AQA A Level Economics

Your notes

1. Economic Methodology & the Economic Problem

Contents

Economic Methodology


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Economics as a Social Science

- Economics is a **social science**
  - Social sciences study societies and the **human interactions** within those societies
  - Human interactions are complex and are influenced by **many variables**
  - Social sciences also include subjects such as Psychology, Politics, Geography and Business Studies
- Due to the complexities within societies, economists **build models** so as to better understand certain interactions
  - A model is a **simplified version** of reality
  - Some models are **more complex** than others. Examples of models include, the circular flow of income, production possibility curves, demand and supply
  - All models make a **range of assumptions**. These are often generalizations about behaviour, choices and likely outcomes
  - These assumptions are necessary so as to account for complex human behaviour and **constantly changing variables**
  - When evaluating different models, the **underlying assumptions** should always be considered
- To **think like an economist** involves identifying which variables will be studied and which ones will be excluded
  - This way of thinking considers the type of relationship between variables **(causal or correlation)**. E.g. Data shows that when ice cream sales increase, so do car thefts. Correlation, yes. Causation, no
  - Some economists will **build an argument** to include certain variables in a study and others will argue to exclude them. They will each provide a **justification** for their decision
  - Two economists analysing the same data may end up with **vastly different interpretations.** This is often due to the different variables that each economist chooses to focus on
  - This is the complexity found within **social sciences**

The Social Scientific Method

- As a **social science**, Economics deals with complex and continuously changing **human interactions**

- It is hard to examine a relationship between **two variables** and always come to the same conclusion (as can be done in Science or Maths)
- There are a variety of tools used in economic analysis to help ensure that **positive (factual) statements** can be made with a degree of reliability

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1. The use of logic

- When analysing markets, a **range of assumptions** are made about the **rationality** of **economic agents** involved in the transactions
- In classical economic theory, the word **'rational'** means that economic agents are able to consider the outcome of their **choices** and **recognise the net benefits** of each one
- Rational agents will select the choice which presents the **highest benefits**
  - **Consumers** are assumed to act rationally. They do this by **maximising their utility**
  - **Producers** are assumed to act rationally. They do this by **selling goods/services** in a way that **maximises their profits**
  - **Workers** are assumed to act rationally. They do this by **balancing welfare** at work with consideration of both pay and benefits
  - **Governments** are assumed to act rationally. They do this by placing the interests of the people they serve first in order to maximise their welfare

2. The use of hypotheses, models and theories

- The **social sciences** use a variation of the **scientific method** of research, which is called the **social scientific method**
- There is an **inability to make scientific experiments,** the results of which can be proven time and time again
  - This is due to the complexity of human nature and the significant **number of social interactions** that are taking place in any economy **at any given point in time**
- The steps in the **social scientific method** are similar to the **scientific method** but there is a key difference

