HL IB Economics

Your notes

1.1 What is Economics?

Contents

1.1.1 Economics as a Social Science


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The Social Nature of Economics

- 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**

Microeconomics & Macroeconomics

- **Microeconomics** is the study of **individual markets** and sections of the economy, rather than the economy as a whole. Microeconomics examines:

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- The different **choices** individuals, households and firms make
- What factors influence their **choices**
- How their decisions affect the price, **demand and supply** of goods/services in a market
- How Governments influence **consumption and production**

- **Macroeconomics** is the study of economic behaviour and decision making in the **entire economy**, rather than just an individual market. Macroeconomics examines:
  - The role of the government in achieving **economic growth** and human development through the implementation of specific government policies (**fiscal**, **monetary** and **supply-side**)
  - The role of the government in achieving **price stability**, low unemployment and a stable Current Account balance on the **Balance of Payments** account
  - The interaction of the economy with the rest of the world through **international trade**

Some of the Differences Between Micro and Macroeconomics

Microeconomics	Macroeconomics
Single market e.g. milk	Entire economy e.g. Singapore
Price of a good/service	Average price levels in an economy (inflation/deflation)
Individual/market demand	Total demand in an economy
Individual firm/market supply	Total supply in an economy
Government intervention in a market e.g. cigarettes	Government intervention in the economy e.g income tax
Reasons for differences in workers wages	Unemployment and minimum wages

The Nine Central Concepts


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- Most student learning focusses on **topics** and within each topic is the **acquisition of facts**
- Each topic is better understood within broader **concepts**
  - E.g. globalisation as a topic is interesting, but it makes much more sense when studied within the concept of **interdependence** that exist between nations
- Understanding the concepts and using them helps to deepen your critical thinking skills
  - E.g. Thinking about how a particular tax policy relates to the concepts of equity, efficiency or government intervention requires critical thinking

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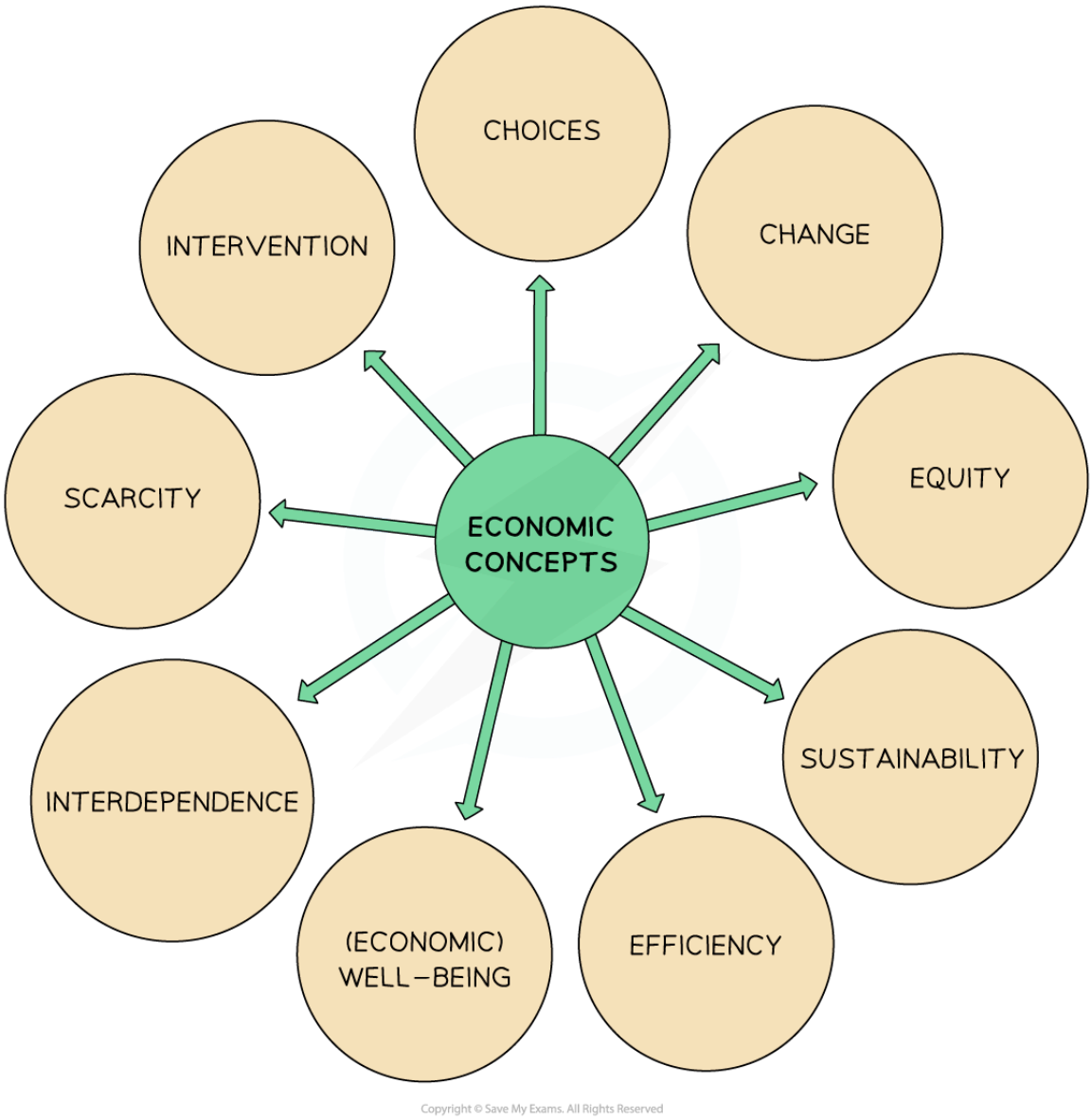

