



AQA - A Level Economics

The national and international economy

11.1 Economic performance

Revision Notes

Contents

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11.1.1 Economic growth and the economic cycle

The difference between short-run and long-run growth

Economic growth means the increase in the amount of goods and services a country produces over time. Basically, it's when an economy is making more stuff and (hopefully) improving living standards.

Now, this growth can happen in **two ways**: in the **short-run** or in the **long-run**.

★ Short-Run Economic Growth (Quick Boost)

Short-run growth happens when we make better use of the resources we already have like using spare workers, machines, or factories more efficiently. Think of it like tidying your room and suddenly having more space.

Two main causes:

- **Demand-side growth** – This happens when people spend more money. If more people start buying trainers, concert tickets, or takeaway pizza, businesses need to produce more to meet demand which leads to growth. This is usually driven by changes in aggregate demand.
- **Supply-side growth (short-run)** – Sometimes, short-term changes (like cheaper oil prices or a temporary tax cut for businesses) can make it easier to produce stuff, which also boosts growth. This is usually driven by short-run aggregate supply.

11.1.1 Economic growth and the economic cycle

The difference between short-run and long-run growth

🌱 Long-Run Economic Growth (Slow and Steady Wins the Race)

Long-run growth is all about **increasing the economy's capacity to produce more over time**, not just using what we already have better, but actually **growing** the total.

This usually happens through improvements in the **factors of production** (the stuff we use to make goods and services). Here's how:

- **More education and training (human capital)** – Smarter workers = more productivity.
- **More machines and tools (capital accumulation)** – More gear = more output.
- **Technology improves** – Think of factories using robots or AI.
- **Investment in infrastructure** – Like building better roads or faster internet.
- **Policy changes** – New government policies might boost innovation or encourage business investment.

💡 **Example:** If a country builds a high-speed rail network or improves education across the board, it's making long-run growth more likely.



11.1.1 Economic growth and the economic cycle

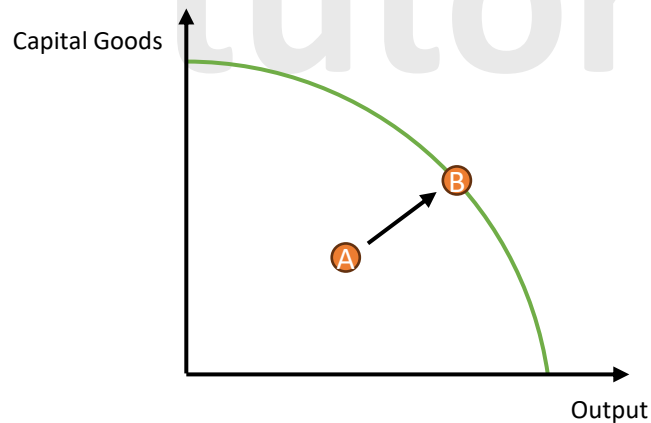
The difference between short-run and long-run growth – Diagrams

Short-Run Economic Growth = Using What You've Got... Better

This type of growth happens when we take resources we weren't using before (like unemployed workers or idle machines) and put them to work.

 Imagine you own a pizza shop, and you finally start using that second oven that's been gathering dust. You're not buying new equipment or expanding your shop, you're just **making better use of what you already have**.

 **In economic terms:** This is like moving from **inside** the Production Possibility Curve (PPC), let's say from Point A to Point B. You're getting closer to your full potential.



11.1.1 Economic growth and the economic cycle

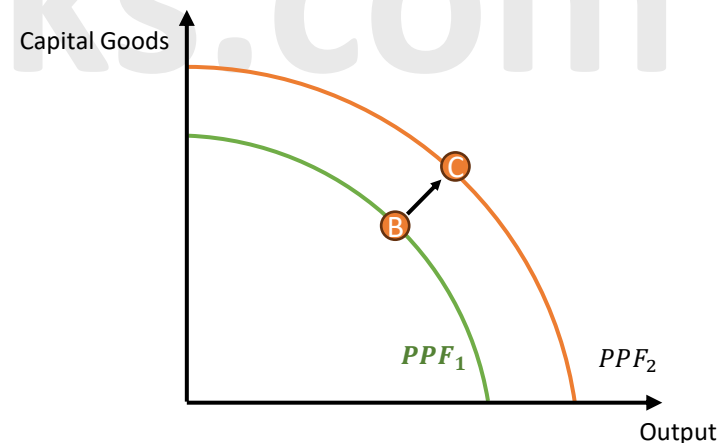
The difference between short-run and long-run growth – Diagrams

Long-Run Economic Growth = Growing Your Potential

This is all about increasing your economy's capacity to produce more in the future.

