Course Companion

A-Level Business

Every topic handout in one volume

全部专题讲义合集

exercises.lol

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Business and its environment

A-Level Business

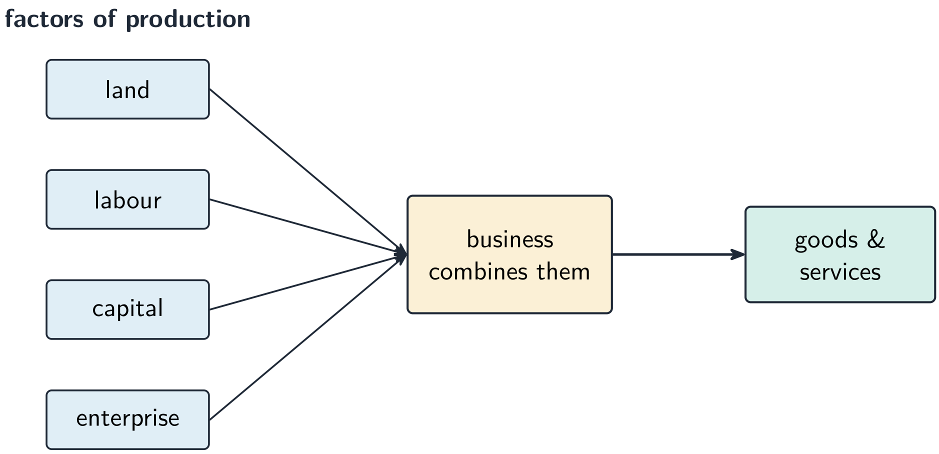
Why businesses exist

People have **needs** 需要 (things you must have, like food and shelter) and **wants** 欲望 (things you would like, like a phone or a holiday). A business exists to meet these needs and wants by making **goods** 商品 and **services** 服务.

Shops competing on a high street —the market a business operates in.

To do this, a business uses **resources** 资源. We sort resources into four **factors of production** 生产要素:

- **land** 土地—natural things, such as soil, water and minerals.
- **labour** 劳动力—the work done by people.
- **capital** 资本—the machines, tools, buildings and money used to produce.
- **enterprise** 创业精神—the skill of bringing the other three together and taking the **risk** 风险 to start a business.



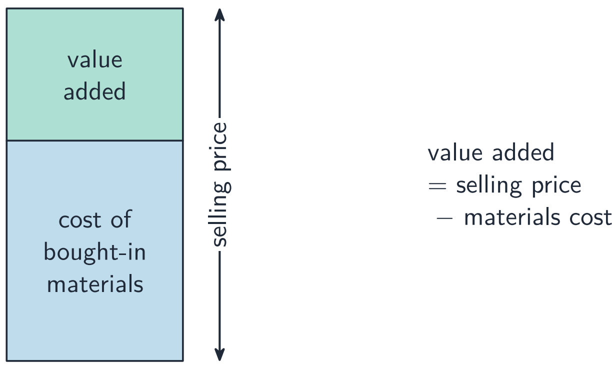
Land, labour, capital and enterprise are the four factors a business combines to make goods and services

Resources are **scarce** 稀缺—there are not enough to meet everyone's wants. So every business must choose how to use them well.

Adding value

Adding value 增值 means the selling price of a product is higher than the cost of the **inputs** 投入 (the bought-in materials) used to make it.

$$\text{value added} = \text{selling price} - \text{cost of bought-in materials}$$



Value added is the selling price minus the cost of bought-in materials

A business can add value by **branding** 品牌, better quality, good design, fast service, or convenience. More value added can mean more **profit** 利润, but only if costs stay under control.

Entrepreneurs and intrapreneurs

An **entrepreneur** 企业家 is a person who takes the risk to set up and run a business. They have the idea, organise the factors of production, and make the decisions. If the business fails, they can lose their money.

An **intrapreneur** 内部创业者 is an employee inside a larger business who acts like an entrepreneur. They build new ideas, products or ways of working, using the company's resources.

A food truck is enterprise you can see. The owner spotted a gap, spent their own savings on the van and stock, and now takes the daily risk of running it —the essence of being an entrepreneur

Characteristics of successful entrepreneurs

Successful entrepreneurs are usually:

- **innovative** 有创新精神的—full of new ideas.
- willing to take risks, but in a careful way.
- hard-working and **determined** 有决心的—they do not give up easily.
- **self-confident** 自信的 and good at making decisions.
- good leaders who can plan ahead and manage money.

Why enterprise matters to a country

When people start new businesses (**business start-ups** 初创企业), the whole country can gain:

- new jobs are created, which lowers **unemployment** 失业.
- more goods and services are made, which raises **output** 产出 (and the country's **GDP** 国内生产总值).
- more **competition** 竞争, giving customers lower prices and more choice.
- some firms grow and **export** 出口, bringing money into the country.
- **economic growth** 经济增长 and a higher standard of living.

The business plan

A **business plan** 商业计划书 is a written document that describes the business idea and how it will work. It usually contains:

Part of the plan	What it covers
The idea	the product, and what makes it different
The market	target customers, market size, competitors
Marketing	price, promotion and place
Operations	how the product is made or delivered
Finance	start-up costs, a **cash-flow forecast** 现金流量预测, expected profit
People	the owners and key staff

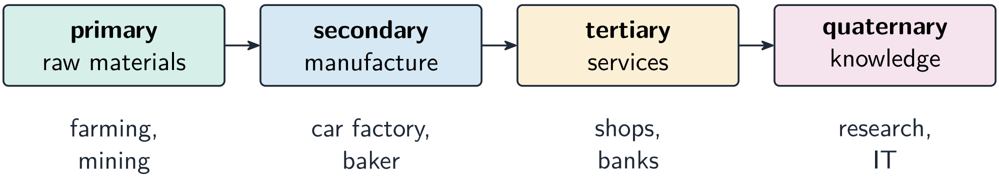
A business plan is useful because it helps the owner:

- get **finance** 融资 from a bank or an **investor** 投资者.
- set clear goals and lower the risk of failure.
- guide decisions as the business grows.

Sectors of business activity

Every business works in one of four sectors:

Sector	What it does	Example
primary sector 第一产业	takes raw materials from nature	farming, mining, fishing
secondary sector 第二产业	makes (manufactures) goods	car factory, baker
tertiary sector 第三产业	provides services	shops, banks, transport
quaternary sector 第四产业	knowledge and information services	research, IT, consulting



Business activity runs from the primary sector through to the quaternary sector

Here **raw materials** 原材料 are the natural inputs a business starts with, and to **manufacture** 制造 means to make goods in large amounts. As a country develops, it usually moves from mostly primary work towards more tertiary and quaternary work.

Private and public sectors

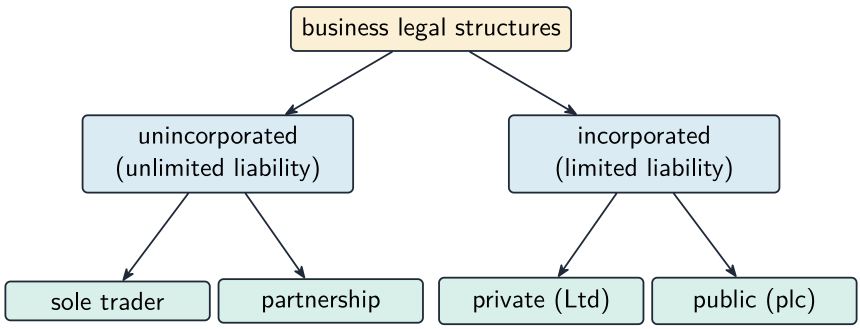
- The **private sector** 私营部门 is made up of businesses owned by private people. Their main aim is usually profit.
- The **public sector** 公共部门 is made up of organisations owned by the government, such as state schools and public hospitals. Their aim is usually to provide a service, not to make profit.

Legal structures of business

A company headquarters: businesses range from sole traders to giant public limited companies.

A business must choose a legal form. The main ones are below.

- A **sole trader** 个体经营者 is owned by one person. It is easy to set up and the owner keeps all the profit, but raising money is hard.
- A **partnership** 合伙企业 is owned by two or more partners who share the work and profit. They often sign a **deed of partnership** 合伙协议 that sets out each partner's share.
- A **private limited company** 私人有限公司 (Ltd) sells **shares** 股份 to a small group, such as family and friends. Its owners are **shareholders** 股东. Its shares are not sold to the public.
- A **public limited company** 上市公司 (plc) sells its shares to the public on the **stock exchange** 证券交易所. It can raise large amounts of money, but it must follow more rules and faces the risk of a **takeover** 收购.
- A **franchise** 特许经营 lets one firm use another firm's brand and business model. The **franchisor** 特许方 owns the brand; the **franchisee** 加盟方 pays a fee and a **royalty** 提成 to run a branch.
- A **joint venture** 合资企业 is when two businesses join to run one project and share the costs and risks.
- A **social enterprise** 社会企业 trades like a normal business but aims to do social or **environmental** 环境 good, and reinvests most of its profit.



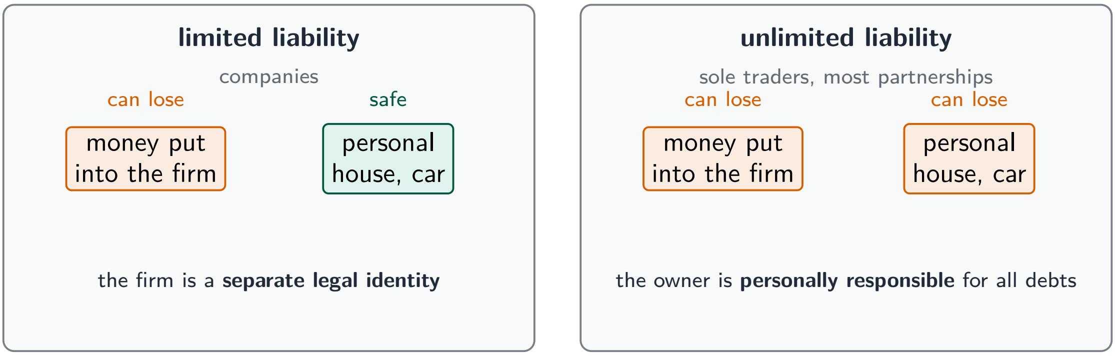
Legal forms split by liability: unincorporated (unlimited) and incorporated (limited)

Limited and unlimited liability

Liability 责任 means who must pay the business's **debts** 债务 if it cannot pay them itself.

- **limited liability** 有限责任—the owners can only lose the money they put in. Their personal things, like a house or car, are safe. Companies have limited liability.
- **unlimited liability** 无限责任—the owners are personally responsible for all the debts. They could lose personal things. Sole traders and most partnerships have unlimited liability.

A company is a **separate legal identity** 独立法人—it can own things, owe money, and be taken to court in its own name, apart from its owners.



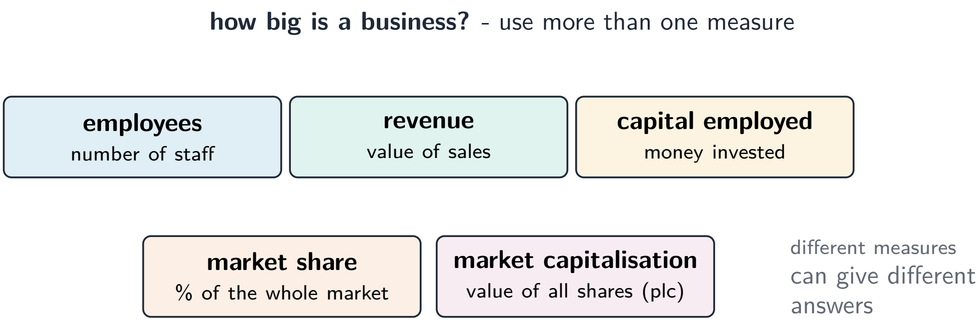
Limited liability risks only the money put in; unlimited liability risks the owner's personal things too

The size of a business

There is no single best way to measure how big a business is. Common measures are:

- the number of **employees** 员工.
- **revenue** 营业收入 (also called sales turnover) —the value of what it sells.
- **capital employed** 所用资本—the total money invested in the business.
- **market share** 市场份额—the firm's sales as a percentage of the whole market.
- **market capitalisation** 市值—the total value of a company's shares (for a plc).

Different measures can give different answers, so it is best to use more than one.



Five ways to measure how big a business is; use more than one

Why small businesses matter

Small businesses create jobs, serve local **communities** 社区, give personal service, react quickly to change, bring new ideas, and supply parts and services to large firms.

Business growth

A business can grow in two ways.

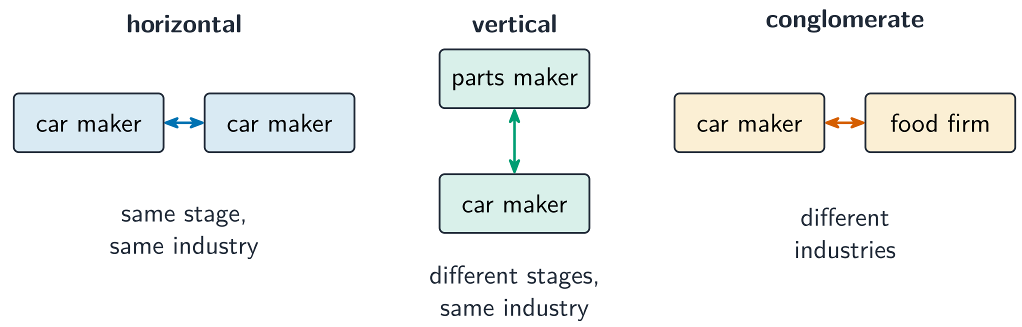
Internal growth 内部增长 (organic growth) —the business grows by itself: selling more, opening new branches, or adding new products. It is slower but lower risk.

External growth 外部增长—the business joins with another firm. This is called **integration** 整合, and it happens by:

- a **merger** 合并—two firms agree to join together as one.
- a **takeover** —one firm buys control of another.

There are three types of integration:

- **horizontal integration** 横向整合—joining a firm at the same stage in the same industry (e.g. two car makers).
- **vertical integration** 纵向整合—joining a firm at a different stage in the same industry. **Forward integration** 前向整合 is towards the customer (e.g. buying a shop); **backward integration** 后向整合 is towards the supplier (e.g. buying a parts maker).
- **conglomerate integration** 混合整合—joining a firm in a completely different industry. This spreads risk, which is called **diversification** 多元化.



The three types of integration when one firm joins with another

Firms grow to lower their costs, win a bigger market share and more **market power** 市场支配力, raise profit, and spread risk. But growth also brings problems: higher average costs, harder management and communication, different company **cultures** 企业文化 that may clash, and a need for a lot of finance.

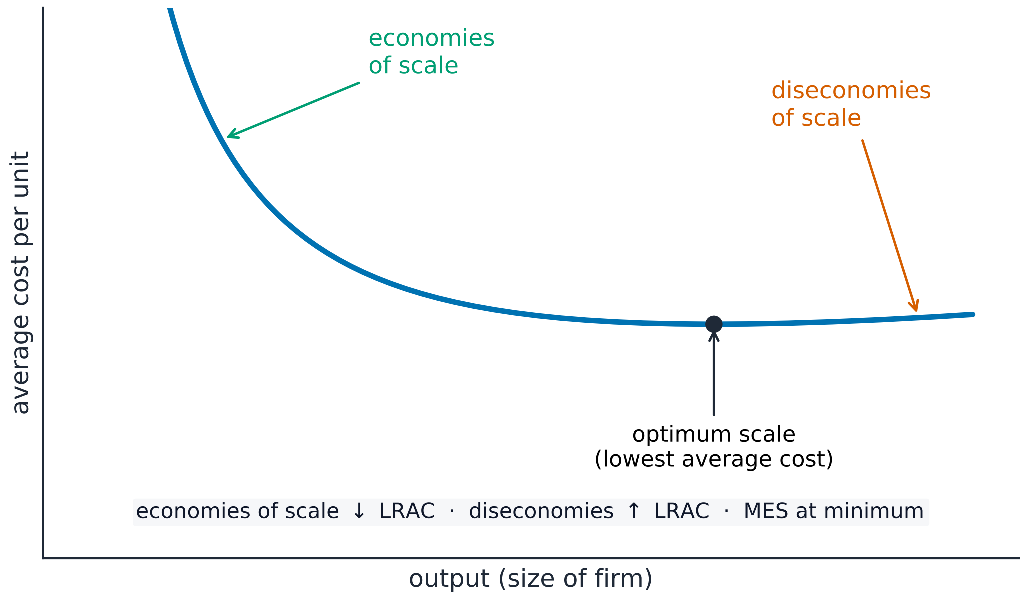
Economies and diseconomies of scale

Economies of scale 规模经济 are the cost savings a business gets as it grows larger. The **average cost** 平均成本 of each unit falls as output rises. The main types are:

Type	How it lowers cost
purchasing	buying in **bulk** 大批量 earns discounts
technical	large machines are more efficient
financial	large firms borrow at lower **interest** 利息
managerial	the firm can employ expert specialist managers
marketing	advertising cost is spread over more units

Diseconomies of scale 规模不经济 happen when a firm grows too big and the average cost starts to rise again. The usual causes are:

- **communication** 沟通 becomes slow and unclear.
- the **coordination** 协调 of many departments is hard.
- workers may feel unimportant and lose **motivation** 激励.



Average cost per unit falls (economies of scale) then rises (diseconomies of scale) as a firm grows

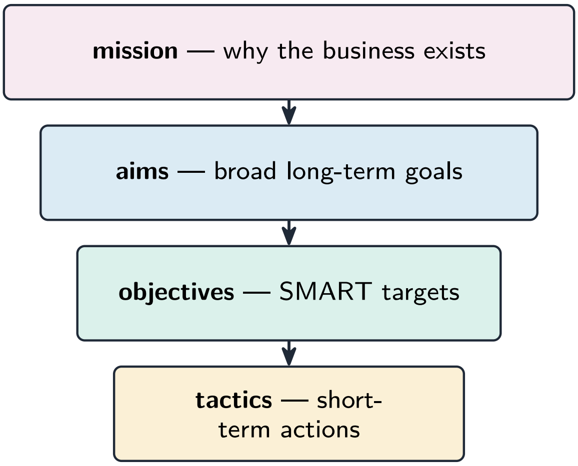
Worked example. A factory making 10,000 units has fixed costs of £200,000 and variable costs of £6 per unit. It expands to 50,000 units, and bulk buying cuts the variable cost to £5. Find the unit cost at each output and explain the fall. Unit cost = total cost ÷ output. At 10,000: total = 200,000 + (10,000 × 6) = £260,000, so the unit cost is 260,000 ÷ 10,000 = **£26**. At 50,000: total = 200,000 + (50,000 × 5)

= £450,000, so the unit cost is 450,000 ÷ 50,000 = **£9**. Two economies of scale are at work: the **fixed** costs are spread over far more units (£20 down to £4 each), and **purchasing** economies cut the variable cost. Note that the fixed cost **total does not change** - only the fixed cost **per unit** falls. Writing "fixed costs fall" is the error that loses the mark.

