The basic economic problem

Scarcity and choice, the three economic questions, economic and free goods, the factors of production and their rewards, opportunity cost, and production possibility curves.

Economics is the study of how people, firms and governments **choose** how to use **limited resources** to satisfy **unlimited wants**. Everything else in the subject follows from this one problem.

NOTE

How Economics papers are marked. Short parts ask you to **define** or **identify**. Longer parts ask you to **explain** (a point and its reason) or **analyse** (a chain of cause and effect, with a diagram where useful). The final **discuss** part wants **both sides** and a **judgement**. Use the **extract and data** in Paper 2, and quote figures.

1.1 The nature of the economic problem

Finite resources, infinite wants

- **Wants** are what people would like to have; they are **infinite** (once one want is met, another appears).
- **Resources** (land, labour, capital, enterprise) are **finite** (limited).
- The **basic economic problem** is that there are **not enough resources to satisfy all wants**.
- **Scarcity** is this shortage of resources relative to wants. It is the reason choices must be made.

The problem affects everyone:

Decision-maker	Example of scarcity
Consumers	limited income, so they cannot buy everything they want
Workers	limited time: more work means less leisure
Producers/firms	limited money, machines and workers
Governments	limited tax revenue: more on health means less on defence

Resource allocation: the three economic questions

Because of scarcity, every economy must answer:

1. **What to produce?** (which goods and services, and how much of each)

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2. **How to produce?** (which methods and resources: **labour-intensive** or **capital-intensive**)
3. **For whom to produce?** (who gets the output: how it is shared among people)

Economic goods and free goods

	Economic good	Free good
Scarce?	**yes**: it uses resources and has a price	**no**: unlimited supply, no opportunity cost
Example	cars, food, a haircut	air, sunlight (sometimes)

An economic good is scarce and has an opportunity cost. A free good is not scarce, so no one needs to pay for it.

1.2 The factors of production

Factors of production are the **resources used to produce goods and services**.

Factor	Meaning	Reward
Land	all **natural resources** (soil, water, minerals, forests, oil, fish)	**rent**
Labour	the **physical and mental effort** of workers	**wages**
Capital	man-made aids to production (machines, factories, tools, roads), not money itself	**interest**
Enterprise	**organising** the other factors and **taking the risk** of production (the entrepreneur)	**profit**

Changes in quantity and quality

Factor	What can increase quantity	What can improve quality
Land	discovery of new resources, land reclamation	**better farming methods**, fertilisers
Labour	population growth, **immigration**, more women working, longer working life	**education and training**, better health
Capital	**investment** in machinery	**new technology**
Enterprise	support for new businesses	experience, education

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Falls in quantity or quality (wars, ageing, depleting resources, emigration) can reduce an economy's capacity.

1.3 Opportunity cost

> **Opportunity cost is the next best alternative given up when a choice is made.**

Examples:

- A student who spends the evening studying gives up watching a film: the film is the opportunity cost.
- A farmer with one field can grow wheat **or** rice: if he grows wheat, the rice he could have grown is the opportunity cost.
- A government that builds a hospital with $50m gives up a school it could have built.

How it influences decisions:

Decision-maker	Example
Consumers	buying a phone means not buying new clothes
Workers	choosing a job or more education: giving up earnings now
Producers/firms	using a factory to make product A rather than product B
Governments	spending on defence rather than education

Rational decision-makers weigh the **benefit of what they choose against the opportunity cost**.

1.4 Production possibility curve (PPC) diagrams

A **production possibility curve (PPC)** shows the **maximum combinations of two goods (or types of goods)** an economy can produce **using all its resources fully and efficiently**, in a given time.

Drawing it

- Put **one good on each axis** (for example capital goods on the vertical axis, consumer goods on the horizontal).
- The curve usually **bows outwards** from the origin (it is concave) because resources are **not equally good at making both goods**, so giving up more of one good to produce an extra unit of the other costs more and more.
- The curve starts at the vertical axis and ends at the horizontal axis.

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Reading the points

Point	Meaning
On the curve	resources are **fully employed and used efficiently**; maximum output
Inside (under) the curve	resources are **unemployed or used inefficiently** (a recession, unemployment): the economy could produce more
Outside (beyond) the curve	**not possible** with current resources and technology

Movement along the curve

Moving from one point to another on the curve means producing **more of one good and less of the other**: that is **opportunity cost**: the units of one good given up to gain more of the other.

Shifts of the curve

An **outward shift** of the PPC means **economic growth** (the economy can produce more of both). Causes: **more resources** (new land, a bigger labour force, **investment** in capital) or **better quality resources** (education, **technology**).

An **inward shift** means the economy's capacity has **fallen** (war, natural disaster, loss of resources, a falling labour force).

A shift toward one axis only happens if technology improves in producing only one of the goods.

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> **An economy produces 100 units of food and 40 units of machines. It moves to 120 food and 30 machines. What is the opportunity cost of the extra 20 food?** The economy gives up **10 machines** (40 − 30) to gain 20 more units of food, so each extra unit of food costs 0.5 machines.

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