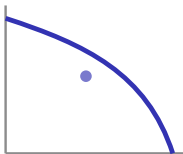


Basic Economic Ideas

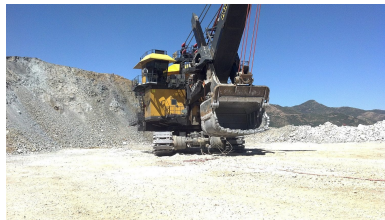
A-Level Economics ■ Topic 1

A-Level Economics



What we will cover

- 1 Scarcity & opportunity cost
- 2 Thinking like an economist
- 3 Factors of production
- 4 Economic systems & prices
- 5 Production possibility curve
- 6 Types of goods

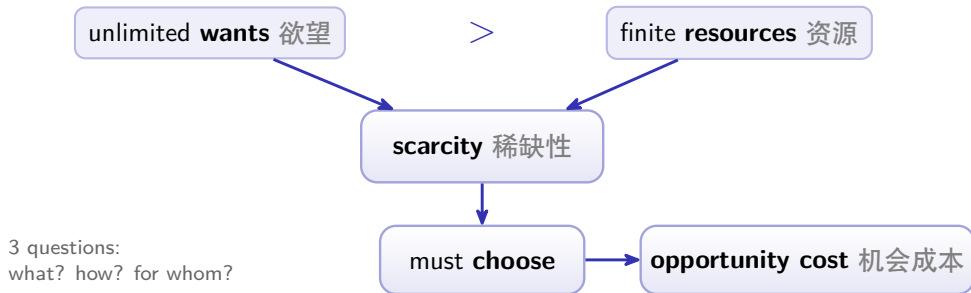


scarce natural resources

1

Foundations

The economic problem



Scarcity forces a choice on all three agents

scarcity 稀缺性

we never have enough to give everyone everything they want – the one idea the whole subject starts from

consumers 消费者

buy a phone and you give up the holiday that money could have paid for

producers 生产者 **and firms** 企业

use a factory to make cars and you give up the trucks it could have made

governments 政府

spend tax money on hospitals and you give up the schools that money could have built

the common answer

opportunity cost 机会成本 – the next best alternative given up, not the money spent

Every economic question is one of three: **what** to produce, **how** to produce it, and **for whom**. Scarcity is why all three must be answered.

Thinking like an economist

positive 实证表述

a **fact** – can be
tested true or false

normative 规范表述

an **opinion** – rests
on a value judgement

Ceteris paribus 其他条件不变: change one thing, hold the rest fixed.

Microeconomics 微观经济学 studies one market; **macroeconomics** 宏观经济学 the whole economy.

Economics as a social science

It studies how people behave when they make choices.

Like other sciences, it builds **models** 模型 (simple pictures of the real world) and tests them with data.

How economists actually reason

**ceteris
paribus** 其他条件不变

change one thing and hold everything else fixed – because the real world is too complex to reason about all at once

models

deliberately simplified, and judged by whether they **predict**, not by whether they are realistic

positive 实证 **statements**

claims about what **is** – testable against evidence

normative 规范
statements

claims about what **ought** to be – value judgements, which evidence cannot settle

why the split matters

economists disagree far more on normative questions than on positive ones

“A tax on sugar reduces consumption” is positive. “The government should tax sugar” is normative. The exam asks you to label them.

2

Resources

Factors of production



Each **factor of production** 生产要素 earns a reward; **enterprise** 企业家才能 bears the risk of bringing the other three together.

The four factors, and what each is paid

land 土地

all natural resources – including **non-renewable** 不可再生资源 ones like oil and coal, which can run out. Paid **rent**

labour 劳动

human work, both physical and mental. Paid **wages** 工资

capital 资本

man-made things used to produce – machines, tools, factories. Paid **interest** 利息

enterprise 企业家才能

supplied by the **entrepreneur** 企业家, who organises the other three and **takes the risk**. Paid **profit**

Each factor earns a **different** kind of income, and that is how national income is divided. Naming the payment is half of many mark schemes.

Specialisation and the division of labour



Specialisation 专业化: make only what you are best at, then trade.

- + faster, better, lower cost per unit
- – boring; one absence can stop the line; narrow skills

Mobility 流动性: how easily a factor moves job
(**occupational** 职业流动性) or place
(**geographical** 地理流动性).

