

Edexcel A - AS Level Economics

Theme 1 – Introduction to Markets and Market **Failure**

> 1.1 Nature of economics **Revision Notes**

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1.1.1 Economics as a social science

Developing Models

What is Economics?

Economics is a social science that studies how societies operate and how individuals and groups make decisions.

Purpose of Economic Models

Economic models simplify complex real-world economic activities to improve understanding and make predictions.

Examples of Economic Models

The Circular Flow of Income model illustrates the movement of money between different groups in the economy, such as households, businesses, and the government.

Importance of Assumptions

All models rely on assumptions that simplify behaviour, choices, and outcomes to address complex human behaviours and ever-changing conditions. It's important to always consider these underlying assumptions when evaluating different models.

Evaluating Economic Models

Evaluating a model involves scrutinizing the assumptions made and their impact on the model's accuracy. It's essential to consider how closely a model's predictions match real-world data

1.1.1 Economics as a social science

Selecting Variables

Economists choose variables based on the study's objective, the theory being tested, and data availability. Deciding which variables to include or exclude can significantly affect a model's outcomes.

Ceteris Paribus

- Using Ceteris Paribus: Economists use the principle of ceteris paribus, which is Latin for "all other variables remain constant." This helps them focus on specific economic interactions without getting overwhelmed by too many variables.
- Purpose of the Principle: By applying ceteris paribus, economists can simplify complex scenarios to better understand cause and effect, even though this method simplifies real-world dynamics based on certain assumptions.
- Practical Example: When studying the effect of tax reductions on consumer spending, economists might use the ceteris paribus assumption to ignore changes in employment rates or inflation during their analysis.
- This allows them to specifically analyse how tax cuts alone influence spending behaviours, assuming all other economic factors remain constant.

1.1.1 Economics as a social science

The Scientific Method

Scientific Method in Natural Sciences vs. Social Sciences

In **natural sciences**, the scientific method is clear and repeatable:

- 1. Pose a question.
- 2. Predict an outcome (hypothesis).
- 3. Test it through experiments.
- 4. Analyse and report the results.

When these steps are repeated under the same conditions anywhere in the world, the results should ideally be the same.

In **social sciences** like economics, achieving consistent results is challenging because of the complex nature of human behaviour. Social scientists adapt the scientific method as follows:

- Define specific economic research questions.
- Form hypotheses, often using the "ceteris paribus" (all else equal) assumption to focus on one variable.
- Use empirical methods (i.e. surveys, observations, opinion polls) to gather data.
- Analyse the data and report conclusions.

This **social scientific method** accepts that results may vary due to differences in researchers, timing, locations, and cultures. Thus, economic models are regularly updated and validated rather than being considered universally proven, as in the natural sciences.

1.1.2 Positive and Normative Economic Statements

Positive Economics

 Positive economics deals with facts and avoids personal opinions. It explains what happens in the economy and can be tested to see if it's true or false.

Example: "Raising taxes on cigarettes reduces smoking." This is testable with data.

Normative Economics

 Normative economics is based on value judgement and opinions, focusing on what should happen rather than what does. It cannot be tested as true or false and is a nonscientific approach to economics.

It often includes words like "should", "ought", "better", "worse", "unfair" or "fair."

Example: "The government should raise the minimum wage to help people live better." This reflects a **value judgment**, not something you can test directly.

The role of value judgement

Economists often use facts (positive statements) to support opinions or recommendations (normative statements). For example, the normative statement "Taxes should be lowered to boost spending" could be supported by the positive statement "Consumer spending has decreased over the past year."

Value judgments can influence economic decisions and policies. For instance, one economist might see decreased spending as a sign to lower taxes, while another might prioritize other solutions.

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1.1.3 The Economic problem

The problem of scarcity – where there are unlimited wants and finite resources

 Scarcity arises because resources are limited or finite in supply and so cannot meet all human wants.

