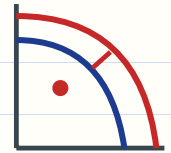


The Basic Economic Problem



Syllabus topics 1.1–1.4 · Paper 1 (Multiple Choice) and Paper 2 (Structured Questions)

For the Cambridge IGCSE Economics 0455 syllabus, exams in 2027, 2028 and 2029

Syllabus statements covered in this chapter

Syllabus ref.	What you must be able to do
1.1.1	Define the basic economic problem; explain scarcity (finite resources, infinite wants); give examples for consumers, workers, producers/firms and governments
1.1.2	The three basic economic questions that decide resource allocation: what to produce, how to produce, who to produce for
1.1.3	The difference between economic goods and free goods
1.2.1	Define land, labour, capital and enterprise; their rewards: rent, wages, interest and profit
1.2.2	Causes of changes in the quantity and quality of each factor of production
1.3.1–1.3.2	Define opportunity cost; examples in different contexts; how opportunity cost influences the decisions of consumers, workers, producers/firms and governments
1.4.1–1.4.4	Define, draw and interpret a production possibility curve (PPC); points under, on and beyond it; movements along it and opportunity cost; causes and consequences of shifts (economic growth)

What is inside

1. Concept notes, factor and PPC diagrams, 8 worked examples (calculations and model answers)
2. Exam skills for Paper 2; common mistakes from the examiner report
3. 20 Paper 1 style multiple-choice questions, explained
4. One Section A data-response question and two Section B questions (Paper 2 style), all with full mark schemes
5. Quick-reference table, "I can" checklist

How to read these notes

red = key term green = definition

I = one mark in the mark scheme

★ **Exam tip:** Every economic choice comes back to **scarcity**: because resources are limited, choosing one thing always means **giving up the next best alternative**. Keep using the words **scarcity**, **choice** and **opportunity cost** together.

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1.1 The nature of the basic economic problem

- The **basic economic problem** is how to allocate finite (limited) resources to satisfy infinite (unlimited) wants.
- **Resources** (land, labour, capital, enterprise) are **finite**: there is only so much of each at any time. **Wants** are **infinite**: once one want is met, people want more or better goods and services.
- **Scarcity** is the situation in which there are not enough resources to produce everything that people want. Scarcity forces **choice**, and every choice has an **opportunity cost** (1.3).

Examples of the basic economic problem

decision-maker	limited resource	competing wants: the choice to be made
consumers	income (and time)	a student with £40 a month must choose between a phone top-up, clothes, travel and saving
workers	time, skills, energy	work overtime for more pay or keep the time for leisure, family or study; which job to take
producers / firms	finance, workers, machines, land	a bakery with one oven must decide how much bread and how many cakes to bake; which products to make
governments	tax revenue and borrowing	spending on healthcare, education, defence, roads or welfare; it cannot fund every project

1.1.2 The three basic economic questions

Because resources are scarce, every economy must decide how to **allocate** them by answering three questions:

question	meaning	example
What to produce?	which goods and services, and how much of each	more hospitals or more sports stadiums; more food or more cars
How to produce?	which combination of factors and methods to use	labour-intensive (many workers, few machines) or capital-intensive (many machines) production of cloth
Who to produce for?	how output is shared out between people	to those who can pay the price, or to everyone according to need (e.g. free school places)

Market, planned and mixed economies answer them in different ways (Chapters 6 and 7).

1.1.3 Economic goods and free goods

	economic good	free good
meaning	a good that is scarce: it takes resources to produce, so it has an opportunity cost	a good that is not scarce: it needs no resources to produce, so it has no opportunity cost
examples	bottled water, a bus ride, a haircut, a textbook	air, sunlight, seawater in the ocean, sand in a desert

X Don't do this: A product that is **free of charge** to the user (a state school place, a free newspaper, a free sample) is **not** a free good. Resources were used to produce it, so it has an opportunity cost: someone else paid for it.

Worked example 1: economic good or free good?

Classify each and give a reason: (a) the air on a mountain; (b) oxygen in cylinders in a hospital; (c) a free vaccination at a government clinic.

