

The basic economic problem

IGCSE Economics

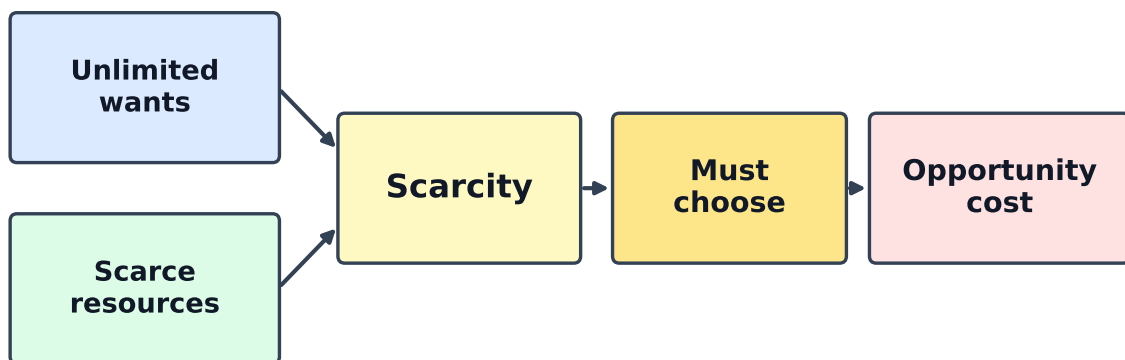
The economic problem

Economics is about how people use **resources** 资源 to meet their needs and wants. The main idea is simple. People want a lot, but there are not enough resources to make everything. This is the **economic problem** 经济问题.

Two facts cause the economic problem:

- Resources are **finite** 有限的. There is only a limited amount of them.
- People's **wants** 欲望 are unlimited. People always want more and better things.

Because wants are unlimited but resources are limited, resources are **scarce** 稀缺. We call this problem **scarcity** 稀缺性. Scarcity is the root of all economics.



The economic problem: scarcity forces choice, and every choice has an opportunity cost

Goods, services, and choices

We use resources to make **goods** 物品 (things you can touch, like food and phones) and **services** 服务 (jobs done for you, like a haircut or a bus ride).

Because resources are scarce, we cannot have everything. So everyone must make **choices**. Scarcity forces four groups to choose:

- **consumers** 消费者—people who buy and use goods and services. They choose what to buy.
- **workers** 工人—they choose which job to do.
- **producers** 生产者, also called **firms** 企业—they make goods and services. They choose what to produce.
- **governments** 政府—they choose what to provide and how to spend public money.

Economic goods and free goods

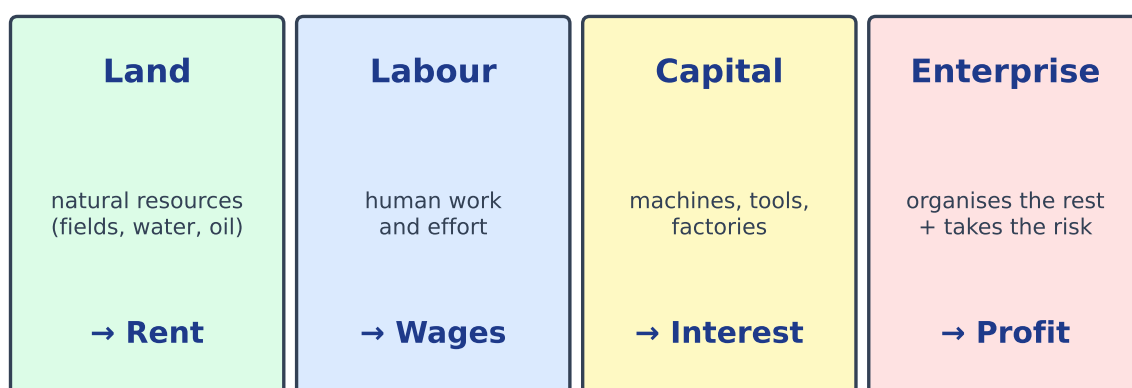
Most things are **economic goods** 经济物品. They are scarce, so making or using one means giving something else up. Economic goods have an **opportunity cost** 机会成本 (explained below).

A few things are **free goods** 免费物品. They are not scarce —there is enough for everyone and they cost nothing to use. Examples are the air you breathe and sunlight. A free good has no opportunity cost.

Be careful: a "free" sample or a "free" gift is *not* a free good. Resources were used to make it, so it is still an economic good.

Factors of production

To make goods and services, firms use four types of resource. We call them the **factors of production** 生产要素.



The four factors of production and the reward each one earns

The four factors

Factor	What it is	Example
land 土地	natural resources	fields, water, oil, forests
labour 劳动	human work	a teacher, a builder, a nurse
capital 资本	man-made things used to produce	machines, tools, factories
enterprise 企业家才能	organising the other three and taking risks	a person who starts a business

The person who provides enterprise is the **entrepreneur** 企业家. They bring the other factors together and risk their own money to start and run a business.