The nine concepts which all of your learning in economics connects to

Explanations of each Concept as Defined by the International Baccalaureate (IBO)

Scarcity	Efficiency	Intervention

Change	Choices	Sustainability
Equity	Interdependence	Economic well-being


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1. **Scarcity:** since **resources are scarce**, economics is a study of choices. It is clear that not all needs and wants can be satisfied; this necessitates choice and gives rise to the idea of opportunity cost. Economic decision-makers continually make choices between competing alternatives, and economics studies the consequences of these choices, both present and future

2. **Efficiency:** is a quantifiable concept, determined by the **ratio of useful output to total input.** Allocative efficiency refers to making the best possible use of scarce resources to produce the combinations of goods and services that are optimum for society, thus minimising resource waste

3. **Intervention:** intervention in economics usually refers to **government involvement in the workings of markets**. There is often disagreement among economists and policymakers on the need for, and extent of, government intervention. There is a considerable debate about the merits of intervention versus the free market

4. **Change:** the economic world is continuously changing and economists must adapt their thinking accordingly. Economics focuses not on the level of the variables it investigates, but on their change from one situation to another. There is continuous and profound change at institutional, structural, technological, economic and social levels

5. **Choice:** since resources are scarce, **economics is a study of choices**. It is clear that not all needs and wants can be satisfied; this necessitates choice and gives rise to the idea of opportunity cost. Economic decision-makers continually make choices between competing alternatives, and economics studies the **consequences of these choices**, both present and future

6. **Sustainability:** is the ability of the present generation to meet its needs **without compromising the ability of future generations** to meet their own needs. It refers to limiting the degree to which the current generation's economic activities create harmful environmental outcomes involving resource depletion that will negatively affect future generations

7. **Equity:** in contrast to equality, which describes situations where economic outcomes are similar for different people or different social groups, **equity refers to the idea of fairness**. Fairness is a normative concept, as it means different things to different people. 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

8. **Interdependence:** individuals, communities and nations are not self sufficient. Consumers, companies, households, workers, and governments, **all economic actors, interact with each other** within and, increasingly, across nations in order to achieve economic goals. The greater the level of interaction, the greater will be the degree of interdependence