Diagram: The Social Scientific Method

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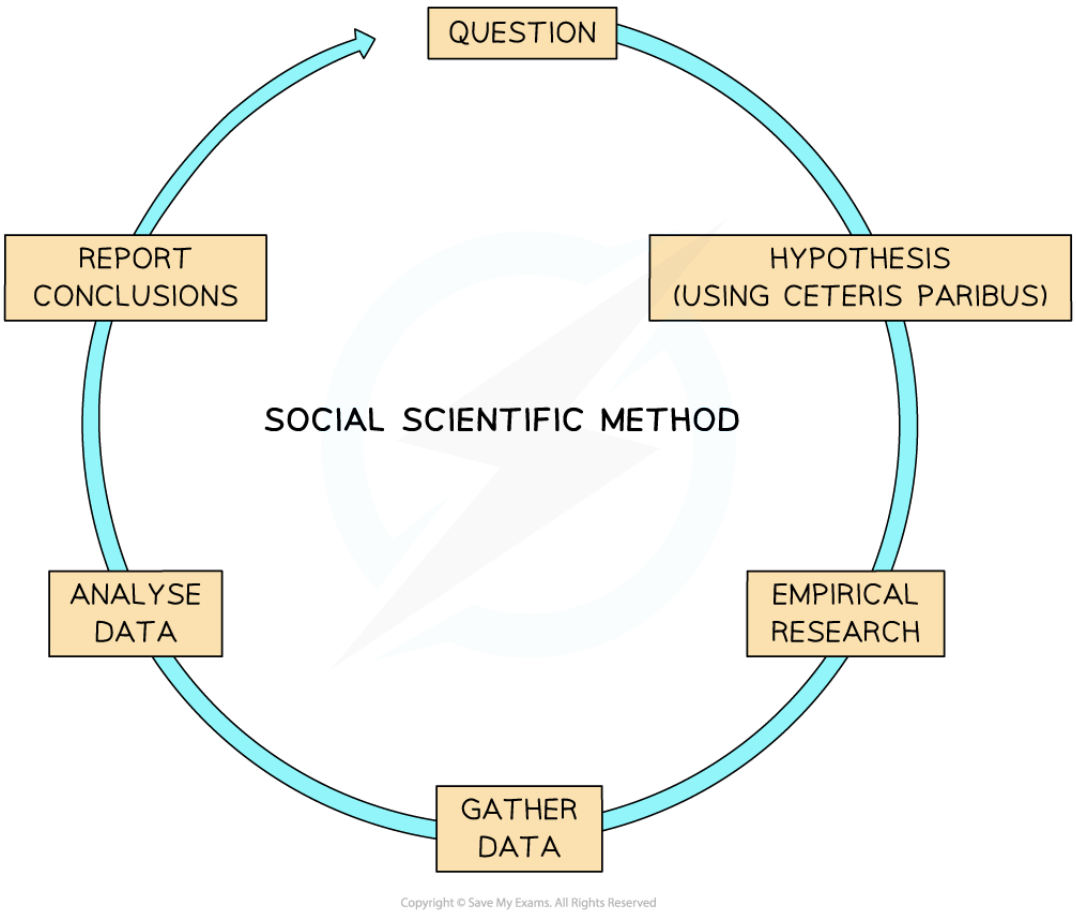

The method uses empirical research to gather data

- **Empirical research** is collected through **observations, surveys, opinion polls** etc.
  - The results of **the same hypothesis** can vary significantly when conducted by **different researchers** at **different time periods** and **between different places and cultures**
- **Refutation** is the act of a statement or theory being proved to be wrong by the empirical evidence
  - Refutation helps to determine if an **economic statement is positive**
- **Economic models** are developed by economists once a **hypothesis has been repeatedly proven or rejected** in **different circumstances**
  - A model is a **simplified version** of reality

- All models make a **range of assumptions**. These are often generalisations about behaviour, choices and likely outcomes
- These assumptions are necessary so as to account for complex human behaviour and **constantly changing variables**
- When evaluating different models, the **underlying assumptions** should always be considered


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3. The ceteris paribus assumption

- Due to the **large number of variables** that can influence any particular economic interaction in society, economists **create models** using the principle of **ceteris paribus**
  - Translated from Latin, ceteris paribus means **'all other variables remain constant'**
  - It allows economists to **simplify and explain** causes and effects, even if the explanation is somewhat limited by the assumptions
  - E.g. There are **many factors** that affect the level of unemployment in an economy (interest rates, consumer confidence, firms' investment, government policies, etc.). Using **ceteris paribus**, economists can simplify the **economic model** to analyse **just two variables** (e.g. unemployment and interest rates)

Positive & Normative Statements

What is positive economics?

- **Positive economics** is concerned with **objective statements** of how a market or an economy works
- These **positive economic statements** are based on empirical evidence and tend to be **statements of fact**
- They can be proven to be **true or false**
- Examples of positive economic statements include
  - The unemployment rate in India **has fallen** from 8% to 7.3% in the past twelve months
  - Increasing the minimum wage last year in the UK **resulted in improvements** to wage inequality
  - Prices in the EU **have risen dramatically**, partly due to the 20% **increase in the price of oil**

What is normative economics?

- **Normative economics** focuses on **value judgements**
- These judgements are built around **opinions and beliefs** as to what the best economic policies or solutions may be
- These judgements are called **normative economic statements**

- **Normative economic statements** are often the basis for the **manifestos** of political parties and the different economic agendas they put forward
- Examples of normative economic statements include
  - Every economy **should** aim to provide free healthcare for its citizens
  - Corporation taxes in an economy **should** be higher than personal income taxes
  - **The best way** to deal with a rise in crime is to employ more police

Examiner Tips and Tricks

In short answer questions, should you wish to provide an example of a positive or normative statement ensure that normative statements have the word 'should' in them. Positive statements usually include data that is hard to challenge.

