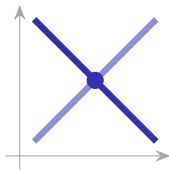


The Allocation of Resources

IGCSE Economics ■ Topic 2

IGCSE Economics



What we will cover

- 1 The price mechanism
- 2 Demand & supply
- 3 Equilibrium
- 4 Price elasticity
- 5 Price controls
- 6 Market failure

1

The market

The price mechanism

In a free **market** 市场, the **price mechanism** 价格机制 **allocates** 配置 resources – deciding what is made, how, & for whom.

- **signalling** – tells what to make
- **incentive** – a reason to supply
- **rationing** – shares out scarce goods



Prices guide who buys and what is made

Micro and macro, and what a market is

microeconomics

微观经济学

single parts of the economy – one industry, one product, one household

macroeconomics

宏观经济学

the economy as a whole – growth, inflation, unemployment, trade

a market 市场

any place *or system* where buyers and sellers meet to trade

no building needed

it can be online, or over the phone – what makes it a market is the trading, not the location

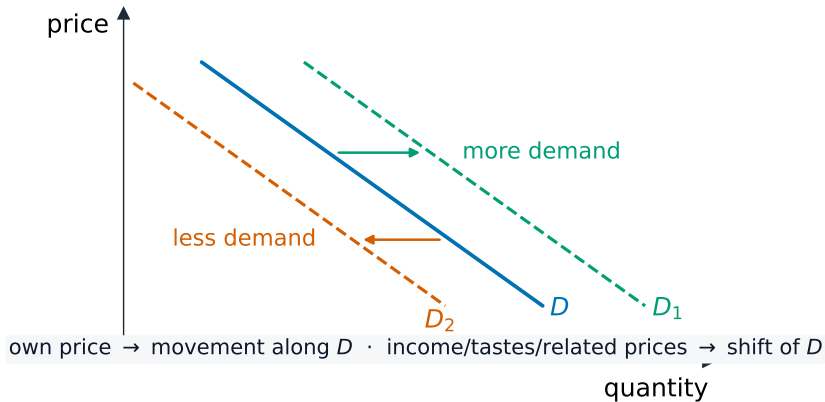
ceteris

paribus 其他条件不变

“other things equal” – change one thing at a time and hold the rest fixed

Every demand or supply diagram carries *ceteris paribus* silently. It is the reason a curve can shift at all.

Demand



Demand 需求 slopes down (law of demand 需求定律). Own price → a **movement along**; income, tastes, population & related prices **shift** the curve.

Movements along, and shifts of, the curve

Two different ideas, and the exam separates them:

- **quantity demanded** 需求量 – the amount bought *at one price*;
- **demand** – the whole pattern of buying at *every price*.

- A change in the good's **own price** $\Rightarrow$ a **movement along** the curve. You slide to a new point on the same line.
- A change in **anything else** $\Rightarrow$ a **shift** 移动 of the whole curve.
Rightward: more at every price.

Own price moves you **along**; everything else **shifts** the line.

Movement or shift, and which way

Direct relationship

A **direct relationship** 正向关系: both move the same way – price and quantity supplied.

Inverse relationship

An **inverse relationship** 反向关系: they move oppositely – price and quantity demanded, which is why the demand curve slopes down.

A movement

A change in the good's *own price* moves you along the curve. Nothing shifts.

A shift

Any other **determinants** 决定因素 – income, tastes, the price of a substitute, costs – shifts the whole curve.

In a **planned economy** 计划经济 the state sets the price instead, so neither curve does the work. That contrast is worth one sentence in an evaluation.