Division of labour: both sides of it

what it is	a big job split into small tasks, each worker 工人 doing one of them repeatedly
gain	workers get faster and better at one task
gain	output per worker rises, so costs fall
cost	doing one task is boring , so workers may quit
cost	workers learn only one narrow skill , which makes them hard to re-employ
the dependency	if one stage stops, the whole chain stops

Specialisation raises output and lowers **occupational mobility** 职业流动性 at the same time. That tension runs through the whole labour-market topic.

3

Systems and prices

Who decides what, how and for whom?

Three illustrative ways to allocate clinic appointments

A: private clinics choose services and methods, responding to paying patients. B: a central authority sets service quantities, staffing and eligibility. C: public clinics provide tax-funded appointments while private clinics also sell appointments. Classify each arrangement and identify who decides what is supplied and who receives it.

Who decides what, how and for whom?

Three illustrative ways to allocate clinic appointments

A: private clinics choose services and methods, responding to paying patients. B: a central authority sets service quantities, staffing and eligibility. C: public clinics provide tax-funded appointments while private clinics also sell appointments. Classify each arrangement and identify who decides what is supplied and who receives it.

Compare ownership, decision-making and allocation. A public service inside a wider economy does not by itself make the whole economy centrally planned.

Allocation rules differ even when the service is the same

A – market economy 市场经济

decentralised buyers and sellers steer production through **prices**; ability to pay affects who receives appointments

B – planned economy 计划经济

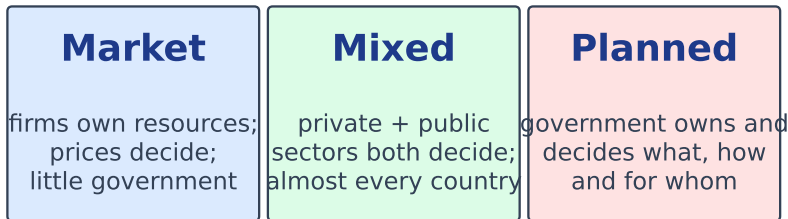
central decisions allocate resources; eligibility, quotas or waiting rules may replace price allocation – planning does not remove scarcity

C – mixed economy 混合经济

public decisions and market choices **coexist**; tax funding shifts who pays, it does not make staff time or equipment unlimited

These are simplified arrangements. Judge the whole system and its actual rules: ownership alone does not establish efficiency, fairness or the absence of prices.

Economic systems, in detail



Exam: real economies are mixed — the question is how far market vs government decides

Economic systems form a spectrum: a pure market at one end, full government planning at the other, mixed economies in between.

Who decides, in each system

Market economy

Prices decide. The **private sector** 私营部门 – firms and households – owns the resources and follows the profit signal.

Planned economy

A **planned economy** 计划经济, also called a **command economy** 指令经济: the government owns resources and decides what is made, how, and for whom.

Mixed economy

Both. The private sector and the **public sector** 公共部门 each make decisions, and the argument is about where the line sits.

What is being allocated

Resources 资源 are what we use to make goods and **services** 服务 – and land includes **non-renewable resources** 不可再生资源 such as oil and coal, which can run out.

Every system answers the same three questions – what, how, and for whom. They differ only in who answers them.

The three systems, compared

market

strengths: choice, low prices, strong incentive to work and invent

weaknesses: a large gap between rich and poor, and some goods – **national defence** 国防 – simply not supplied

planned

(**command** 计划经济)

strengths: a smaller gap between rich and poor, and key goods provided for all

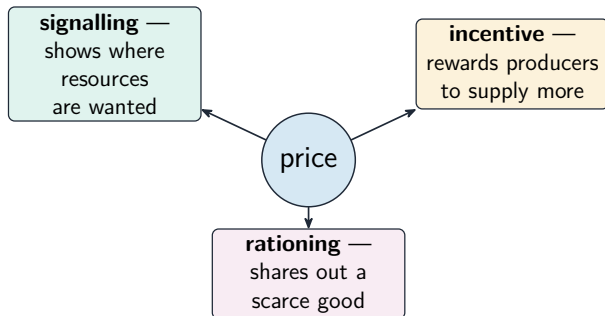
weaknesses: weak incentive, shortages and surpluses, and slow to change

mixed

tries to keep the good points of both – but **the right balance is hard to find**

No country sits at a pure extreme. China is officially a *socialist market economy*: markets set most prices while the state directs strategic sectors.