9. **Economic well-being:** is a multidimensional concept relating to the level of prosperity and quality of living standards enjoyed by members of an economy.
   It includes
   - ♣ present and future financial security
   - ♣ the ability to meet basic needs
   - ♣ the ability to make economic choices permitting achievement of personal satisfaction
   - ♣ the ability to maintain adequate income levels over the long term


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NOTE

The definitions for these 9 concepts have been supplied by the International Baccalaureate (IBO). These concepts are widely defined and open to interpretation, hence it is important to use these concepts exactly as the IBO has defined them

1.1.2 The Problem of Choice

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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 who use them to produce goods/services
  - Firms purchase land, labour, and capital from households in **factor markets**

- **Households** receive the following financial rewards for selling their **factors of production.** This reward is called **factor income**
  - 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 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, 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**,	▪ Producers selling products made from	▪ Workers may want a more comfortable	▪ Governments have to decide if they will

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


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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)**

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

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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.

Economic Goods & Free Goods

- **Economic goods** are **scarce** in relation to the demand for them
  - This makes them valuable
  - Due to their value, producers will attempt to supply them in order to make a profit
  - Anything that has a price tag on it is an economic good e.g. oil, corn, gold, trainers, watches and bicycles
- **Free goods** are abundant in supply
  - Due to this abundance, it is not possible to make a profit from **supplying** free goods
  - Drinking water has been a free good for thousands of years, but as the population increases and water sources become more polluted, it has become an economic good
  - E.g. sunlight, the air we breathe, sea water

Economic Systems

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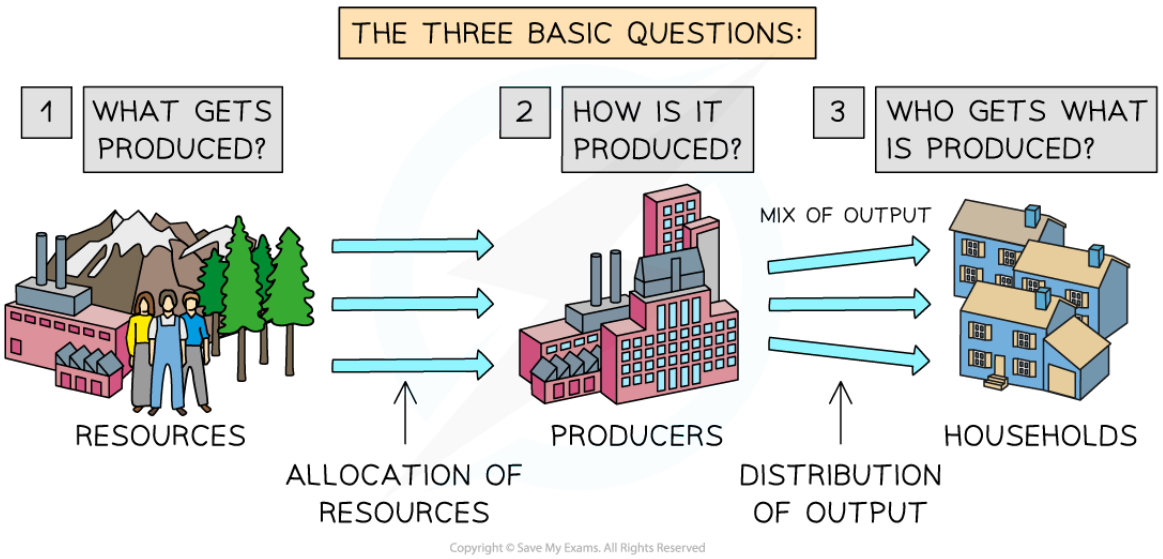
- In order to solve the basic economic problem of **scarcity**, economic systems emerge or are created by different economic agents within the economy
  - These agents include **consumers, producers, the government, and special interest groups** (e.g. environmental pressure groups or trade unions)
 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

What determines the economic system of a country?



