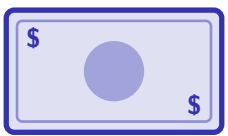
Microeconomic Decision-makers

IGCSE Economics ▪ Topic 3

IGCSE Economics



What we will cover

1. Money & banking
2. Households
3. Workers & wages
4. Firms & integration
5. Economies of scale
6. Market structures

1 Money and households

Money and banking

Money 货币 beats **barter** 物物交换. Its four jobs: medium of exchange, store of value, unit of account, deferred payment. A

central bank 中央银行 manages monetary policy and serves government/banks; **commercial banks** 商业银行 take deposits, lend and arrange payments.

Money is anything widely accepted in trade

Money and banking – four functions

Function	Original example: identify the job money performs
Medium of exchange 交换媒介	You sell bread for money, then buy rice without finding a rice seller who wants bread.
Store of value 价值储藏	You hold £20 to spend next month; inflation may reduce what it buys.
Unit of account 记账单位	Prices of £2 and £3 let you compare loaves.
Means of deferred payment 延期支付手段	A loan contract states a future repayment of £100.

One payment can involve several functions. Explain the function the question asks about; saving money does not guarantee constant purchasing power.

Why money replaced barter, and what it must be

barter 物物交换	swapping goods directly – and it needs a double coincidence of wants: you must find someone with what you want *and* who wants what you have
durable 耐用的	it lasts a long time
portable 便于携带的	easy to carry
divisible 可分割的	can be split into small amounts for small payments
acceptable 可接受的	widely accepted in payment
limited in supply 供给有限	supply is controlled, and it is hard to fake

Explain how a characteristic helps money work: divisibility permits small payments; durability permits later use.

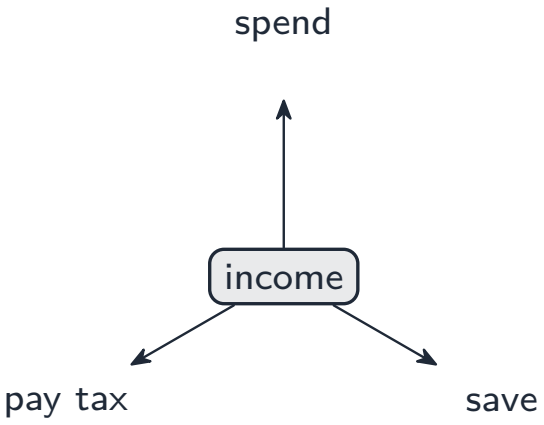
Money and banking – four functions, in detail

Medium of exchange	**Store of value**	**Unit of account**	**Means of deferred payment**
widely accepted in exchange	hold for later spending	measures and compares prices	lets you buy now, pay later

Explain the relevant function; inflation can reduce purchasing power

Money's four functions: a medium of exchange, a store of value, a unit of account, and a means of deferred payment.

Households



A **household** 家庭 can spend, **save** 储蓄 or pay tax.

Higher **interest rates** 利率 reward saving & make **borrowing** 借贷 dearer; & greater **confidence** 信心 may raise spending. Households with little spare income may be unable to save more.

Workers and wages

Wages 工资 depend on skills, danger & how hard the worker is to replace.

> **Division of labour** 劳动分工 splits production into specialised tasks and can raise productivity.

Specialisation can raise output per worker

Choosing a job

Original case: two jobs, both 40 hours a week

	Job A	Job B
Weekly wage	£400	£440
Weekly travel cost	£20	£60
Travel time	10 minutes each way	60 minutes each way
Working pattern	Daytime; training offered	Night shifts; no training

Decide first: Is B necessarily the better occupation? Explain using pay and one non-wage factor.

Choosing a job – worked reasoning

$$\text{wage after travel} = \text{wage} - \text{travel cost}$$

$$A = £400 - £20 = \mathbf{£380}$$

$$B = £440 - £60 = \mathbf{£380}$$

Equal money, so the non-wage factors decide: A offers shorter travel and training; B may suit someone who prefers nights. Preferences matter.

Workers and wages – specialisation

Original workshop: same three workers, one hour

Before specialisation: 30 completed boxes. After splitting cutting, folding and packing: 45 completed boxes. All other inputs are unchanged.

Calculate first: Output per worker per hour before and after?

