AQA - A Level Economics

Individuals, Firms, Markets & Market Failure

1.1 Economic methodology & the economic problem

Revision Notes

Contents

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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 Economic methodology

- **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.

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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.

1.1.1 Economic methodology

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 non-scientific 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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1.1.1 Economic methodology

What affects the choices people make?

People's decisions aren't just based on facts; they're influenced by personal benefits and what they believe is right or wrong (morals).

Equity vs. Equality

- **Equity** is about **fairness**. But what's fair depends on your values.
  Example: Some countries give free healthcare to everyone because they think it's fair. Others think it's fair only if you pay for it.

- **Equality** means **everyone gets the same opportunities**.
  Example: In 2018, women in the USA earned 12% less than men in similar jobs, that shows inequality.

Who Should Create Fairness?

Should governments step in to make things more equal or fair, or should the free market decide? There's no clear answer, it depends on what you believe.

1.1.1 Economic methodology

What affects the choices people make?

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1.1.2 The nature and purpose of economic activity

Central purpose of economic activity

The main reason we have economic activity is simple:
To take limited resources and turn them into goods and services that people need or want.

- **Needs** are things we must have to survive – like food, water, and shelter.
- **Wants** are things we'd *like* to have – like phones, fancy clothes, or chocolate milkshakes.

The tricky bit?
People's needs and wants are **infinite,** we always want more!
But the resources (like time, money, land, and labour) to make these things are **limited** (finite).

🛠 What Happens During Economic Activity?

It's all about answering three key questions:

- **What should we make?**
- **How should we make it?**
- **Who gets to have it?**

This helps decide how to use resources wisely and fairly.

🟫 To Produce Goods or Services

Businesses exist to **make goods or provide services**:

- **Goods** = physical stuff (like trainers, laptops, or furniture)
- **Services** = things people do for you (like getting a haircut or ordering food delivery)

1.1.2 The nature and purpose of economic activity

Central purpose of economic activity

🎯 Meeting Customer Needs

The goal is to **make people happy** by giving them what they need or want.

- When businesses meet people's needs, customers keep coming back.
- This builds **loyalty**, improves the brand's reputation, and helps the business grow.

Example: A bakery that always has fresh, tasty bread will get loyal regulars.

💎 To Add Value

Adding value means improving a product or service to make it more attractive.

This could be by:

- Making something better quality
- Designing it to look cooler
- Making it easier to use

All of this helps the business **stand out** (this is called a **unique selling point** or USP).

Example: A water bottle that keeps drinks cold for 24 hours is adding value over a basic one.

1.1.3 Economic resources

Factors of production

Every product or service you use, whether it's a burger, a bike, or a haircut, is made using **four key ingredients** called the **factors of production**:

Land 🌍	Labour 👷	Capital 🏭	Enterprise 💼
This means all **natural resources** we get from the Earth. It's not just soil, think oil, forests, rivers, and even cows. Some countries are lucky to have lots of one resource and can specialise in it. *E.g. Saudi Arabia has a lot of oil, so it exports tons of it.*	This is the **human effort** used to make goods or deliver services. Can be physical (like a builder) or mental (like a software developer). Workers can be **skilled** (e.g. a brain surgeon) or **unskilled** (e.g. a delivery driver). *E.g. Chefs, factory workers, teachers, all count as labour.*	These are **man-made tools and machines** that help make things. It's not money. Think of anything that helps production. *E.g. Computers in an office, machines on a factory floor, or even a pizza oven.*	This is the brain and risk-taker behind the business: the **entrepreneur**. They combine land, labour and capital to make goods or services. They take risks, make decisions, and (hopefully) make a **profit**. *E.g. A tech start-up founder or the person who opens a new bakery.*

1.1.3 Economic resources

Factors of production

Who Owns These Resources?

In a **free market economy** (like the UK or USA), these resources are owned by **households or private firms**, not the government.

- Households supply these resources to businesses
- Businesses pay for them in the **factor markets**

What Do Households Get in Return? 💰

When households offer their resources, they earn **factor income**:

- **Land** → earns **rent**
- **Labour** → earns **wages**
- **Capital** → earns **interest**
- **Enterprise** → earns **profit**

1.1.3 Economic resources

The environment is a scarce resource

Environmental resources are **natural materials** we get from the Earth, like water, trees, oil, and air. These resources are part of **land**, one of the four **factors of production** (land, labour, capital, enterprise) used to make goods and services.

🔄 **The Problem: We Use Too Much**

As we produce more stuff, we often take too much from nature. This is called **overconsumption**, and it damages or **degrades** the environment. That means we're using up resources faster than they can be replaced.

- **Non-renewable resources** (like coal and oil) can't be replaced once they're gone and they're running out fast.
- **Renewable resources** (like water and air) should last forever...
  But if we pollute or waste them, they can also become **scarce** (in short supply).

🌱 **Why It Matters: Sustainability**

This leads us to **sustainability:** making sure we use resources in a way that doesn't stop future generations from enjoying them too.