Here's the big issue: there just aren't enough resources to satisfy everyone's endless wants and needs. In economics, we call these limited resources the *factors of production* (land, labour, capital and enterprise). Because of scarcity, everyone (whether it's producers, consumers, or governments) has to make tough choices about how to use resources most efficiently.

Economics is the study of how we tackle scarcity by deciding what to produce, how to produce it, and who gets it.

Distinction between renewable and non-renewable resources

- Renewable Resources: These can be used repeatedly and naturally replenish over time, like wind or solar energy. But they can run out if we use them faster than nature can replace them.
- Non-Renewable Resources: These don't replenish fast enough for our needs (like oil and coal). Once they're used up, they're gone.

In a nutshell, scarcity makes us think carefully about how we use what we have, since we can't have it all.

1.1.3 The Economic problem

The importance of Opportunity Costs

• Opportunity cost refers to the value of the next best alternative foregone.

In other words, opportunity cost is all about what you give up when you make a choice. Since resources are limited, every decision comes with a trade-off, the thing you didn't choose is your opportunity cost.

Some examples include:

- For Consumers: If you decide to spend money on a vacation, you might not have enough left to buy a new laptop. Here, the laptop is the opportunity cost of choosing the vacation.
- For Businesses: If a bakery uses all its flour to make bread, it might not have enough flour left to make pastries. In this case, pastries are the opportunity cost of focusing on bread.
- For Governments: If a government chooses to invest in building more roads, it might not have the funds to improve healthcare facilities. The healthcare improvements become the opportunity cost of building roads.

In short, every choice means giving something up. Opportunity cost is simply the name for what you give up to get something else.

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1.1.4 Production Possibility Frontiers (PPF)

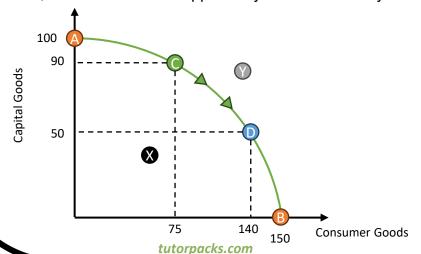
 PPF is the maximum output combinations an economy can achieve when all resources are fully/efficiently employed.

The PPF model is a simple way to show the most a country can produce if it uses all its resources (land, labour, capital and entrepreneurship) efficiently to make just two products. Think of it as the "max production line" for two goods or services.

You can use any two products to explain this model, but a common combo is **capital goods** and **consumer goods**:

- Capital Goods: These are tools or machines that help make other products. For instance, a commercial over in a bakery is a capital good because it's used to bake food.
- Consumer Goods: These are finished products for people to use, like a pair of headphones. They're the end of the line, no future production use here.

In short, the PPF shows us opportunity cost and scarcity.



1.1.4 Production Possibility Frontiers (PPF)

Understanding the PPF Diagram:

The curve itself represents all possible combinations of two goods this economy can make by fully utilising its resources.

- On the Curve (Points A, B, C, D):
 - At **Point A**, all resources go into making **only capital goods** (100 units).
 - At **Point B**, all resources go into making **only consumer goods** (150 units).
 - Points C and D show combinations where resources are split efficiently between both goods. For example, at Point C, the economy makes 90 capital goods and 75 consumer goods.

Opportunity Cost on the PPF

- Moving along the curve shows opportunity cost; what you give up to produce more of something else.
 - For instance, shifting from Point C (90 capital goods, 75 consumer goods) to Point D (50 capital goods, 140 consumer goods) means producing 65 more consumer goods but sacrificing 40 capital goods.

Efficiency and Attainability

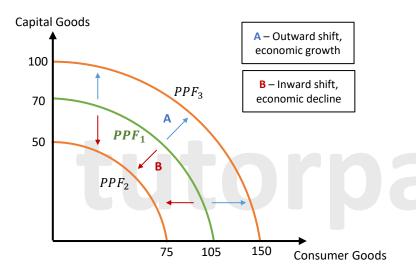
- Any point on the curve shows productive efficiency; all resources are fully used.
- Points inside the curve (like Point X) show inefficiency, where resources are underused.
- Points outside the curve (like Point Y) are unattainable with current resources.