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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1.1.3 The Production Possibilities Curve Model (PPC)

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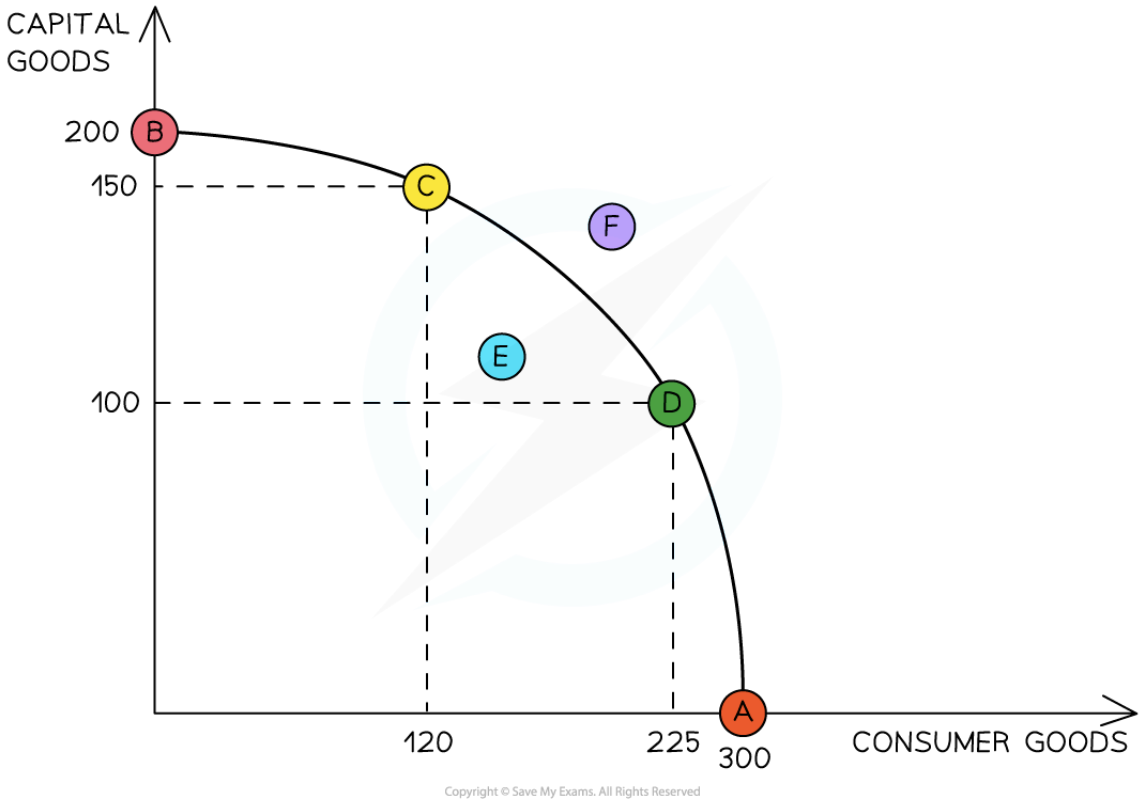
An Introduction to the PPC

- 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



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

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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
- **The use of PPC to depict efficiency, inefficiency, attainable and unattainable production**
  - Producing at any point on the curve represents **productive efficiency**
  - Any point inside the curve represents **inefficiency** (point E)
  - Using the current level of resources available, **attainable production** is any point on or inside the curve and any point outside the curve is unattainable (point F)

Assumptions of the Model

- The PPC Model is a simplified version of reality and so makes the following assumptions about the state of resources in an economy at a particular moment in time

1. **Only two goods are produced:** any two goods can be used to illustrate the underlying principle. In reality, an economy produces many goods/services but focussing on two makes the analysis possible
2. **Scarcity of resources exists:** the **factors of production** are limited so choices have to be made about how they are used
3. **Production is efficient:** it is assumed that there is no wastage and that all resources are used in such a way that the maximum output is attained from the inputs used. In reality, this is often not the case