Movement along, or shift of, the curve

the law of demand 需求定律

price rises, quantity demanded **falls**; price falls, quantity demanded rises

a movement along

caused by a change in the good's **own price** only

a shift of the curve

caused by anything else – a **determinant** 决定因素 changing

demand shifters

income, tastes, **advertising** 广告, population, and the price of substitutes and **complements** 互补品

complements 互补品

goods used *together* – cars and fuel. If cars get dearer, demand for fuel **falls**

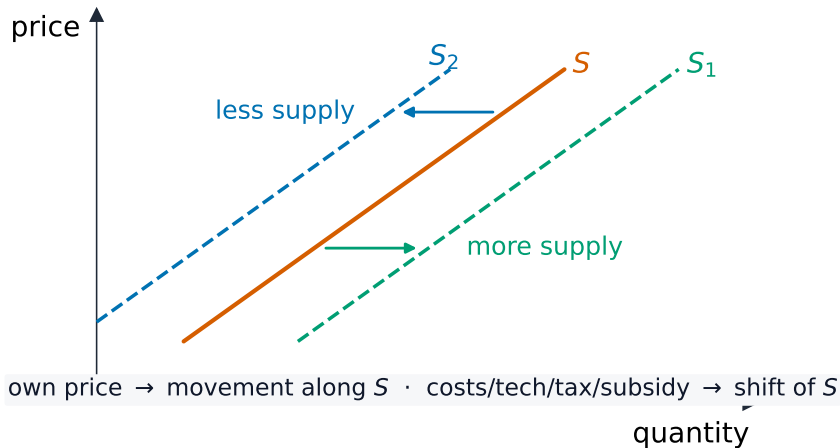
supply shifters

costs of production 生产成本, technology, taxes and subsidies, number of firms, and **weather** for farm goods

Ask one question: **did the good's own price change?** If yes, move along the curve. If no, shift it.

Supply

Supply 供给 slopes **up**: a higher price, more supplied (**law of supply** 供给定律). Costs, technology & taxes **shift** the supply curve.



What makes supply elastic

stocks 库存

goods kept in store can be sold quickly, which makes supply elastic

spare capacity

unused machines and workers, so output can rise fast

time

the longer the period, the more elastic supply becomes

farm goods

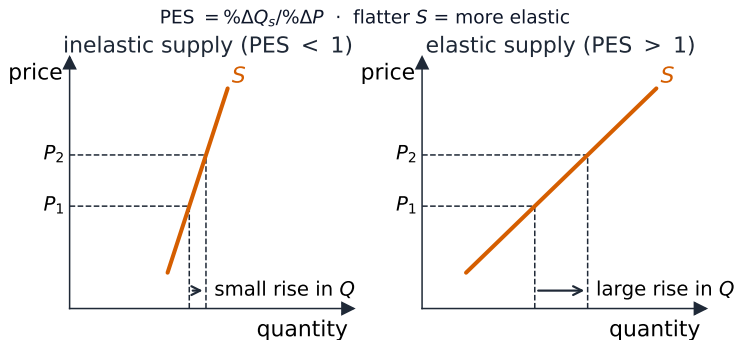
often inelastic in the short run, because crops take a season to grow

factor mobility

how easily resources can be moved into the industry

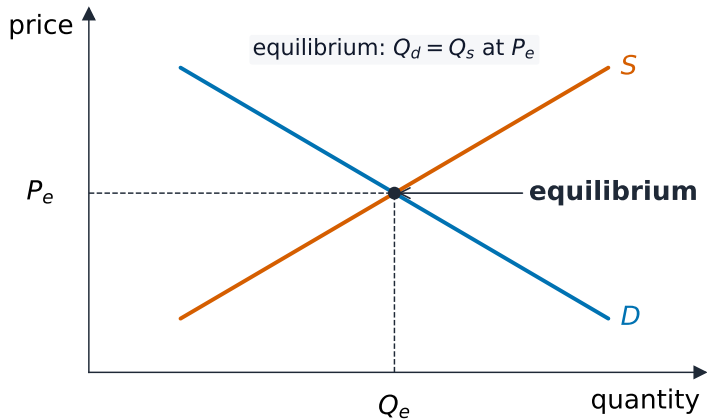
Time is the master factor: given long enough, almost any supply becomes elastic. That is why the exam always names the period.

