

Price determination in a free market

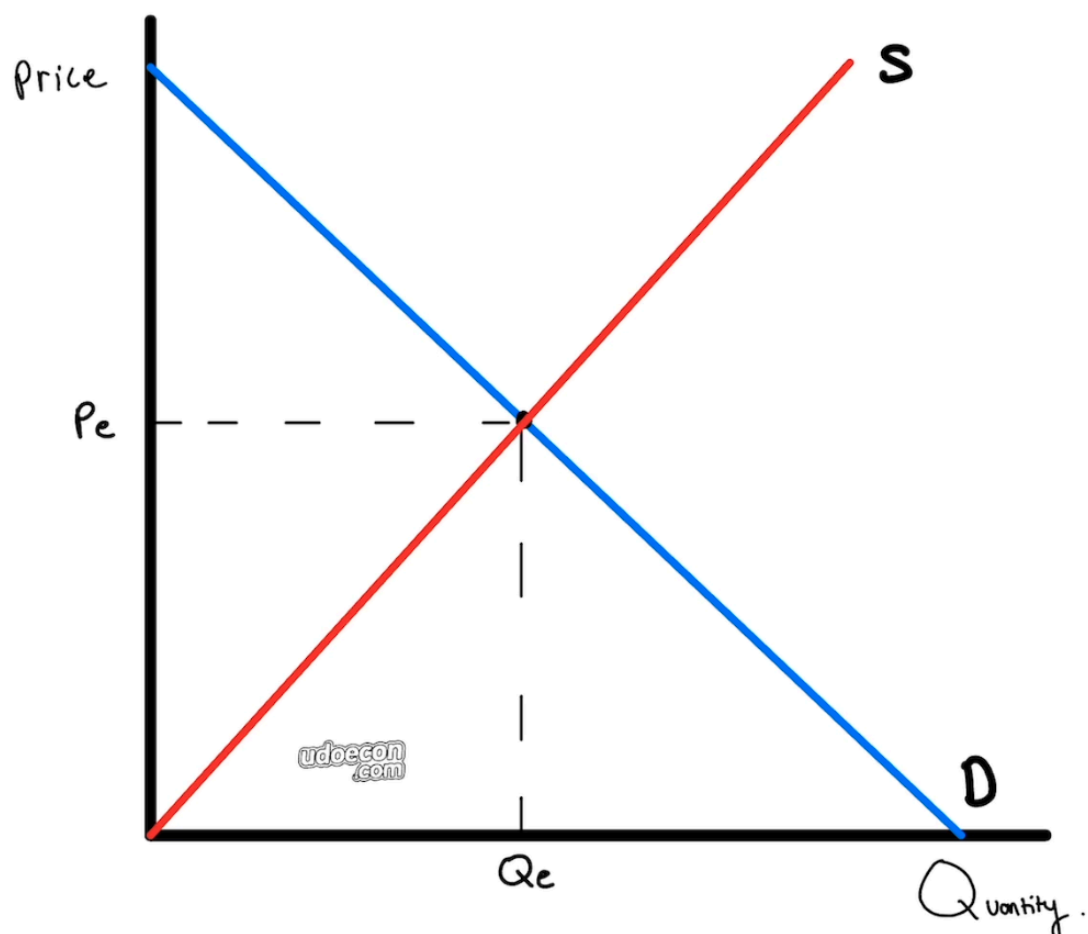
In a free market, **price is set by the interaction of demand and supply**. Buyers and sellers effectively “agree” on a price through trading: if buyers won’t pay a price, they buy less; if firms can’t sell enough, they change what they charge. Over time, these choices push the market toward a stable outcome.

A **market** is any system that brings buyers and sellers together, either in person or online.

Market equilibrium

Equilibrium is when **quantity demanded equals quantity supplied**. The price at this point is the **equilibrium price, P_e** (also called the **market-clearing price**) because there is no shortage and no surplus.

- If price is **above** equilibrium, there is a **surplus** (excess supply).
- If price is **below** equilibrium, there is a **shortage** (excess demand).



How markets move back to equilibrium

Markets don't stay perfectly balanced. Any change in demand or supply creates **disequilibrium**, which leads to price changes that move the market back toward equilibrium.