Land —natural resources such as farmland —is one of the four factors of production

Image: Peter Barr, CC BY-SA 2.0 (commons.wikimedia.org)

The reward to each factor

Each factor earns a **reward** 报酬—the income it gets for being used:

Factor	Reward
land	rent 地租
labour	wages 工资
capital	interest 利息
enterprise	profit 利润

Mobility, quantity and quality

The **mobility** 流动性 of a factor means how easily it can move to a different use or place. A worker with many skills can change jobs easily, so labour is mobile. A worker with only one skill, or a factory that cannot be moved, is less mobile.

The quantity and quality of factors can change:

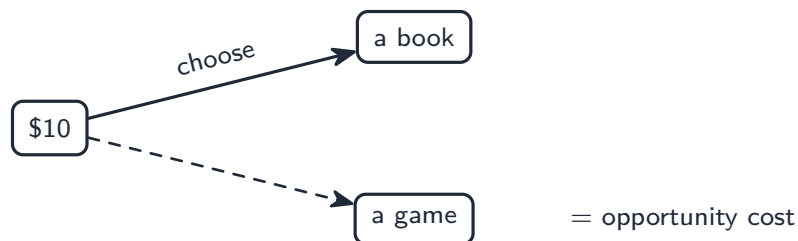
- **Quantity** can rise or fall. The amount of labour grows if the birth rate rises or people move into the country to work. Land can be lost to the sea or gained by draining it.
- **Quality** can rise. Training and education make labour better. New technology makes capital better. Higher quality means each factor can produce more.

Opportunity cost



Consumers choosing what to buy at a busy market — scarcity forces everyone to make choices

Image: PattayaPatrol, CC BY-SA 4.0 (commons.wikimedia.org)



Choosing one thing means giving up the next best alternative

When you choose one thing, you give up the next best choice. That is the real cost of your decision.

Opportunity cost is the next best **alternative** 替代选择 you give up when you make a choice.

It affects every decision-maker:

- A **consumer** who buys a game gives up the book they could have bought instead.
- A **worker** who takes one job gives up the pay of the next job they could have done.
- A **producer** who makes more cars uses factors that could have made trucks.
- A **government** that builds a hospital gives up the school it could have built with the same money.

Opportunity cost matters because resources are scarce. Every choice has a cost, even when no money changes hands.

Production possibility curve (PPC) diagrams

A **production possibility curve** 生产可能性曲线 (PPC) shows the largest amounts of two goods a country can make when it uses all its resources fully.

Imagine an economy that makes only two types of good, one on each axis:

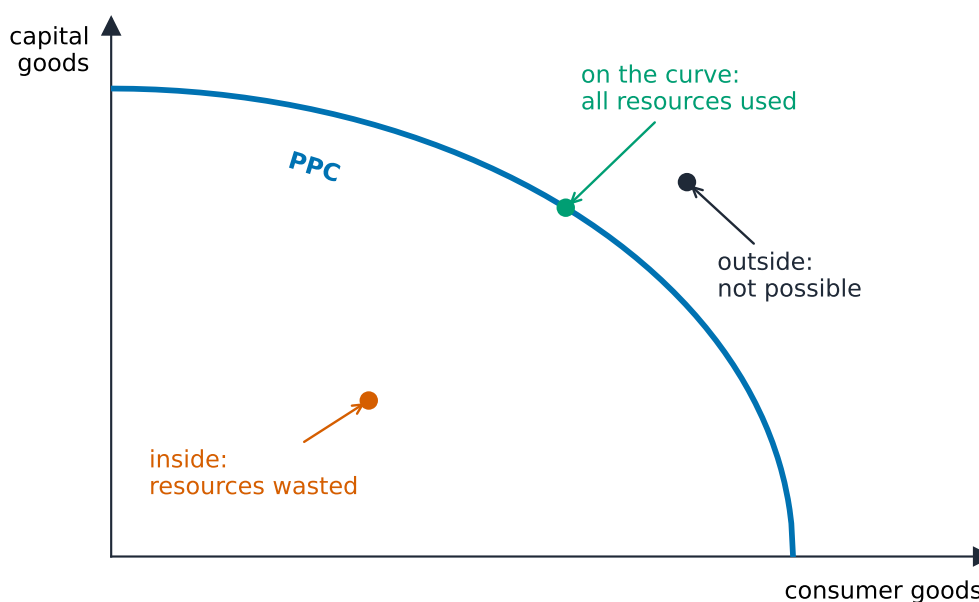
- **capital goods** —used to make other goods, like machines.
- **consumer goods** —used up by people, like food and clothes.

The PPC is the line joining every point where the economy uses all its resources to make the most it can.