Workers and wages – specialisation – worked reasoning

$$\text{productivity} = \frac{\text{output}}{\text{workers} \times \text{hours}}$$

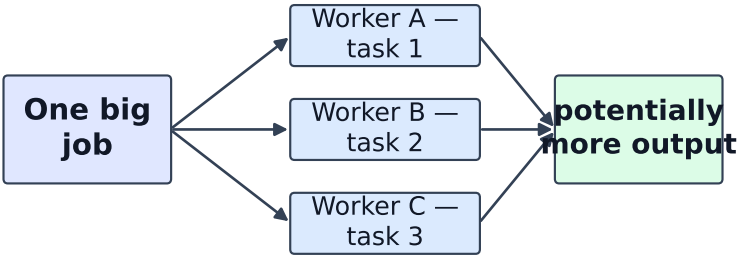
productivity 生产率

before: $\dfrac{30}{3 \times 1} = 10$ boxes per worker per hour

after specialising: $\dfrac{45}{3 \times 1} = \mathbf{15}$ boxes per worker per hour

Repeated tasks can improve skill and save switching time. If total hourly cost is unchanged, cost per box falls. An absent packer could become a bottleneck; boredom may reduce quality.

Workers and wages – specialisation, in detail



Exam: specialisation can raise productivity — but monotony and interdependence are trade-offs

> Repeated tasks can save switching time and improve skill. Productivity gains depend on coordination and worker motivation.

2 Firms

Firms and integration

Original bakery cases: classify before revealing

A bakery joins (A) another bakery, (B) its flour mill, (C) shops selling its bread, or (D) a clothing producer. Which kind of integration is each?

Firms and integration – worked reasoning

Partner	Classification	Possible benefit and limit
Another bakery	Horizontal	Bulk buying may lower cost; fewer rivals may reduce choice.
Flour mill	Backward vertical	More control of flour supply; managing milling may be difficult.
Bread shops	Forward vertical	Control of outlets; retailing requires different skills.
Clothing producer	Conglomerate	Spreads risk across industries; neither business is guaranteed success.

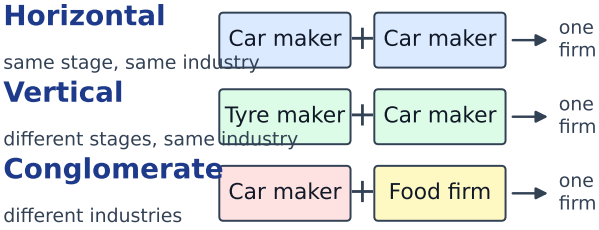
Classify the relationship between businesses, then explain a benefit. A merger joins firms; a takeover gives one firm control of another.

Three kinds of merger

Horizontal merger	A **horizontal merger** 横向合并: two firms at the same stage of the same industry – market share, and economies of scale.
Vertical merger	A **vertical merger** 纵向合并: a supplier or a customer – securing an input, or a route to market.
Conglomerate merger	A **conglomerate merger** 混合合并: unrelated industries, joined to spread risk.
Barriers to entry	**Barriers to entry** 进入壁垒 – high set-up costs, patents, brand loyalty – can protect a firm from new rivals; gains from a merger are not guaranteed.

A firm's **objectives** 目标 are not only profit: **growth** 增长, **survival** 生存 and market share each justify a different merger.

Firms and integration, in detail



Exam: horizontal = same stage; vertical = supply chain; conglomerate = different industries

Firms grow by joining together:

horizontal 横向 – two firms at the same stage of one industry.

vertical 纵向 – different stages of the same industry.

conglomerate 混合 – different industries altogether.

Business failure

Original case: a small bakery

Its monthly sales revenue is £4,000 and production costs are £4,500. It also owes a £2,000 equipment payment tomorrow, but has only £300 cash available and no agreed loan.

Diagnose first: Which facts show a loss? Which show a cash problem?

Business failure – worked reasoning

$$\text{profit} = \text{TR} - \text{TC} = £4{,}000 - £4{,}500 = \mathbf{-£500} \text{ for the month}$$

$$\text{cash shortfall} = £2{,}000 - £300 = \mathbf{£1{,}700} \text{ due tomorrow}$$

Persistent losses and inability to pay bills threaten survival. A temporary cash shortage is different from a loss. A small specialist bakery may still survive through personal service and a loyal local market; growth is not always best.

Labour-intensive and capital-intensive

Original case: two ways to make the same 100 shirts daily

Method A: 10 workers with simple sewing tools. Method B: two operators using automated cutting and sewing equipment. Both meet the same quality standard.

Choose first: Which uses relatively more labour? Would B always be best?