(a) **Free good**: unlimited for users, no resources needed, no opportunity cost. (b) **Economic good**: labour, capital and energy are used to separate, compress and store the oxygen. (c) **Economic good**: free to the patient, but the vaccine, nurse's time and clinic all use scarce resources paid for by taxes.

1.2 Factors of production

Factors of production are the resources used to produce goods and services. There are four, and each earns a **reward** (a payment for its use).

factor	definition	examples	reward
land	all natural resources: gifts of nature used in production	the earth's surface, soil, rivers, forests, fish in the sea, minerals, oil	rent
labour	human effort, physical and mental, used in production	a nurse, a bus driver, a software engineer	wages
capital	human-made goods used to produce other goods and services	machinery, tools, factories, delivery vans, roads, computers	interest
enterprise	the willingness and ability to organise the other factors of production and to take the risks of production	an entrepreneur who starts a restaurant	profit

★ **Exam tip**: Capital means **capital goods** (machines, equipment), not money. Its reward is **interest**, and the reward to land is **rent**: "machinery" or "buildings" are not rewards.

1.2.2 Changes in the quantity and quality of factors

Quantity = how much is available; **quality** = how productive each unit is.

factor	causes of a change in quantity	causes of a change in quality
land	discovery of new resources (e.g. oil fields); land reclaimed from the sea (e.g. Dutch polders); deforestation, over-fishing and mining use resources up	fertilisers and irrigation raise soil fertility; soil erosion, pollution and over-farming lower it
labour	population size; net migration; retirement and school-leaving ages; more women in work; an ageing population	education and training (skills); healthcare and diet (fitter workers); work experience
capital	investment (helped by lower interest rates, profits, confidence, grants); falls if capital wears out faster than it is replaced, or is destroyed by war or disaster	new technology : newer machines produce more, faster
enterprise	lower taxes on profits; easier, cheaper loans; less "red tape"; entrepreneurs emigrating reduces it	business education, mentoring and experience

★ **Exam tip**: For "causes of a **change**", say what **changes** and in which direction (e.g. "a **cut** in the tax on profits **increases** the reward for risk, so **more** people start firms"), not just what enterprise depends on.

Worked example 2: explaining a change in a factor

Explain how a rise in the retirement age from 60 to 65 affects the factors of production of a country. Workers aged 60–64 stay in the labour force, so the **quantity of labour increases**; being experienced, they keep the **quality** of labour high. More labour means more output can be produced: productive capacity rises (the PPC shifts outwards, 1.4).

1.3 Opportunity cost

- **Opportunity cost** is the next best alternative forgone (given up) when a choice is made.
- It is **one** alternative only (the best one rejected), often measured in **goods or time**, not money. It exists **because of scarcity**; free goods have **zero** opportunity cost.

1.3.2 How opportunity cost influences decisions

decision-maker	example of a choice	opportunity cost and how it affects the decision
consumers	£60 on concert tickets	the trainers they could have bought; they buy only if they value the tickets more
workers	a college course; overtime	wages forgone, or leisure given up; a higher wage raises the opportunity cost of leisure and study
producers / firms	a factory makes bicycles	the scooters it could have made; firms choose the use that adds most to profit
governments	a new motorway	the hospitals or schools the money could have paid for; benefits are weighed against what is given up

Opportunity cost of one extra unit = units of the other good given up ÷ extra units gained
 e.g. 3 extra schools cost 1 hospital, so the opportunity cost of 1 school = $\frac{1}{3}$ hospital.

Worked example 3: a consumer's opportunity cost

Kofi has a free Saturday. In order of preference he could: (1) revise, (2) work a paid café shift, (3) play football, (4) go shopping. He revises. What is his opportunity cost?

The café shift, his next best alternative. Football and shopping do **not** count: only the single best rejected option.

Worked example 4: a worker's opportunity cost, in money terms

Leila could earn £1,250 a month in a full-time job. Instead she takes a two-year full-time training course. Identify her opportunity cost and value it.

The next best alternative is the full-time job. Earnings forgone = £1,250 × 24 months = **£30,000**. She chooses the course because she expects higher wages later to be worth more than this.