The Role of Value Judgements

- **Value judgements influence governments'** choices with regards to the **economic policies** they choose to adopt and spend money on
  - The USA spends more money on imprisoning drug users than rehabilitating them
  - In the UK, the government has recently increased its spending on **rehabilitation**
  - To say the **UK approach is better** would be a **normative statement**
  - To say that the UK government spends more per head on rehabilitation would be a **positive statement**
- Value judgements will impact economic decision-making because they are influenced by how the public will react to economic policies and what they see as a **favourable outcome**

Factors Affecting People's Choices

- Individual decision-making is influenced by **positive outcomes** and the **morality** of choices
  - Postivie outcomes tend to be focussed on self and not ' the benefit of society'
  - **Moral judgements** are a normative concept, as 'the right thing' means different things to different people
- Consumers have different moral judgements about **equity** and **equality**
  - **Equity** is concerned with the idea of fairness


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- Individuals and societies have different views on **what is fair** and this influences government policy
    - E.g. Some countries believe it is fair for all of their citizens to be able to access healthcare, irrespective of their ability to pay, whereas other countries believe that 'no pay, no access' is fair
- **Equality** is concerned with everyone being equal and having equal recognition
    - Equality is often a normative concept. When are all people equal? When do people all have equal opportunities?
    - **Statistics on inequality** would be considered to be positive economic statements
    - E.g. In 2018, women in the USA were paid 12% less than men in comparable jobs
- The degree to which markets versus governments should, or are able to, create greater equity or equality in an economy is an area of much debate

Economic Activity

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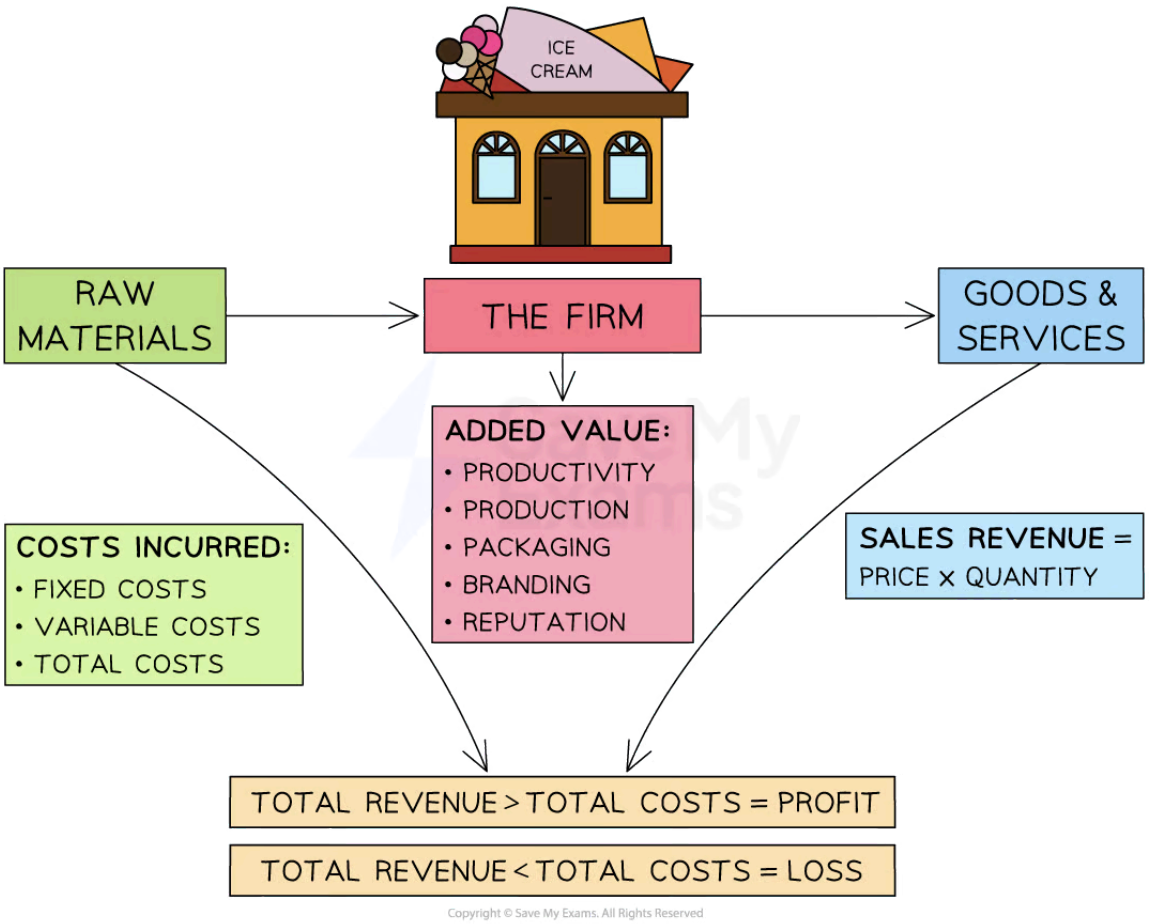
The Purpose of Economic Activity