Aims, objectives and mission

A **mission statement** 使命宣言 is a short sentence that says why the business exists and what it wants to be. It guides everyone in the firm.

From the mission come **aims** 目的 (broad, long-term goals), and then **objectives** 目标 (the specific targets that help reach the aims).



Goals get narrower and more specific down the chain: a broad mission becomes aims, then SMART objectives, then day-to-day tactics

Good objectives are **SMART** —the first letters of:

- **Specific** 具体的—clear and exact.
- **Measurable** 可衡量的—you can check it with numbers.
- **Achievable** 可实现的—it is possible to reach.
- **Realistic** 现实的—sensible for the resources you have.
- **Time-bound** 有时限的—it has a deadline.

A **strategy** 战略 is the long-term plan to meet objectives. **Tactics** 策略 are the short-term actions that carry out the strategy. Objectives are shaped by the size and age of the firm, who owns it, the company culture, and conditions in the market.

Types of business objective

Objective	What it means
profit maximisation 利润最大化	making the largest possible profit
growth	getting bigger —more sales, more branches
survival 生存	staying in business, vital for new firms and in hard times
market share	winning a larger share of the market
social and **ethical** 道德 objectives	doing what is morally right, such as fair pay

SMART objective

S Specific — clear and exact

M Measurable — uses numbers

A Achievable — possible

R Realistic — sensible

T Time-bound — has a deadline

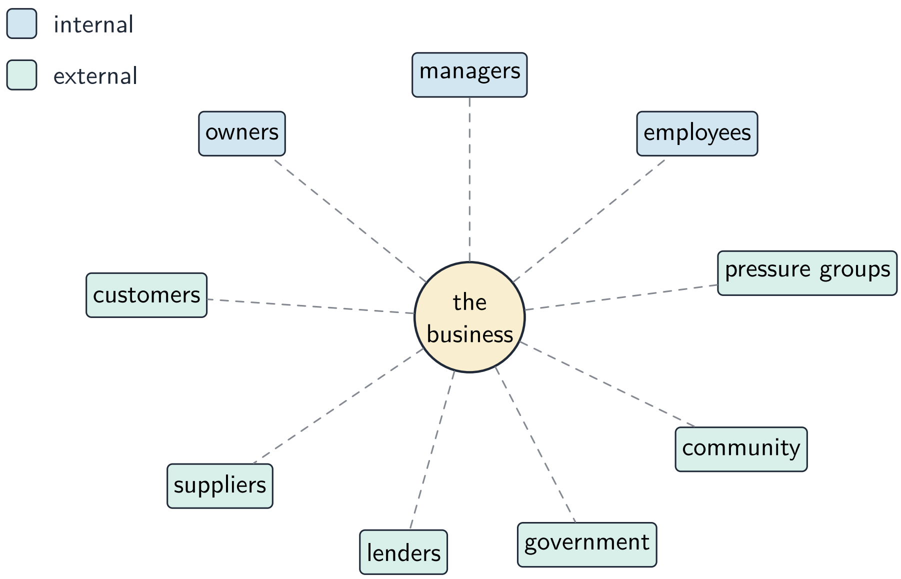
SMART objectives: Specific, Measurable, Achievable, Realistic, Time-bound

Corporate social responsibility 企业社会责任 (CSR) is the idea that a business should act in the best interests of society and the environment, not just make profit. Examples are treating workers fairly, cutting **pollution** 污染, and helping the local community.

A firm's objectives can change over time. A new firm may aim to survive; later it may aim to grow; a large, safe firm may focus on profit or CSR.

Stakeholders

A **stakeholder** 利益相关者 is any person or group with an interest in a business and how well it does.



Internal and external stakeholders all have an interest in the business

Internal stakeholders 内部利益相关者 are inside the business:

- **owners** and shareholders —want profit and a good return.
- **managers** 管理者—want growth, job security and bonuses.
- employees —want fair pay, safe work and job security.

External stakeholders 外部利益相关者 are outside the business:

Stakeholder	Main objective
customers 顾客	good quality at a fair price
suppliers 供应商	regular orders, paid on time
lenders 贷款方 (banks)	to be repaid with interest
the government	tax, jobs, and that the firm obeys the law
local community	jobs, but little pollution or noise
pressure groups 压力团体	to protect a cause, such as the environment

Why stakeholder objectives conflict

Stakeholders often want different things, so their objectives can **conflict** 冲突 (clash). For example:

- owners want higher profit, but employees want higher pay —and higher pay lowers profit.
- customers want low prices, but owners want a high profit margin.
- the local community wants less pollution, but cutting pollution can raise costs.

How conflict can be managed

- keep good communication with every group.
- **compromise** 妥协—give each group part of what it wants.
- **negotiation** 谈判—talk until the groups reach an agreement.
- decide which stakeholders matter most for each decision, and act on that.

Exam tips

- Define **added value** = selling price − cost of bought-in inputs, and give a way to raise it (branding, quality, design).
- Distinguish **unlimited vs limited liability** and link it to sole trader/partnership versus Ltd/plc.
- Measure business **size** in more than one way (employees, revenue, capital employed, market share) —note each has limits.
- Distinguish **objectives** (SMART, specific) from a **mission** (overall purpose).
- In evaluation, use **stakeholder conflicts** (owners vs employees vs community) to argue both sides.

Human resource management

A-Level Business

What human resource management does

Human resource management 人力资源管理 (HRM) is the part of a business that looks after its people. Good HRM makes sure the firm has enough staff, with the right skills, who are well trained and motivated.

Managers plan and organise the workforce —the core of human resource management.

The main roles of HRM are:

- **workforce planning** 人力规划—working out how many staff, and what skills, the business will need in the future.
- **recruitment** 招聘 and **selection** 甄选—finding people to apply for jobs, then choosing the best.
- **training** 培训 and **development** 培养—improving staff skills now and helping them grow for the future.

Workforce planning, recruitment and selection

Workforce planning looks at the firm's plans, then at the staff it already has, to find the gap. The gap may be filled by hiring, training, or moving staff.

Recruitment: describe the job, advertise, then select the best applicant

To recruit, the firm first writes:

- a **job description** 职位描述—the title, duties and tasks of the job.
- a **person specification** 人员规格—the skills, **qualifications** 资格 and qualities the right person should have.

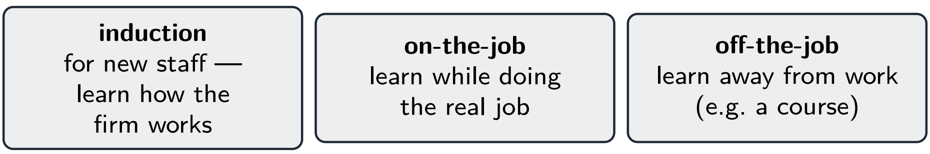
The firm can recruit from inside or outside:

- **internal recruitment** 内部招聘—filling the job with someone who already works there. It is cheaper and faster, and the person is known, but no new ideas come in.
- **external recruitment** 外部招聘—hiring someone from outside. It brings new skills and ideas, but costs more and is slower.

Selection methods include reading application forms and CVs, **interviews** 面试, tests, and group tasks.

Training and development

Training improves the skills staff need to do their jobs well. Common types are:



Three kinds of training: induction, on-the-job and off-the-job

- **induction training** 入职培训—given to new staff so they learn how the firm works.
- **on-the-job training** 在岗培训—learning while doing the real job.

- **off-the-job training** 脱产培训—learning away from the workplace, such as a course.

Training costs time and money, but it raises quality, **productivity** 生产率 and motivation, and helps keep staff.

Ending employment

Sometimes a worker has to leave.

- **redundancy** 裁员 happens when the job itself is no longer needed —for example, when a machine replaces it. It is not the worker's fault.
- **dismissal** 解雇 happens when a worker is made to leave because of poor work or bad behaviour.

Rights and managing change

Both sides have rights and duties. The **employer** 雇主 must follow the law on pay, safety, working hours and unfair dismissal. The **employee** 雇员 must work as agreed and follow safe, fair rules. These **rights** 权利 protect both sides.

Businesses change often —new technology, new markets, or **restructuring** 重组. The **management of change** 变革管理 in HR means planning the change, explaining it clearly, training staff for new roles, and listening to worries, so staff accept the change instead of resisting it.

Measuring the workforce

Two simple measures help managers judge how the workforce is doing.

Labour turnover 员工流失率 shows the percentage of staff who leave in a year:

$$\text{labour turnover} = \frac{\text{number of staff leaving}}{\text{average number employed}} \times 100\%$$

High labour turnover can mean low pay, poor motivation or weak management. It raises the cost of recruiting and training.

Worked example. A firm employs 200 people on average, and 30 leave during the year. Find its labour turnover.

$$\text{labour turnover} = \frac{30}{200} \times 100\% = 15\%.$$

Labour productivity 劳动生产率 shows the output made by each worker:

$$\text{labour productivity} = \frac{\text{total output}}{\text{number of employees}}$$

Higher labour productivity lowers the cost of each unit, so the firm can compete better.

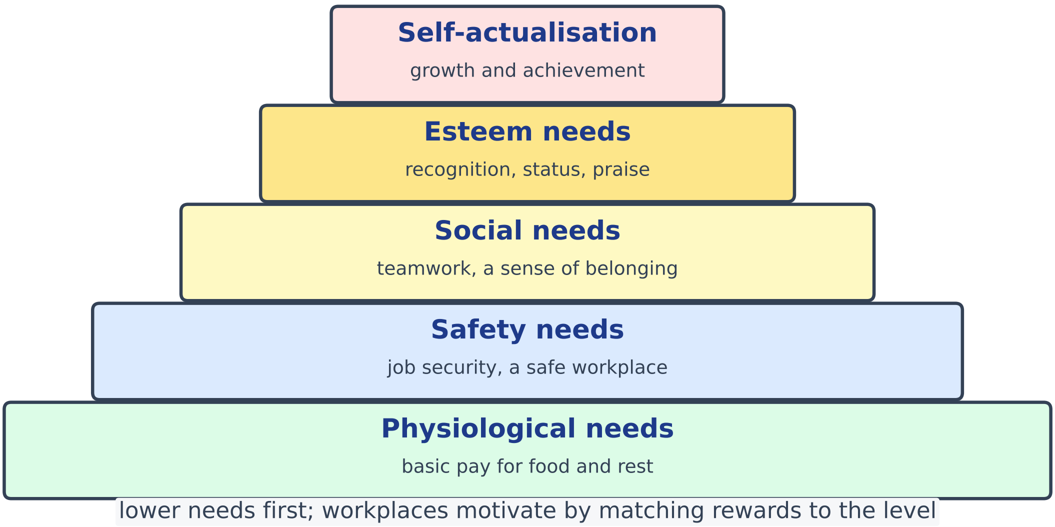
Worked example. A team of 8 workers makes 2400 units in a week. Find the labour productivity.

$$\text{labour productivity} = \frac{2400}{8} = 300 \text{ units per worker per week.}$$

Why motivation matters

Motivation 激励 is the desire to work hard and do a good job. Motivated staff produce more and better work, take fewer days off, stay longer, and give better service. So motivation lowers costs and raises quality.

Theories of motivation



Maslow's hierarchy of needs, with workplace examples at each level.

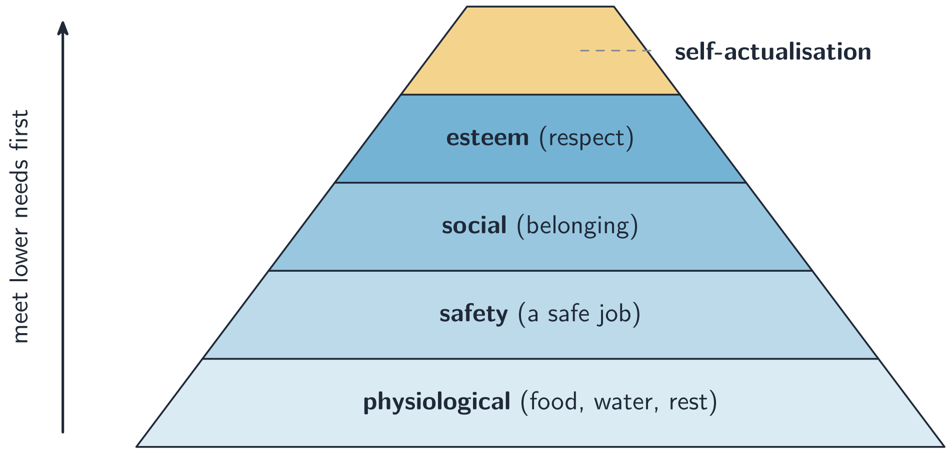
Several thinkers tried to explain what motivates people. You should know the main idea of each.

Thinker	Main idea
Taylor	**scientific management** 科学管理—workers are mainly motivated by money. Pay them per unit made (**piece rate** 计件工资) and they work harder.
Mayo	**human relations** 人际关系—workers are also motivated by attention, teamwork and feeling part of a group.
Maslow	**hierarchy of needs** 需求层次—people meet needs in order, from low to high (see below).
Herzberg	**two-factor theory** 双因素理论—some things cause unhappiness if missing, others truly motivate (see below).
McClelland	people are driven by three needs in different amounts: **achievement** 成就, power and affiliation (belonging).
Vroom	**expectancy theory** 期望理论—people work hard only if they believe the effort will lead to a reward they want.

Maslow's hierarchy of needs

Maslow said people try to meet lower needs first, then move up:

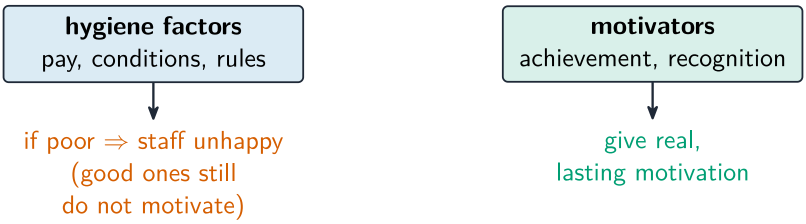
1. **physiological needs** 生理需求—food, water, rest (met by pay).
2. safety needs —a safe job and workplace.
3. social needs —friendship and being part of a team.
4. **esteem needs** 尊重需求—respect and **recognition** 认可.
5. **self-actualisation** 自我实现—reaching your full potential.



Maslow's hierarchy: people meet lower needs before higher ones

Herzberg's two factors

- **hygiene factors** 保健因素—things like pay, conditions and rules. If they are poor, staff are unhappy; but fixing them does not truly motivate.
- **motivators** 激励因素—things like achievement, responsibility and recognition. These give real, lasting motivation.



Hygiene factors stop unhappiness; only motivators give real, lasting motivation

Financial motivators

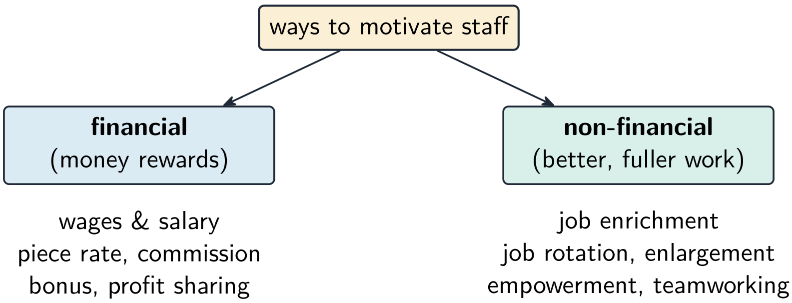
Financial motivators 经济激励 are rewards paid in money:

- **wages** 工资—pay by the hour or week, often for **manual work** 体力劳动.
- **salary** 薪水—a fixed yearly amount, paid monthly.
- piece rate —pay for each unit made.
- **commission** 佣金—pay based on how much you sell.
- **bonus** 奖金—an extra payment for good results.
- **profit sharing** 利润分享—staff get a share of the firm's profit.
- **performance-related pay** 绩效工资—extra pay for those who meet targets.
- **fringe benefits** 附加福利—non-cash extras, such as a company car or health care.

Non-financial motivators

Non-financial motivators 非经济激励 reward staff without extra money, by making work more interesting and giving more control:

- **job enrichment** 工作丰富化—giving more challenging tasks and responsibility.
- **job rotation** 工作轮换—moving between different tasks to reduce boredom.
- **job enlargement** 工作扩大化—adding more tasks at the same level.
- **empowerment** 授权—letting staff make their own decisions about their work.
- **teamworking** 团队合作—organising staff into teams that share goals.



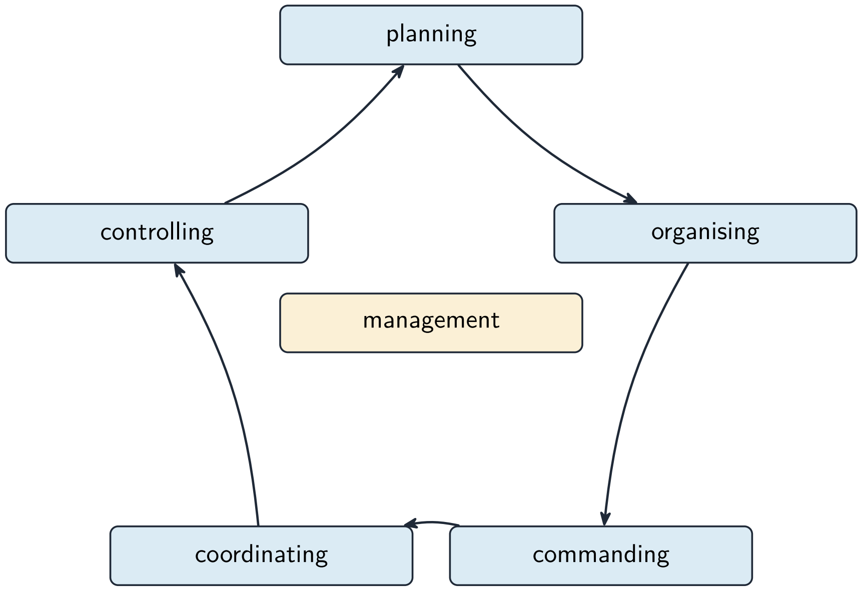
Motivators are either financial (money) or non-financial (better, fuller work)

Management and its functions

Management 管理 means getting work done through other people to reach the firm's objectives.

Fayol said managers carry out five functions:

Function	What the manager does
planning 计划	set objectives and decide how to reach them
organising 组织	arrange people and resources
commanding 指挥	give clear instructions and guidance
coordinating 协调	make sure all parts work together
controlling 控制	check results against the plan and correct problems



Fayol's five functions of management form a repeating cycle

Mintzberg said managers also play ten **roles** 角色 in three groups: interpersonal (working with people), informational (sharing information), and decisional (making decisions). This shows that real management is busy and varied, not just the five neat functions.

Leadership versus management

Leadership 领导 and management are not the same.

- a manager plans, organises and controls the day-to-day work.
- a leader sets a **vision** 愿景, inspires people, and guides change.

A manager runs the day-to-day work; a leader sets direction and inspires —the best people do both

The best managers are also good leaders. Effective management matters because it raises productivity, keeps good staff, helps the firm adapt to change, and turns plans into real results.