Worked example 5: a government's opportunity cost

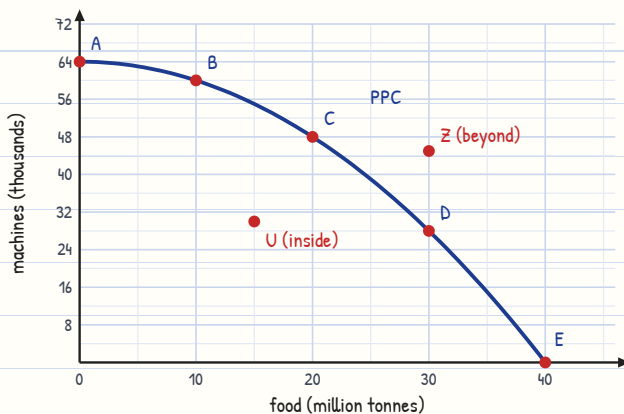
A government has €600 million for new building projects. A hospital costs €150 million and a school costs €25 million. (a) What is the opportunity cost of one hospital? (b) It builds three hospitals and spends the rest on schools. How many schools does it build?

(a) $150 \div 25 = 6$, so one hospital costs **6 schools**. (b) Three hospitals cost $3 \times 150 = 450$ million; $600 - 450 = 150$ million left; $150 \div 25 = 6$ schools.

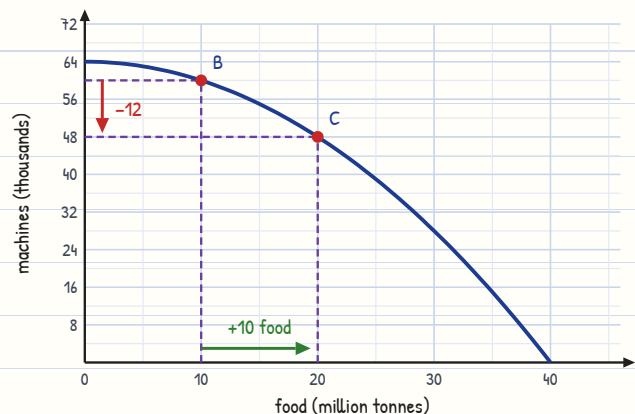
1.4 Production possibility curve (PPC) diagrams

- A **production possibility curve (PPC)** is a curve showing the maximum combinations of two goods (or services) that an economy can produce when all its resources are fully and efficiently used, with the existing resources and technology.
- Each **axis** shows the **output of one good** (e.g. food and machines, or consumer goods and capital goods), never price and quantity.

point	A	B	C	D	E
food (million tonnes)	0	10	20	30	40
machines (thousands)	64	60	48	28	0



PPC from the table: U is inside, Z beyond.



B to C: +10 food for -12 thousand machines.

1.4.2 Points under, on and beyond the PPC

position	significance
on the curve (A-E)	all resources are fully employed and used efficiently : more of one good can only be made by producing less of the other
inside / under the curve (U)	some resources are unemployed (e.g. unemployed workers, idle factories) or used inefficiently ; output of both goods could rise with no opportunity cost
beyond the curve (Z)	unattainable with the present quantity and quality of resources and technology; it can be reached only if the PPC shifts outwards (economic growth)

1.4.3 Movements along the PPC and opportunity cost

- A **movement along** the PPC means **reallocating** resources from one good to the other. The opportunity cost of the extra units of one good is the output of the other good given up.
- The PPC is usually **concave** (bowed outwards) because resources are **not equally suited** to producing both goods. As more food is produced, resources that are better at making machines have to be moved into

farming, so each extra unit of food costs **more and more** machines: **increasing opportunity cost**.

- If resources were equally good at producing both goods, the opportunity cost would be **constant** and the PPC would be a **straight line**.

Worked example 6: opportunity cost from a PPC table

Use the table above. (a) Find the opportunity cost of moving from B to C. (b) Find the opportunity cost per million tonnes of food for each move A→B, B→C, C→D, D→E. (c) Explain what your answers show about the shape of the PPC.

(a) $60 - 48 = 12$ **thousand machines** for 10 million tonnes more food.

(b) $4 \div 10 = 0.4$; $12 \div 10 = 1.2$; $20 \div 10 = 2.0$; $28 \div 10 = 2.8$ thousand machines per million tonnes (400, 1,200, 2,000, 2,800 machines).

(c) The opportunity cost of food **increases** as more food is produced, because resources less suited to farming are moved into it. This is why the PPC is **concave** (bowed out).