Reading the diagram

Picture the two goods on the two axes. The PPC is a curve that bends from one axis down to the other (it usually bows outward, away from the corner):

- A point **on** the curve: all resources are used fully. The economy makes the most it can.
- A point **inside** the curve: resources are wasted or not all used —for example, there is **unemployment** 失业. The economy could make more.
- A point **outside** the curve: this is impossible now. There are not enough resources to reach it.



A point on the curve uses all resources; inside the curve some are wasted (e.g. unemployment); outside is not possible with today's resources.

Movements along the curve

If the economy already uses all its resources (a point on the curve), making more of one good means making less of the other. You must move factors from one good to the other. This is a **trade-off** 取舍.

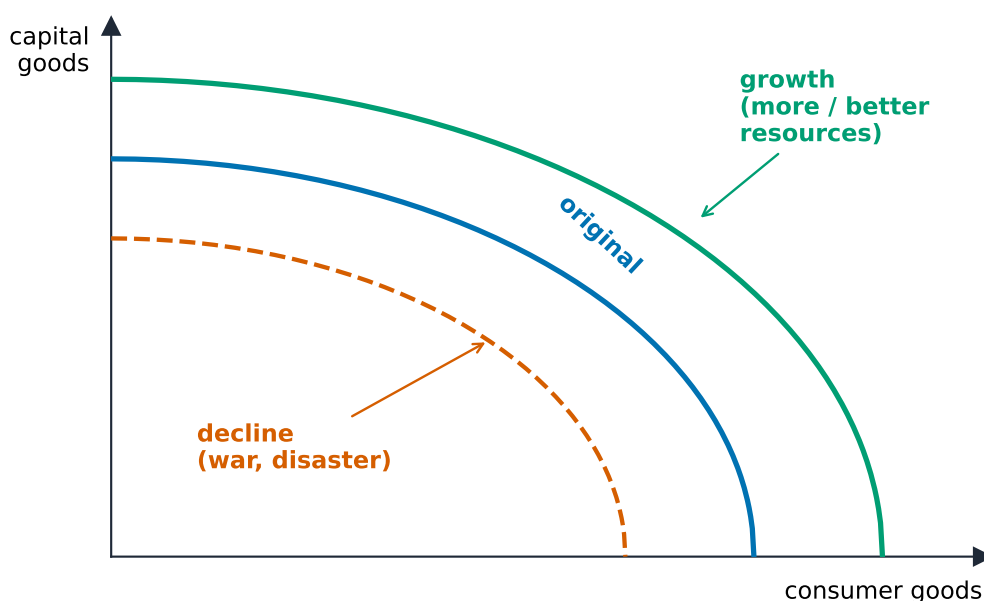
The amount of the second good you give up is the opportunity cost of the extra first good. This is why the PPC is a clear picture of opportunity cost.

Worked example. An economy on its PPC makes 40 machines and 60 tonnes of food. To make 50 machines it must cut food to 45 tonnes. Give the opportunity cost of the extra machines. Then say what a point of 30 machines and 40 tonnes of food would tell you. The economy is already **on** the curve, so more of one good must mean less of the other: the 10 extra machines cost $60 - 45 = 15$ tonnes of food. That lost food **is** the opportunity cost, so quote it in tonnes of food - never in money. The second point lies **inside** the curve, which means resources are idle or wasted, most likely through unemployment; from there the economy could make more of **both** goods, so moving out to the curve costs nothing at all. Opportunity cost only bites once you are **on** the curve.

Shifts of the curve

The whole curve can move:

- It shifts **outward** (to the right) when the country can make more of *both* goods. This is **economic growth** 经济增长. Causes: more resources (a bigger workforce, more land discovered) or better-quality resources (training, new technology).
- It shifts **inward** (to the left) when the country can make less. This is **economic decline** 经济衰退. Causes: fewer or worse resources —for example a war, a natural disaster, or using up **non-renewable resources** 不可再生资源 (resources like oil and coal that cannot be replaced once used).



More or better resources shift the whole PPC outward (growth); a war, disaster or using up resources shifts it inward (decline).

Do not confuse the two. Moving from inside the curve *to* the curve (by using idle resources) is a short-term gain. Moving the whole curve outward is a long-term change.

Exam tips

- **Scarcity** (unlimited wants, limited resources) forces **choice**, and every choice has an **opportunity cost** —the next best alternative you give up.
- Learn the four **factors of production** and the reward each earns: land—rent, labour—wages, capital—interest, enterprise—profit.
- On a **PPC**, a point *on* the curve uses all resources fully, *inside* wastes some (e.g. unemployment), and *outside* is impossible for now. Moving along the curve shows opportunity cost.
- Moving *to* the curve (using idle resources) is a short-term gain; shifting the whole curve *outward* is long-term economic growth from more or better resources.