Exam tips

- Calculate and interpret **labour turnover** and **labour productivity**; high turnover raises recruitment and training costs.
- Link a **motivation theory** to a method: Maslow (needs), Herzberg (hygiene vs motivators), Taylor (pay).
- Distinguish **financial** (piece rate, bonus) from **non-financial** (job enrichment, empowerment) motivators.
- Distinguish **leadership from management** and match a style (autocratic, democratic, laissez-faire) to the situation.

Marketing

A-Level Business

The role of marketing

Marketing 市场营销 is the job of finding out what customers want, then making and selling products that meet those wants at a profit. Good marketing links the business to its **market** 市场 (all the buyers and sellers of a product).

A business can be:

- **product-orientated** 产品导向—it focuses on the product first and hopes customers will buy it. This suits new or technical products.
- **market-orientated** 市场导向—it finds out what customers want first, then makes it. This lowers the risk of failure.

Customer relationship marketing 客户关系营销 (CRM) means building long-term links with customers so they come back again. Keeping a customer is cheaper than finding a new one.

Market size, growth and share

- **market size** 市场规模—the total sales of all firms in a market, by value or by number of units.
- **market growth** 市场增长—how fast the market is getting bigger, shown as a percentage.
- **market share** 市场份额—one firm's sales as a percentage of the total market:

$$\text{market share} = \frac{\text{firm's sales}}{\text{total market sales}} \times 100\%$$

A rising market share is a sign of strong marketing.

Worked example. A firm sells £4 million of goods in a market worth £50 million in total. Find its market share.

$$\text{market share} = \frac{4}{50} \times 100\% = 8\%.$$

If the whole market grows but the firm's sales stay at £4 million, its market share **falls** —so a firm can sell the same amount yet lose ground to faster-growing rivals.

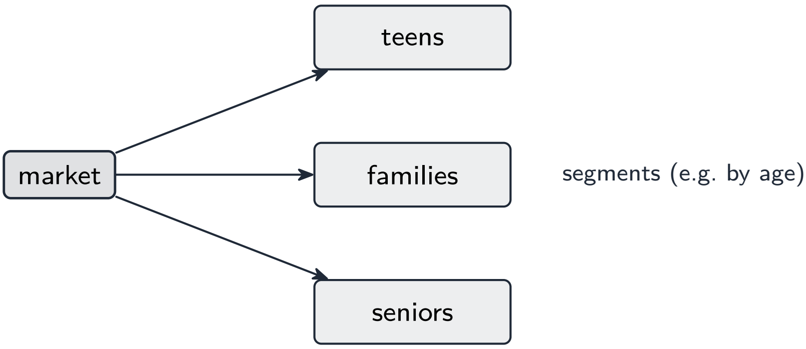
Mass and niche markets

- a **mass market** 大众市场 is large, with products aimed at most buyers (e.g. soft drinks). Sales are high, but competition is strong.
- a **niche market** 利基市场 is a small part of a market with special needs (e.g. left-handed tools). Competition is weaker, but sales are smaller.

A mass market targets everyone; a niche serves a small specialist group

Market segmentation

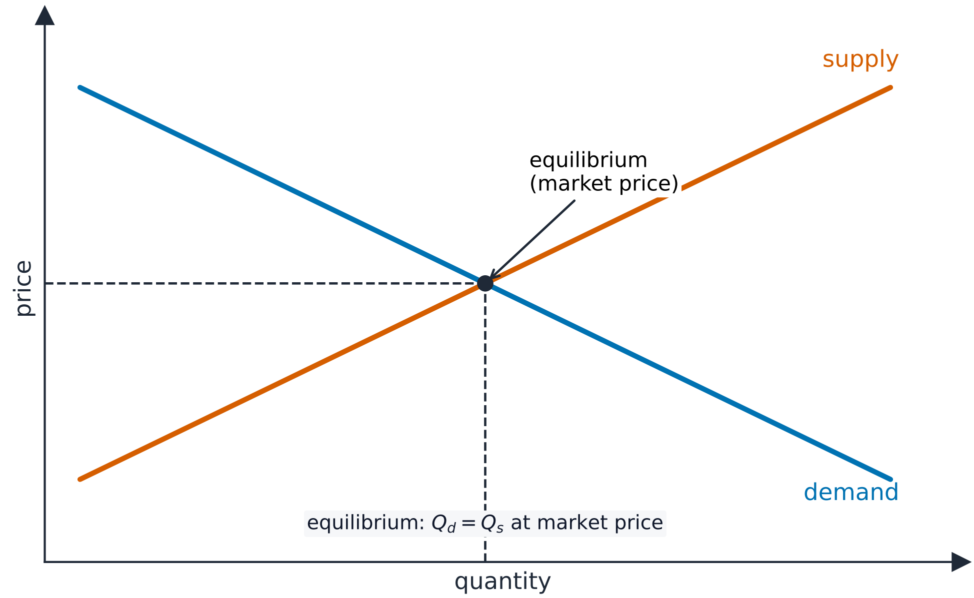
Market segmentation 市场细分 means splitting a market into groups (**segments** 细分市场) of buyers who are alike. Common ways to segment are by age, income, gender, location, and lifestyle. Segmentation lets a firm aim the right product and message at each group, which raises sales and cuts waste.



Splitting a market into segments by age, income and lifestyle

Demand, supply and elasticity

Demand 需求 is how much of a product buyers will buy at each price. **Supply** 供给 is how much sellers will offer at each price. Usually, when price falls, demand rises.



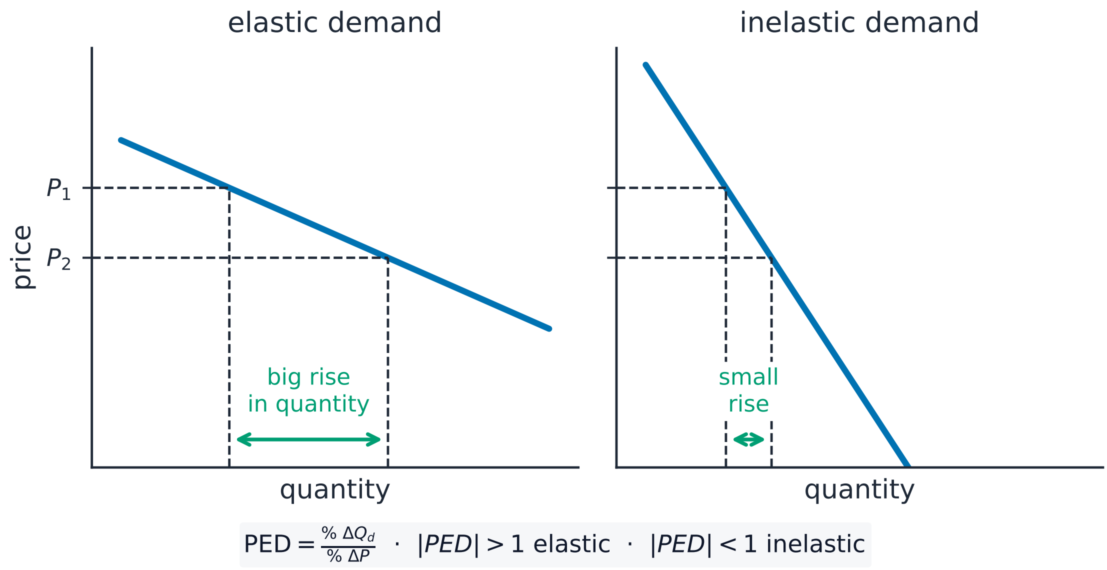
Supply and demand meet at the equilibrium market price

Elasticity 弹性 measures how strongly demand reacts to a change. You should know three types.

Price elasticity of demand 需求价格弹性 (PED) measures how demand reacts to a price change:

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

- if PED is greater than 1, demand is **price elastic** 富有弹性—a small price cut raises sales a lot, so lowering price can raise revenue.
- if PED is less than 1, demand is **price inelastic** 缺乏弹性—demand changes little, so raising price can raise revenue.



The same price fall raises quantity a lot when demand is elastic, only a little when inelastic

Income elasticity of demand 需求收入弹性 (YED) measures how demand reacts to a change in customers' income. Luxury goods react strongly; basic goods react weakly.

Cross elasticity of demand 需求交叉弹性 (XED) measures how the demand for one product reacts to a price change of another. It is positive for **substitutes** 替代品 (e.g. tea and coffee) and negative for **complements** 互补品 (e.g. cars and fuel).

Elasticity is useful because it helps a firm predict how a price change will affect sales and revenue.

Market research

Market research 市场调研 is collecting and studying information about customers, **competitors** 竞争对手 and the market.

- **primary research** 一手调研—new information you collect yourself, by surveys, interviews or observation. It fits your exact needs, but costs more and takes time.
- **secondary research** 二手调研—information that already exists, such as reports, websites and sales records. It is cheap and quick, but may be old or not exactly right.

Data can be:

- **quantitative data** 定量数据—facts in numbers (e.g. "60% buy weekly"). Easy to compare.

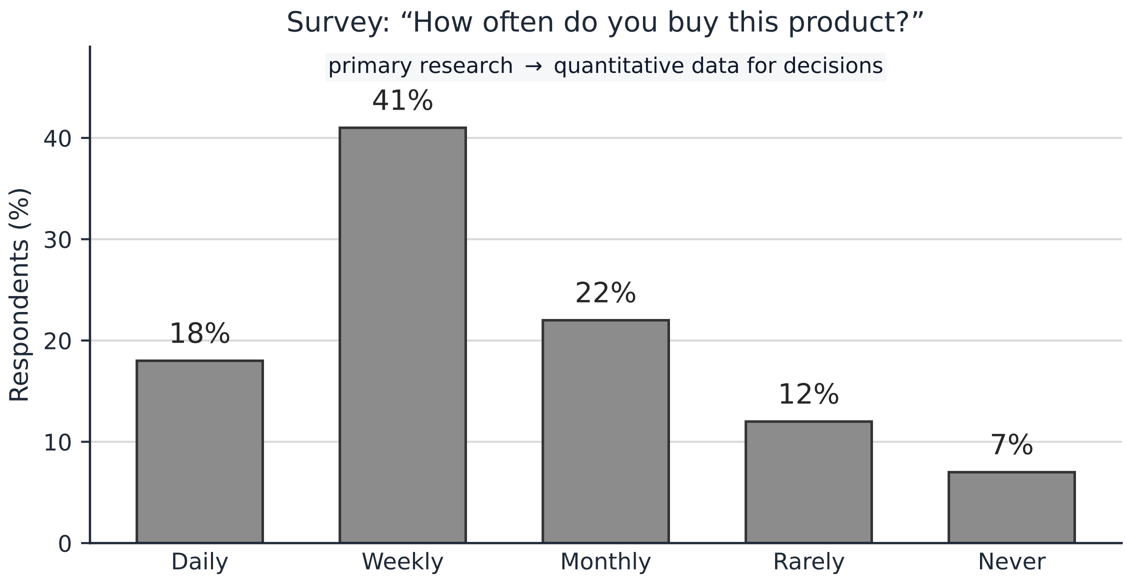
- **qualitative data** 定性数据—opinions and reasons (e.g. "why people like the brand"). Gives deeper understanding.

Sampling and reliability

A **sample** 样本 is the small group of people asked, chosen to stand for the whole market. **Sampling** 抽样 methods include:

- **random sampling** 随机抽样—everyone has an equal chance of being picked.
- **quota sampling** 配额抽样—set numbers from each group are asked.
- **stratified sampling** 分层抽样—the sample copies the make-up of the whole market.

A larger, well-chosen sample gives more **reliable** 可靠的 results. Poor sampling can cause **bias** 偏差, which makes the findings wrong. Results are often shown in tables and charts, then read carefully to guide decisions.



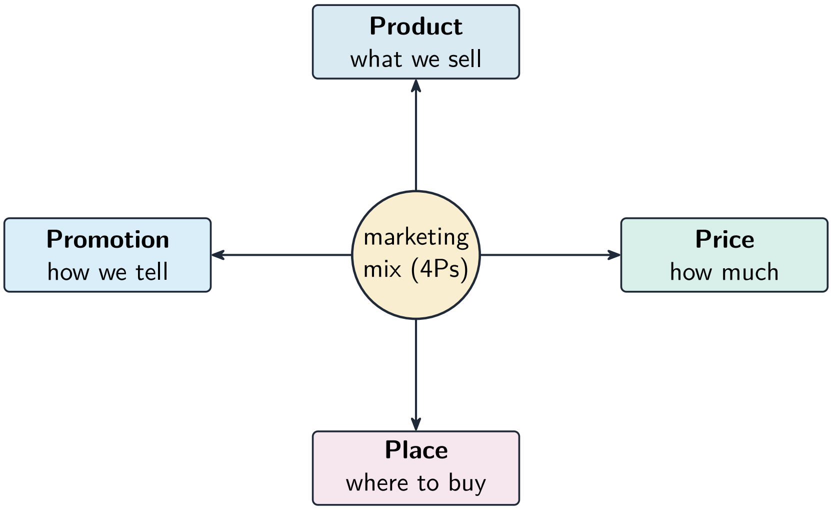
Primary research → quantitative data that guides marketing decisions

The marketing mix

A branded shop window —branding and place help sell the product.

The **marketing mix** 营销组合 is the set of choices a firm makes to sell a product. It is often called the **4Ps**:

P	Question it answers
product 产品	what are we selling?
price 价格	how much do we charge?
place 渠道	where and how do customers buy it?
promotion 促销	how do we tell customers about it?



The marketing mix combines the four Ps

The four parts must work together. For example, a high price needs high quality and a good image. Making the parts fit each other is called **integration** 整合.

Product

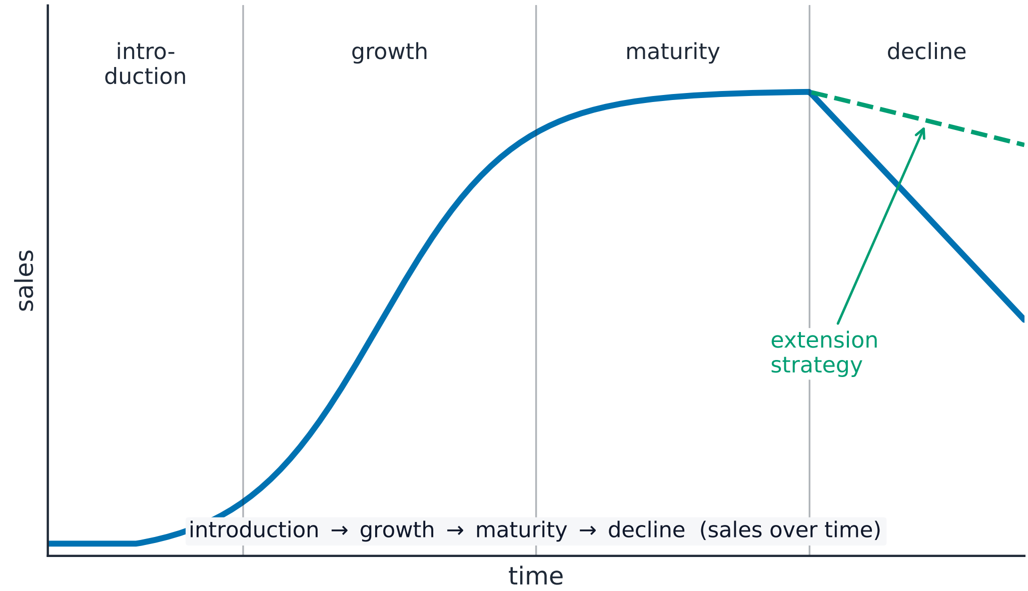
A good product is the heart of the mix.

Product development 产品开发 is the work of designing and improving products to meet customer needs and beat rivals.

The product life cycle

The **product life cycle** 产品生命周期 shows the sales of a product over time, in four stages:

1. **introduction** 引入期—launch; low sales, high promotion cost.
2. **growth** 成长期—sales rise quickly.
3. **maturity** 成熟期—sales reach their peak and level off.
4. **decline** 衰退期—sales fall as tastes change.



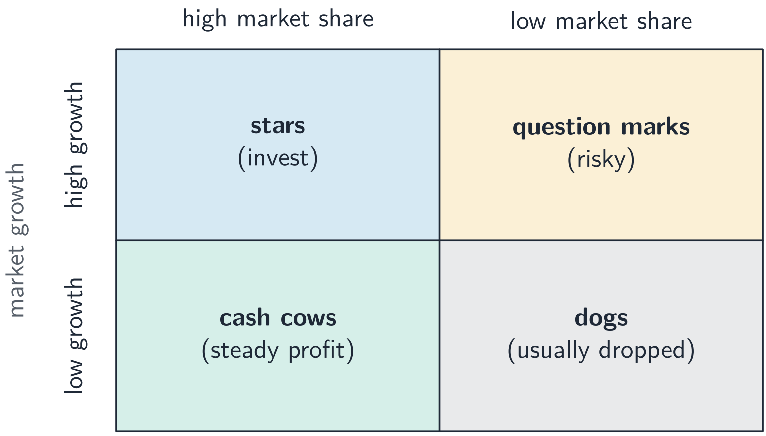
Sales of a product over its four life-cycle stages, with an extension strategy in maturity

To keep sales up in maturity, firms use **extension strategies** 延长策略, such as new packaging, new uses, or selling in new markets.

The product portfolio (Boston Matrix)

The **product portfolio** 产品组合 is the full range of products a firm sells. The **Boston Matrix** 波士顿矩阵 sorts products by market share and market growth:

	High market growth	**Low market growth**
High share	**stars** 明星产品	**cash cows** 现金牛
Low share	**question marks** 问题产品	**dogs** 瘦狗产品



The Boston Matrix sorts products by market share and market growth

Stars need investment but may become cash cows. Cash cows bring steady profit. Question marks are risky. Dogs are usually dropped.

Branding

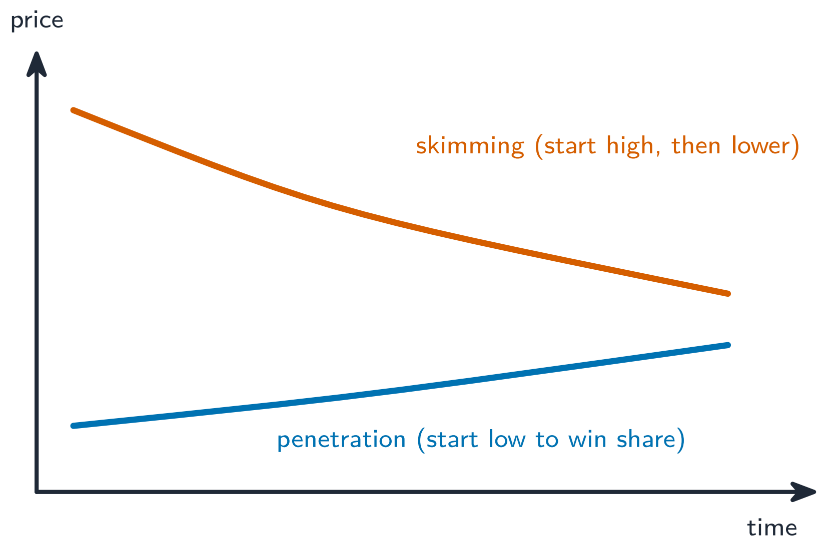
Branding 品牌 gives a product a name, design and image that customers recognise. A strong brand builds **loyalty** 忠诚度, lets the firm charge more, and makes new products easier to launch.