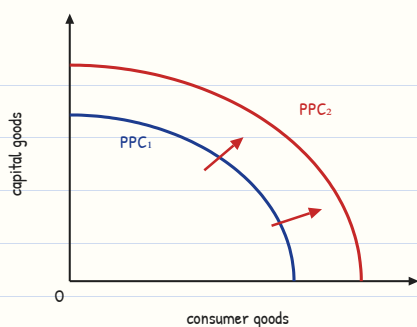
Worked example 7: points inside and beyond the PPC

The economy produces at U (15 million tonnes of food, 30 thousand machines). (a) Explain what U shows. (b) How many more machines could it make with no loss of food? (c) Why can it not produce at Z (30, 45)?

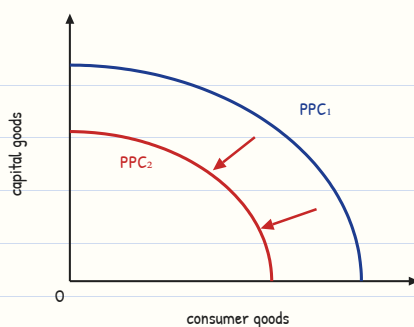
(a) U is **inside** the PPC: some resources are unemployed or used inefficiently. (b) On the curve at 15 million tonnes, machines = $64 - 15^2 \div 25 = 55$ thousand, so **25 thousand more machines** (zero opportunity cost, because idle resources are used). (c) At 30 million tonnes of food the maximum is 28 thousand machines; 45 thousand is **beyond** the PPC, so it cannot be reached with present resources and technology.

1.4.4 Shifts of a PPC

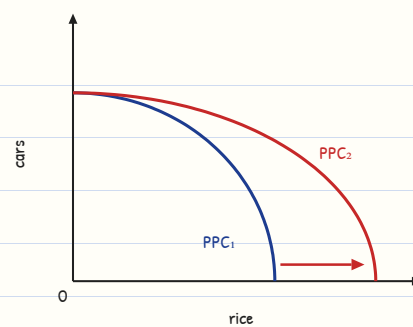
- A **shift** of the PPC means the economy's **productive capacity** (the maximum it can produce) has changed, because the **quantity or quality** of its factors of production or its **technology** has changed.
- **Outward shift** (to the right): more or better resources. This is **economic growth** in productive capacity (potential growth). Causes: discovery of new resources, immigration of workers, a higher retirement age, investment in capital goods, new technology, better education, training and healthcare.
- **Inward shift** (to the left): fewer or worse resources. Causes: natural disasters (earthquakes, floods, cyclones), war, emigration of workers, depletion of natural resources, an ageing and shrinking labour force, a fall in the capital stock.
- If the change affects **only one industry** (e.g. a new rice variety with higher yields), the PPC **pivots**: only the intercept on that good's axis moves.



Outward shift: growth in productive capacity.



Inward shift: productive capacity falls.



Pivot: better technology in rice farming only.

Consequences of shifts for an economy

- **Outward shift:** more goods and services can be produced, so living standards can rise; more jobs and incomes; more tax revenue; points beyond the old PPC become attainable. But growth may deplete resources and cause pollution, gains may be shared unequally, and extra capacity helps only if resources are employed.
- **Inward shift:** less can be produced; living standards, jobs and tax revenue fall, until lost capital is replaced.

★ **Exam tip:** A movement from a point **inside** the PPC to a point **on** it (using unemployed resources) increases actual output but is **not** a shift: the PPC only shifts when productive capacity changes.

Going further

Producing **more capital goods** now costs consumer goods today, but the extra machines and roads shift the PPC **further outwards** later. Through trade, a country can also **consume** beyond its own PPC by importing (Chapter 20).

Worked example 8: discuss (model answer)

Discuss whether or not an economy should produce more capital goods and fewer consumer goods. [8]

Why it should: machinery and roads increase the **quantity and quality of capital**; workers become more productive, productive capacity rises and the **PPC shifts outwards**, so in future more of **both** goods can be produced, raising living standards and jobs.

Why it might not: the move along the PPC has an **opportunity cost**: fewer consumer goods now, so present living standards fall, which is hard where many people lack basic needs. The capital may be badly chosen or left idle (inside the PPC), so growth may not happen.