The price mechanism



In a market, the price does three jobs at once:

- **signalling** 信号传递 — shows where resources are wanted
- **incentive** 激励 — rewards producers to supply more
- **rationing** 配给 — shares a scarce good to those who pay

4

The production possibility curve

Classify combinations using a stated frontier

A **PPC** 生产可能性曲线 shows maximum feasible combinations for given resources and technology. This illustrative frontier joins these combinations:

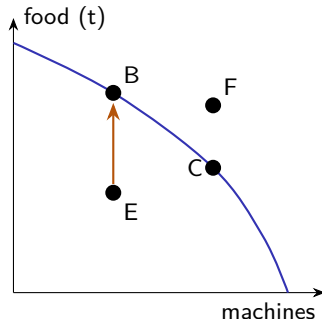
Point	Food (tonnes/day)	Machines (units/day)
A	20	0
B	16	4
C	10	8
D	0	12

Use the frontier, not just the word efficient

Classify $E=(8 \text{ food}, 4 \text{ machines})$ and $F=(15 \text{ food}, 8 \text{ machines})$. Can the economy make more food at E without giving up machines? Does choosing C prove that society prefers its product mix?

A production limit does not choose society's preferred mix

- **E is inside:** 4 machines allow 16 t of food, not just 8.
- **F is outside:** at 8 machines the maximum is 10 t, not 15.
- **C is on the frontier:** more of one good costs some of the other – **efficient** 效率 in production, not proof society prefers this mix.
- E → B uses spare capacity, yet scarce staff or time may still have a next-best use.



$$\text{opportunity cost} = \frac{6 \text{ t food}}{4 \text{ machines}} = 1.5 \text{ t per machine}$$

the **trade-off** 取舍 from B to C

Reading a production possibility curve

On the curve

Production is efficient for the given resources and technology; more of one good costs some of the other.

Inside it

Unused capacity or waste: more output may be feasible without sacrificing the other plotted good.

Outward shift

Growth. It happens with more resources, or better ones – new **technology** 技术, a bigger or more skilled workforce.

Inward shift

War or disaster can move the curve inward – **economic decline** 经济衰退.

The curve is a picture of opportunity cost: its slope *is* what one more unit of this good costs in units of that one.

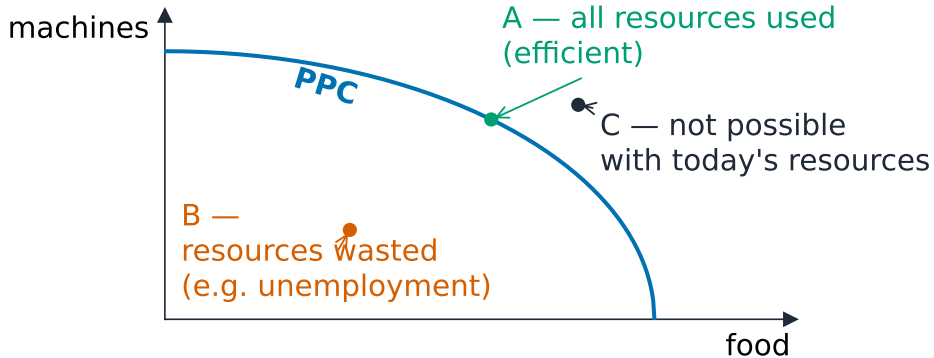
Worked example – why the PPC is bowed outwards

Why is a production possibility curve usually drawn rather than as a straight line?

- a straight line means a **constant** opportunity cost
- but factors are **not equally suited** to both uses
- move the best-suited first, so later units cost **more**
- so the curve steepens: **increasing opportunity cost**

The shape *is* the economics: a straight PPC would say a farmer and a machinist are interchangeable.

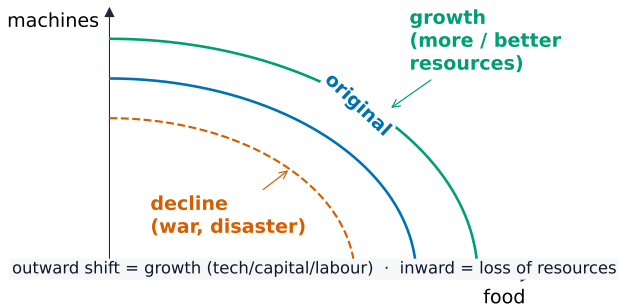
Production possibility curve, in detail



on = efficient · inside = inefficient · outside = unattainable

The **PPC** 生产可能性曲线 shows the most of two goods an economy can make.

Growth: shifting the curve



More or better resources shift the PPC **outward** – **economic growth** 经济增长; war or disaster shifts it inward. Making more **capital goods** 资本品 now means fewer **consumer goods** 消费品 today, and may expand future capacity if investment is productive.