Price

Choosing a price is a key decision. The main methods and strategies are:

Method / strategy	How it works
cost-plus pricing 成本加成定价	add a fixed profit margin to the unit cost
penetration pricing 渗透定价	set a low price to enter a market and win share
price skimming 撇脂定价	set a high price first for a new, special product, then lower it
competitive pricing 竞争定价	set a price close to rivals' prices
price discrimination 价格歧视	charge different prices to different groups (e.g. peak vs off-peak)
dynamic pricing 动态定价	change the price often as demand changes
psychological pricing 心理定价	use prices like $9.99 that feel lower

The best price depends on costs, competitors, the product's life-cycle stage, and how price elastic demand is.

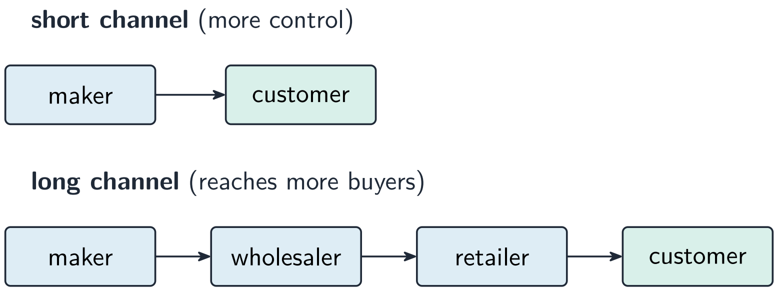


Two launch strategies over time: penetration sets a low price to win share; skimming sets a high price first, then lowers it

Place and promotion

Advertising on giant screens —promotion is part of the marketing mix.

Place is how the product reaches the customer, through a **distribution channel** 分销渠道. A short channel (maker → customer) gives more control; a longer channel (maker → **wholesaler** 批发商 → shop → customer) reaches more buyers.



A short channel gives more control; a longer channel reaches more buyers

Promotion tells customers about a product and persuades them to buy. It is split into:

- **above-the-line promotion** 大众媒体广告—paid **advertising** 广告 in mass media, such as TV and online ads, aimed at a wide audience.
- **below-the-line promotion** 直接促销—targeted methods the firm controls, such as discounts, free samples and direct mail.

Digital marketing 数字营销 and **e-commerce** 电子商务 (buying and selling online) now play a huge role. They let small firms reach world markets cheaply, target adverts to the right people, and sell at any time of day.

Exam tips

- Calculate **market share** and **market growth** as percentages; a firm can grow yet lose share in a faster-growing market.
- Use **price elasticity of demand** to decide pricing: raise price when demand is inelastic (revenue rises), cut it when elastic.
- Distinguish **primary vs secondary** and **quantitative vs qualitative** research, and comment on sampling reliability.
- Treat the **marketing mix (4Ps)** as a coordinated set —each P should support the others.

Operations management

A-Level Business

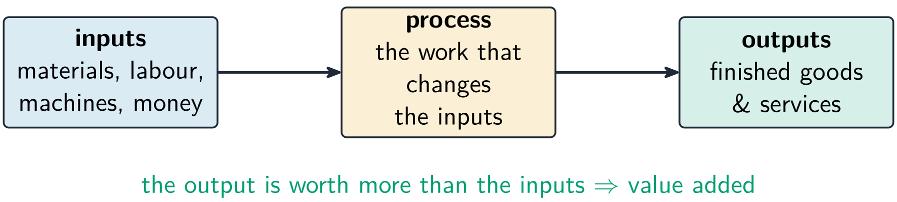
What operations management does

Operations 运营 is the part of a business that makes the product. **Operations management** 运营管理 is the job of turning **inputs** 投入 into **outputs** 产出 well.

A distribution centre: operations management turns inputs into finished goods ready for customers.

This is the **transformation process** 转化过程:

- **inputs** —raw materials, labour, machines and money.
- **process** —the work that changes the inputs.
- **outputs** —finished goods and services for the customer.



Operations turn inputs into outputs, adding value along the way

Good operations **add value** 增值: the output is worth more than the inputs used to make it. Using **raw materials** 原材料 (the basic materials a business starts with) well is a big part of this.

Productivity and efficiency

Productivity 生产率 measures how much output you get from your inputs:

$$\text{productivity} = \frac{\text{output}}{\text{input used}}$$

Efficiency 效率 means making products with as little waste of time, materials and money as possible. Higher productivity and efficiency lower the cost of each unit, so the firm can charge less or earn more.

Worked example. A factory of 20 workers makes 800 units in a day. Find the output per worker.

$$\text{productivity} = \frac{800}{20} = 40 \text{ units per worker per day.}$$

If training raised output to 1000 units with the same 20 workers, productivity would rise to 50 units each —the same staff cost now spread over more units, so each unit is cheaper to make.

Assembly line: productivity is output per worker (or per hour) —rising productivity cuts unit costs

Capital- and labour-intensive operations

- a **capital-intensive** 资本密集型 operation uses mostly machines (e.g. a car factory). It has high set-up costs but low cost per unit, and is good for large amounts.
- a **labour-intensive** 劳动密集型 operation uses mostly people (e.g. a hair salon). It is flexible and good for personal service, but quality can vary.

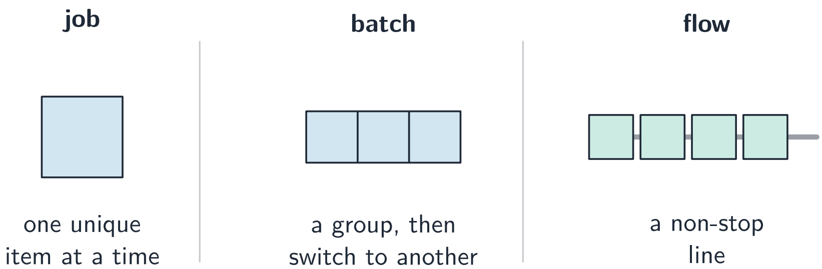
Factory robots: capital-intensive production uses more machines relative to labour

Methods of production

A firm chooses how to organise production to suit its product and demand.

A car assembly line: flow production of identical units, one stage after another

Method	What it is	Best for
job production 单件生产	making one unique item at a time	a wedding cake, a bridge
batch production 批量生产	making a group of the same item, then switching	bread in flavours
flow production 流水线生产	making items non-stop on a line	bottled drinks, cars
mass customisation 大规模定制	a flow line that still lets customers choose options	cars with chosen colours



The three methods of production

Job production is flexible but costly per unit. Flow production has a low unit cost but needs high, steady demand.

Sustainability and technology

Sustainability 可持续性 means meeting today's needs without harming the future or the planet. Sustainable operations cut waste, use less energy, recycle, and use materials that can be replaced.

Technology 技术 is widely used in operations. **Automation** 自动化 (machines and robots doing tasks) raises output, improves quality and lowers cost, but it has a high set-up cost and can replace jobs.

Inventory and why it matters

Inventory 库存 (stock) is the goods a business holds: raw materials, part-finished goods, and finished goods waiting to be sold.

A firm holds inventory so it can keep producing and meet customer orders quickly. But holding inventory has costs:

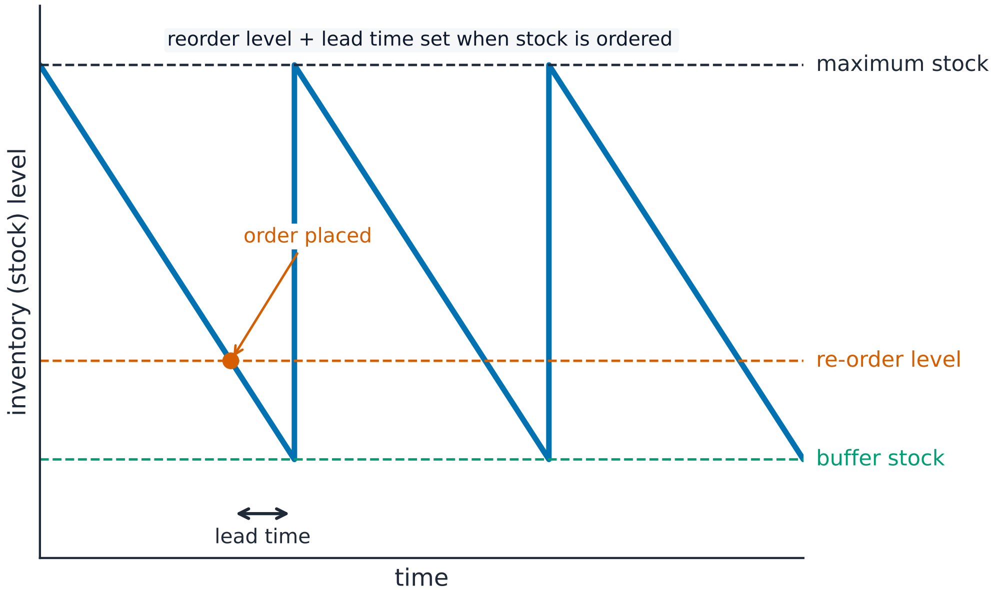
- **holding costs** 持有成本—storage, insurance, and money tied up in stock.
- the risk that goods go out of date or are damaged.

Holding too little stock is also risky: the firm may run out and lose sales.

Inventory control charts

An **inventory control chart** 库存控制图 shows how stock rises when an order arrives and falls as it is used. Key terms:

- **re-order level** 再订货水平—the stock level at which a new order is placed.
- **lead time** 交货周期—the time between placing an order and receiving it.
- **buffer inventory** 缓冲库存—a minimum "safety" stock kept in case of delays or extra demand.
- **maximum inventory** 最大库存—the most stock the firm wants to hold.

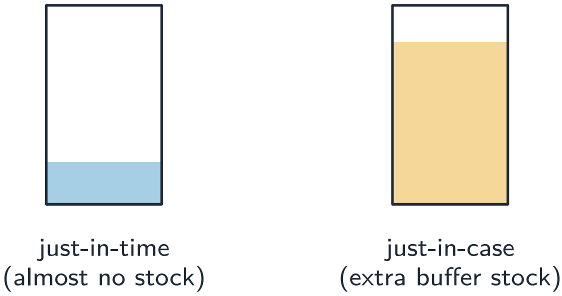


Stock is used up, then replenished when a new order arrives after the lead time

Just-in-time and just-in-case

There are two main ways to manage stock.

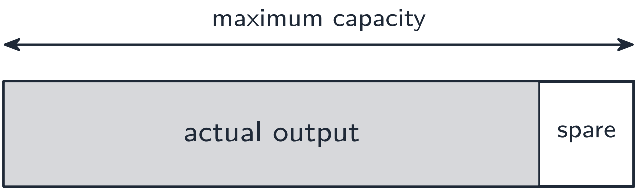
- **just-in-time** 准时制 (JIT) —stock arrives only as it is needed, so almost no inventory is held. This cuts holding costs and waste, but a late delivery can stop production.
- **just-in-case** 备货制—extra stock is held in case of problems. This is safer but costs more to store.



Just-in-time holds almost no stock (low cost, but risky if a delivery is late); just-in-case keeps a buffer (safer, but more to store)

Capacity utilisation

Capacity 产能 is the most a business can produce with its current resources. **Capacity utilisation** 产能利用率 shows how much of that capacity is being used:



Capacity utilisation: how much of the maximum output is used

$$\text{capacity utilisation} = \frac{\text{actual output}}{\text{maximum possible output}} \times 100\%$$

- **under-utilisation** 产能利用不足 (a low figure) means resources sit idle, so the fixed cost spread over each unit is high.

- **over-utilisation** 产能过度利用 (very close to 100%) leaves no time for repairs, can tire staff, and may lower quality.

Most firms aim for a high but not full level, around 85–90%.

Worked example. A factory can make 5000 units a week but currently makes 4000. Find its capacity utilisation.

$$\text{capacity utilisation} = \frac{4000}{5000} \times 100\% = 80\%.$$

This leaves 20% spare. Winning an order for another 500 units a week would lift utilisation to 90%, spreading the fixed costs over more units without needing new machines.

Outsourcing

Outsourcing 外包 means paying another firm (a **supplier** 供应商) to do work the business used to do itself, such as cleaning, IT or making parts.

Benefits: it can be cheaper, lets the firm focus on what it does best, and adds flexibility. Drawbacks: less control over quality, possible delays, and the risk of sharing secrets with another firm.

Exam tips

- Calculate **capacity utilisation** and **productivity**; high utilisation spreads fixed costs but leaves no slack for breakdowns or new orders.
- Read an **inventory control chart** (re-order level, lead time, buffer stock, maximum stock).
- Compare **JIT vs JIC** (low holding cost but delivery risk vs security of supply but higher cost).
- Match the **production method** (job, batch, flow) to the product and the size of the order.

Finance and accounting

A-Level Business

Why a business needs finance

Business finance 企业资金 is the money a firm needs to start, run and grow. A new firm needs money to buy **premises** 经营场所 and equipment; a growing firm needs money for new projects; and every firm needs money to pay day-to-day bills.

Banks are a key external source of finance, through loans and overdrafts.

Capital and revenue expenditure

Spending falls into two types:

capital expenditure
fixed assets that last
(machines, vehicles, buildings)

revenue expenditure
day-to-day running
(wages, rent, materials)

Capital spending buys fixed assets; revenue spending covers running costs

- **capital expenditure** 资本性支出—money spent on **fixed assets** 固定资产 that last a long time, such as machines, vehicles and buildings.

- **revenue expenditure** 收益性支出—money spent on day-to-day running, such as wages, rent and raw materials.

Working capital

Working capital 营运资本 is the money a firm has for its daily needs. It is found from the **balance sheet** 资产负债表:

$$\text{working capital} = \text{current assets} - \text{current liabilities}$$

Here **current assets** 流动资产 are things that become cash within a year (cash, inventory, money owed by customers), and **current liabilities** 流动负债 are debts due within a year. Too little working capital is dangerous —the firm may not be able to pay its bills.

Cash is working capital: firms need enough liquid assets to pay day-to-day bills

Cash is not the same as profit

This is a key idea.

- **profit** 利润 is what is left when total costs are taken from total revenue over a period.
- **cash** 现金 is the money the firm actually has right now to spend.

A firm can be **profitable** but still run out of cash —for example, if it sells goods but customers have not paid yet. Many firms fail not from low profit, but from running out of cash.

a firm can be profitable but still run out of cash

profit (on paper)
revenue − costs = positive

cash (in the bank)
low — customers
haven't paid yet

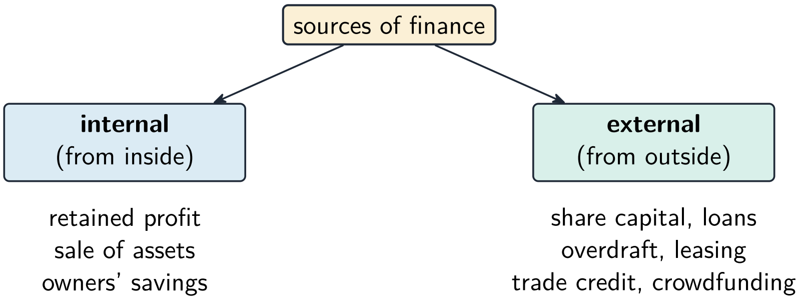
Profit and cash are different: a firm can look profitable on paper yet have no cash to pay its bills —which is why many fail

Sources of finance

A stock exchange: public limited companies raise finance by selling shares.

Finance can come from **inside** the business (**internal sources** 内部来源) or from **outside** (**external sources** 外部来源). It can also be **short-term** 短期 (paid back within a year) or **long-term** 长期.

Source	Type	What it is
retained profit 留存利润	internal, long	profit kept in the business instead of paid out
sale of assets 出售资产	internal	selling items the firm no longer needs
share capital 股本	external, long	money raised by selling shares
loan 贷款	external, long	borrowed money repaid with interest
debenture 公司债券	external, long	a long-term loan certificate sold by a company
overdraft 透支	external, short	the bank lets the account go below zero for a short time
leasing 租赁	external	renting an asset instead of buying it
hire purchase 分期付款	external	buying an asset by paying in instalments
trade credit 商业信用	external, short	paying a supplier later (e.g. after 30 days)
venture capital 风险资本	external, long	money from investors into risky young firms
crowdfunding 众筹	external	small amounts raised from many people online
microfinance 小额信贷	external	small loans for people with little access to banks

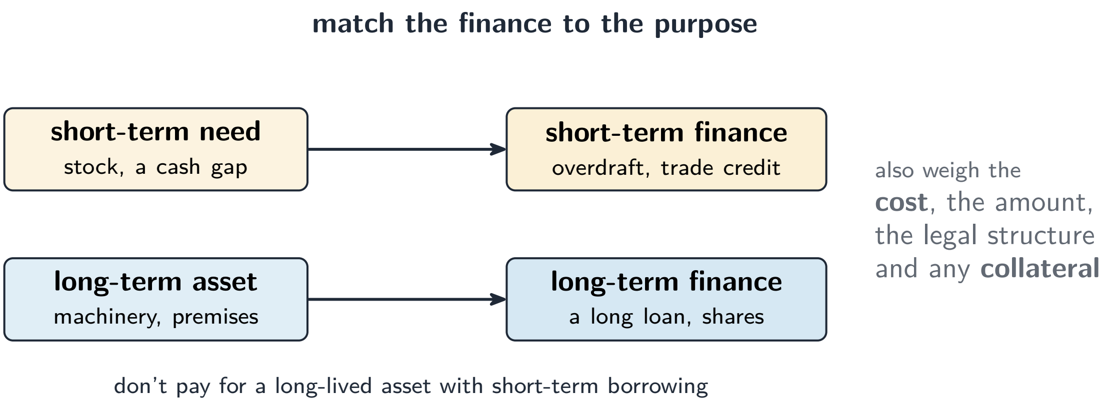


Sources of finance come from inside the business (internal) or outside it (external)

Choosing a source of finance

There is no single best source. The choice depends on:

- the **amount** needed —large amounts may need shares or a long loan.
- the **purpose** —long-term assets should use long-term finance.
- the **cost** —interest and fees differ between sources.
- the **legal structure** —only a company can sell shares.
- how much the firm already owes, and whether it can offer **collateral** 抵押品 (an asset the lender can take if the loan is not repaid).