Conclusion: it depends on how poor the country is and how well the capital is used: where basic needs are met, the future gain outweighs the present sacrifice; a very poor country should move only gradually.

Exam skills for Paper 2

Command words and what they need

command word	what the examiner wants
identify / state	a short answer: name the item (e.g. the reward to capital: <i>interest</i>)
define	the precise meaning, usually 2 marks: give the full definition
calculate	show your working and give units
explain	a point plus its development ("because ...", "so ..."); for "explain two", 2 marks each

analyse	a chain of links, often with a diagram: investment → more capital → higher productivity → PPC shifts out
discuss	two sides, each developed, then a justified conclusion (Worked example 8)

Drawing a PPC diagram

- Label each axis with a **good** (e.g. "consumer goods", "capital goods") and mark O; draw the curve **concave** and label it PPC (PPC₁, PPC₂ for a shift); label points (A, B, X ...).
- Show a shift with an **arrow**, a movement with an arrow between two points, a pivot by moving one intercept only; refer to the diagram in your answer.

Section A (data response) and Section B part (d)

- **Section A: use the source:** quote figures, calculate from the table, and link points to the country rather than writing general answers. If a part asks for **two** things, give exactly two and develop each.
- **Part (d), 8 marks:** develop two or three points on each side, then a conclusion that adds something new: what the answer **depends on** and which side is stronger. Repeating earlier points earns no extra credit.

Common mistakes that lose marks

- **Wrong rewards.** Capital earns **interest** and land earns **rent**. Giving "machinery" or "buildings" as the reward, or giving the reward to a different factor, scores nothing.
- **PPC axes.** The axes show the output of **two goods or services**, not price and quantity (that is a demand and supply diagram).
- **Static answers.** For causes of a **change** in a factor (e.g. enterprise), say what changes and its effect; just listing what enterprise depends on is not enough.
- **Undeveloped (b) answers**, and **one-sided (d) answers** or conclusions that only repeat earlier points.
- **Opportunity cost** is the **next best** alternative only, not all the alternatives, and not simply the money price.
- **Free of charge ≠ free good.** State education and free healthcare use scarce resources: they are economic goods.
- **Shift vs movement.** Using unemployed resources moves the economy from inside the PPC towards it; it does not shift the PPC.

Paper 1 style multiple-choice questions

20 questions, 1 mark each. Choose one answer, A, B, C or D. Answers with explanations follow the questions.

1. What causes the basic economic problem?

- A resources are finite but wants are infinite
- B prices of most goods are too high
- C some workers are unemployed
- D governments collect taxes

2. Which is a free good?

- A bottled water
- B a place at a state school
- C sunlight
- D a free newspaper

3. What is the reward to capital?

- A rent
- B interest
- C profit
- D wages

4. Which is an example of capital as a factor of production?

- | | |
|--------------------|-------------------------|
| A a field of wheat | B a teacher's skills |
| C a forest | D a firm's delivery van |

5. What is enterprise?

- | | |
|---|---|
| A the physical and mental effort of workers | B organising the other factors of production and taking risks |
| C all natural resources used in production | D human-made goods used to make other goods |

6. What is opportunity cost?

- | | |
|--|--------------------------------------|
| A the next best alternative given up when a choice is made | B the money price paid for a product |
| C all the alternatives given up when a choice is made | D the total cost of producing a good |

7. Amira ranks her choices for a free evening: (1) study, (2) work a paid shift, (3) watch a film, (4) play tennis. She studies. What is her opportunity cost?

- | | |
|------------------|------------------------|
| A studying | B the film and tennis |
| C playing tennis | D working a paid shift |

8. Which would increase the quantity of land in a country?

- | | |
|--------------------------------|-----------------------------|
| A better training for farmers | B greater use of fertiliser |
| C reclaiming land from the sea | D a rise in rents |

9. Which would increase the quality of labour?

- | | |
|---------------------------------|--------------------------------|
| A better education and training | B a rise in the birth rate |
| C immigration of workers | D a rise in the retirement age |

10. Which is one of the three basic economic questions?

- | | | | |
|--------------------|-------------------|----------------|------------------|
| A how much to tax? | B how to produce? | C when to buy? | D where to sell? |
|--------------------|-------------------|----------------|------------------|