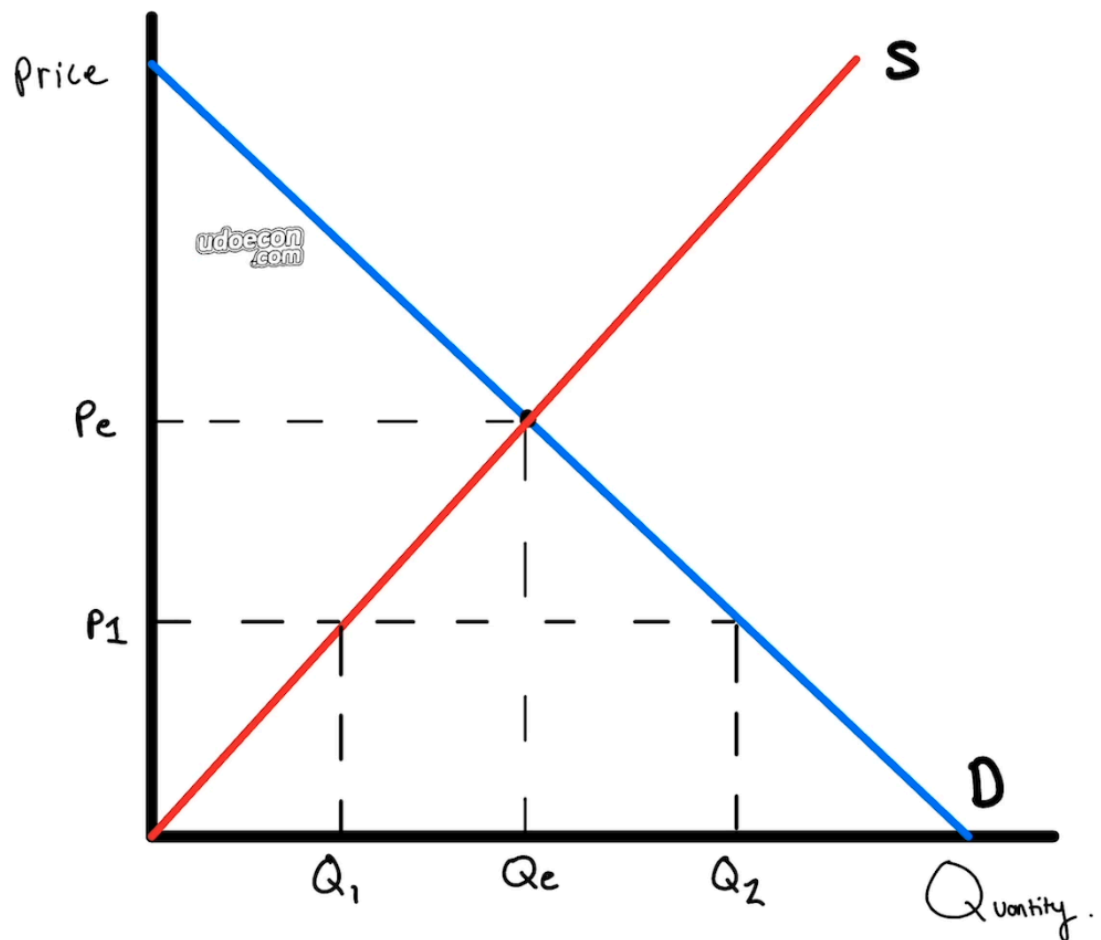
Shortage (excess demand)

A **shortage** exists when $Q_d > Q_s$, as we can see on the diagram at the price of P1 quantity demanded is at Q2 (remember go from the price of P1 and to work out quantity demanded look at where the price intersects the demand curve) . However quantity supplied at the same price of P1 is only at Q1 , this therefore means there is a shortage in the market represented by the distance between Q1 and Q2

How does the market solve this shortage ?

- Consumers compete for the limited supply, and firms see stock selling out rapidly. This **signals** to firms that demand is greater than supply at the current price.
- As firms are profit maximisers , they have an **incentive to raise prices**.
- A higher price causes a **contraction in demand** (Q_d falls) as higher prices **ration** consumers demand .
- And an **extension in supply** (Q_s rises) as at higher prices producers are more **incentivised** to supply

- The shortage shrinks until a **new equilibrium** is reached.