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1.1.4 Production Possibility Frontiers (PPF)

Shifts in the PPF

Unlike a movement along the PPF (where production choices shift within the current curve), the entire PPF can shift inwards or outwards.



1.1.4 Production Possibility Frontiers (PPF)

Economic Growth: Outward Shift

• Economic growth is an increase in real output or an increase in the productive capacity of an economy.

When an economy grows, it can produce more of everything; both consumer and capital goods. This growth shows up as an outward shift of the PPF.

What causes this growth? An increase in the quality or quantity of resources.

- Improving Quality: If new technology makes factories more efficient, production goes up, and so does the economy's capacity.
- Increasing Quantity: If a new natural resource (like a large oil reserve) are discovered, the economy can produce more goods.

Economic Decline: Inward Shift

On the other hand, if the economy loses resources or their quality decreases, the PPF shifts inwards, meaning less can be produced overall.

What causes decline? Events that reduce resources or their quality.

- Example: A prolonged drought reduces the availability of water, affecting agriculture and shrinking the economy's production capacity.
- Example: If a skilled portion of the workforce retires without enough replacements, the economy loses productivity, resulting in an inward shift.

In short, when resources improve, the PPF shifts outward, showing growth. When resources are lost or damaged, the PPF shifts inward, showing a decline in the economy's potential.

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1.1.5 Specialisation and the division of labour

Specialisation is when a person, company, region, or even a whole country focuses on making just a few types of goods or services. By concentrating on what they do best, productivity goes up and so do living standards worldwide.

For example, the UK is known for producing things like medicines, aircraft, tourism services, and financial services. These specialised goods and services are then traded with other countries for things the UK doesn't produce as much.

Division of labour is a type of specialisation where each person focuses on doing just one specific job to help make a product or provide a service. Breaking a job into smaller tasks and letting each worker focus on just one. This boosts skill and speed.

 So, division of labour is production broken down into different tasks and labour allocated to each task.

Adam Smith, known as the "father of Economics," had some big ideas about productivity.

During a visit to a pin factory, he saw that making pins wasn't easy, one person alone could only make about 12 pins a day, since it involved many different steps like cutting, sharpening, and stamping. But if each worker focused on just one of these steps (a concept called division of labour), 10 workers together could make about 50,000 pins a day.

1.1.5 Specialisation and the division of labour

The advantages and disadvantages of specialisation and the division of labour in organising production

	the division of labour in organising production		
	Advantages	Disadvantages	
	Boosts Productivity: When workers focus on one specific task, they become faster and more skilled at it, improving efficiency. Plus, they're likely to have natural talents that make them even better at their job.	Boredom and Burnout: Doing the same task repeatedly can get boring, reducing worker motivation.	
	Better Quality Products: Specialised workers who master their tasks tend to produce higher- quality goods and services.	Loss of Craftsmanship: With more standardised tasks and mechanisation, products may lack the unique touch of a skilled craftsman.	
	Specialist Tools: It's cheaper to create specialised tools for a specific task, which can make production quicker and improve quality.	Production Bottlenecks: If one part of the process gets delayed, everything else must stop until that issue is fixed.	
	Saves Time: Workers aren't wasting time moving between tasks or getting out different tools, they stick to what they know best.	Limited Skills: Workers become highly specialised but lack a wide range of skills, which could lead to job difficulties if their role becomes obsolete.	
	Less Training Needed: Since workers only focus on one job, training is simpler and cheaper.		

