

# Demand and supply

Peter Smith outlines some key economic concepts to explain the demand and supply model

1

The **demand curve** shows how much of a good will be demanded by consumers at any given price.

The demand curve slopes downwards because consumers will tend to buy more of a good at a lower price, other things being equal (Figure 1).

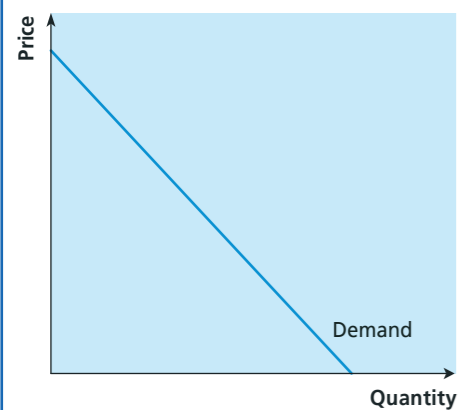


Figure 1 A demand curve

2

The **supply curve** shows how much of a good will be supplied by firms at any given price.

The supply curve normally slopes upwards because firms will find it more profitable to supply a good when the price is relatively high (Figure 2).

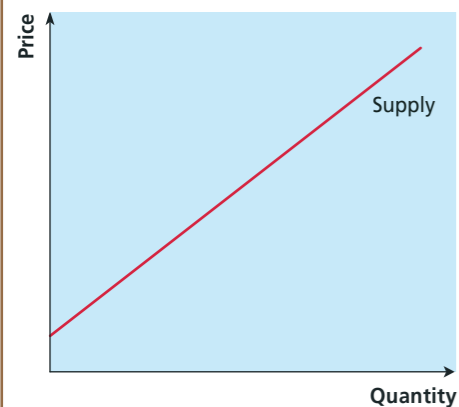


Figure 2 A supply curve

3

Bringing demand and supply curves together — a market is in **equilibrium** when demand and supply are equal.

In Figure 3,  $P^*$  is the unique price at which the quantity that consumers wish to buy is balanced by  $Q^*$ , the quantity that firms wish to supply.

For any price above  $P^*$ , there is **excess supply** — firms would like to sell more than consumers wish to buy.

For any price below  $P^*$ , there is **excess demand** — consumers would like to buy more than firms are prepared to supply at that price.

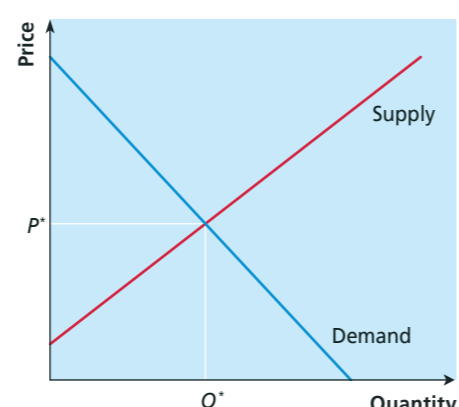


Figure 3 Market equilibrium

4

An **increase in demand** is where consumers wish to buy more of a good at any given price. This shifts the demand curve to the right, resulting in a higher equilibrium price and higher quantity traded (Figure 4).

Factors that affect the position of the demand curve include:

- consumer incomes
- consumer preferences
- the price of other goods (substitutes or complements)
- the number of consumers in the market

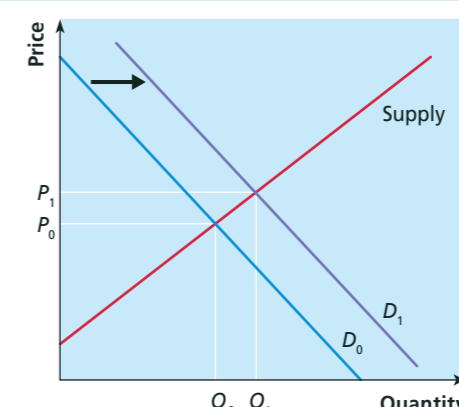


Figure 4 An increase in demand

5

An **increase in supply** is where firms wish to supply more of a good at any given price. This shifts the supply curve to the right, resulting in a lower equilibrium price and higher quantity traded (Figure 5).

Factors that affect the position of the supply curve include:

- production costs
- the technology of production
- taxes and subsidies
- the price of related goods
- firms' expectations about future prices

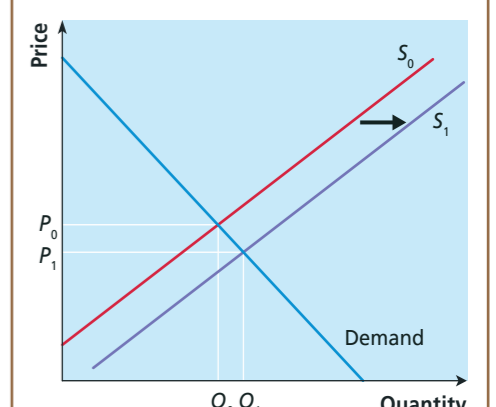


Figure 5 An increase in supply

6

**Elasticity** is a measure of how sensitive one economic variable is to a change in another.

For example, if there is a shift in supply there will be a movement along the demand curve, as the quantity demanded responds to the change in the price of a good.

The **price elasticity of demand (PED)** measures the sensitivity of quantity demanded to a change in the price of a good. It is defined as:

$$PED = \frac{\text{the percentage change in quantity demanded}}{\text{the percentage change in price}}$$

Other important elasticity measures are:

The **income elasticity of demand (YED)** measures the sensitivity of quantity demanded to a change in consumer income. It is defined as:

$$YED = \frac{\text{the percentage change in quantity demanded}}{\text{the percentage change in income}}$$

The **cross-price elasticity of demand (XED)** measures the sensitivity of quantity demanded of one good to a change in the price of another good. It is defined as:

$$XED = \frac{\text{the percentage change in quantity demanded of good X}}{\text{the percentage change in the price of good Y}}$$

The **price elasticity of supply (PES)** measures the sensitivity of quantity supplied to a change in the price of a good. It is defined as:

$$PES = \frac{\text{the percentage change in quantity supplied}}{\text{the percentage change in price}}$$



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