- The central purpose of economic activity is the production of **goods and services** to satisfy **needs** and **wants**
  - **Needs** are essential for survival, eg. food and shelter
  - **Wants** are desires for goods and services that are not essential, eg. electronics
- The demand for needs and wants are **infinite**, while the supply of resources needed to produce them is **finite**

Diagram: The Purpose of Economic Activity



The purpose of economic activity is to take inputs, add value to them, and create products which meet customer needs and wants

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To produce goods or services

- The primary purpose of business activity is to **produce goods or services** that satisfy a need or demand in the market
  - Goods are physical products, such as bicycles and T-shirts
  - Services are non-physical items such as hairdressing, tourism and manicures

Meeting customer needs

- The ultimate goal is to create products that **meet the needs and preferences of customers** and provide value to them
- By meeting customer needs, businesses can **build customer loyalty**, increase brand awareness, and generate revenue

To add value

- The third purpose of business activity is to **add value** to products or services
- Value-added features can **differentiate** products from competitors, create a **unique selling point**, and increase customer satisfaction
  - E.g. a product that is easier to use, has a better design, or is of higher quality than competitors can create a competitive advantage for a business

The Three Fundamental Economic Questions

- In order to solve the basic economic problem of **scarcity,** economic systems emerge or are created by different economic agents within the economy
  - These agents include **consumers, producers, the government, and special interest groups** (e.g. environmental pressure groups or trade unions)
  - Any economic system aims to allocate the **scarce factors of production**
- The three main economic systems are a **free market system**, a **mixed economy**, and a **planned economy**

Diagram: Three Fundamental Economic Questions

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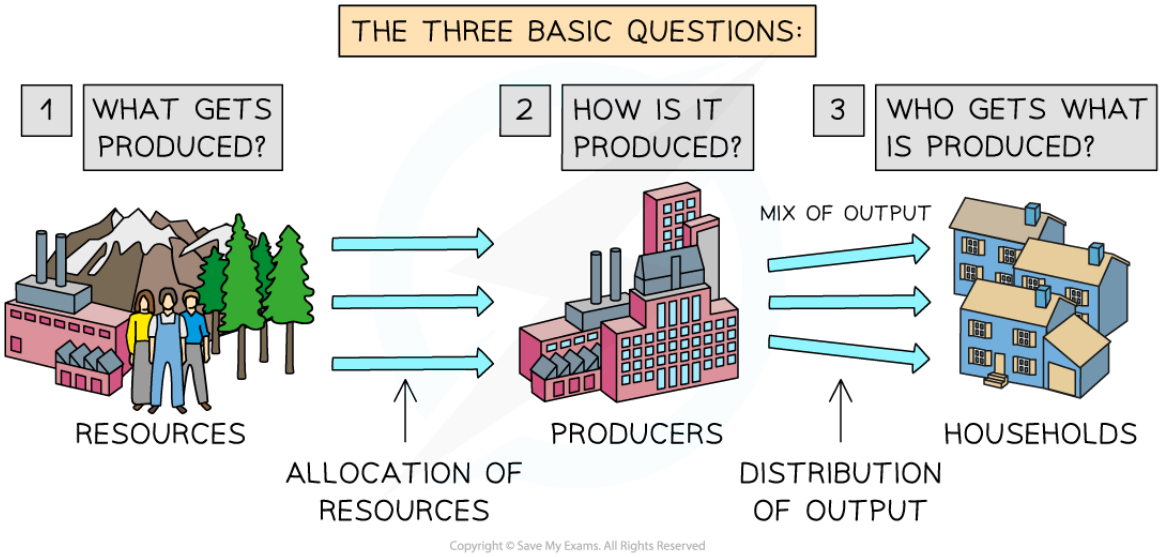