11. What does a production possibility curve show?

- | |
|--|
| A the prices of two goods |
| B the demand for and supply of a good |
| C the maximum combinations of two goods that can be produced when all resources are fully and efficiently used |
| D the output of one firm |

Answers and explanations

1 A · 2 C · 3 B · 4 D · 5 B · 6 A · 7 D · 8 C · 9 A · 10 B · 11 C · 12 D · 13 A · 14 B · 15 D · 16 C · 17 A · 18 D · 19 B · 20 C

1. **A.** Limited resources and unlimited wants create scarcity.
2. **C.** Sunlight needs no resources to produce. B and D are free of charge but use resources.
3. **B.** Land → rent, labour → wages, enterprise → profit.
4. **D.** A van is a human-made good used to produce a service. A and C are land; B is labour.
5. **B.** A is labour, C is land, D is capital.
6. **A.** Only the single next best alternative counts.
7. **D.** Her second choice is the next best alternative.
8. **C.** Reclaiming land adds to the area available; A and B change quality, not quantity.
9. **A.** Education and training raise skills; B, C and D change the quantity of labour.
10. **B.** The three questions are what, how and for whom to produce.
11. **C.** Definition of a PPC; its axes are outputs of two goods.
12. **D.** W is inside the curve.
13. **A.** Z is beyond the curve.
14. **B.** Cars fall from 32 thousand to 24 thousand: $32 - 24 = 8$ thousand.
15. **D.** Increasing opportunity cost gives the bowed-out shape.
16. **C.** Productive capacity rises. A is a movement towards the PPC; B and D shift it inwards.
17. **A.** Capital is destroyed, so capacity falls; B, C and D shift the PPC outwards.
18. **D.** Actual output rises as idle resources are used; the PPC does not shift.
19. **B.** Opportunity cost is the real alternative given up, not the money spent.
20. **C.** Only rice production capacity rises; maximum car output is unchanged.

Paper 2 style questions

Total: 60 marks. Full mark schemes follow each question.

Question 1 (Section A, data response) [20 marks]

Source material: Hard choices in Coralía

Coralía is a small island economy that produces mainly fish and rice. In 2024 a cyclone destroyed or badly damaged many of its fishing boats and part of the main harbour. The rice farms inland were hardly affected.

Many young Coralians have emigrated to find work abroad, the population is ageing and more workers are retiring. Unemployment has risen because fishing crews have no boats to work on.

The government has 120 million Coralían dollars available for new projects. It can rebuild the harbour, or it can build 15 new schools. Some economists argue that better education would raise the quality of Coralía's labour in the long run; fishing firms say the harbour is needed now.

Coralía fact file	2023	2025
labour force (thousand)	820	790
unemployment rate (%)	4.0	6.5
working fishing boats	2,400	1,500

- (a) Calculate the percentage fall in the number of working fishing boats between 2023 and 2025. [2]
- (b) Identify **two** factors of production mentioned in the source material. [2]
- (c) Explain why the rise in unemployment suggests that Coralía is producing inside its production possibility curve. [3]
- (d) Explain **two** reasons, from the source material, why the quantity of labour in Coralía has fallen. [4]

(e) Analyse, using a PPC diagram, how the cyclone has affected Coralía's production possibilities for fish and rice. [4]

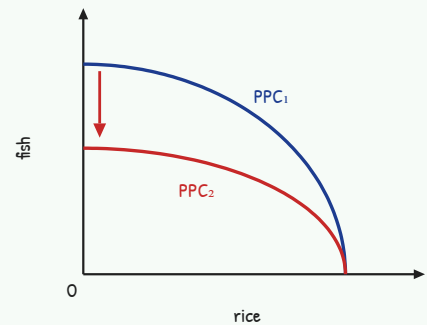
(f) Discuss whether or not the government of Coralía should use its 120 million Coralían dollars to rebuild the harbour rather than to build new schools. [5]