Match the finance to the purpose: short-term needs use short-term finance, long-term assets use long-term finance

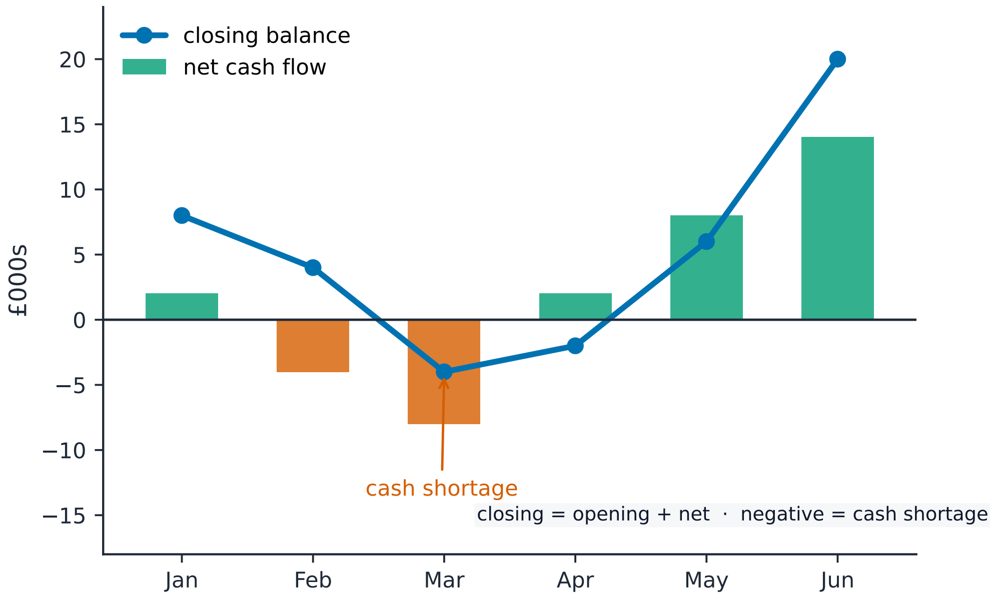
Cash-flow forecasts

A **cash-flow forecast** 现金流量预测 predicts the cash coming in and going out each month. It helps a firm spot a shortage early.

- **cash inflows** 现金流入—money coming in, mostly from sales.
- **cash outflows** 现金流出—money going out, such as wages and rent.
- **net cash flow** 净现金流—inflows minus outflows for the period.

$$\text{net cash flow} = \text{cash inflows} - \text{cash outflows}$$

The **opening balance** 期初余额 is the cash at the start of the month. Adding net cash flow gives the **closing balance** 期末余额, which becomes next month's opening balance.



A cash-flow forecast tracks the closing balance each month, warning of a shortage early

Cash-flow problems and how to fix them

Common causes of cash-flow problems are: too many sales on credit, holding too much stock, buying too many assets at once, and **overtrading** 过度交易 (growing too fast for the cash available).

Ways to improve cash flow:

- bring cash in sooner —ask customers to pay faster, or offer discounts for quick payment.
- delay cash going out —agree longer trade credit with suppliers.
- arrange an overdraft or short loan to cover a gap.
- hold less stock to free up cash.

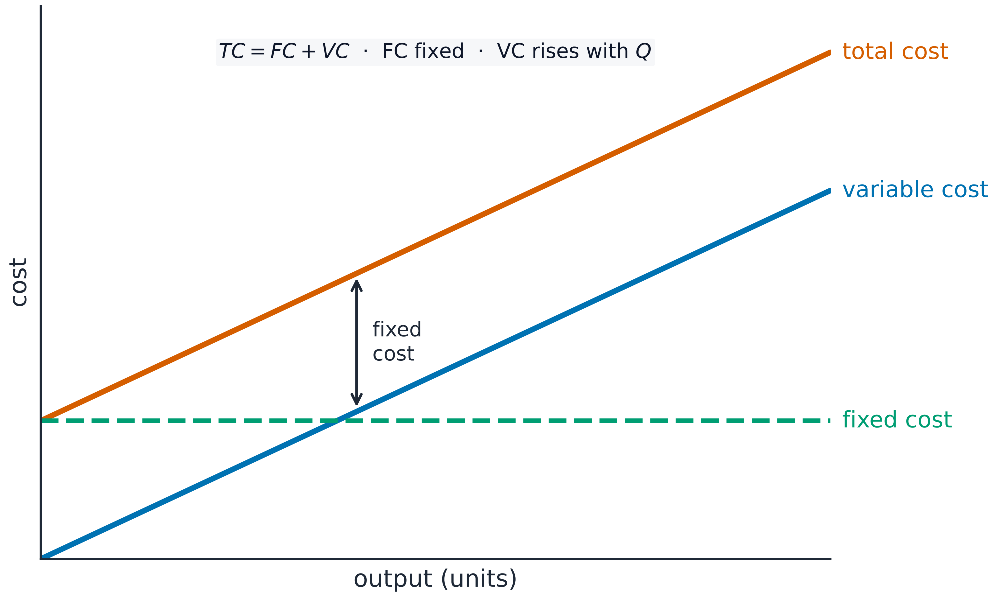
Good **working capital management** keeps enough cash to stay safe without holding so much that money sits idle.

Costs and how we classify them

A **cost** 成本 is money the business spends to make its product. We sort costs in several ways:

- **fixed costs** 固定成本—costs that do not change with output, such as rent.

- **variable costs** 可变成本—costs that rise and fall with output, such as raw materials.
- **direct costs** 直接成本—costs clearly linked to one product, such as its materials.
- **indirect costs** 间接成本 (overheads) —costs not linked to one product, such as manager salaries.
- **marginal cost** 边际成本—the cost of making one more unit.
- **average cost** 平均成本—the cost per unit, found by total cost ÷ number of units.



Total cost = fixed cost + variable cost; only variable cost rises with output

Cost information helps managers set prices, choose what to make, and control spending.

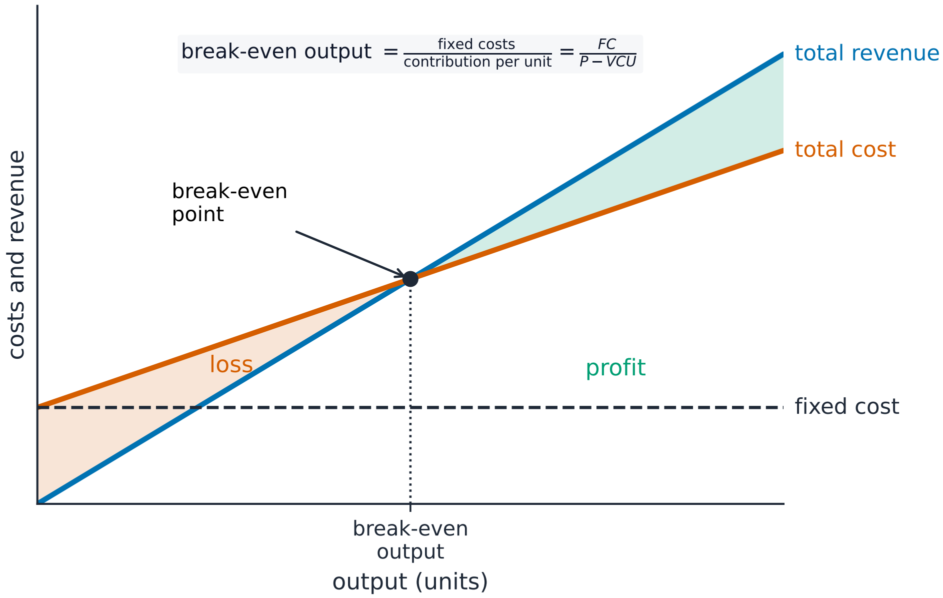
Break-even analysis

Contribution 贡献 is how much each sale adds towards paying the fixed costs:

$$\text{contribution per unit} = \text{selling price} - \text{variable cost per unit}$$

Break-even 盈亏平衡 is the point where total revenue equals total costs, so profit is zero. The **break-even point** 盈亏平衡点 in units is:

$$\text{break-even point} = \frac{\text{fixed costs}}{\text{contribution per unit}}$$



The break-even point is where total revenue equals total cost —left of it is loss, right of it is profit

The **margin of safety** 安全边际 is how far current sales are above the break-even point:

$$\text{margin of safety} = \text{actual output} - \text{break-even output}$$

Worked example. A product sells for £20 with a variable cost of £12 per unit. Fixed costs are £40,000, and the firm makes 6,000 units. Find the contribution per unit, the break-even output and the margin of safety.

$$\text{contribution per unit} = £20 - £12 = £8$$

$$\text{break-even point} = \frac{£40\,000}{£8} = 5\,000 \text{ units}$$

$$\text{margin of safety} = 6\,000 - 5\,000 = 1\,000 \text{ units}$$

A large margin of safety means sales can fall a lot before the firm makes a loss. Break-even analysis is quick and useful, but it has **limitations** 局限性: it assumes the selling price and costs stay the same, and that everything made is sold.

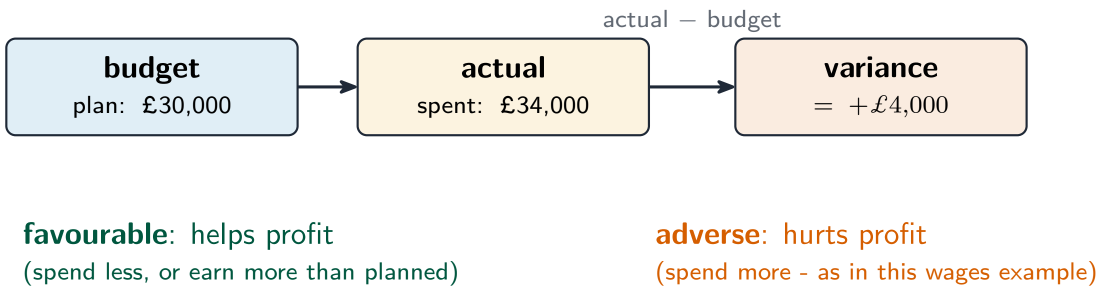
Budgets and variances

A **budget** 预算 is a financial plan for the future —a target for income or spending. Budgets help a firm plan, control money, and check performance. Two types are:

- **incremental budget** 增量预算—last year's budget changed by a small amount.
- **zero-based budget** 零基预算—every cost must be explained from zero each year.

A **variance** 差异 is the difference between the budgeted figure and the actual figure:

$$\text{variance} = \text{actual figure} - \text{budgeted figure}$$



a **budget** is a financial plan; the **variance** shows how far the actual result missed it

A variance is actual minus budget; favourable helps profit, adverse hurts it

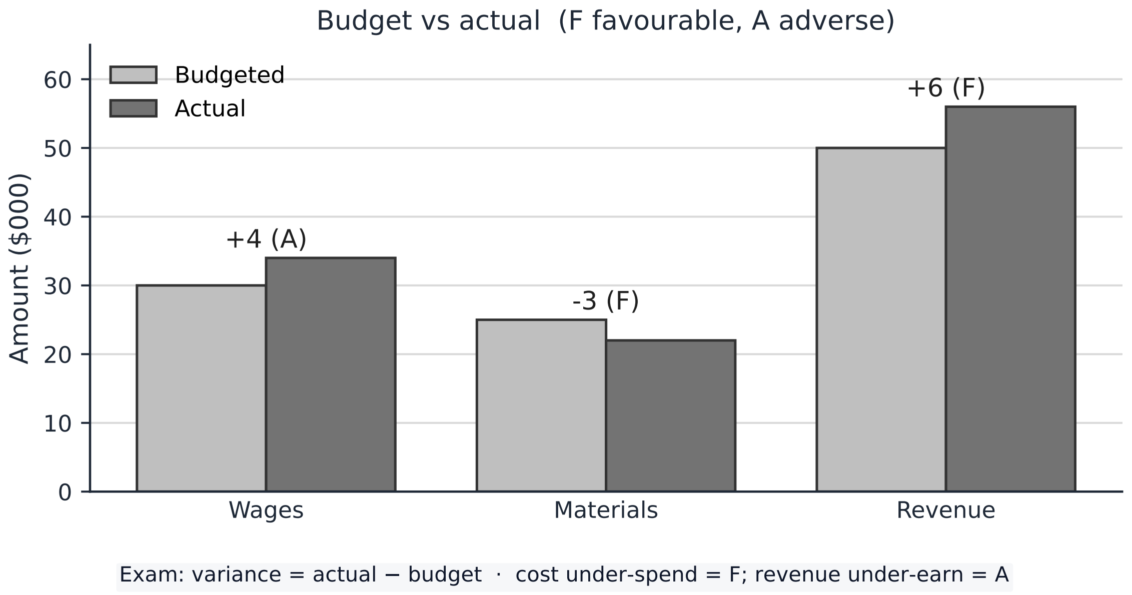
Worked example. A firm budgeted £30,000 for wages but actually spent £34,000. Find the variance and say whether it is favourable or adverse.

$$\text{variance} = £34\,000 - £30\,000 = £4\,000$$

Costs came in higher than planned, so this is an adverse variance.

- a **favourable variance** 有利差异 is better for profit (costs lower, or revenue higher, than planned).
- an **adverse variance** 不利差异 is worse for profit (costs higher, or revenue lower, than planned).

Studying variances shows managers where the plan went wrong, so they can act.



Variance = actual − budget: cost overspend is adverse; revenue over-earn is favourable

Exam tips

- Show that **cash is not profit** —a profitable firm can still fail from a cash-flow shortage.
- For **break-even**: contribution per unit = price − variable cost; break-even = fixed costs ÷ contribution; margin of safety = actual − break-even output.
- Match a **source of finance** to the need (short-term for cash flow, long-term or equity for assets) and to the type of business.
- Calculate a **variance** and label it **favourable or adverse** (actual against budget).

Business and its environment (A Level)

A-Level Business

External influences on business

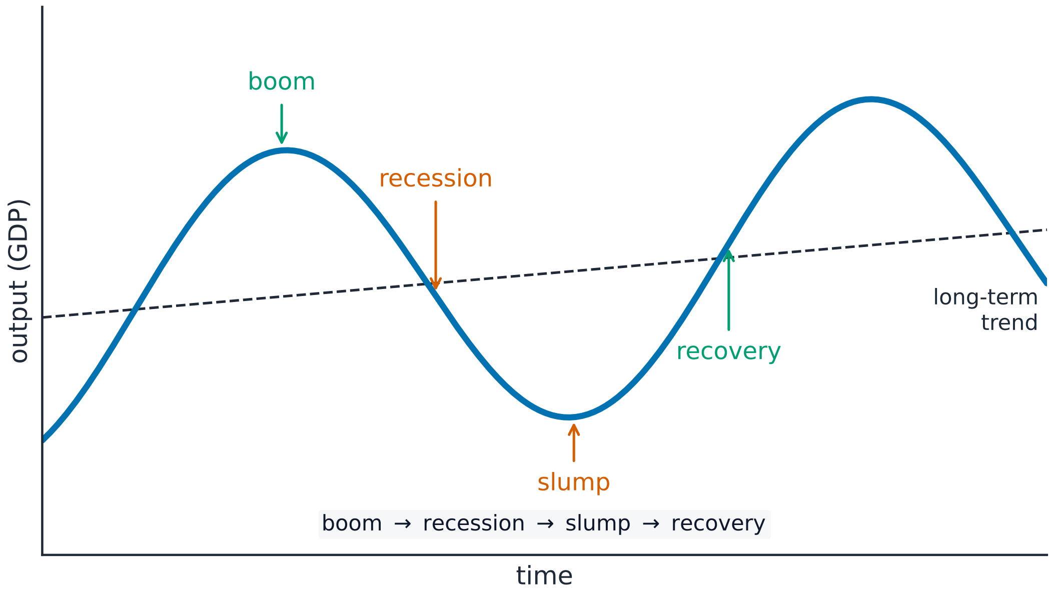
A business cannot control everything. **External influences** 外部影响 are forces outside the firm that affect how it works. The firm must watch them and adapt. We group them into economic factors and wider (political, legal, social and other) factors.

Stacked shipping containers: globalisation lets firms trade and produce worldwide.

The business cycle

The **business cycle** 经济周期 is the way the whole economy rises and falls over time. It has four stages:

- **boom** 繁荣—fast growth; high demand, but rising costs and prices.
- **recession** 衰退—falling demand and output; sales drop and some firms close.
- **slump** 萧条—a deep, long recession with very low demand.
- **recovery** 复苏—demand and output start to rise again.

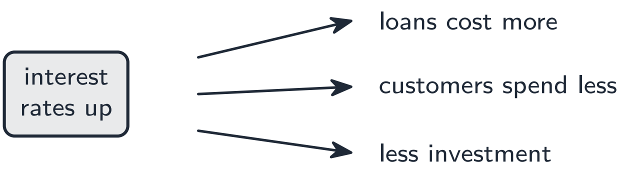


The business cycle moves through boom, recession, slump and recovery around the long-term trend

In a boom, firms expand; in a recession, they cut costs, hold less stock, and may aim only to survive.

Interest rates

The **interest rate** 利率 is the price of borrowing money, set as a percentage. When interest rates **rise**:



Higher interest rates raise borrowing costs and cut spending

- loans and mortgages cost more, so customers spend less.
- firms with loans pay more, which lowers their profit.
- new investment is less likely, because borrowing is dear.

When interest rates fall, the opposite happens and spending usually rises.

Exchange rates

The **exchange rate** 汇率 is the price of one currency in terms of another. It changes all the time.

- if the local currency rises in value (**appreciation** 升值), exports become dearer abroad and imports become cheaper.
- if the local currency falls in value (**depreciation** 贬值), exports become cheaper abroad and imports become dearer.

So an **exporter** 出口商 often gains from a weaker currency, while an **importer** 进口商 often gains from a stronger one.

a weak currency helps exporters; a strong one helps importers

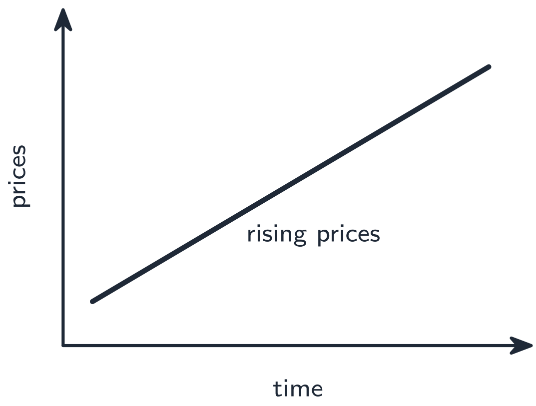
appreciation (currency rises)
exports dearer, imports cheaper

depreciation (currency falls)
exports cheaper, imports dearer

A stronger currency makes exports dearer and imports cheaper; a weaker one does the opposite —so the same change helps one side and hurts the other

Inflation

Inflation 通货膨胀 is a general rise in prices over time. High inflation raises a firm's costs (materials and wages), makes planning harder, and can cut what customers can afford to buy. Low, steady inflation is usually best for business.



Inflation is a sustained rise in prices over time

Taxation and unemployment

Taxation 税收 is money the government takes from people and firms.

- a **direct tax** 直接税 is taken from income or profit (e.g. income tax, corporation tax).
- an **indirect tax** 间接税 is added to spending (e.g. sales tax on goods).

Higher taxes leave people and firms with less money to spend, so demand falls.

Unemployment 失业 is the number of people who want work but cannot find it. High unemployment lowers demand, but it also makes workers easier and cheaper to hire.