How the three questions are answered determines the economic system of a country

- Each economy has to answer **three important economic questions**

1. **What to produce?** As resources are limited in supply, decisions carry an opportunity cost. Which goods/services should be produced, e.g. better rail services or more public hospitals?
2. **How to produce it?** Would it be better for the economy to have labour-intensive production so that more people are employed, or should goods/services be produced using machinery?
3. **Who to produce it for?** Should goods/services only be made available to those who can afford them, or should they be freely available to all?

How These Questions are Answered Determines the Economic System

Type of System	What to Produce?	How to Produce?	For Whom?
Market System	▪ Demand and supply **(the price mechanism)**	▪ Most efficient, profitable way possible.	▪ Those who can afford it

Mixed System	▪ Demand, supply and the Government	▪ Some efficiency but also a focus on welfare/well-being	▪ Those who can afford it, plus some provision to those who cannot afford it
Planned System	▪ The Government	▪ Ensure everyone has a job	▪ Everyone


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Economic Resources

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The Factors of Production

- **Factors of production** are the resources used to produce goods and services
  - Land, labour, capital and enterprise
- The production of any good/service requires the use of **a combination of all four factors of production**
  - Goods are physical objects that can be touched **(tangible)** e.g. mobile phone
  - Services are actions or activities that one person performs for another **(intangible)** e.g manicure, car wash

The Four Factors of Production

Land	Labour	Capital	Enterprise
▪ **Non man-made natural resources available for production** ▪ Some countries have a vast amount of a particular natural resource and so are able to specialise in its production e.g. oil	▪ **The human input into the production process** ▪ Labour involves mental or physical effort. Not all labour is of the same quality. It can be **skilled or unskilled**	▪ **Capital is any man-made resource that is used to produce goods/services** ▪ E.g. Tools, buildings, machines and computers	▪ **Enterprise involves taking risks in setting up or running a firm** ▪ An entrepreneur decides on the combination of the **factors of production** necessary to produce goods/services with the aim of generating profit

Some of the Factors of Production Required to Produce a Motor Car

Land	Labour	Capital	Enterprise
iron ore rubber	car designer production director	robotic arms conveyor belt	CEO

oil sand cows	production line staff supply chain staff	rolled steel computers seats	


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- In a **free market economic system**, the factors of production are privately owned by households or firms
  - Households make these resources available to firms that use them to produce goods/services
  - Firms purchase land, labour, and capital from households in **factor markets**
- **Households** receive the following financial rewards (factor income) for selling their **factors of production**
  - The factor income for land → **rent**
  - The factor income for labour → **wages**
  - The factor income for capital → **interest**
  - The factor income for entrepreneurship → **profit**

The Environment as a Scarce Resource

- **Environmental resources** are **raw materials** that come from nature, e.g. gas, water, soil, wood
  - It is the **land** used to produce goods and services as part of the **factors of production**
- Increased economic activity causes the **degradation** of environmental resources.This is where current generations **overconsume** and produce, resulting in resources becoming **scarce**. They are being destroyed for use for **future generations**
  - Non-renewable resources (eg. coal or oil) are already **limited in supply** and will run out quickly
  - Renewable resources (e.g. water and air) should be **infinite in supply**
    - Resources such as clean water will eventually run out if not treated properly by current generations. This makes the supply scarce
- This gives rise to the concept of **sustainability**, which means meeting the needs of current generation without compromising the needs of future generations

Scarcity, Choice & the Allocation of Resources

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The Basic Economic Problem: Scarcity