Labour-intensive and capital-intensive – worked reasoning

A is more **labour-intensive** 劳动密集型; B is more **capital-intensive** 资本密集型. Capital here is productive equipment, not simply money.

> B may suit large, stable orders and scarce labour. A may suit small customised orders and limited finance. Compare equipment cost, wages, training, availability and flexibility; counting workers alone does not decide profitability.

Demand for and supply of factors

Original case: more orders, limited equipment

A shirt producer receives more orders. Trained workers are available, but new automated machines require six months for delivery and costly installation.

Decide first: Why might the firm hire workers now rather than immediately automate?

Demand for and supply of factors – worked reasoning

Demand for shirts increases demand for productive inputs. Workers can expand output sooner; machinery may suit later, stable orders if its productivity justifies its cost.

> Factor demand depends on product demand, relative prices, availability and productivity. Factor supply, bargaining and policy influence price. A higher wage does not automatically make machinery available or worthwhile.

Economies of scale

Original case: compare two planned factory scales

Small plant: 1,000 units monthly, total cost £8,000. Larger plant: 2,000 units monthly, total cost £14,000. These are long-run alternatives with all inputs adjustable.

Calculate first: Does doubling output double average cost?

Economies of scale – worked reasoning

$$AC = \frac{TC}{Q}$$

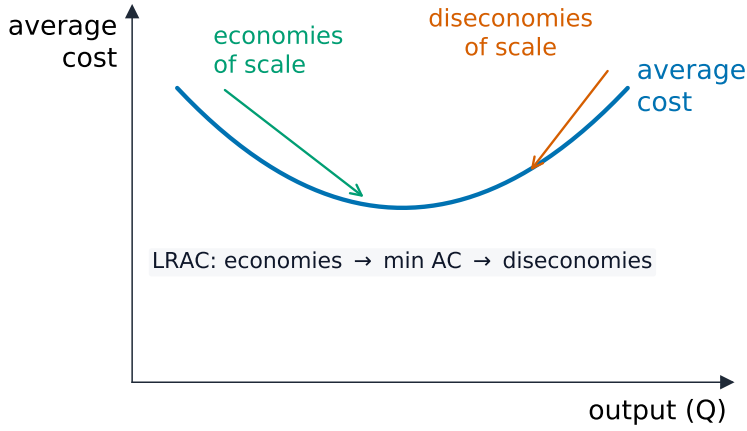
average cost

small: $\dfrac{£8{,}000}{1{,}000} = £8$ per unit

large: $\dfrac{£14{,}000}{2{,}000} = \mathbf{£7}$ per unit

Total cost rises, but cost per unit falls: economies of scale. Bulk discounts or specialised equipment could explain this. Larger scale can instead raise unit cost if coordination problems outweigh gains.

Economies of scale, in detail



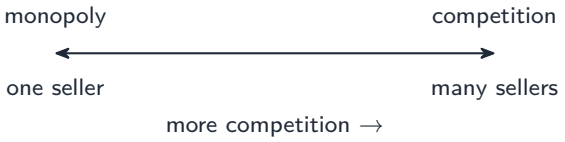
When a larger scale lowers long-run average cost, this is **economies of scale** 规模经济.

Market structures

A **monopoly** 垄断 has one supplier. Competitive markets have many rival suppliers; number alone does not determine price. More competition usually means lower prices & more choice.

Competition shapes price and choice

Market structures – continuum



One supplier limits direct choice. Many rival suppliers can make switching easier. But number alone

is insufficient: compare product differences, information and entry barriers.

> Do not infer a particular price or profit from the diagram alone.

Competition versus monopoly

Exam connection: June 2025, 0455/22, Q3(d)

Discuss whether consumers would benefit if only one firm produced shampoo. Develop both possible outcomes, rather than labelling monopoly simply bad.

Competition versus monopoly – worked reasoning

Possible benefit	Possible harm
Larger scale may lower average cost; consumers benefit *if* the saving reaches prices.	Fewer alternatives weaken pressure to keep prices down.
Profits may finance research and improved quality.	Weak rivalry may reduce improvement; large scale can create management problems.

> Judge what happens to price, choice and quality. Lower cost need not mean lower price; high profit is not guaranteed. The outcome depends on costs, demand, substitutes and regulation.

Why workers earn different amounts

Demand and limited supply together
explain the pressure on pay.
Training alone does not guarantee a high wage.

Explain demand and supply together: more orders increase demand; slow training limits the supply response.

