplied is at Q*. An increase in wage costs causes the supply curve to shift to the left and a new equilibrium is formed where the market clears at point B. As a result of the supply curve shifting to the left, price rises to PB and quantity demand and supplied decreases to QB. The supply curve has shifted and there has been a contraction of demand.



Practice

Use the information in the table below to construct a demand and supply diagram:		
Price (£)	Demand (000s per year)	Supply (000s per year)
0.20	4	2
0.30	3	4
0.40	2	6
0.50	1	8

Identify the equilibrium price and quantity.

Explain what would happen to the equilibrium price, quantity demanded, and quantity supplied, if there was an increase in the population.

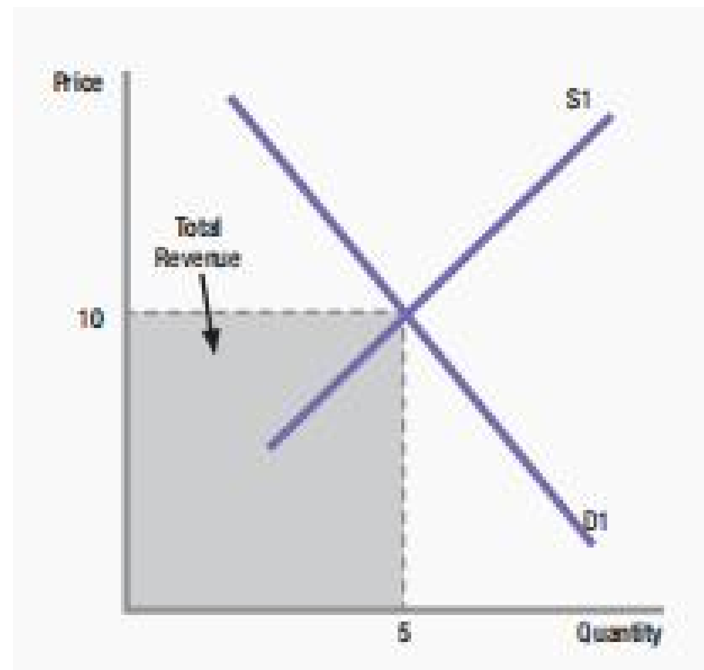
How to demonstrate revenue on a demand and supply diagram

- Total Revenue = Selling Price x Quantity Sold
- TR = P x Q

Revenue is the amount of money a producer earns from selling a good or service. It is calculated by multiplying the number of units sold by the price per unit.

Demonstrate revenue

- If you buy 5 DVDs priced at £10 each, What is the shopkeeper's revenue from the sale? How to demonstrate in diagram?
- A firm's revenue can be identified as the shaded area on the diagram where price is £10 and quantity demanded and supplied is equal to 5.



Demonstrate revenue

Shifts of the demand and/or supply curves will shift the market equilibrium price and quantity. Consequently, the revenue, as identified by the shaded area, will also change. A shift of the supply curve to the right will cause the price of CDs to fall to £8 each, and the quantity demanded and supplied to increase to 6 units. Total revenue decreases from £50 to £48 as shown in the diagram below.

Thank you for your attention!