5

Types of goods

Classify goods by use and access

Three services and two different questions

An uncrowded local street light helps all nearby users and cannot readily exclude non-payers. A public hospital gives a patient a free appointment using a scarce doctor's time. A paid lesson's full benefit is underestimated by a student. Which is a public good? Which involves opportunity cost despite no charge? Which case indicates a merit-good information problem?

Classify goods by use and access

Three services and two different questions

An uncrowded local street light helps all nearby users and cannot readily exclude non-payers. A public hospital gives a patient a free appointment using a scarce doctor's time. A paid lesson's full benefit is underestimated by a student. Which is a public good? Which involves opportunity cost despite no charge? Which case indicates a merit-good information problem?

Separate **rivalry** 竞争性 and **excludability** 排他性 from who owns the provider, who pays and how well buyers understand benefits.

Public ownership, zero price and information are different tests

public good 公共物品 **non-rivalry** 非竞争性 and **non-excludability** 非排他性 in the stated setting (the light). Non-payers benefit, creating a **free-rider problem** 搭便车问题: possible under-provision, not proof nobody contributes.

doctor's slot

scarce time with an **opportunity cost** even at zero price; it can be reserved and cannot serve two patients – **not** a public good just because the hospital is public

a lesson

can be a **private good** 私人物品 and a **merit good** 优值品: underestimated benefits $\Rightarrow$ too little consumption

demerit good 劣值品

underestimated harm $\Rightarrow$ possible over-consumption through **information failure** 信息失灵

Types of goods, in detail

	Excludable	Non-excludable
Rival	Private good food, clothes	Common resource ocean fish, air
Non-rival	Club good cinema, toll road	Public good street light, defence

Exam: classify by rivalry × excludability — free-rider problem only for non-excludable goods

Split by **rivalry** 竞争性 and **excludability** 排他性: a **private good** 私人物品 is both; a **public good** 公共物品 is neither ⇒ the **free-rider problem** 搭便车问题; a **merit good** 优值品 or **demerit good** 劣值品 is misjudged, through **information failure** 信息失灵.

Merit, demerit, public and free goods

merit good 优值品

better for you than you realise, so people buy **too little** – education, vaccination

demerit good 劣值品

worse for you than you realise, so people buy **too much** – cigarettes, alcohol

public good 公共物品

non-rival and **non-excludable**, so voluntary payment may not fund enough provision – street lighting, national defence

free good 自由物品

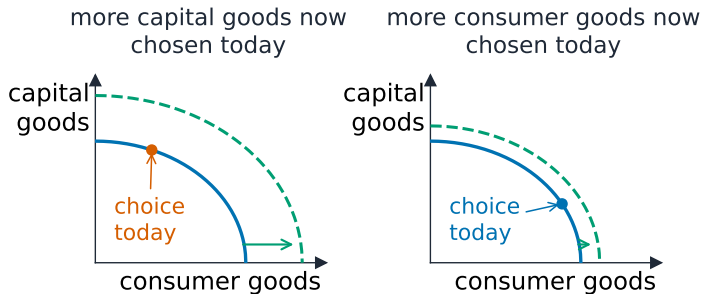
no opportunity cost in this particular use; a zero charge alone is not sufficient

the link

the first three are all **information or excludability** failures, which is why each has a different remedy

Merit and demerit goods turn on what the *consumer* misjudges; a public good turns on what the *market* cannot charge for. Do not mix the two arguments.

Shifts and growth



The larger future shift is illustrative: extra capital must add productive capacity after replacement and wear.

Free goods and economic goods

free good in this setting

abundant in
this use



no opportunity
cost

freely available air here;
not every use of air is costless

private economic good: an apple

scarce
resources

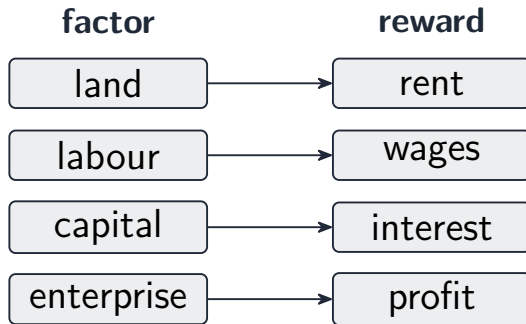


opportunity
cost

rival and excludable;
a zero charge does not
remove resource cost

Scarcity creates opportunity cost. Rivalry and excludability classify private and public goods; a zero charge does not make a good free.

Four factors of production and their rewards



The four factors of production and the reward each earns

How mobile is a factor?

