

Price mechanism

The price mechanism is the way prices change to allocate scarce resources through the interaction of demand and supply in a free market.

At its core, it answers two exam questions: who gets the goods (consumers), and who produces more or less (firms).

The three functions you must apply

Rationing function

When a product becomes relatively scarce, the price rises and some consumers are priced out (rationing consumer demand), this reduces quantity demanded until the shortage falls. If there is a surplus, the price falls, making the good more affordable, so quantity demanded rises.

Incentive function

A higher price increases potential profit, encouraging firms to increase quantity supplied (a movement along the supply curve). A lower price reduces profit, so firms cut output (a movement back along the supply curve).

Signalling function

A rising price signals a market is more profitable, encouraging entry or a shift of resources into that market. A falling price signals lower profitability, encouraging exit or switching resources elsewhere.

You can link this to Adam Smith's idea of the "invisible hand", where self interest helps resource allocation.

How the price mechanism removes a shortage

In the diagram, equilibrium occurs at **P_e** and **Q_e**, where demand equals supply. The market initially operates at a lower price, **P₁**, which is below the equilibrium price.

Excess demand at P₁

At the price **P₁**, quantity demanded is greater than quantity supplied. Quantity demanded is **Q₂**, while quantity supplied is **Q₁**.

Because **Q₂ > Q₁**, there is excess demand, also known as a shortage, in the market.

How the price mechanism works

To remove excess demand, the price mechanism operates through three key functions. These functions cause price to rise and move the market back towards equilibrium.

Rationing function

The shortage leads to competition among consumers for the limited goods available. Firms respond by raising prices from **P1 towards Pe**.

As price rises, quantity demanded contracts as some consumers are priced out or switch to substitutes. This is shown as a movement up along the demand curve from **Q2 towards Qe**.

Incentive function

Higher prices increase potential profits for firms. This incentivises producers to increase output.

As price rises, quantity supplied increases, leading to an extension of supply. On the diagram, this is shown as a movement up along the supply curve from **Q1 towards Qe**.

Signalling function

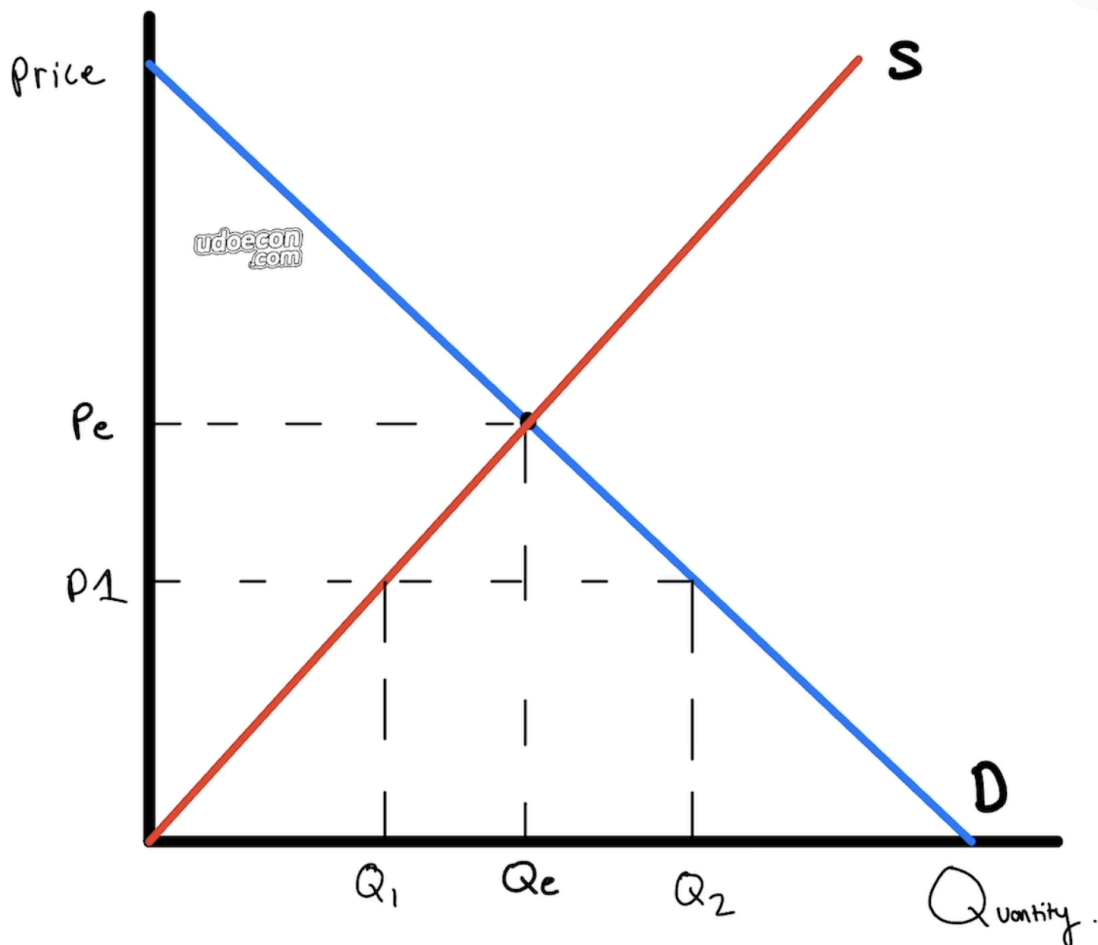
The rising price sends information to both consumers and producers. It signals firms to produce more or enter the market, while signalling consumers to reduce consumption.