Price elasticity of supply

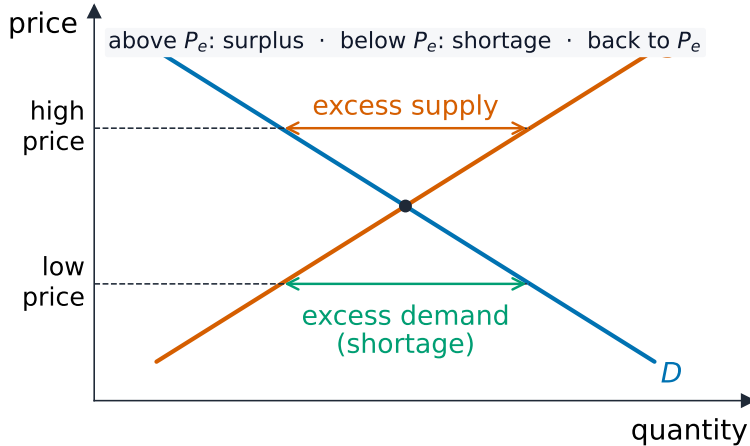


PES 供给价格弹性: how much quantity supplied responds to a price change.
More elastic with **spare capacity**, **storage** and **time** – so nearly always more elastic in the long run.

Equilibrium price and quantity



Disequilibrium: surplus and shortage



Equilibrium

2

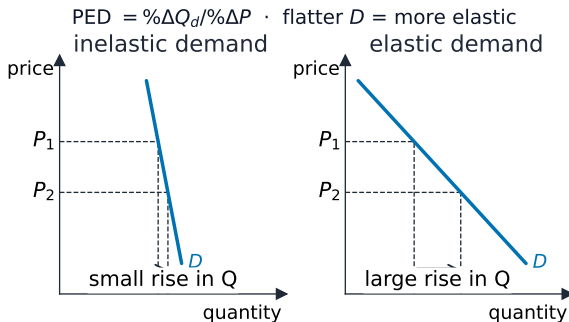
Elasticity and failure

Price elasticity of demand

Price elasticity of demand 需求价格弹性 measures how much quantity responds to price.

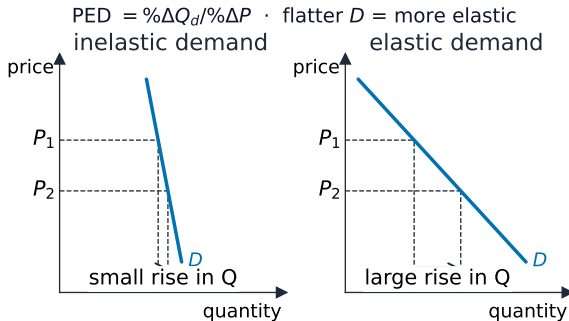
- **inelastic** 缺乏弹性 – little response
- **elastic** 富有弹性 – big response

When demand is inelastic (steep) a price change barely changes quantity; when it is elastic (shallow) the same change moves quantity a lot.



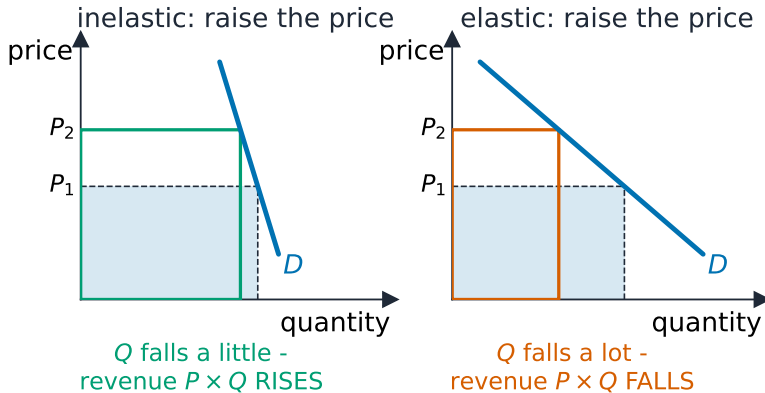
Reading the elasticity value

- $PED > 1$: **elastic** 富有弹性 – quantity changes by a large %. Many substitutes, like one brand of crisps.
- $PED < 1$: **inelastic** 缺乏弹性 – quantity barely moves. Needs with few substitutes: petrol, salt.
- $PED = 1$: **unit elastic** 单位弹性.