Why wages differ

skill and training	lengthy training can limit supply; pay also depends on demand
danger and unpleasantness	unpleasant work may need higher pay to attract workers
trade unions 工会	groups of workers bargaining together – a strong union can raise pay and improve conditions
the demand for the product	higher product demand can increase demand for workers
discrimination	unfair treatment can affect pay or access to jobs
government	a **minimum wage** 最低工资 sets a legal floor

> Wages are a price – set by the demand for and supply of that kind of labour. Explain relevant demand, supply, bargaining or policy conditions; a difference between jobs need not be a recent shift.

Why one worker earns more than another

Original case: repair technicians and shop assistants

A town has few qualified repair technicians and many applicants for assistant jobs. Demand for repairs rises; training new technicians takes two years.

Explain first: Why might technician pay rise more quickly?

Why one worker earns more than another – worked reasoning

More repair orders increase firms' demand for technicians. Supply cannot expand quickly, so firms may offer higher wages to attract scarce qualified workers.

> Qualifications alone do not guarantee high pay: demand, supply and bargaining matter. Average revenue is revenue per unit *sold*, not revenue per worker and not a universal wage ceiling.

Exam tips

- Money's four functions: a **medium of exchange**, a **store of value**, a **unit of account**, and a **means of deferred payment**.
- Key formulas: profit = total revenue − total cost; total revenue = price × quantity; average cost = total cost ÷ number of units.
- **Fixed costs** do not change with output (rent, insurance); **variable costs** do (materials, power). Total cost = fixed + variable.
- **Economies of scale** make average cost *fall* as a firm grows; management problems may bring diseconomies of scale (average cost rises).
- Know the merger types: **horizontal** (same stage of the same industry), **vertical** (different stages of one industry), **conglomerate** (different industries).

3 Recap

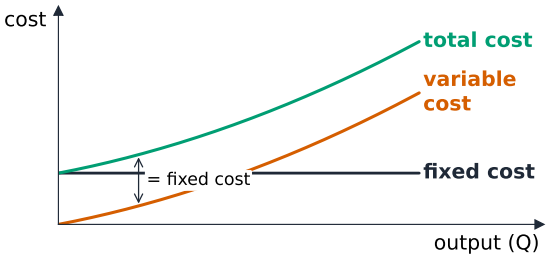
Worked example – profit and average cost

Fixed costs £2,000, variable cost £3/unit; all 500 units made are sold at £10 each.

- Total cost $= 2{,}000 + (3 \times 500) = £3{,}500$
- Total revenue = price × quantity $= 10 \times 500 = £5{,}000$
- Profit = TR − TC $= 5{,}000 - 3{,}500 = £1{,}500$
- Average cost $= \dfrac{3{,}500}{500} = £7$ – below the £10 price, so average profit is £3 per unit.

Do it in order: TC → TR → profit. Profit per unit = price − AC. Watch which costs are per unit and which are for the whole output.

Fixed, variable and total cost lines against output



$TC = FC + VC$ · gap between TC and VC is FC

Within a given time and output range, fixed cost stays the same; variable cost rises; total cost is fixed plus variable, so the gap between total and variable cost is the fixed cost.

Competitive markets

Original case: two nearby bread shops

Shop A charges £2 per loaf; B sells an equally fresh, equally sized loaf for £1.80. Customers know both prices and can switch easily.

Predict first: What pressure does B create for A? Give a condition that could weaken it.

Competitive markets – worked reasoning

A may lose customers, encouraging it to cut price, improve quality or reduce costs. This can benefit consumers.

> The effect is weaker if A offers valued differences, switching is difficult or customers lack information. Many sellers create pressure to compete; they do not guarantee low prices, high quality or losses for every firm.

Topic 3 – key takeaways

1 Money

exchange, store, account, deferred payment

2 Households

spend, save or borrow; rates & confidence

3 Firms

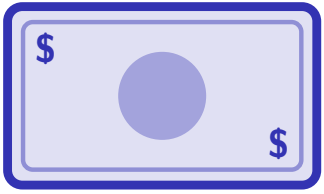
integration; economies of scale lower cost

4 Markets

competition and monopoly: evaluate conditions

Check yourself

1. What problem does money solve?
2. What does a higher interest rate do to saving?
3. What can division of labour raise?
4. How many sellers does a monopoly have?



Answers **1.** the difficulty of barter **2.** makes saving more rewarding **3.** productivity, if coordination works **4.** one