This strengthens the contraction in demand and the extension in supply, helping eliminate the shortage.

Final outcome

As price rises from **P1 to Pe**, quantity demanded falls from **Q2 to Qe** and quantity supplied rises from **Q1 to Qe**. Excess demand is removed from the market.

The market returns to equilibrium at **Pe and Qe**, where demand equals supply.



How the price mechanism removes a surplus

In the diagram, equilibrium is at **Pe** and **Qe**, where demand equals supply. The market initially operates at a higher price, **P1**, which is above the equilibrium price.

Excess supply at P1

At the price **P1**, quantity supplied is greater than quantity demanded. Quantity supplied is **Q2**, while quantity demanded is **Q1**.

Because **Q2 > Q1**, there is excess supply, also known as a surplus, in the market.

How the price mechanism works

To remove excess supply, the price mechanism causes price to fall. This happens through the same three functions, but they operate in reverse.

Rationing function

With excess supply, firms struggle to sell all their output. To attract consumers, firms lower prices from **P1 towards Pe**.

As price falls, quantity demanded increases. This is shown as an extension along the demand curve from **Q1 towards Qe**.

Incentive function

The fall in price reduces profit margins for firms. As production becomes less profitable, firms cut back on output.

This causes a contraction of supply, shown as a movement down along the supply curve from **Q2 towards Qe**.