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1.1.5 Specialisation and the division of labour

The advantages and disadvantages of specialising in the production of goods and services to trade

Advantages	Disadvantages
Comparative Advantage Boosts Economies: The theory of comparative advantage suggests that countries should focus on making goods they're best at producing (where they have a lower opportunity cost). This helps them grow their economies and increases global output overall.	Risk of Over-Dependence: If a country relies heavily on one type of export, it's risky. For example, if a country mainly relies on farming and crops fail due to bad weather, the economy could collapse.
Lower Production Costs: By specialising, countries can produce goods at a lower cost, which can lead to lower prices for consumers and increase competitiveness in global markets.	Non-Renewable Resource Risks: Some countries specialise in non- renewable resources, like oil. If these resources run out, they lose a huge source of income, and the resource itself is gone.
Economic Growth: By specialising and trading, countries can grow their economies faster, as they're able to focus on and improve their strongest industries, boosting overall productivity.	High Interdependence: Countries that depend on each other for trade may face serious issues if trade is disrupted, like during a war.
	Potential Pressure on Wages: Some argue that specialisation leads to more competition to cut costs, which could put pressure on wages to fall, though this isn't always the case.

1.1.5 Specialisation and the division of labour

The functions of money

With specialisation, a person or firm do not produce everything they need themselves, so they need a way to trade. The earliest form of exchange was **barter** (trading goods directly), but it had some major issues. To solve these, **money** was developed, which serves four main functions:

- 1. **Medium of Exchange**: Money can be used to buy and sell anything, and everyone accepts it. Barter only worked if both parties wanted what the other had (called a "double co-incidence of wants"). With money, you can trade for what you need without this hassle.
- 2. Measure of Value: Money makes it easy to compare the value of different things, like a cupboard versus a t-shirt. It also puts a value on services and labour, making it clear what things are worth.
- **3. Store of Value:** Money keeps its value over time, so you can save it and use it later. However, there is inflation, so this isn't always true.
- **4. Method for Deferred Payment:** Money allows people to buy now and pay later (credit or loans). This only works because money holds its value over time.

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1.1.6 Free-market economics, mixed economy and command economy

Economies can be set up in different ways to produce goods and services. Think of it as a scale, with a **free-market economy** on one end, a **mixed economy** in the middle, and a **command economy** on the other.

Free-Market Economy

 A free-market economy refers to an economic system where the prices of goods and services are set freely by the forces of supply and demand and without intervention by the government.

In a free market economy, people have the freedom to make their own choices and own resources (like land and businesses) without government interference. Resources are allocated through **supply and demand** (the price mechanism).

- Consumers Rule: What gets produced depends on what consumers are willing to buy. If people want it and are ready to pay, producers make it.
- Decision-Making: Consumers make choices based on what makes them happy, while producers focus on making a profit.

There aren't any *completely* free markets in the world today. Governments still play a small role, like setting minimum wage, health and safety standards, and subsidies. Without these basics, even a free market couldn't function properly.

Adam Smith, a famous economist, was a big fan of free markets with limited government. He argued that economies work best when individuals act in their **own self-interest**, but he did think the government should step in a bit to ensure things like public goods (such as roads) and merit goods (like education) are available.

1.1.6 Free-market economics, mixed economy and command economy

Advantages of a free-market economy

- **Profit Incentive**: The chance to earn profits motivates people to work hard and come up with new business ideas.
- Variety of Goods & Services: Since businesses are competing, there's usually a wide range of products and services to choose from.
- Better Quality: Competition pushes companies to improve quality to win over customers.
- **Lower Prices**: More competition often leads to lower prices, as companies try to attract more buyers.
- Encourages Innovation: Businesses constantly try to invent or improve products to stay ahead.
- Unlimited Earnings Potential: People can earn as much as they're able to, which can lead to higher living standards.
- Efficient Resource Use: Resources are used more wisely since companies aim to be as efficient as possible.