4. **The state of technology is fixed:** as the model represents a particular moment in time, it is assumed that the technology is not changing. In reality, improvements in technology are continuously occurring and they create the potential to increase the output using the scarce resources

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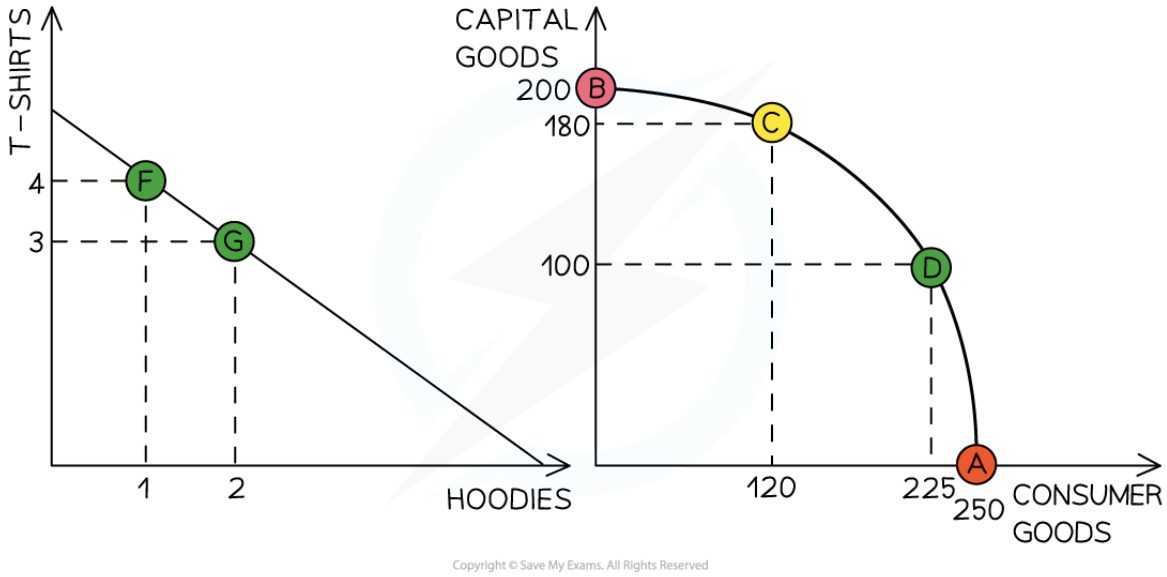
Increasing Versus Constant Opportunity Cost

- Two different types of opportunity cost can be illustrated using PPC curves
- **Constant opportunity cost** occurs when all of the factors of production used to produce one good can be switched to producing the other good without any loss/wastage of resources
  - One unit given up one of good results in one unit gained of the other
- **Increasing opportunity cost** occurs when the factors of production cannot be perfectly switched between the two products
  - One unit given up of one good results in less than one unit gained of the other



Constant opportunity cost occurs when switching production from T-shirts to hoodies while there is increasing opportunity cost when switching production from consumer goods to capital goods

Diagram Analysis

- For a country producing only **T-shirts and hoodies**, the factors of production can **easily be switched** between the two products e.g. the same labour and land (cotton) can be used to make both products