- The **basic economic problem** is that resources are **scarce**
  - In economics, these resources are called the **factors of production**
- There are **finite resources** available in relation to the **infinite wants and needs** that humans have
  - Needs are essential to human life, e.g. shelter, food, and clothing
  - Wants are non-essential desires, e.g. better housing, a yacht, etc.
- Due to the problem of scarcity, **choices have to be made** by producers, consumers, workers and governments about the best **(most efficient)** use of these resources
- **Economics is the study of scarcity and its implications for resource allocation in society**

All Stakeholders in an Economy face the Basic Economic Problem

Consumers	Producers	Workers	Government
▪ In a **free market**, **scarcity** has a direct **influence on prices** ▪ The **scarcer** a resource or product, the **higher** the price consumers will pay	▪ Producers selling products made from **scarce resources** will find their costs of production are higher than if they were selling products made from more abundant resources	▪ Workers may want a more comfortable and safer working environment but their employers may not have the **resources** to create it	▪ Governments have to decide if they will provide certain goods/services or if they will allow private firms to provide them instead ▪ Their decision influences the **allocation of resources** in society

Opportunity Cost Defined

- **Opportunity cost is the loss of the next best alternative when making a decision**
- Due to the **problem of scarcity**, **choices have to be made** about how to best **allocate limited resources** amongst competing wants and needs

- There is an **opportunity cost** in the allocation of resources
  - E.g. When a **consumer** chooses to purchase a **new phone**, they may be **unable to purchase new jeans**. The jeans represent the loss of the next best alternative **(the opportunity cost)**

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Opportunity Cost in Decision Making

- An understanding of opportunity cost may **change many decisions** made by consumers, workers, firms and governments
- Factoring the opportunity cost into a decision often results in different outcomes and so a different **allocation of resources**

Examples of how the Consideration of Opportunity Costs can Change Decisions

Stakeholder	Example
Consumer	▪ Ashika is wanting to visit her best friend in Iceland ▪ She looks at flight prices from London to Reykjavík ▪ On Friday night it costs £120 whereas Thursday night is only £50 ▪ She is about to book the Thursday flight but then realises that the **opportunity cost** of saving £60 on a flight is the **inability to work on Friday** (loss of £130 income) ▪ Ashika books the more expensive flight. If she had booked the cheaper flight, it would have cost her the income from the missed day of work (£130) + £50 for the ticket
Worker	▪ Ric has been offered two jobs and is deciding which one to accept ▪ Job A offers £400 a month more in **salary** than Job B, but Job B offers the flexibility of working from home ▪ Most people would only consider the **actual cost** of commuting before they make a decision, which in Ric's case is £40 a week or £160 a month ▪ Ric values his free time and decides that each hour he can save in commuting is worth £20 to him (£180 a week), he is considering the **opportunity cost of commuting** ▪ Ric decides to take Job B as the **cost of monthly travel (4 x £40) and value of the lost hours spent commuting (4 x £180)** adds up to £880 a month

Examiner Tips and Tricks

Opportunity cost is about the loss of the next best alternative. It is not a monetary amount. Money may well be a factor but opportunity cost is about the loss of the next best choice when making a decision.

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Production Possibility Diagrams