Elasticity decides what a price rise does to revenue

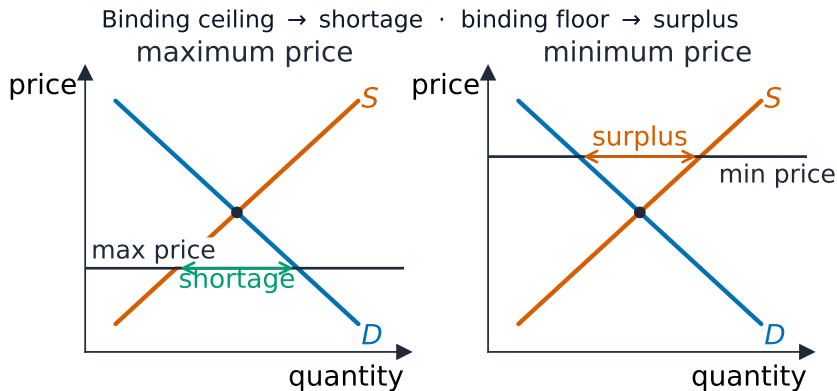
inelastic: raise $P \Rightarrow TR \uparrow$ · elastic: raise $P \Rightarrow TR \downarrow$



Inelastic demand: a price rise **raises** revenue – customers stay. **Elastic** demand: a price rise **lowers** revenue – enough customers leave to outweigh the higher price.

Price controls

- a **maximum price** 最高限价 (below equilibrium) causes a **shortage**
- a **minimum price** 最低限价 (above) causes a **surplus**



Externalities

An **externality** 外部性 falls on third parties.

An **external cost** 外部成本 (pollution) is over-produced by the market – a **market failure** 市场失灵.



External costs spill onto third parties

Private, external and social



A power station's plume falls on third parties, not the producer

- **private cost** 私人成本 – to the person doing it.
- **external cost** 外部成本 – paid by other people: factory smoke harming nearby families.
- **social cost** 社会成本 = private + external.

Benefits work the same way. Markets fail because firms and consumers weigh only the **private** side.

External costs and external benefits

the idea	when you produce or consume something, the cost or benefit to <i>you</i> is not always the cost or benefit to <i>everyone</i>
a private cost 私人成本	what the buyer or seller pays
an external cost 外部成本	what falls on other people – pollution, noise, congestion
an external benefit 外部效益	a benefit others get for free – your neighbour's tidy garden is nice for you too
the social cost 社会成本	private cost plus external cost – what it really costs society

The market prices only the private column. Every case for taxing, subsidising or regulating starts by naming what is in the external one.

Externalities – diagram

- **merit goods** 有益物品: better for you than you realise – the market makes **too few** (education, healthcare)
- **demerit goods** 有害物品: worse than you realise – **too many** (cigarettes, alcohol)
- **public goods** 公共物品: no one can be stopped from using them (street lights, defence)

Private cost (to the producer)

+

External cost
(falls on others, e.g. pollution)

=

Social cost (to all of society)

$$MSC = MPC + \text{external cost}$$

An external cost (e.g. pollution) falls on third parties, so the social cost is greater than the producer's private cost.

Public goods

Private good

rival + excludable
firms supply it for profit
(e.g. an apple, a phone)

Public good

non-rival + non-excludable
free-rider problem, so the
government must supply
(e.g. street lighting)

Exam: public goods fail the free-rider test — non-rival and non-excludable → government supply

A **public good** 公共物品 (street lights) is **non-rival** and **non-excludable**, so the market supplies none of it.