Worked example. A house-builder has £8m of variable-rate loans. The central bank raises interest rates from 2% to 5%. Explain the effect on this business. Answer on **both** sides. On **costs**: annual interest rises from 8m × 0.02 = £160,000 to 8m × 0.05 = **£400,000**, so £240,000 comes straight off profit. On **demand**: mortgages become dearer, so fewer buyers can afford a house - and because houses are bought on **credit** and are a **postponable** purchase, demand falls sharply. Both effects strike this firm at once, which is why a highly **geared** house-builder is unusually sensitive to interest rates. Always give the cost of borrowing **and** the demand effect, and tie the size of the demand effect to whether the product is bought on credit - the same rate rise barely touches a firm selling cheap everyday goods with no debt.

Political, legal and social influences

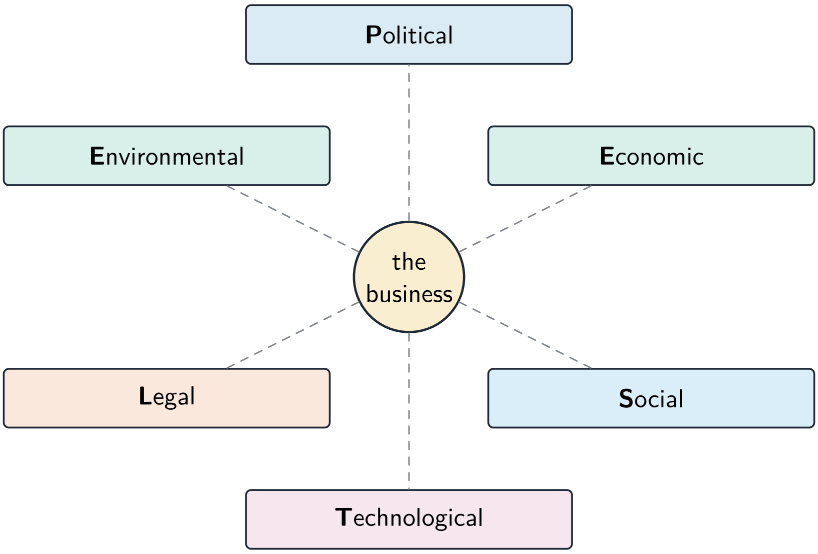
A multinational's outlets look the same worldwide —a global brand operating across many legal and social settings.

- **political** 政治—government decisions, trade rules and stability affect how firms plan.
- **legal** 法律—firms must obey **legislation** 法规 on employment, consumer safety, competition and the environment. Breaking the law brings fines and bad publicity.
- **social** 社会—changes in society, such as ageing populations or new tastes, change what people buy.

Technological, environmental and ethical influences

- **technological** 技术—new technology can create new products and cut costs, but firms must keep up or fall behind.
- **environmental** 环境—firms face pressure and rules to cut pollution and waste, and to act in a sustainable way.
- **ethical** 道德—acting in a morally right way (fair pay, honest selling) builds trust, even if it costs more.

Together these wider factors are often studied with a **PESTLE analysis** 宏观环境分析, which checks Political, Economic, Social, Technological, Legal and Environmental forces.



PESTLE groups the six wider external forces that act on a business

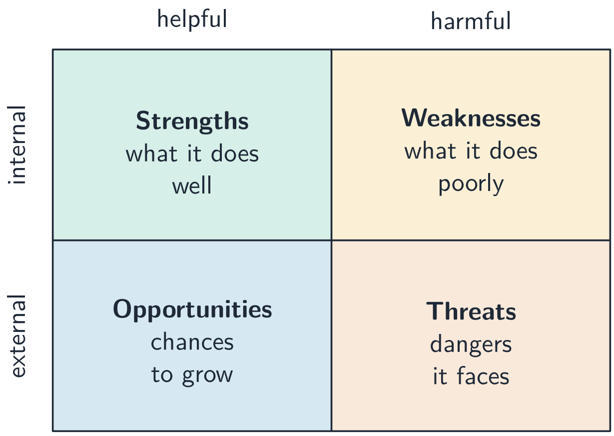
What strategy means

A **strategy** 战略 is a long-term plan to reach the firm's main objectives. **Strategic management** 战略管理 is the work of setting that plan, putting it into action, and checking it. Good strategy aims to build a **competitive advantage** 竞争优势—a reason customers choose you over rivals, such as lower cost or a better product.

SWOT analysis

A **SWOT analysis** SWOT 分析 studies a firm's position under four headings:

Internal (inside the firm)	**External (outside the firm)**
strengths 优势—what it does well **weaknesses** 劣势—what it does poorly	**opportunities** 机会—chances to grow **threats** 威胁—dangers it faces

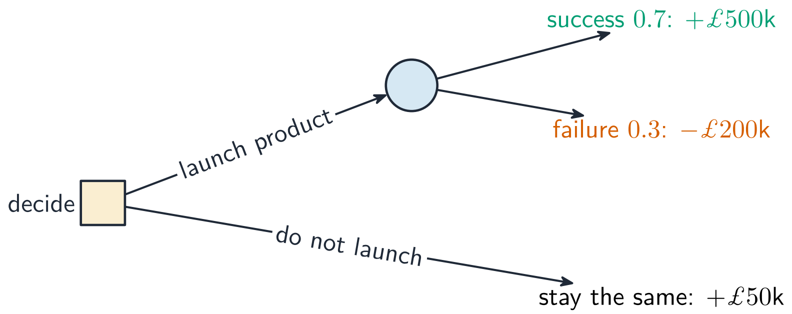


SWOT analysis: internal strengths and weaknesses, external opportunities and threats

A firm should use its strengths to take opportunities, and fix or protect against its weaknesses and threats.

Other planning tools

Firms use other tools to make decisions, such as decision trees (weighing choices by their likely results) and the matrices you meet later in marketing and operations. Every planning tool turns information about the business and its environment into a clearer choice.



A decision tree weighs each choice by the probability and payoff of its outcomes

Exam tips

- Explain how a change in **interest rates, the exchange rate or inflation** affects a firm on both the cost and the demand side.
- A **stronger exchange rate** makes exports dearer and imports cheaper (SPICED / WPIDEC).
- Use **SWOT** correctly: strengths and weaknesses are internal, opportunities and threats are external.
- Support a strategy with a **PEST/PESTLE** scan of the external environment.

Human resource management (A Level)

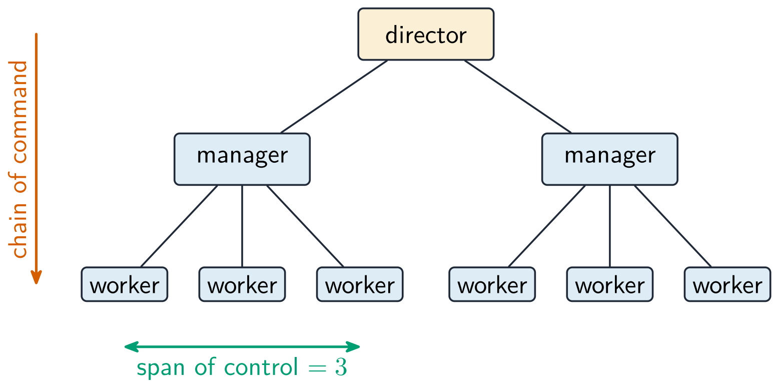
A-Level Business

Organisational structure

An **organisational structure** 组织结构 shows how a business arranges its people: who reports to whom, and who does what. A good structure makes roles clear and helps the firm meet its objectives. It is often drawn as an organisation chart.

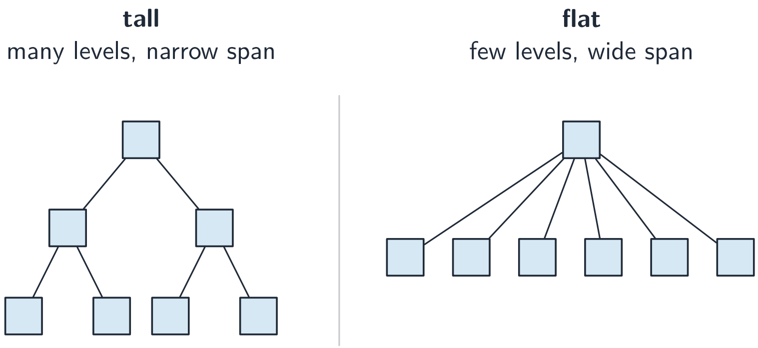
Key terms in structure

- a **hierarchy** 层级 is the set of levels in a firm, from the top managers down to the shop-floor workers. A "tall" structure has many levels; a "flat" structure has few.
- the **chain of command** 指挥链 is the line along which orders pass down, from the top to the bottom.
- the **span of control** 管理幅度 is the number of staff one manager is directly in charge of. A wide span means many staff per manager; a narrow span means few.



An organisation chart shows the chain of command and each manager's span of control

A tall structure has narrow spans and a long chain of command, so messages travel slowly. A flat structure has wide spans, so managers must trust staff more.



Tall structures have many levels and narrow spans; flat structures have few levels and wide spans

Centralisation and decentralisation

- **centralisation** 集权—most decisions are made at the top. This gives strong control and quick, consistent decisions, but ignores local knowledge.
- **decentralisation** 分权—decisions are shared out to lower levels and local branches. This speeds up decisions and motivates staff, but control is weaker.

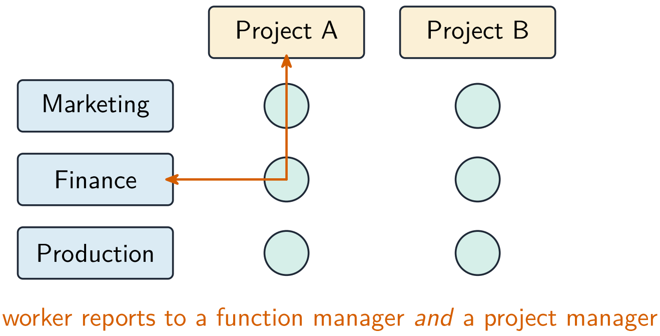
Centralised: the top decides. Decentralised: branches decide

Most firms sit somewhere between the two.

Delayering and matrix structures

Delayering 精简层级 means removing one or more levels of management. It cuts cost and shortens the chain of command, but it gives the remaining managers more to do.

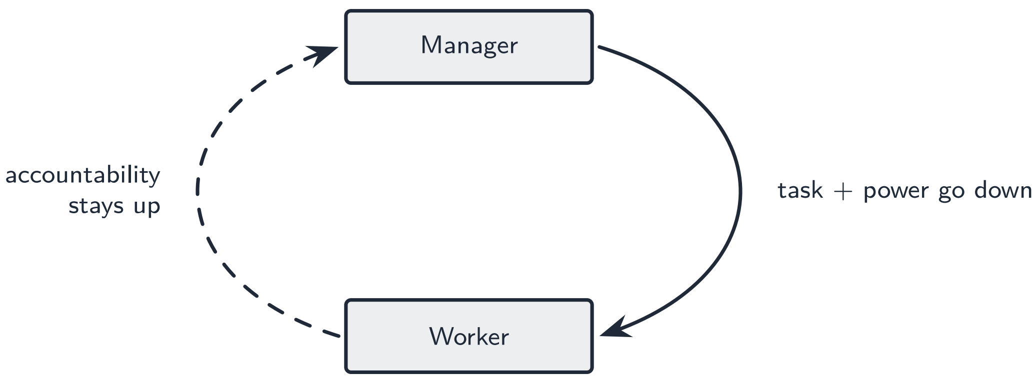
A **matrix structure** 矩阵结构 groups staff by both their department and the project they work on, so a worker may report to two managers. It is good for teamwork across departments, but the two-boss system can cause confusion.



In a matrix structure a worker reports to two managers —a function manager and a project manager

Delegation and accountability

Delegation 授权 means a manager gives a task, and the power to do it, to a more junior worker. It frees the manager's time, develops staff, and motivates them.



Delegation passes the task and authority down; accountability stays up

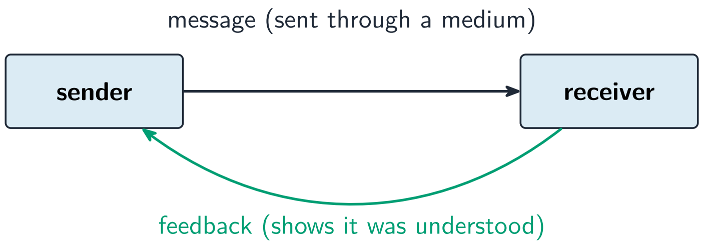
But a manager who delegates is still **accountable** —the **accountability** 问责 for the result stays with them. So managers must delegate to people they trust, and still check the outcome.

Worked example. A firm has 5 levels of hierarchy and a span of control of 4. It delayers to a span of 8. What changes, and what is the risk? A **wider** span means each manager handles more subordinates, so **fewer managers** are needed at each level and the structure becomes **flatter and wider**. Communication improves, because a message now passes through fewer levels, and the wage bill falls. The risks are real too: each manager now supervises 8 people instead of 4, so there is **less time per subordinate** and weaker control; workloads rise; and the staff who remain lose **promotion rungs**, which can demotivate. Link the span of control to the **number of levels** - for the same workforce, a wider span always gives a flatter structure - and present the trade-off as speed and cost against control and supervision.

Business communication

Communication 沟通 is the passing of a message from one person to another. Effective communication follows a clear path:

- a **sender** 发送者 has a message.
- the message is sent through a **medium** 媒介 (e.g. a meeting, email or notice).
- a **receiver** 接收者 takes in the message.
- **feedback** 反馈 shows the message was understood.



The message flows from sender to receiver, and feedback confirms it was understood

Good communication raises motivation, cuts mistakes, and speeds up decisions. Methods can be verbal (spoken), written, or visual; the best method depends on the message, the cost, and the need for a record.

Barriers to communication

A **barrier** 障碍 is anything that stops a message getting through clearly. Common barriers are:

- a message that is too long or unclear.
- a poor medium (e.g. a noisy phone line).
- too many levels in the hierarchy, so the message is changed on the way.
- language or cultural differences, and lack of trust.

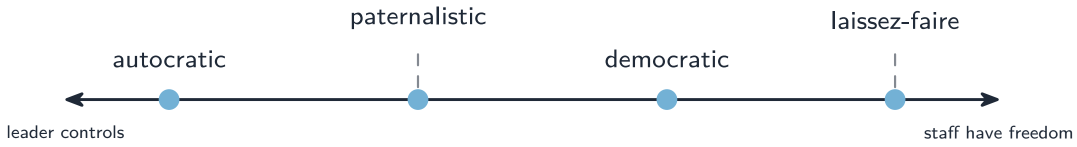
To improve communication, a firm can shorten the chain of command, choose the right medium, keep messages short and clear, and always ask for feedback.

Leadership styles

Leaders set direction and motivate people, which shapes the whole organisation.

A **leadership style** 领导风格 is the way a **leader** 领导 makes decisions and treats staff. Four styles are:

Style	How decisions are made
autocratic 专制型	the leader decides alone and tells staff what to do
democratic 民主型	the leader asks staff for ideas before deciding
paternalistic 家长式	the leader decides, but in what they see as the staff's best interests
laissez-faire 放任型	the leader gives staff freedom to decide for themselves



The styles form a continuum: autocratic keeps all control with the leader, while laissez-faire gives staff the most freedom

No style is always best. The right one depends on the task, the staff, and the time available —an urgent crisis may need an autocratic style, while skilled staff may work best under a democratic or laissez-faire one.

Emotional intelligence and leading change

Emotional intelligence 情商 is a leader's skill in understanding their own and other people's feelings, and managing them well. Leaders with high emotional intelligence build trust and handle conflict better.

This matters most when **leading change**. People often resist change because they fear losing their job or status. A good leader explains why the change is needed, involves staff, and supports them through it.

Hard and soft HRM

There are two broad approaches to **human resource management** 人力资源管理 (HRM):

- **hard HRM** 硬性人力资源管理 treats staff as a resource like any other —to be used at the lowest cost. It uses tight control and short-term contracts.
- **soft HRM** 软性人力资源管理 treats staff as the firm's most valuable asset —to be developed and motivated. It uses training, involvement and long-term careers.

Both link to **workforce planning** 人力规划: working out the staff the firm will need, and how to get them.

Employer-employee relations and trade unions

The **management of change** 变革管理 works best when **employer-employee relations** 劳资关系 (the link between bosses and workers) are good.

A **trade union** 工会 is an organised group of workers that speaks for its members. Through **collective bargaining** 集体谈判, the union and the employer negotiate pay and conditions for the whole group, instead of one worker at a time. If talks fail, workers may take **industrial action** 劳工行动, such as a **strike** 罢工 (stopping work). Good relations and fair negotiation avoid this and keep the business running.

Exam tips

- Read an **organisation chart**: span of control, chain of command and levels of hierarchy.
- Compare **tall vs flat** structures and **centralisation vs decentralisation** (tight control vs local responsiveness).
- Distinguish **hard vs soft HRM** (workers as a cost versus as an asset).
- Explain how **trade unions** and good communication shape employer-employee relations.

Marketing (A Level)

A-Level Business

Marketing analysis

A supermarket: retailers use data to compete on price, range and customer experience.

Marketing analysis 营销分析 means using data to understand the market and to make better marketing decisions. At A Level you study some numbers tools: sales forecasting, time-series analysis, correlation, and elasticity.

Sales forecasting and time-series analysis

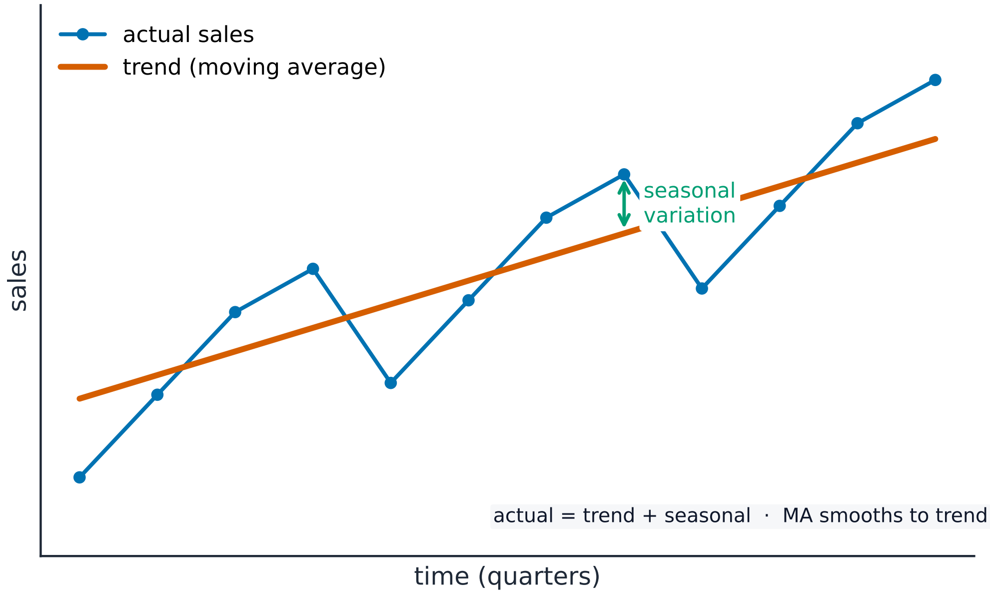
Sales forecasting 销售预测 is predicting future sales from past data and market knowledge. Good forecasts help a firm plan production, staff, stock and cash.