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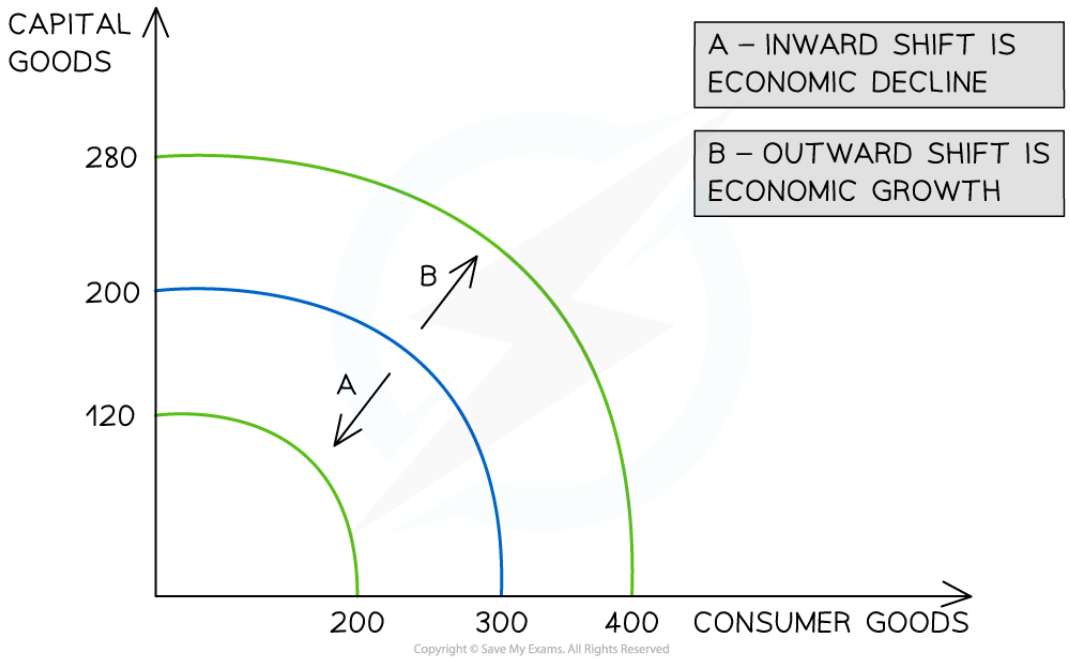
- **Changing production** from point F to G decreases the production of T-shirts from 4 to 3 and increases the production of hoodies from 3 to 4
- There is **constant opportunity cost** when production is switched

- For a country producing **consumer goods and capital goods**, the factors of production **cannot easily be switched** between the two products e.g. the labour required to make a washing machine may not have the skill to produce a robotic arm used in car manufacturing
  - **Changing production** from point A to point C results in a decrease of 130 consumer goods but yields an increase of 180 capital goods
  - Changing production from point C to point B results in a decrease of 120 consumer goods but only yields an increase of 20 capital goods
  - There is an **increasing opportunity cost** as production moves closer and closer to any particular axis

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



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 inwards** resulting in **economic decline**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1.1.4 Modelling the Economy