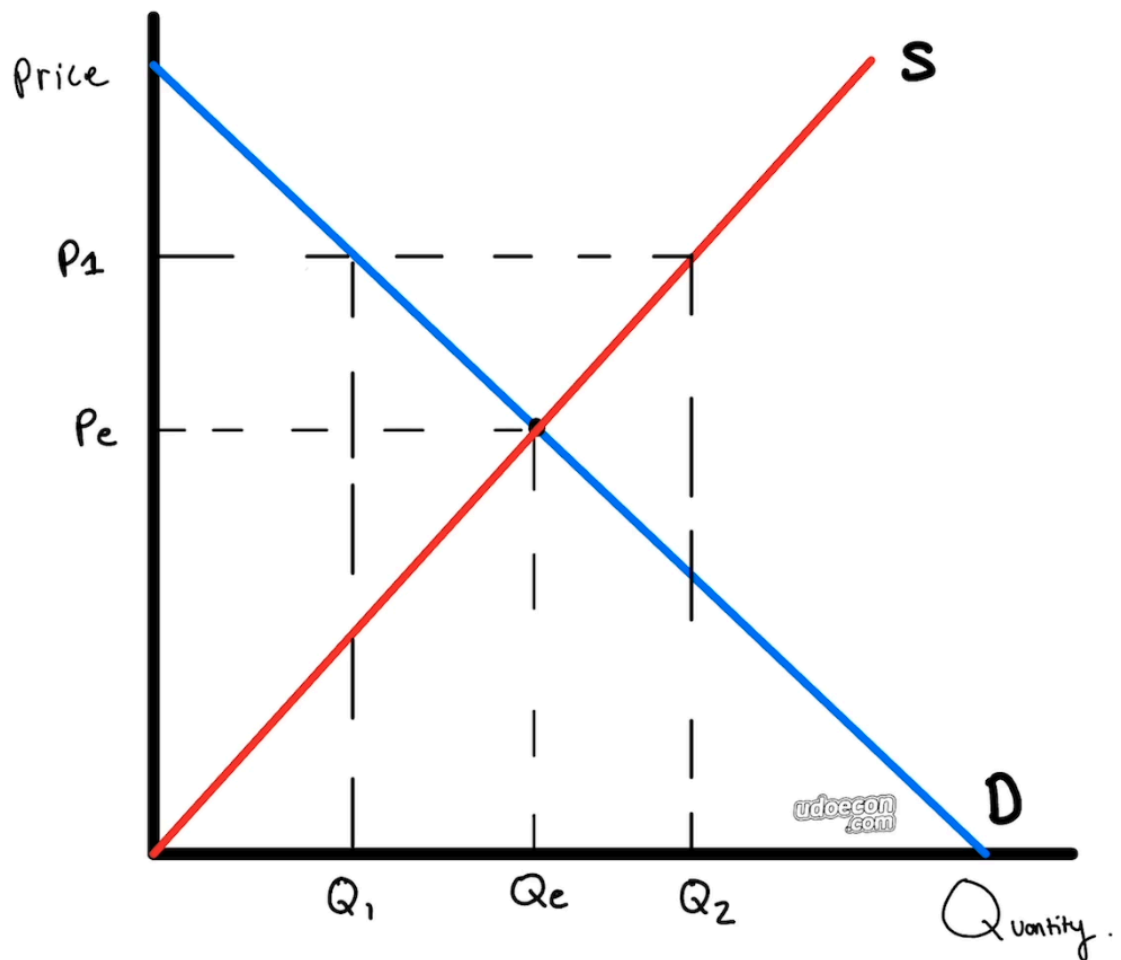


Surplus (excess supply)

A **surplus** exists when $Q_s > Q_d$, as we can see on the diagram at the price of P_1 quantity demanded is at Q_1 . However quantity supplied at the same price of P_1 is at Q_2 , this therefore means there is a surplus in the market represented by the distance between Q_1 and Q_2

- Firms struggle to sell stock, so this signals for firms to cut prices.
- As firms are profit maximisers, they have an incentive to lower prices.
- A lower price causes an **extension in demand** (Q_d rises) as goods become more affordable, and a **contraction in supply** (Q_s falls) as lower prices reduce firms' incentive to supply.

- The surplus shrinks until a **new equilibrium** is reached.



Shifts in demand and supply

Real world application: changes to demand that increase price

In 2025 due to social media trends the demand for crocs increased . This led to an increase in demand from D to D_1 . This means at the original market price of P_e excess demand exists and the demand for crocs is higher than the supply . Suppliers raise their prices in response , leading to a contraction of demand (higher prices rations consumer demand) and an extension of supply (more incentive at higher prices for producers) leading to new

equilibrium being established at price P_1 and Quantity Q_1 .