Mark scheme

- (a) $(2400 - 1500) \div 2400 \times 100 = 37.5\%$ (37.5 with no working: 2 marks)
- (b) any two, with the factor named: fishing boats / harbour: capital; workers / fishing crews / labour force: labour (also accept rice farms / land: land; fishing firms: enterprise)
- (c) unemployed workers are a resource that is not being used; on the PPC all resources are fully employed; so actual output is below the maximum possible / the unemployment rate rose from 4.0% to 6.5%
- (d) young people emigrate; so they leave Coralía's labour force / the labour force fell from 820 to 790 thousand; the population is ageing / more workers retire; retired people are no longer in the labour force

Mark scheme

- (e) axes labelled fish and rice, original PPC; PPC pivots inwards on the fish axis only; boats (capital) destroyed, so maximum fish output falls; rice farms unaffected, so maximum rice output unchanged
 - (f) **harbour**: restores capital, so fish output and jobs recover, cutting unemployment; a quick benefit, moving output back towards the original PPC
 - **schools**: the opportunity cost of the harbour is 15 schools; education raises labour quality, shifting the PPC outwards in the long run
- justified conclusion, e.g. depends on how urgently jobs are needed / whether private firms could fund the harbour (max



3 for one side)

Question 2 (Section B) [20 marks]

The government of Valdoria plans to raise the retirement age from 60 to 65. It also gives grants to firms that buy new machinery, which uses the latest technology.

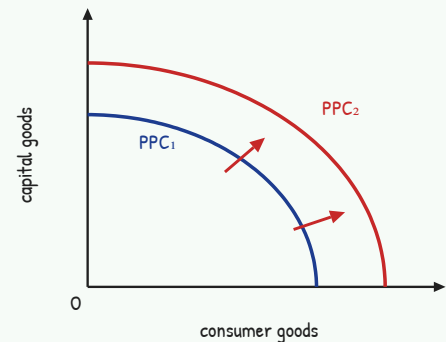
- (a) Define *opportunity cost*. [2]
- (b) Explain **two** reasons why the quantity of capital in an economy may increase. [4]
- (c) Analyse how giving grants to firms that buy new machinery could affect Valdoria's production possibility curve. [6]
- (d) Discuss whether or not raising the retirement age will benefit an economy. [8]

Mark scheme

- (a) the next best alternative 1; forgone / given up when a choice is made 1
- (b) for each of two reasons, a cause 1 and its development 1, e.g. lower interest rates 1, so borrowing to buy machines is cheaper 1; government grants / subsidies 1 reduce the cost of investment 1 (also: higher profits to fund investment; greater business confidence about future demand; new technology making machines worth buying)

Mark scheme

- (c) grants lower the cost of buying machinery, so firms invest more 1; the quantity of capital rises 1; new technology raises the quality of capital 1; workers become more productive, so productive capacity rises 1; the PPC shifts outwards, shown on a correctly labelled diagram 1; the economy can produce more of both goods / economic growth / but the grants have an opportunity cost for the government 1

**Mark scheme**

- (d) **Why it might benefit:** more labour, so productive capacity rises and the PPC shifts outwards; experienced workers keep labour quality high; wages instead of pensions, so more spending and tax revenue; less spent on pensions frees government funds for schools or hospitals; fewer skill shortages.
- **Why it might not:** older workers may be less productive in physical jobs; with too few jobs, young people may become unemployed (a point inside the PPC); skills may be out of date, so retraining costs rise; workers give up leisure (their opportunity cost).
- **Evaluation:** depends on workers' health, the type of work and whether enough jobs exist; more likely to benefit an ageing economy with labour shortages.

Level	marks	description (written for these notes)
3	6-8	Developed analysis on both sides, using economic terms accurately, and a reasoned judgement on what the answer depends on.
2	3-5	Some explained points, but one side is weak or missing, or the evaluation is limited.
1	1-2	Relevant points stated or listed with little or no explanation.

Question 3 (Section B) [20 marks]

Kestria produces consumer goods and capital goods. Fig. 3.1 shows its PPC. In 2025 the economy was at point X. The government wants to move to point Y. Some economists say it was really at point W, because many factories were idle.

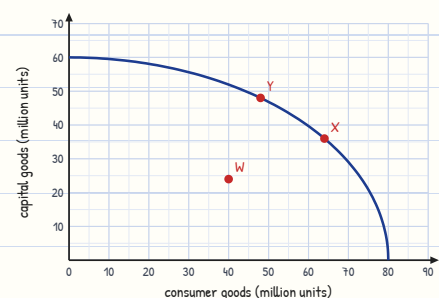


Fig. 3.1 Kestria's PPC.