Signalling function

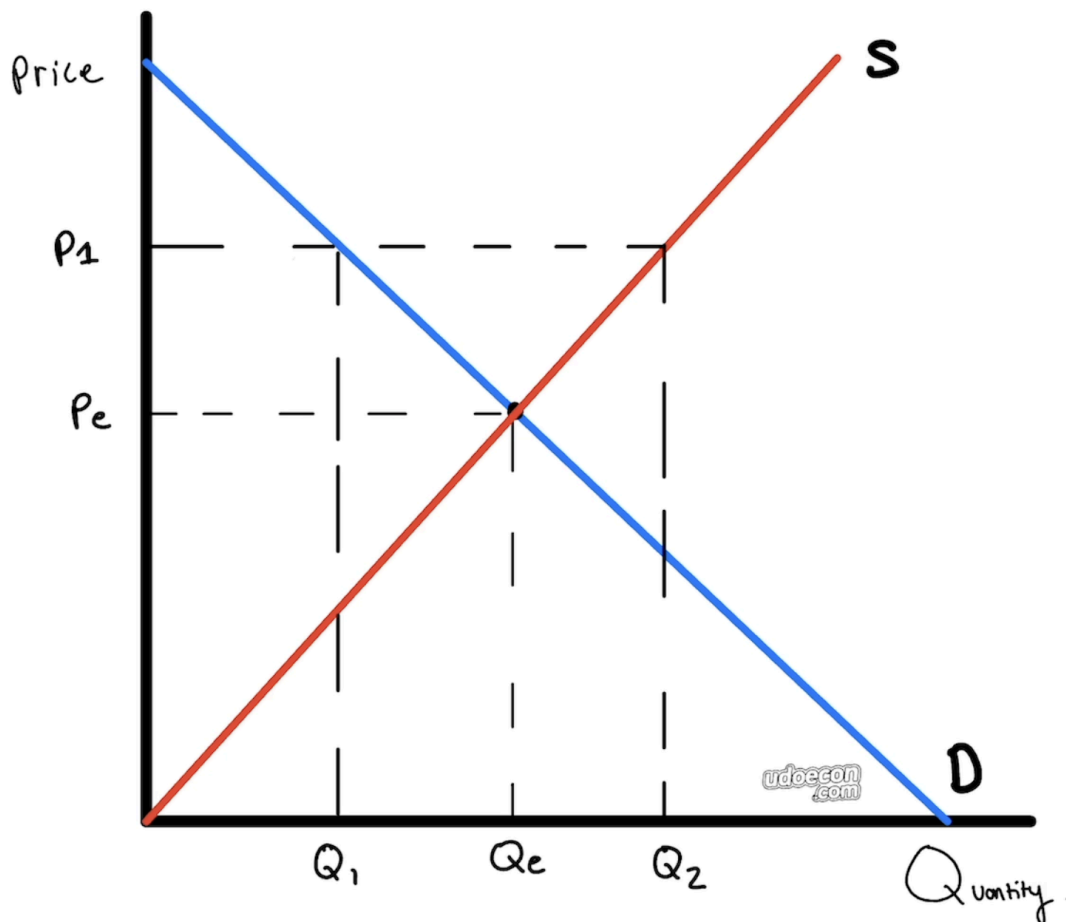
Falling prices send information to the market. Firms are signalled to reduce output or leave the market, while consumers are signalled that goods are cheaper.

This reinforces the extension of demand and the contraction of supply, helping eliminate the surplus.

Final outcome

As price falls from **P1 to Pe**, quantity demanded rises from **Q1 to Qe** and quantity supplied falls from **Q2 to Qe**. Excess supply is removed from the market.

The market returns to



equilibrium at P_e and Q_e , where demand equals supply.

Using the price mechanism after a shift in demand

The market initially starts in equilibrium, where the original demand curve **D** intersects supply **S** at equilibrium price P_e and equilibrium quantity Q_e .

Demand then increases from **D** to **D₁**, for example due to a rise in incomes or a change in tastes. At the original price P_e , quantity demanded rises to Q_2 , while quantity supplied remains at Q_e , creating **excess demand (a shortage)**.

This excess demand puts **upward pressure on price**, causing the price to rise from P_e to P_1 .