Merit and demerit goods

Merit good

better for you than you realise → under-consumed
(e.g. education, healthcare)

Demerit good

worse for you than you realise → over-consumed
(e.g. cigarettes, alcohol)

Exam: merit → under-consumed (subsidise); demerit → over-consumed (tax / regulate)

Merit goods 有益品 are under-consumed and **demerit goods** 有害品 over-consumed, because the private benefit is not the social one.

Monopoly power

A **monopoly** 垄断 is a single firm that controls a market. With no competition it can charge **high prices** and let **quality** fall – and the consumer has nowhere else to go.

This is another **market failure**: resources are used badly even though every party is acting in its own interest.

The mixed economy, and how governments intervene

mixed economy 混合经济 a **private sector** 私营部门 guided by the price mechanism plus a **public sector** 公共部门 run by the government. Most real economies are mixed; China's is a socialist market economy.

Method	What it does
maximum price 最高价格	a ceiling – causes a shortage
minimum price 最低价格	a floor – causes a surplus
indirect tax 间接税	raises price, cuts demerit demand
subsidy	cuts price, raises output of merit goods
regulation 监管	rules and laws, like a smoking ban
direct provision 直接提供	the state supplies it, like schools

The market system, weighed both ways

advantage	prices guide resources to where they are wanted, without anyone planning
advantage	consumers have wide choice, and firms compete to win them
advantage	a strong incentive to work, invest and invent
drawback	the strong – rich firms and people – do well; the weak may be left with nothing
drawback	some goods are not supplied at all, and pollution is not counted
inefficient outcomes 低效的	monopoly power, and missing information, both distort the price signal

The mixed economy exists because both columns are true. Every evaluation question wants at least one line from each.

Judging intervention

Intervention can fix market failure, but it has costs of its own. Taxes and rules cost money to collect and to check, and governments get things wrong too – **government failure**.

So an evaluation answer never stops at “the government should intervene”. Weigh the good effects **against** the bad ones, then decide.

Markets and the price mechanism



A stock exchange is a market: as buyers and sellers trade, their offers set the price of each share

Exam tips

- A change in a good's **own price** is a *movement along* the curve; a change in anything else (income, tastes, related prices) *shifts* the whole curve.
- **Equilibrium** is where demand meets supply. Below it there is excess demand (a shortage, so price rises); above it there is excess supply (a surplus, so price falls).
- $PED = \% \Delta Q \div \% \Delta P$. Demand is **inelastic** if $PED < 1$ (raising price raises revenue) and **elastic** if $PED > 1$ (raising price lowers revenue).
- **Market failure** (external costs, merit/demerit/public goods, monopoly) means resources are used badly; the government corrects it with taxes, subsidies, rules and direct provision.

3

Recap

Worked example – price elasticity of demand

Price rises 20% and quantity demanded falls 10%. Find the PED and say what it means.

- $\text{PED} = \frac{\% \Delta Q_d}{\% \Delta P} = \frac{-10}{20} = -0.5$
- Ignoring the sign, $0.5 < 1 \Rightarrow$ demand is **price inelastic**.
- Quantity changed **proportionally less** than price.
- So raising the price **raises total revenue** – which is why petrol is taxed so heavily.

PED is normally **negative** (price up, demand down) – compare its **size** with 1. Inelastic $\Rightarrow$ raise price for more revenue; elastic $\Rightarrow$ cut it.

Topic 2 – key takeaways

1

Demand & supply

demand down, supply up

2

Equilibrium

where demand meets supply

3

Elasticity

how quantity responds to price

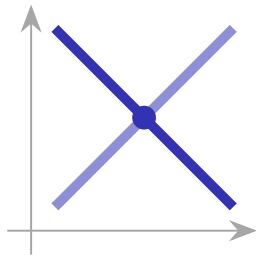
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Market failure

externalities, public & merit goods

Check yourself

- 1 Which way does a demand curve slope?
- 2 What is the equilibrium price?
- 3 What does a maximum price cause?
- 4 Give one example of an external cost.



Answers 1. downwards 2. where demand = supply 3. a shortage 4. e.g. pollution