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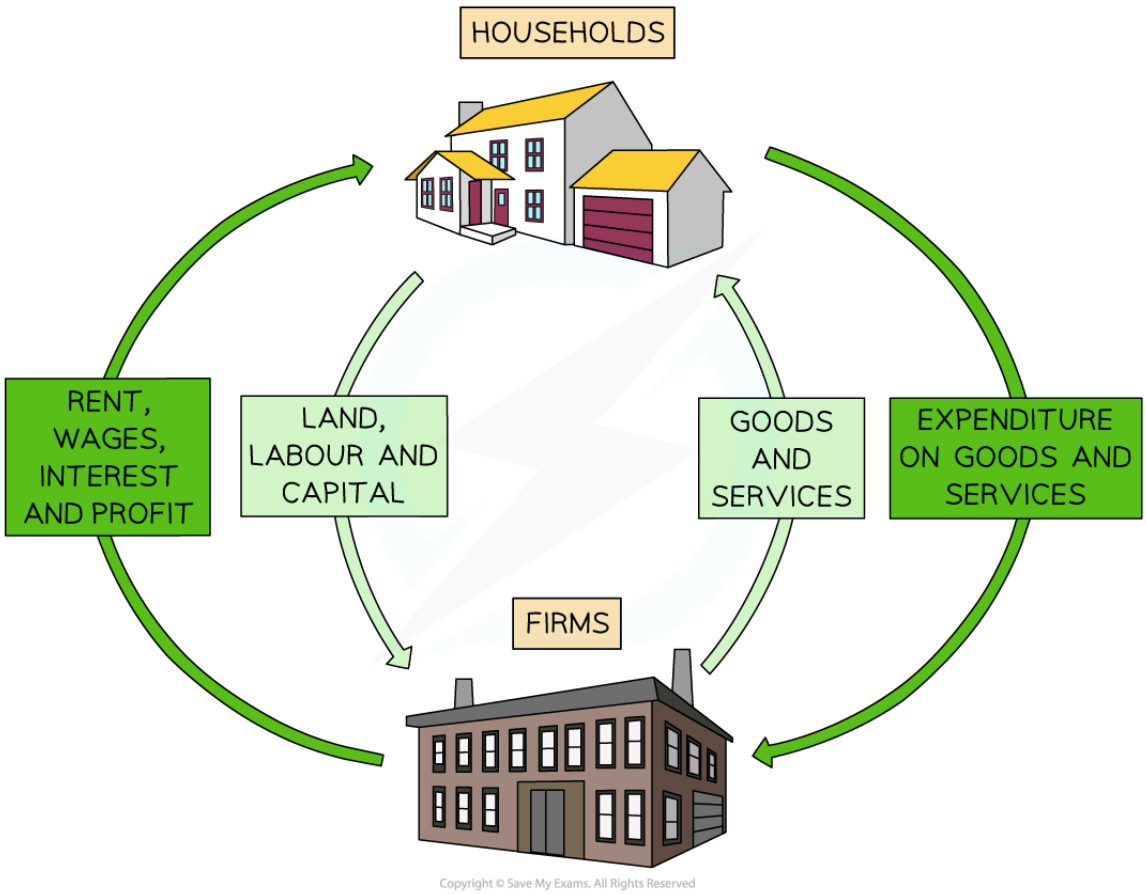
The Circular Flow of Income

- The **circular flow of income** is an **economic model** that illustrates the **money flows** in an economy
  - There is a simple model which shows the **money flows** between **households** and **firms**
  - There is a **more complex model** which adds in other **economic agents** including the **government**, **financial sector** and **foreign trade** (net exports)



A diagram showing the simplified Circular Flow of Income between households and firms

Diagram Analysis

- **Households** own the **wealth** in the economy

- These are the **factors of production**
- **Households supply** their factors of production to firms and **receive income** as a reward
  - They receive **rent** for land, **wages** for labour, **interest** for capital, and **profit** for enterprise
  - With this income, they purchase goods/services from firms
- **Firms** purchase factors of production from households
  - They use these resources to **produce goods/services**
  - They **sell the goods/services** to households and receive **sales revenue**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Leakages & Injections

- **Money** can **enter or leave** the circular flow of income in an economy
- **Injections** add **money** into the circular flow of income and **increase its size**
  - Increased government spending **(G)**
  - Increased investment **(I)**
  - Increased exports **(X)**
- **Leakages** (withdrawals) remove **money** from the circular flow of income and **reduce its size**
  - Increased savings by households **(S)**
  - Increased taxation by the government **(T)**
  - Increased import purchases **(M)**
- There are high levels of **interdependence** between households, firms, the government, the financial sector, and the foreign sector (foreign firms and households)