Time-series analysis 时间序列分析 studies past sales recorded over time to find a pattern. It has two main parts:

- the **trend** 趋势—the general direction of sales over the long run (up, down or flat).
- the **seasonal variation** 季节性波动—the regular rise and fall within a year (e.g. ice cream sells more in summer).

To find the trend, firms use a **moving average** 移动平均, which smooths the ups and downs by averaging several periods in a row. The seasonal variation is then how far the actual figure sits above or below the trend:

$$\text{seasonal variation} = \text{actual value} - \text{trend value}$$



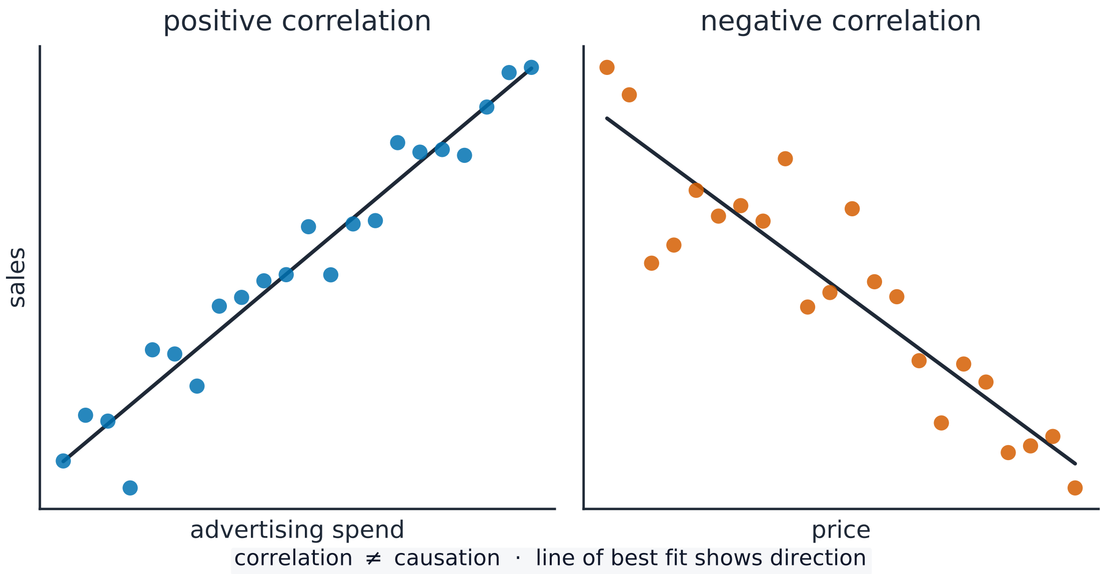
Actual sales wobble seasonally around a smooth underlying trend

A forecast extends the trend into the future (called **extrapolation** 外推) and then adds the usual seasonal variation. This works only if past patterns continue, so forecasts are never certain.

Correlation

Correlation 相关性 measures how strongly two things move together —for example, advertising spending and sales.

- **positive correlation** 正相关—when one rises, the other rises too.
- **negative correlation** 负相关—when one rises, the other falls.

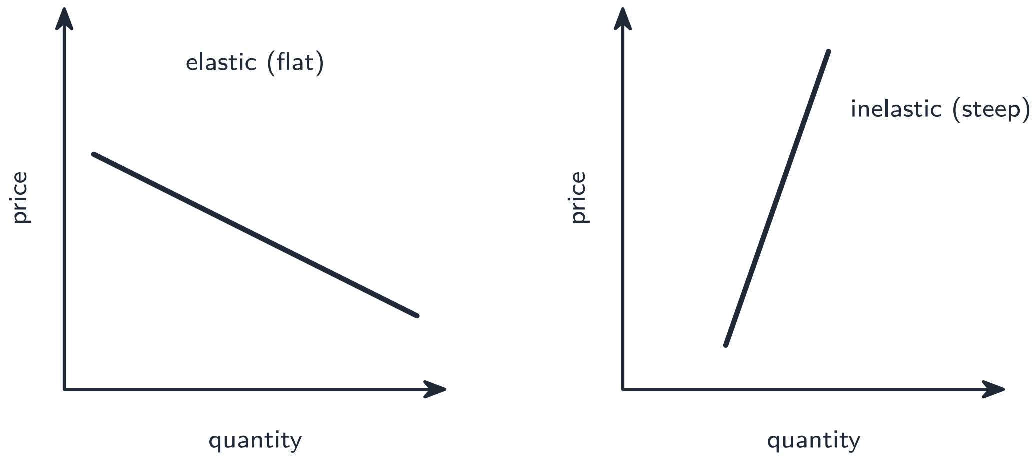


Positive correlation (both rise together) and negative correlation (one rises as the other falls)

Strong correlation helps a firm predict, but it does not prove that one thing *causes* the other. Other factors may be at work.

Using elasticity in marketing decisions

Elasticity 弹性 measures how much demand reacts to a change. Three types guide marketing decisions.



Elastic demand is flat; inelastic demand is steep

- **price elasticity of demand** 需求价格弹性 (PED) —for a **price elastic** 富有弹性 product, cutting the price raises total revenue; for a **price inelastic** 缺乏弹性 product, raising the price raises total revenue.
- **income elasticity of demand** 需求收入弹性 (YED) —tells a firm how sales will change as incomes rise or fall, which helps plan for booms and recessions.
- **cross elasticity of demand** 需求交叉弹性 (XED) —tells a firm how a rival's price change, or the price of a partner product, will affect its own sales.

So elasticity helps a firm set prices, choose products, and predict the effect of a competitor's move.

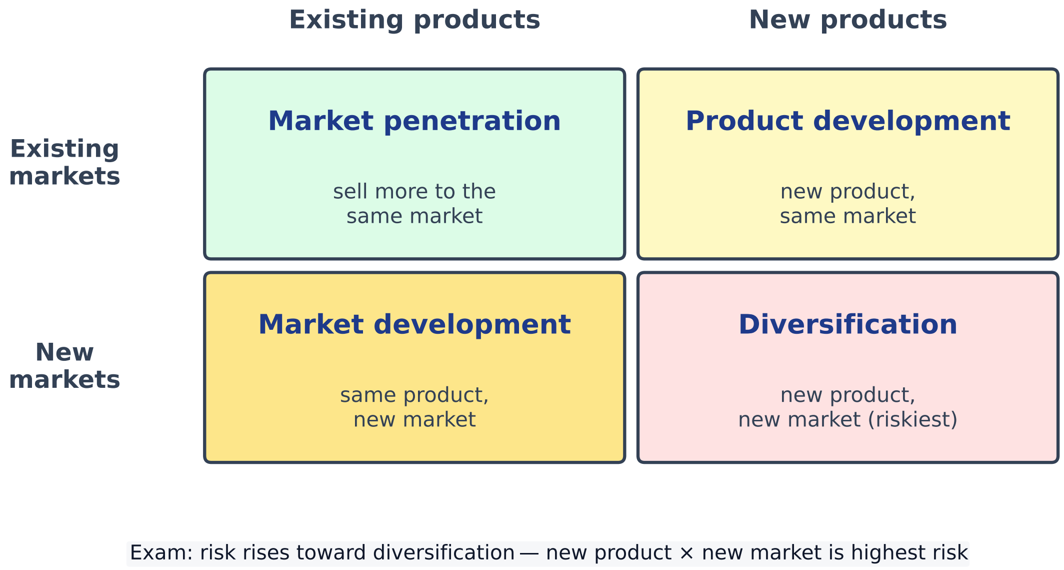
Worked example. Quarterly sales run Q1 100, Q2 140, Q3 180, Q4 120, then next Q1 108. Find the four-quarter moving-average trend centred on Q3, and the seasonal variation for Q3. Average the first four quarters: $(100 + 140 + 180 + 120) \div 4 = 135$. Average the next four: $(140 + 180 + 120 + 108) \div 4 = 137$. A four-period average falls **between** quarters, so centre the two: $(135 + 137) \div 2 = 136$, the trend at Q3. The **seasonal variation** is actual minus trend: $180 - 136 = \mathbf{+44}$, so Q3 runs about 44 units above trend, and next year's Q3 forecast is the projected trend **plus 44**. The **centring** step is the one most answers drop: with an **even** number of periods the average lands between two quarters and must be centred before it can be compared with an actual figure.

Marketing planning and strategy

Digital advertising screens —marketing increasingly happens online and on screens.

A **marketing strategy** 营销战略 is the long-term plan for how marketing will meet the firm's objectives. **Marketing planning** 营销规划 is the work of setting that plan: studying the market, choosing target customers, and deciding the marketing mix. Two tools shape strategy: Ansoff's matrix and product portfolio analysis.

Ansoff's matrix



Ansoff's matrix: four growth strategies, with risk rising to the bottom-right (diversification).

Ansoff's matrix 安索夫矩阵 shows four ways to grow, by mixing existing or new products with existing or new markets. The risk rises as you move away from what you know.

	Existing products	New products
Existing markets	**market penetration** 市场渗透 (sell more to current buyers)	**product development** 产品开发 (new products for current buyers)
New markets	**market development** 市场开发 (current products to new buyers)	**diversification** 多元化 (new products and new markets)

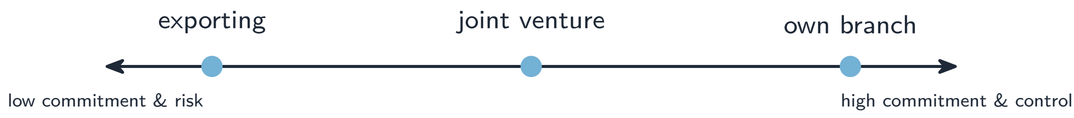
Market penetration is the safest; diversification is the riskiest because both the product and the market are new.

Product portfolio analysis

Product portfolio analysis 产品组合分析 looks at the firm's whole range of products together, using a tool like the Boston Matrix. It checks the balance: a firm needs some steady earners to fund its risky new products. The aim is a healthy mix, so the firm is not left with only ageing products.

Entering international markets

To grow, many firms sell abroad. **Globalisation** 全球化 (the world becoming more connected) has made this easier. A firm can enter a new country by **exporting** 出口, by setting up a **joint venture** 合资企业 with a local partner, or by opening its own branch there.



The entry modes trade off commitment against control: exporting risks least, an own branch gives the most control but costs and risks the most

But a strategy that works at home may need changes. **Localisation** 本地化 means adapting the marketing mix to the new market —for example, changing the product, the language, the price, or the way it is sold to suit local tastes, laws and incomes.

Exam tips

- Read **time-series** data: separate the underlying trend from seasonal variation, and extrapolate with caution.
- Interpret **correlation** (strength and direction) but never assume it proves causation.
- Use **Ansoff's matrix** to classify a growth strategy and judge its risk (diversification is riskiest).
- Use **elasticity values** to justify a pricing or promotion decision numerically.

Operations management (A Level)

A-Level Business

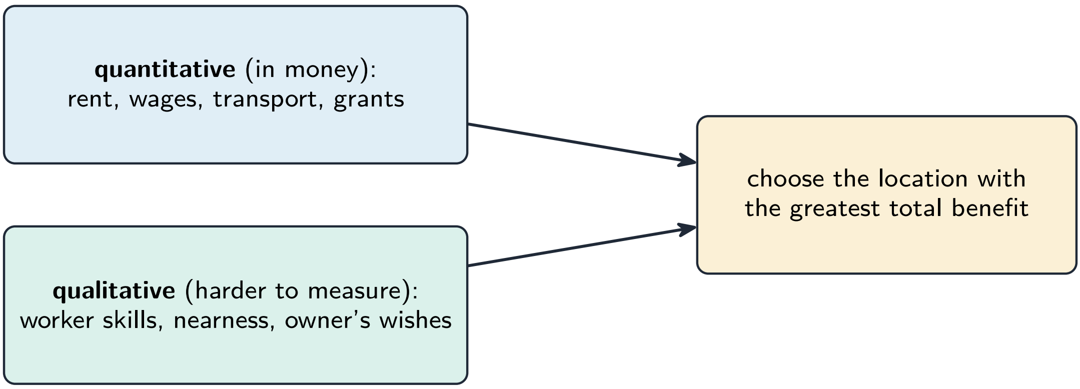
Location and relocation

Where a business sits affects its costs, its sales and its staff. Choosing a place is called **location** 选址; moving to a new place is **relocation** 迁址.

Factors that influence the choice fall into two groups:

- **quantitative factors** 定量因素—things you can measure in money, such as rent, wages, transport costs and government grants.
- **qualitative factors** 定性因素—things that are harder to measure, such as the skills of local workers, nearness to customers or suppliers, and the owner's own wishes.

A firm picks the place where the benefits, money and non-money together, are greatest.



A location decision weighs both the money factors and the harder-to-measure ones, then picks the place with the greatest total benefit

International location

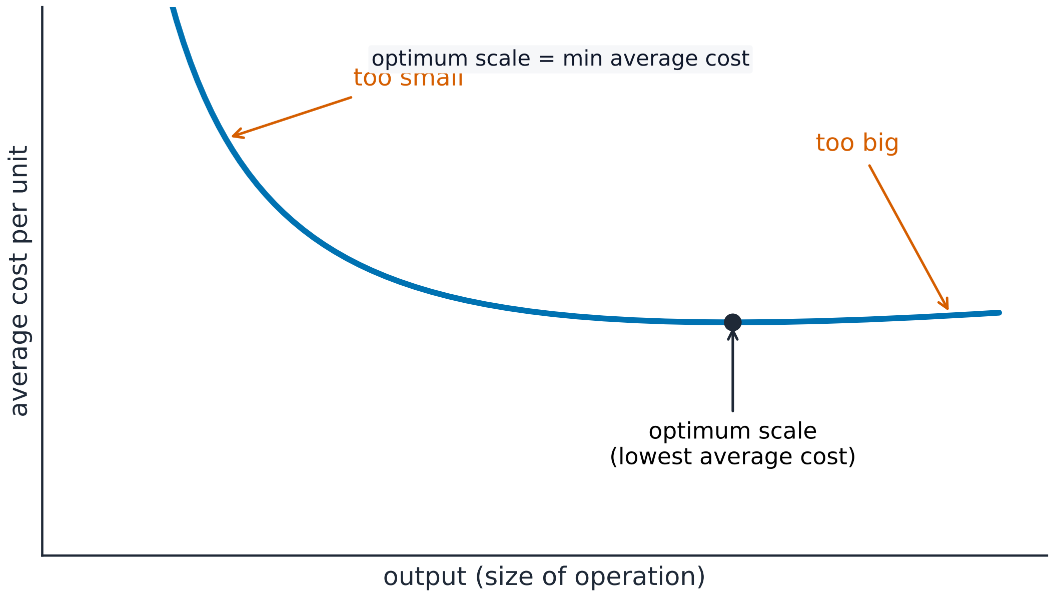
Many firms now locate abroad. Moving production to another country is **offshoring** 离岸外包. The reasons are often lower wages, nearness to new markets, fewer rules, or government help. The risks are longer supply lines, language and culture differences, and possible damage to the firm's image.

The optimum scale of operation

As a firm grows, its average cost first falls (from economies of scale) and later rises (from diseconomies of scale). The **optimum scale 最优规模** is the size at which the average cost per unit is at its lowest.

- **economies of scale 规模经济**—cost savings from being larger (e.g. bulk buying).
- **diseconomies of scale 规模不经济**—rising average cost when a firm grows too big (e.g. poor communication).

A firm should try to grow up to its optimum scale, but not beyond it.



The optimum scale is the output where average cost per unit is lowest

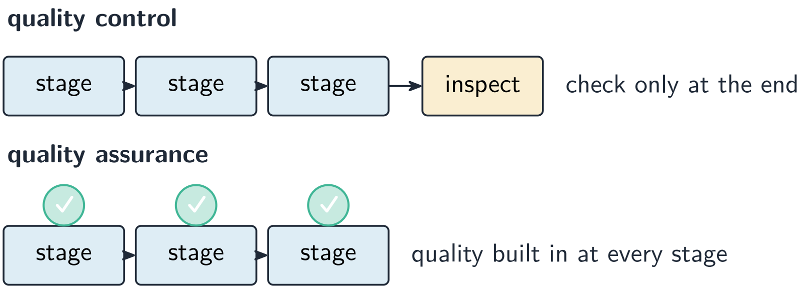
Why quality matters

Quality 质量 means how well a product meets the customer's needs. Good quality wins repeat custom, lets the firm charge more, protects its brand, and cuts the cost of waste and returns. Poor quality loses customers and damages the firm's name.

Methods of managing quality

Method	How it works
quality control 质量控制	check finished products and remove the faulty ones at the end
quality assurance 质量保证	build quality into every stage, so faults are prevented, not just found
total quality management 全面质量管理 (TQM)	every worker takes responsibility for quality, aiming for zero faults
benchmarking 标杆管理	compare the firm's methods with the best firms, and copy what they do well

Quality control finds faults late, after money is already spent. Quality assurance and TQM try to stop faults happening, which is usually cheaper in the long run.



Quality control checks at the end; quality assurance builds quality into every stage

Operations strategy: lean production

Factory automation —A-Level operations covers lean production, technology and the supply chain.

Lean production 精益生产 means making products with the least possible **waste**

浪费—of time, materials, space and effort. Methods like just-in-time and continuous improvement cut waste, lower cost, and raise quality. Less money is tied up in stock, and problems are fixed quickly.

Capacity management and technology

Capacity management 产能管理 means matching what the firm can produce to the demand it faces. If demand is higher than capacity, the firm may add shifts, hire staff or outsource; if demand is lower, it may cut output or find new orders. New **technology** 技术, such as automation and data systems, helps a firm produce more, to a higher standard, at a lower cost.

Critical path analysis

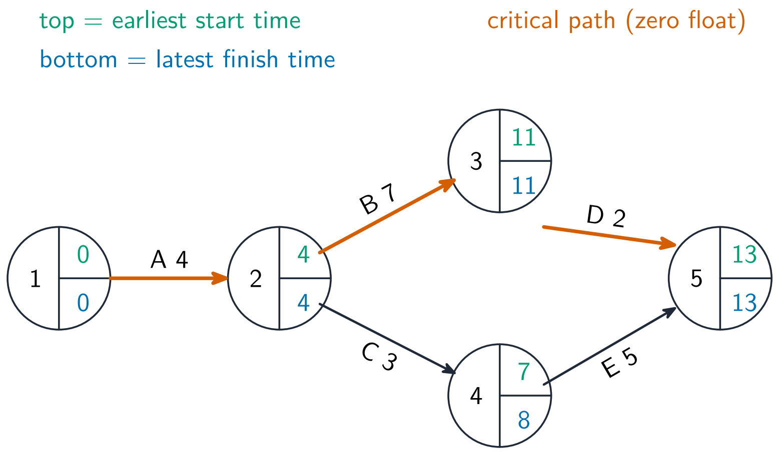
Critical path analysis 关键路径分析 (CPA) is a tool for planning a project made of many tasks. It draws the tasks as a network of arrows and **nodes** 节点 (circles), in the order they must happen. For each task it works out timings:

- the **earliest start time** 最早开始时间 (EST) —the soonest a task can begin, once earlier tasks are done.
- the **latest finish time** 最晚完成时间 (LFT) —the latest a task can finish without delaying the whole project.