🧃 **Example:** If we keep polluting rivers, there may not be enough clean water for our kids and grandkids.

1.1.3 Economic resources

The environment is a scarce resource

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1.1.4 Scarcity, choice and the allocation of resources

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.

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

1.1.4 Scarcity, choice and the allocation of resources

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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1.1.5 Production Possibility Frontiers (PPF)

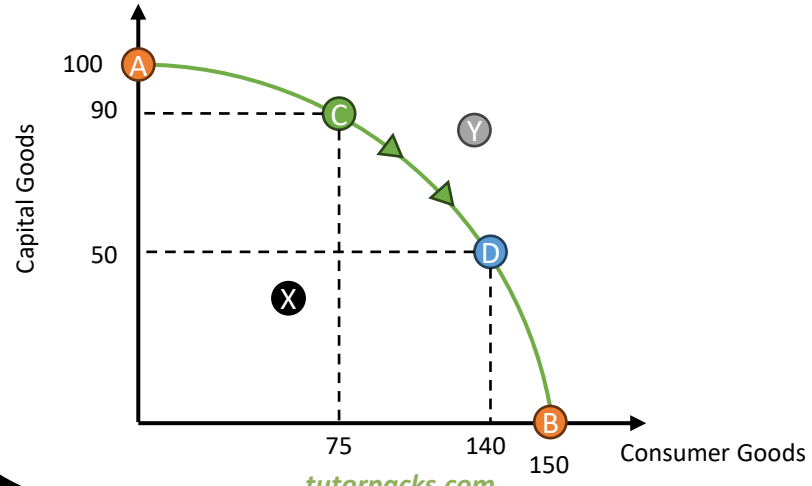
- **PPF is the maximum output combinations an economy can achieve when all resources are fully/efficiently employed.**

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.



1.1.5 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.

1.1.5 Production Possibility Frontiers (PPF)

Efficiency means getting the most out of your resources, like time, money, or materials, without waste.

Economists focus on **two main types** of efficiency:
🔵 **Productive Efficiency**
🔵 **Allocative Efficiency**

🏭 **Productive Efficiency – "No Wasted Effort!"**

Definition:
Productive efficiency happens when an economy (or business) produces as much as it can with the resources it has; nothing goes to waste.

On a PPF:
Any point **on** the curve shows productive efficiency. It means the economy is using **all** its land, labour, capital, and enterprise in the best way possible.

Example:
Imagine a bakery using every oven, worker, and bag of flour to bake as many loaves and cakes as possible. That's productive efficiency.

✅ No resources are sitting idle
❌ Producing inside the curve (like in the middle of the graph) = underused resources (maybe some ovens are off or workers are waiting around!)

1.1.5 Production Possibility Frontiers (PPF)

⚖️ **Allocative Efficiency – "What People Actually Want!"**

Definition:
Allocative efficiency means using resources to make the **right mix of goods and services;** the ones people want and need most.

On a PPF:
Not every point on the curve is allocatively efficient. Just because you're producing a lot doesn't mean it's the right stuff.

Example:
Back to our bakery:
If they only bake 100 loaves of bread but people also really want muffins, that's not allocative efficiency.
But if they bake 60 loaves and 40 muffins — and that's what customers want, bingo. That's the best use of resources.

🔄 It's all about matching production with **consumer preferences**.

🔑 **In a Nutshell:**

- **Productive Efficiency** = no waste, full use of resources (e.g. all ovens and staff working)
- **Allocative Efficiency** = making the right things people want (e.g. the perfect mix of bread and muffins).

💡 Bonus Tip: Changing how you use your resources might increase one type of efficiency but reduce the other, it's all about finding the right balance.

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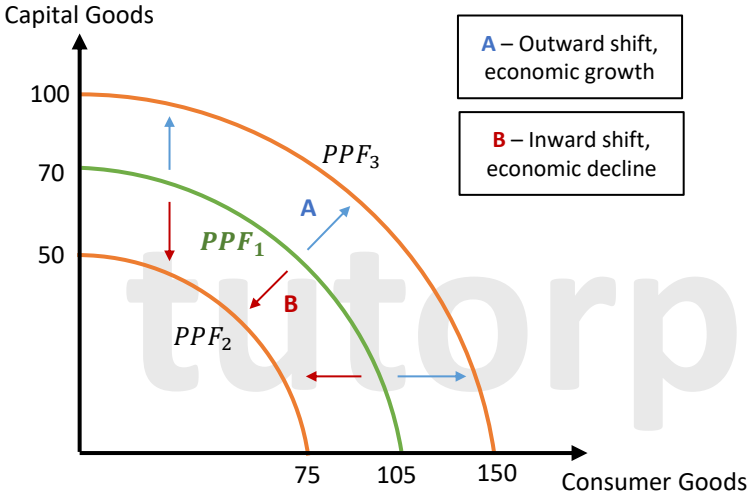
1.1.5 Production Possibility Frontiers (PPF)

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.



1.1.5 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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