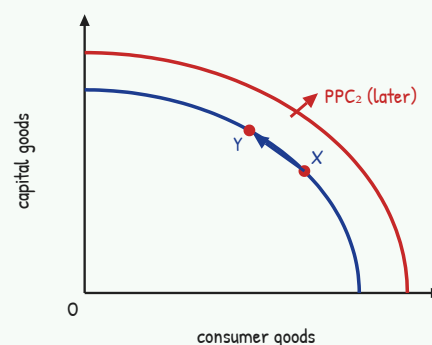
- (a) Identify the reward to labour and the reward to enterprise. [2]
- (b) Explain the significance of point W and point X in Fig. 3.1. [4]
- (c) Analyse how moving from point X to point Y could affect Kestria's economy now and in the future. [6]
- (d) Discuss whether or not economic growth, shown by an outward shift of the PPC, always benefits an economy. [8]

Mark scheme

- (a) labour: wages 1; enterprise: profit 1
- (b) W is inside the PPC 1; resources (e.g. idle factories) are unemployed or used inefficiently 1; X is on the PPC 1; all resources fully and efficiently used, so more of one good means less of the other 1

Mark scheme

- (c) movement along the PPC: resources move from consumer to capital goods 1; consumer goods 64 → 48 million units, capital goods 36 → 48 million units 1; opportunity cost = 16 million consumer goods for 12 million capital goods (about 1.33 each) 1; present consumption / living standards may fall 1; more capital raises productive capacity 1; the PPC shifts outwards in future: more of both goods 1



Mark scheme

- (d) **Why it benefits:** more goods and services, so living standards can rise; more jobs and incomes; more tax revenue for education and healthcare; combinations that were unattainable become possible.
- **Why it may not:** growth may use up natural resources and cause pollution, harming future generations; extra income may go to a few people; new capacity helps only if resources are employed (the economy may stay inside its new PPC); more capital goods do not raise consumption at once.
- **Evaluation:** depends on the cause of the shift (better education vs cutting down forests), how gains are shared and whether resources are used; usually beneficial, but not automatically.

Level	marks	description (written for these notes)
3	6-8	Developed analysis on both sides, using economic terms accurately, and a reasoned judgement on what the answer depends on.
2	3-5	Some explained points, but one side is weak or missing, or the evaluation is limited.
1	1-2	Relevant points stated or listed with little or no explanation.

Quick-reference table

Item	Key point
basic economic problem	allocating finite resources to satisfy infinite wants → scarcity → choice
examples	consumers (income), workers (time, skills), firms (finance, factors), governments (tax revenue)
three questions	what to produce, how to produce, who to produce for
economic vs free good	economic: scarce, uses resources, has an opportunity cost; free: not scarce, zero opportunity cost (air, sunlight)
factors and rewards	land → rent; labour → wages; capital → interest; enterprise → profit
quantity / quality	quantity: discoveries, migration, retirement age, investment, taxes on profits; quality: education, training, healthcare, technology, fertilisers
opportunity cost	next best alternative forgone; per unit = units given up ÷ units gained
PPC	maximum combinations of two goods with all resources fully and efficiently used; axes = two goods
points	on: full, efficient use; inside: unemployed or inefficient resources; beyond: unattainable now
movement along	reallocation; opportunity cost; concave shape = increasing opportunity cost
shifts	outward: more or better resources, technology (growth); inward: disasters, war, emigration, depletion; pivot: one good only

"I can" checklist

- | | |
|--|---|
| ☐ define the basic economic problem and scarcity, and give examples for consumers, workers, firms and governments | ☐ explain causes of changes in the quantity and quality of each factor |
| ☐ explain the three basic economic questions | ☐ define opportunity cost, calculate it and explain how it affects decisions |
| ☐ distinguish economic goods from free goods, with examples | ☐ draw and interpret a PPC; explain points under, on and beyond it |
| ☐ define the four factors of production and state their rewards | ☐ explain movements along a PPC and increasing opportunity cost |
| | ☐ explain causes and consequences of outward and inward shifts of a PPC |