**occupational
mobility** 职业流动性

how easily a factor moves from one **job or use** to another – a teacher who retrain as a nurse

**geographical
mobility** 地域流动性

how easily it moves from one **place** to another

labour is often immobile

family ties, the cost of housing, and **missing skills** all make it hard for workers to move

why it matters

immobile labour is why unemployment can be high in one region while vacancies go unfilled in another

land

geographically immobile by definition, though its *use* can often change

Immobility is the reason markets clear slowly. Any policy answer about regional unemployment has to name which kind of mobility is missing.

Positive and normative statements

positive - a statement of **fact**

“a higher price of petrol
reduces the amount people buy”

can be **tested**:
true or false?

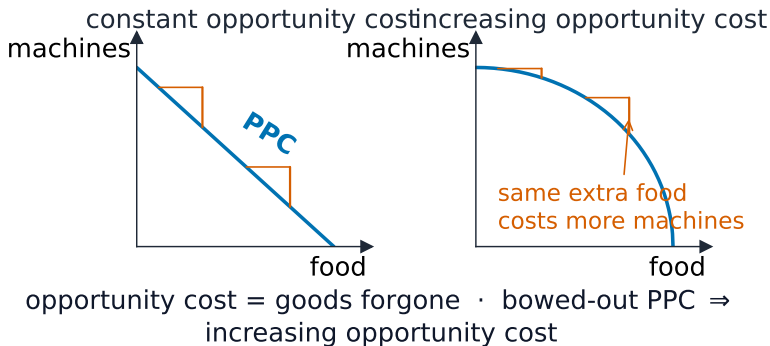
normative - an **opinion**

“the government *should*
make petrol cheaper”

cannot be tested -
a **value judgement** (“should”)

A positive statement can be tested; a normative statement is a value judgement

Production possibility curves



A straight PPC means each extra unit of food costs the same; a bowed PPC means each extra unit costs more and more machines.

Exam tips

- Frame answers around **scarcity and choice**: every choice has an **opportunity cost** – the next best alternative given up.
- Read a **PPC**: a point inside means unused resources, on the curve is efficient, outside is unattainable; the slope shows opportunity cost.
- Distinguish **positive** (a testable fact) from **normative** (“should”, a value judgement) statements.
- Classify goods: free versus economic, and **public / merit / demerit** goods (non-excludable, non-rival, and so on).

6

Recap

Calculate the opportunity cost over an output change

A separate illustrative movement on a frontier

An economy moves from 60 tonnes/day of food and 30 machines/day to 50 tonnes/day of food and 45 machines/day. Find the food given up for the extra machines and the average opportunity cost per additional machine. Is this two-point average necessarily the cost of every individual machine?

Calculate the opportunity cost over an output change

A separate illustrative movement on a frontier

An economy moves from 60 tonnes/day of food and 30 machines/day to 50 tonnes/day of food and 45 machines/day. Find the food given up for the extra machines and the average opportunity cost per additional machine. Is this two-point average necessarily the cost of every individual machine?

Compare the quantity gained with the next-best output forgone; express opportunity cost in the forgone good's units.

An interval average need not describe every unit

$$\text{Food forgone} = F_A - F_B = 60 - 50 = 10 \text{ tonnes/day}$$

$$\text{Machines gained} = M_B - M_A = 45 - 30 = 15 \text{ machines/day}$$

$$\text{Average opportunity cost} = \frac{\text{food forgone}}{\text{machines gained}}$$

$$\text{Average opportunity cost} = \frac{10 \text{ tonnes/day}}{15 \text{ machines/day}} \approx 0.67 \text{ tonnes/machine.}$$

This is the average over fifteen additional machines, not proof of a constant marginal cost. A curved frontier can give different costs for successive units.

Unused capacity may allow more output without sacrificing the other plotted good. It does not abolish opportunity cost for every use of scarce resources inside the PPC.

Topic 1 – key takeaways

1

Scarcity

wants $>$ resources $\Rightarrow$ choice & opportunity cost

2

Factors

land, labour, capital, enterprise

3

Prices

signal, incentivise, ration in a market

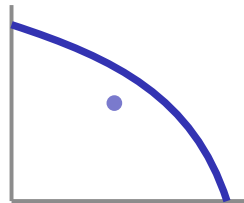
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PPC

on = efficient; outward shift = growth

Check yourself

- 1 What is the reward to capital?
- 2 “Petrol should be cheaper” – positive or normative?
- 3 A point inside the PPC shows what?
- 4 Why won't firms supply a public good?



Answers 1. interest 2. normative 3. wasted resources (e.g. unemployment)
4. free-rider problem (non-excludable)