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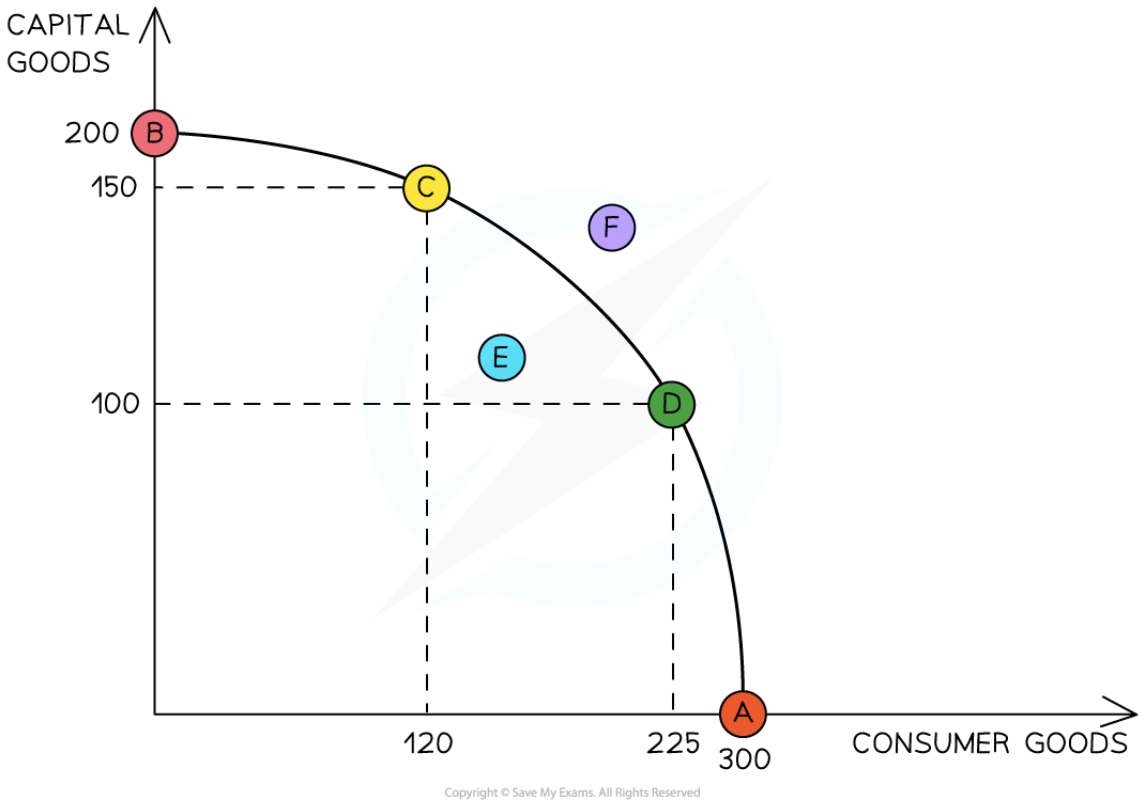
An Introduction to Production Possibility Diagrams

- The **Production Possibility Curve (PPC)** is an **economic model** that considers the **maximum possible production** (output) that a country can generate if it uses all of its factors of production to produce **only two** goods/services
- **Any two** goods/services can be used to demonstrate this model
- Many PPC diagrams show **capital goods** and **consumer goods** on the axes
  - **Capital goods are assets** that help a firm or nation t**o produce output** (manufacturing). For example, a robotic arm in a car manufacturing company is a **capital good**
  - **Consumer goods are end products** and have **no future productive use**. For example, a watch

Diagram: Production Possibility Curve (PPC)



A PPC for an economy demonstrating the use of its resources to produce capital or consumer goods

Diagram Explanation

- **The use of PPC to depict the maximum productive potential of an economy**
  - The curve demonstrates the **possible combinations of the maximum output** this economy can produce **using all of its resources** (factors of production)
  - At A, its resources are used to produce **only consumer goods** (300)
  - At B, its resources are used to produce **only capital goods** (200)
  - Points C and D both represent **full** (efficient) use of an economy's resources as these points **fall on the curve**. At C, 150 capital goods and 120 consumer goods are produced
- **The use of PPC to depict** opportunity cost
  - To produce one more unit of capital goods, this economy must give up production of some units of consumer goods (limited resources)
  - If this economy moves from point **C (120, 150)** to **D (225, 100**), the **opportunity cos**t of producing **an additional** 105 units of consumer goods is 50 capital goods
  - A **movement in the PPC** occurs when there is any change in the **allocation of existing resources** within an economy such as the **movement** from point C to D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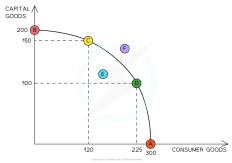
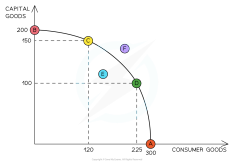
Productive & Allocative Efficiency on a PPC

- **Efficiency** is a key concept in economics
- Economists generally identify **two types of efficiency** - productive and allocative efficiency