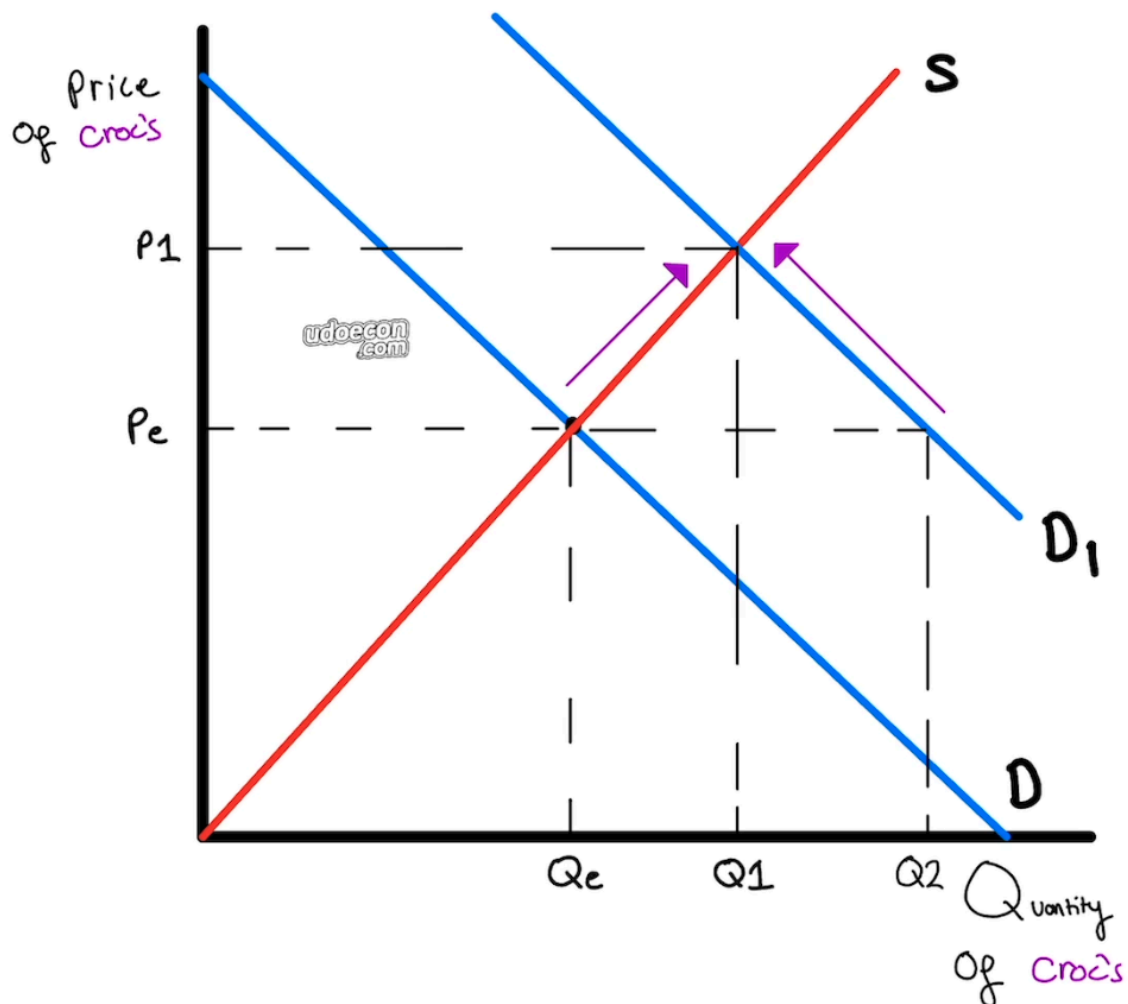
As price rises, the **rationing function** occurs. Some consumers are priced out of the market, leading to a **contraction in quantity demanded** along **D₁**, from Q_2 to Q_1 .

At the same time, the higher price increases potential profit. This triggers the **incentive function**, encouraging firms to increase quantity supplied, shown by an **extension along the supply curve** from Q_e to Q_1 .

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The rise in price also performs a **signalling function**, indicating that demand is strong and the market is more profitable, encouraging firms to allocate more resources toward production.

These effects continue until a **new equilibrium** is reached at price **P1** and quantity **Q1**, where quantity demanded equals quantity supplied.



Price mechanism in different contexts

Local markets

In local markets, changes in tastes can increase demand and push up prices. Higher prices ration the good and signal local producers to increase supply.

A UK example is **local housing markets**. In cities like Manchester or Bristol, rising demand from students and workers has pushed up rents. Higher rents ration housing and incentivise landlords and developers to provide more rental properties.

National markets

National markets often respond to changes in production costs. A fall in costs increases supply, leading to lower prices and higher quantity demanded.

A UK example is **petrol prices**. When global oil prices fall, petrol becomes cheaper at the pump. Lower prices encourage drivers to consume more fuel and signal suppliers to increase distribution.

Global markets

In global markets, world prices guide production decisions through signalling and incentives. Producers switch resources toward goods with higher world prices.

For example **UK farming**. When global wheat prices rise relative to other crops, UK farmers are incentivised to allocate more land to wheat production, responding to higher expected profits.