Disadvantages of a free-market economy

- Wealth Inequality: Wealth tends to concentrate among the few who own most of the resources, widening the gap between rich and poor.
- Lower Quality to Save Costs: Sometimes, companies cut corners on quality to boost profits.
- Worker Exploitation: In the drive for profits, workers may end up underpaid or overworked.
- **Environmental Damage:** Companies might ignore environmental impacts, leading to resource depletion and pollution.
- Monopolies: Big companies can buy out competitors, reducing competition and creating monopolies.
- Consumer and Supplier Exploitation: Monopolies can lead to higher prices for consumers and pressure on suppliers to cut costs.

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1.1.6 Free-market economics, mixed economy and command economy

Command Economy

 A command economy is one where the government owns all resources and decides how goods and services are produced and distributed.

Karl Marx thought free markets naturally lead to **capitalism**, where the people who own resources (the capitalists) take advantage of the workers. According to him, this creates huge inequality and eventually leads to conflict between the rich and the poor.

His solution? The **State** should take control and make sure resources are shared fairly among all workers. This meant:

- No private property: Everything should be owned collectively, not by individuals.
- Central planning: The government should step in and decide what to produce, how to produce it, and who gets it.

In short, Marx believed sharing and planning were the keys to a fairer society, instead of leaving things to the free market.

An example of a command economy is North Korea. In North Korea, the government owns all the resources and controls what gets produced, how it's made, and who receives it. For instance, the state decides the production of goods like food, clothing, and housing and allocates them to the population based on its policies and priorities, rather than market demand or individual choice.

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1.1.6 Free-market economics, mixed economy and command economy

Advantages of a Command Economy:

- Focus on Equality: The system aims to reduce inequality by prioritising social equality over profits.
- **Equal Wages for All**: Everyone gets paid the same, no matter their job or role, promoting fairness.
- Lower Unemployment: The government ensures jobs for everyone, so unemployment is minimal.
- Quick Action on Priorities: Resources can be quickly directed to urgent needs, like disaster relief or major infrastructure projects.
- **Consumer Protection**: Since the government controls big industries, it prevents exploitation, like unfairly high prices.

Disadvantages of a Command Economy:

- No Incentive for Hard Work: Why spend years studying to be a doctor if you'll earn the same as someone with no training?
- Less Innovation: Without competition, there's little push to create better products or develop new ideas.
- **Inefficiency**: It's unrealistic for the state to make all decisions correctly, which can result in overproduction or shortages, leading to wasted resources.
- **Limited Living Standards**: Most people have restricted access to luxury goods or higher standards of living.
- Less Freedom: The government controls many aspects of life, limiting personal choices.

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1.1.6 Free-market economics, mixed economy and command economy

Mixed Economy

 Mixed economy is where resources are partly allocated by the price mechanism/market and partly by the government/state.

Both free markets and command economies have their pros and cons, so most countries aim for a middle ground, a **mixed economy**. In a mixed economy, resources are allocated partly by the free market (supply and demand) and partly by government planning. It's a compromise that tries to balance the best of both worlds.

Friedrich Hayek thought command economies had some big flaws. He pointed out that central planners often didn't know what the economy needed. This mismatch led to either **shortages** (not enough goods) or **surpluses** (too much stuff no one wanted).

Hayek believed too much government control messed with efficiency and slowed down economic growth. In his view, economies work better when markets are left to figure things out naturally.

Most developed countries are mixed economies for example UK, France, Germany, Canada, Australia and Sweden.

1.1.6 Free-market economics, mixed economy and command economy

The role of the state in a mixed economy

1. Improving the Market:

- Governments provide public and essential services like healthcare, transport, and emergency services.
- They also reduce harmful goods (like drugs) and address the environmental impact of production.

2. Setting Rules and Protections:

- They stop monopolies (companies with over 25% market share) from overcharging or offering poor services by enforcing competition.
- Protect consumers with laws against poor-quality products or services.
- Ensure workplaces follow safety standards for both employees and employers.

3. Redistributing Income:

- They use taxes (like income tax) to move money from the wealthy to support the less fortunate.
- This helps fund benefits for those in need and provides essential services like education and healthcare that everyone can access.

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