An Explanation of Productive and Allocative Efficiency

Type of Efficiency	Explanation

Productive Efficiency
 
	▪ Producing at any point on the PPC represents **productive efficiency,** as it is the maximum output that can be produced from the available **factors of production** to produce goods and services
	  ▪ There is **no wastage** of scarce resources
	▪ Any point inside the curve represents **inefficiency** (point E)
	  ▪ It does not use all possible combinations of factors of production to produce goods and services

Allocative Efficiency 	▪ Makes the best possible use of **scarce resources** to produce the combinations of goods and services that are **optimal for society,** thus minimising resource waste ▪ Not all points on the PPC are allocatively efficient ▪ This is because more of one good or service cannot be produced without reducing output of another good/service ▪ Any change to the **allocation of resources** in this market will make either the consumer or producer worse off (excess demand or excess supply would occur)

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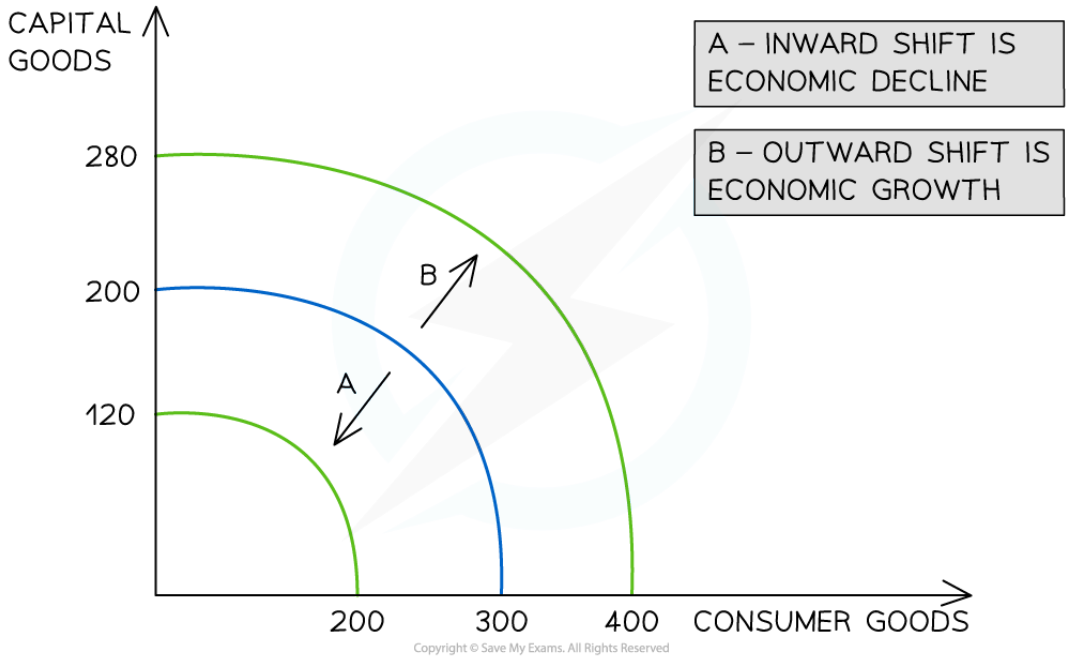
Changes in Production Possibilities

- As opposed to a movement along the PPC described above, the **entire PPC of an economy can shift** inwards or outwards, thereby changing its production possibilities

Diagram: Inward & Outward Shift of PPC



Outward shifts of a PPC show potential economic growth and inward shifts show economic decline

Diagram explanation

- **Economic growth** occurs when there is an increase in the **productive potential of an economy**
  - This is demonstrated by an **outward shift** of the entire curve. **More consumer goods** and **more capital goods** can now be produced using all of the **available resources**
- This shift is caused by an increase in the **quality or quantity of the available factors of production**
  - One example of how the **quality** of a factor of production can be **improved** is through the impact of **training and education on labour**. An educated workforce is a **more productive workforce** and the **production possibilities increase**
  - One example of how the **quantity** of a factor of production can be **increased** is through a change in migration policies. If an economy allows **more foreign workers** to work productively in the economy, then the **production possibilities increase**
- **Economic decline** occurs when there is any impact on an economy that **reduces the quantity or quality** of the available factors of production
  - One example of how this may happen is to consider how the Japanese tsunami of 2011 devastated the **production possibilities** of Japan for many years. It **shifted their PPC inward,** resulting in **economic decline**

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