 Back to the pizza shop; long-run growth would mean **building a bigger kitchen, hiring more staff, or inventing a new robot that makes pizzas faster**. You're not just working harder; you're expanding what you can do long-term.

 **In economic terms:** This shows up as a **shift outward** of the PPC like going from Point B to Point C. It means the economy can now produce more goods and services overall.



11.1.1 Economic growth and the economic cycle

The difference between short-run and long-run growth – Diagrams

As before, **Short-run growth** (also called **actual growth**) happens when an economy produces more using its current resources.

There are two main reasons this can happen:

1. Increase in Aggregate Demand (AD)

Aggregate Demand is the total demand for goods and services in the economy at a given price level and time. When people, businesses, or the government spend more, AD increases.

Example: If the government lowers income tax, people have more money to spend. This extra spending boosts demand across shops, services, and industries, pushing economic growth in the short term.

2. Increase in Short-Run Aggregate Supply (SRAS)

Short-Run Aggregate Supply is the total amount of goods and services that firms are willing and able to produce in the short run, assuming some costs (like wages) are fixed.

Example: If energy prices fall suddenly, production becomes cheaper for businesses, so they make more stuff. That increase in supply helps grow the economy without changing long-term capacity.

Why AD is the Usual Suspect

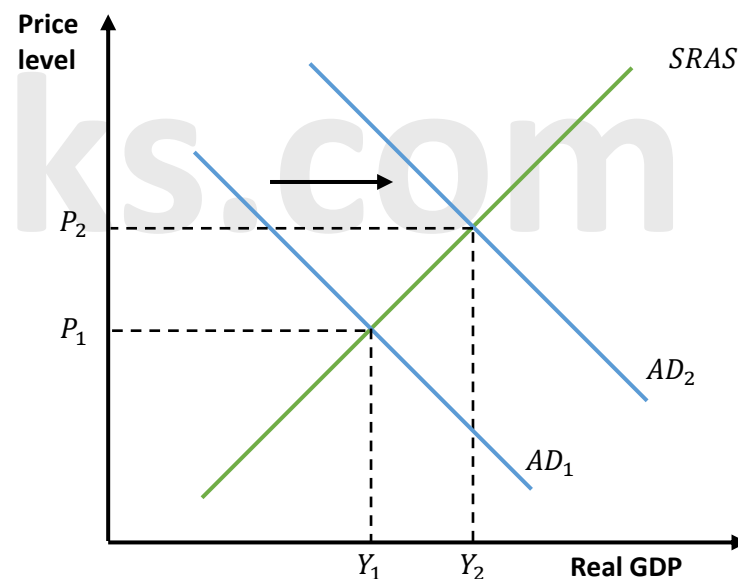
Although both AD and SRAS can drive short-run growth, it's usually **aggregate demand** that gets the credit and the headlines. Changes in consumer confidence, interest rates, government spending, or exports tend to affect demand more quickly and directly.

11.1.1 Economic growth and the economic cycle

The difference between short-run and long-run growth – Diagrams

In the diagram, we see:

- A shift from **AD₁** to **AD₂** = demand increases
- This moves the economy from **Y₁** to **Y₂** = more output (aka growth)
- But it also leads to a higher **price level** (P₁ to P₂), so some inflation may come with that growth



11.1.1 Economic growth and the economic cycle

The difference between short-run and long-run growth – Diagrams

Long-run growth is all about expanding the economy's **productive capacity** basically, it's the economy levelling up so it can produce more stuff in the future, not just today.

This type of growth happens on the **supply side**, which means it's about improvements in how much we can produce, not just how much people want to buy. It's usually shown as a **rightward shift** in the **Long-Run Aggregate Supply (LRAS)** curve.