From these comes the **total float** 总浮动时间—the spare time a task has before it delays the project:

$$\text{total float} = \text{LFT} - \text{duration} - \text{EST}$$

The **critical path** 关键路径 is the chain of tasks with zero float. These tasks cannot be late, or the whole project is late. Adding up the times along this path gives the **minimum project duration** 最短项目工期—the shortest time the project can take.



The critical path is the chain of activities with zero float —they set the project's length

CPA helps managers find the tasks that matter most, order resources for the right time, and see where delays would hurt. But it is only as good as the time estimates it is built on.

Worked example. A task has an EST of 6 days, a duration of 4 days, and an LFT of 14 days. Find its total float, and say whether it lies on the critical path. Use the formula: total float = LFT − duration − EST = 14 − 4 − 6 = **4 days**. So the task could start up to 4 days late, or overrun by 4 days, without delaying the project - and because its float is **not zero**, it is **not** on the critical path. Only tasks with **zero float** are critical. Two points carry the marks: float is the spare time on **that task**, so using it up makes the task critical; and shortening a **non-critical** task like this one does **not** shorten the project at all, because only the critical path sets the minimum project duration.

Exam tips

- Compare quality methods: **quality control** (inspect at the end) versus **quality assurance / TQM** (build quality in at every stage).
- Explain **lean production** (cutting waste —time, stock, defects) with a named method (kaizen, JIT).
- On a **critical path** network, work out the EST/LFT, the float, and the critical activities (zero float) that set the minimum time.

Finance and accounting (A Level)

A-Level Business

Financial statements

Financial statements 财务报表 are the official records that show how a business is doing with money. You study two of them: the income statement and the statement of financial position. By law, companies must publish these each year.

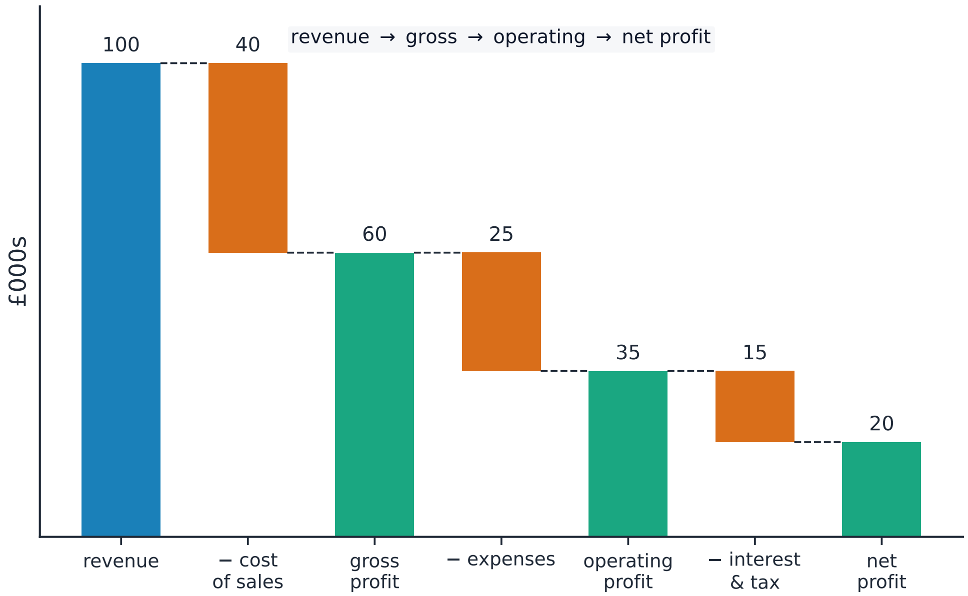
Financial statements and ratios let stakeholders judge a firm's performance.

The income statement

The **income statement** 利润表 shows the **revenue** 营业收入 and costs of a business over a period (usually a year), and the profit left at each stage.

$$\text{gross profit} = \text{revenue} - \text{cost of sales}$$

- **cost of sales** 销售成本 is the direct cost of the goods that were sold.
- **gross profit** 毛利润 is what is left after taking cost of sales from revenue.
- after taking off **expenses** 费用 (such as rent, wages and marketing), you get the **operating profit** 营业利润.
- after interest and tax, what is left is the **net profit** 净利润 (the profit for the year).



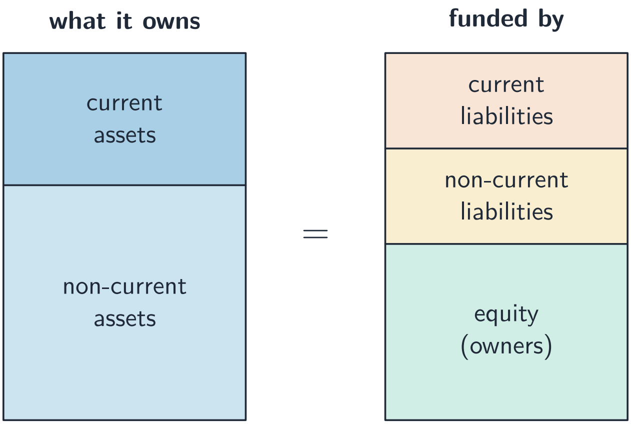
The income statement steps down from revenue to net profit

The statement of financial position

The **statement of financial position** 财务状况表 (also called the **balance sheet** 资产负债表) is a photo of what the business owns and owes on one day.

- **non-current assets** 非流动资产—items kept for more than a year, such as buildings and machines.
- **current assets** 流动资产—items that become cash within a year, such as inventory and money owed by customers.
- **current liabilities** 流动负债—debts due within a year.
- **non-current liabilities** 非流动负债—debts due after more than a year, such as a long loan.
- **equity** 所有者权益—the money the owners have put in, plus profit kept in the business.

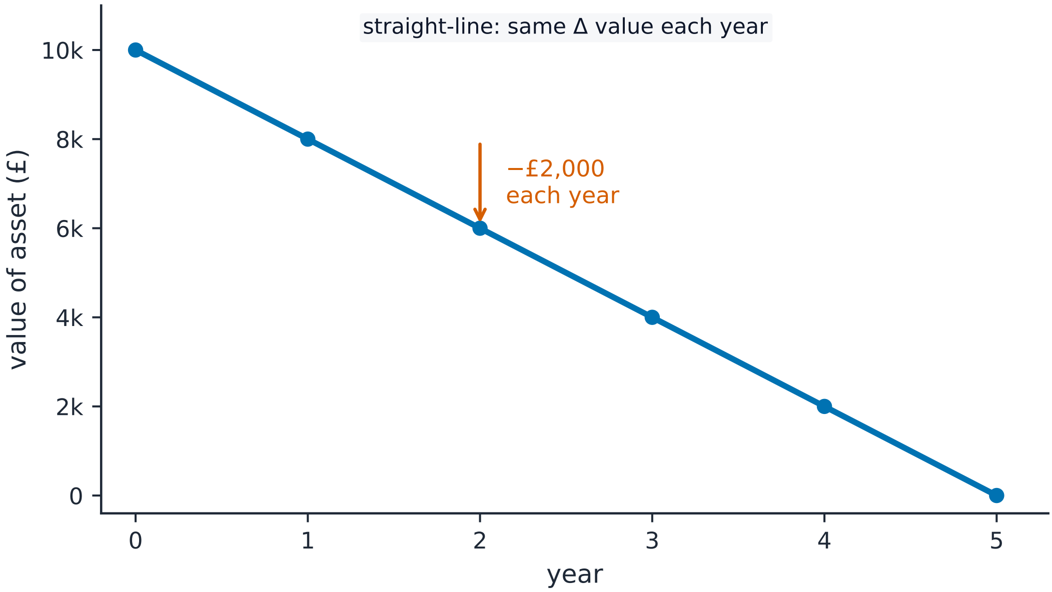
The two sides always balance: what the firm owns is funded by what it owes plus the owners' equity.



The two sides always balance: assets equal liabilities plus equity

Depreciation

Depreciation 折旧 is the way the cost of a non-current asset is spread over the years it is used, instead of all in the year it was bought. For example, a £10,000 machine used for five years may lose £2,000 of value each year. Depreciation lowers the asset's value on the statement of financial position and counts as an expense on the income statement, so profit is not overstated.

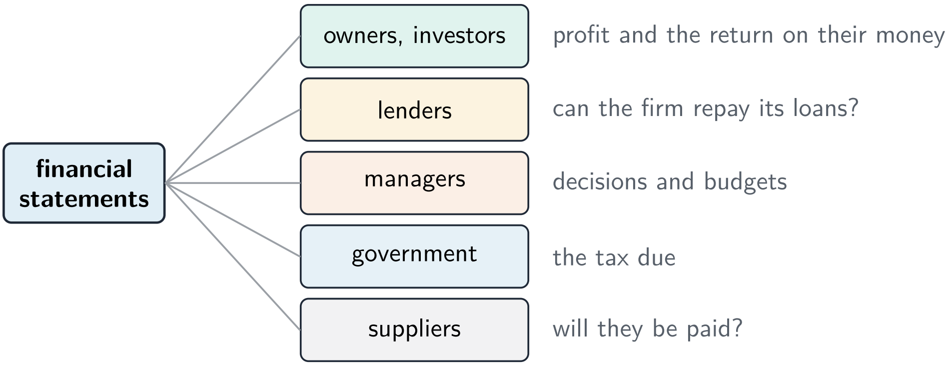


Straight-line depreciation lowers the asset's value by the same amount each year

How stakeholders use financial statements

Different **stakeholders** 利益相关者 read these statements for different reasons:

- owners and investors check the profit and the return on their money.
- lenders check whether the firm can repay its loans.
- managers use them to make decisions and set budgets.
- the government checks the tax due; suppliers check the firm can pay.



Each stakeholder reads the statements for a different reason

Ratio analysis

A single number means little on its own. **Ratio analysis** 比率分析 links two figures from the statements to judge performance, and lets you compare one year with another, or one firm with another.

profitability - profit from sales and capital

$$\text{margins} = \frac{\text{gross or operating profit}}{\text{revenue}} \times 100\%$$

$$\text{ROCE} = \frac{\text{operating profit}}{\text{capital employed}} \times 100\%$$

higher = more profit kept from each sale and from each dollar invested

liquidity - can it pay short-term debts?

$$\text{current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

$$\text{acid test} = \frac{\text{current assets} - \text{inventory}}{\text{current liabilities}}$$

about 1.5–2 is usually safe; the acid test is stricter - inventory can be slow to sell

The ratio toolbox: profitability and liquidity at a glance

Profitability ratios

Profitability 盈利能力 ratios show how good the firm is at turning sales and capital into profit.

$$\text{gross profit margin} = \frac{\text{gross profit}}{\text{revenue}} \times 100\%$$

$$\text{operating profit margin} = \frac{\text{operating profit}}{\text{revenue}} \times 100\%$$

A higher **gross profit margin 毛利率** or **operating profit margin 营业利润率** means more profit is kept from each sale. The key overall measure is **return on capital employed 资本回报率** (ROCE), which compares profit with the money invested:

$$\text{ROCE} = \frac{\text{operating profit}}{\text{capital employed}} \times 100\%$$

Here **capital employed 所用资本** is the total long-term money in the business. A higher ROCE means the money is being used well.

Worked example. A firm has revenue of £500,000, gross profit of £200,000, operating profit of £80,000 and capital employed of £400,000. Find its gross profit margin, operating profit margin and ROCE.

$$\text{gross profit margin} = \frac{200\,000}{500\,000} \times 100\% = 40\%$$

$$\text{operating profit margin} = \frac{80\,000}{500\,000} \times 100\% = 16\%$$

$$\text{ROCE} = \frac{80\,000}{400\,000} \times 100\% = 20\%$$

Investors use profitability, liquidity and gearing ratios to judge a firm's financial health

Liquidity ratios

Liquidity 流动性 means how easily a firm can pay its short-term debts. Two ratios test it.

$$\text{current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

$$\text{acid test ratio} = \frac{\text{current assets} - \text{inventory}}{\text{current liabilities}}$$

The **current ratio** 流动比率 of about 1.5–2 is usually safe. The **acid test ratio** 速动比率 is stricter because it removes inventory, which can be slow to sell. Too low is risky; too high may mean cash is sitting idle.

Worked example. A firm has current assets of £60,000 (including £24,000 of inventory) and current liabilities of £30,000. Find its current ratio and acid test ratio.

$$\text{current ratio} = \frac{60\,000}{30\,000} = 2.0$$

$$\text{acid test ratio} = \frac{60\,000 - 24\,000}{30\,000} = 1.2$$

Efficiency and gearing ratios

Efficiency 效率 ratios show how well the firm uses its resources —for example, **inventory turnover** 存货周转率 measures how many times a year the firm sells and replaces its stock. Faster turnover usually ties up less cash.

Gearing 杠杆比率 shows how much of the firm's long-term money comes from borrowing rather than from owners:

$$\text{gearing} = \frac{\text{non-current liabilities}}{\text{capital employed}} \times 100\%$$

High gearing means heavy borrowing —risky if interest rates rise, but it can boost returns when times are good.

Worked example. A firm has non-current liabilities of £150,000 and capital employed of £500,000. Find its gearing.

$$\text{gearing} = \frac{150\,000}{500\,000} \times 100\% = 30\%$$

Below 50%, so the firm is low-geared —it relies more on owners' money than on borrowing.

Limitations of ratio analysis

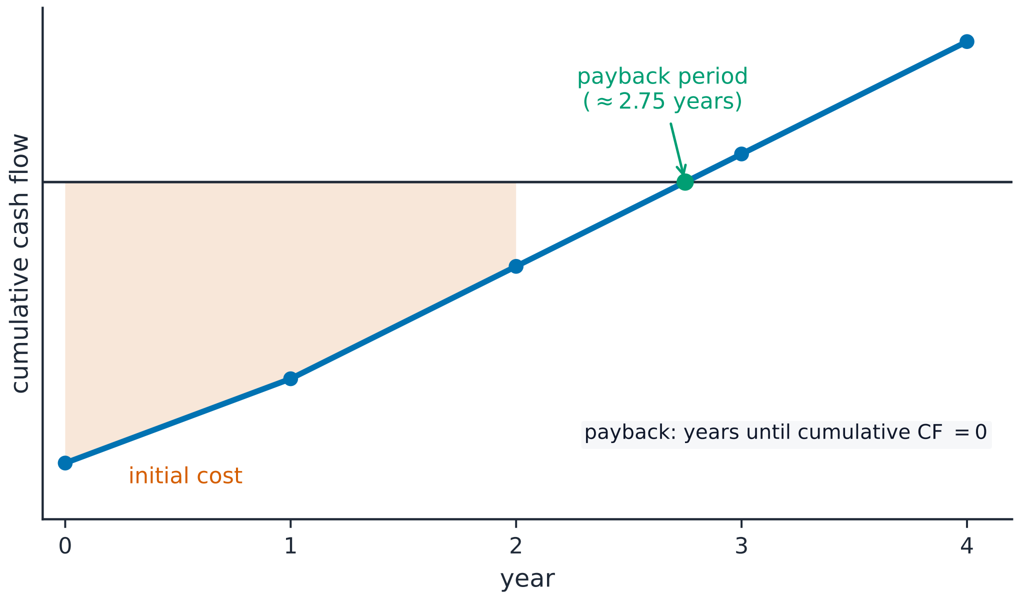
Ratios are useful but limited. They use past data, which may not predict the future. They ignore non-money factors like staff morale and brand strength. And a fair comparison needs firms of similar size in the same industry.

Investment appraisal

Investment appraisal 投资评估 is the study of whether a big spending project (such as a new machine or factory) is worth it. Three methods are used.

Payback, ARR and NPV

- the **payback period** 回收期 is the time it takes for the project's cash inflows to repay the initial cost. A shorter payback is safer.



The payback period is when cumulative cash flow climbs back to zero

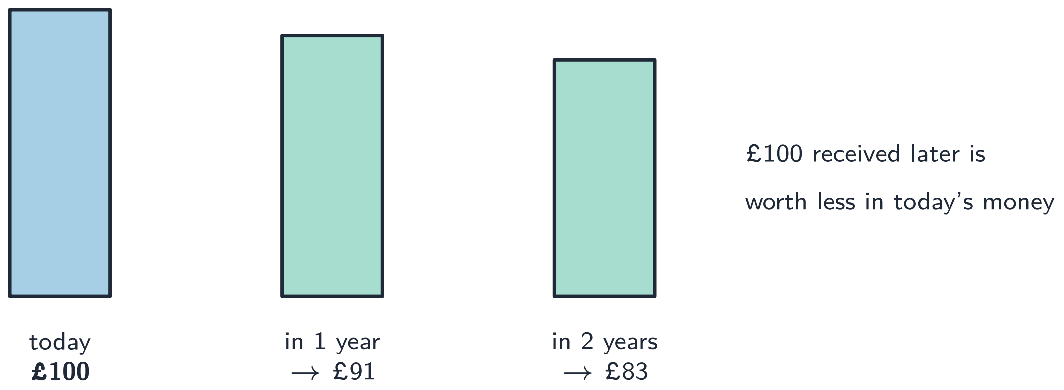
- the **accounting rate of return** 会计回报率 (ARR) shows the average yearly profit as a percentage of the money invested:

$$\text{ARR} = \frac{\text{average annual profit}}{\text{initial investment}} \times 100\%$$

Worked example. A machine costs £100,000 and is expected to earn an average annual profit of £25,000. Find its accounting rate of return.

$$\text{ARR} = \frac{25\,000}{100\,000} \times 100\% = 25\%$$

- the **net present value** 净现值 (NPV) recognises that money in the future is worth less than money today. It uses **discounting** 折现 to shrink future cash flows back to today's value, then takes away the initial cost. A positive NPV means the project adds value.



Discounting, the idea behind NPV: the same £100 is worth less the longer you wait for it, so future cash flows are shrunk back to today's value

Each method has strengths: payback is simple and focuses on risk; ARR shows profitability; NPV is the most complete but needs a chosen discount rate.

Finance and accounting strategy

At the top level, managers use financial data and budgets to choose between strategies. Before a big decision, they ask: can we afford it, how will it affect profit, cash flow and gearing, and what is the likely return? Financial information turns a risky guess into a reasoned choice —but numbers are only part of the picture, and must be weighed with the market, the staff and the firm's objectives.

Exam tips

- Calculate and interpret the key ratios —**gross/net profit margin, current ratio, gearing, ROCE** —always against a benchmark or a trend.
- For **investment appraisal** know **payback** (time to recover), **ARR** (average % return) and **NPV** (discounted; a positive NPV means accept).
- A **current ratio** of about 1.5–2 is healthy: too high wastes resources, too low risks liquidity problems.
- State the **limitations of ratios** (historical figures, no qualitative factors) in your evaluation.