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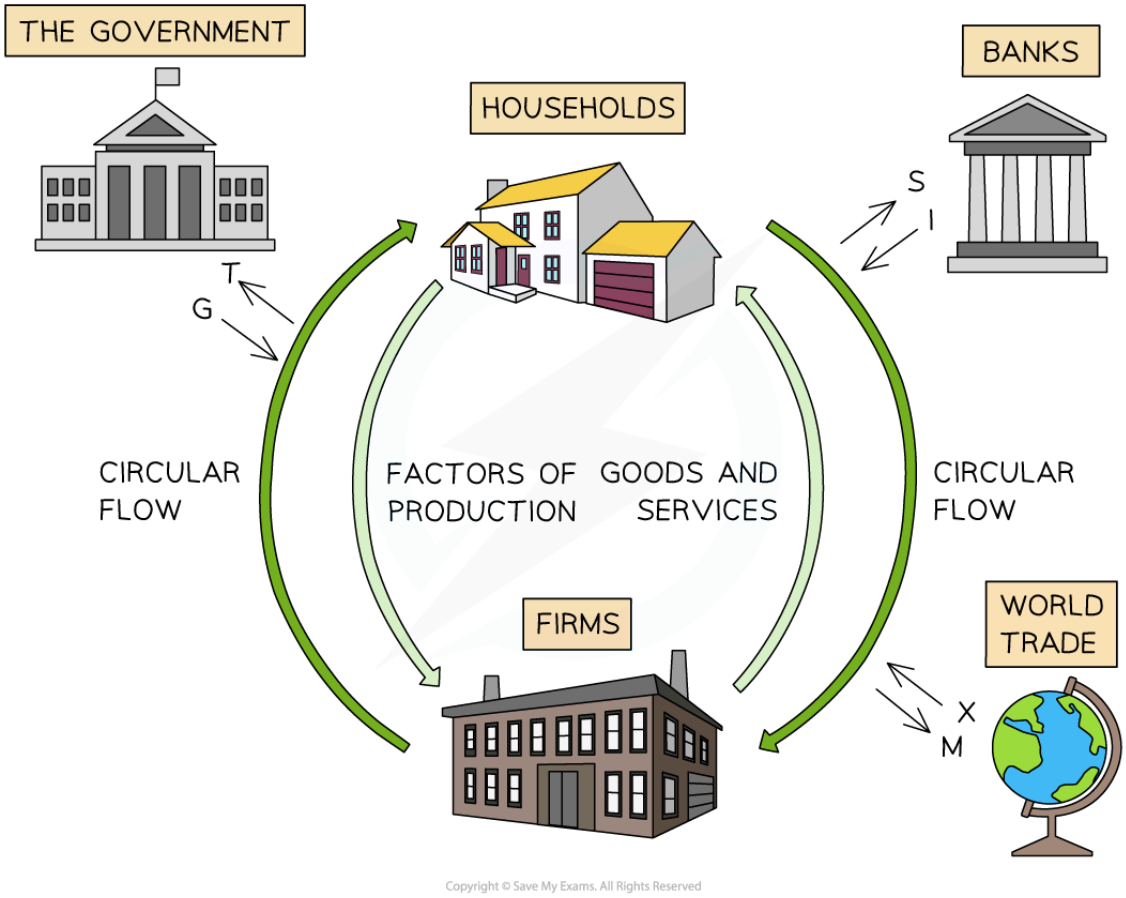

A diagram that shows the injections and leakages that influence the relative size of the circular flow of income

Diagram Analysis

- **Government:** Government spending (G) is an injection and taxation (T) is a leakage
- **Financial sector:** Investment (I) is an injection and savings (S) is a leakage
- **Foreign sector:** Exports (X) is an injection and imports (M) is a leakage

- The relative **size of the injections and withdrawals** impacts the size of the economy:
  - Injections > withdrawals = economic growth
  - Withdrawals > injections = fall in real GDP
- **Injections** represent new income in the economy

- **Changes to any of the factors** that influence government spending, investment, consumption and net exports will **increase/decrease** the relative size of the circular flow of income
  - E.g. An increase in **interest rates** will increase savings (withdrawal), and **reduce consumption** and investment


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Remember to consider the **net effect and proportionality** of the injections and withdrawals. For example, if the size of the government spending is large, it is likely to completely outweigh the combined withdrawals of savings and imports.

This model connects extremely well to the concept of **interdependence.** There are high levels of interdependence between households, firms, the government, the financial sector, and the foreign sector (foreign firms and households).