In simple terms: short-run growth = using existing resources better, long-run growth = getting better resources or more of them.

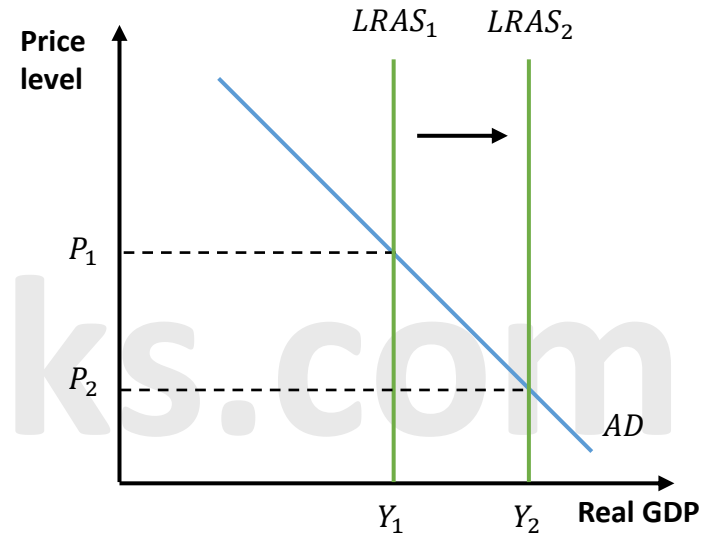
Graph Time

In the diagram:

- **LRAS₁ → LRAS₂** shows the economy's capacity has increased
- More goods and services can be produced (GDP goes from Y_1 to Y_2)
- This growth isn't just a short-term burst, it's sustainable and long-lasting

11.1.1 Economic growth and the economic cycle

The difference between short-run and long-run growth – Diagrams



11.1.1 Economic growth and the economic cycle

Factors which could cause economic growth

Economic growth is the **increase in the production of goods and services** in an economy over time. It is usually measured by the **rise in real Gross Domestic Product (GDP)**, which adjusts for inflation.

For an economy to grow, it needs to **increase the quantity or quality** of at least one of the **four factors of production**:

- 1 Land 
- 2 Labour 
- 3 Capital 
- 4 Enterprise 

Alternatively, **using these resources more efficiently** can also lead to economic growth. When these factors improve, the **Long-Run Aggregate Supply (LRAS) increases**, boosting the economy's ability to produce more goods and services. Let's break this down with examples.

1 Land – More Natural Resources = More Growth

 **Land** refers to **natural resources** like oil, gas, minerals, and farmland. If a country **discovers new resources**, its economy can grow because **there's more to sell and use**.

◆ Example:

Norway experienced rapid economic growth after **discovering oil in the North Sea**, which boosted exports and government revenue.

◆ Why it matters:

- Developing countries **benefit the most** from new resource discoveries.
- In richer nations, economic growth depends more on **technology and innovation** than raw materials.



11.1.1 Economic growth and the economic cycle

Factors which could cause economic growth

2 Labour – More Workers & Better Skills Help Growth

◆ The size of the workforce:

- More **immigration**, higher **birth rates**, or an increase in **retirement age** can **increase the number of workers** in an economy.
- More workers = **more production** = **higher GDP**.

◆ Example:

Countries like **Germany** encourage skilled immigration to **fill job vacancies and boost growth**.

◆ The quality of the workforce:

- A well-educated and skilled workforce **produces more goods and services efficiently**.
- Governments can improve this by **investing in education and training**.

◆ Example:

South Korea's focus on **STEM (Science, Technology, Engineering, and Math) education** helped it become a **global technology hub** (think **Samsung, Hyundai, and LG**).

11.1.1 Economic growth and the economic cycle

Factors which could cause economic growth

3 Capital – Investment in Technology & Infrastructure 🏠

◆ What is capital?

Capital refers to **man-made goods** used to produce other goods and services (like **factories, machines, and technology**).

◆ How does capital increase growth?

- **More investment** in machinery and technology **boosts production**.
- **Better infrastructure** (roads, railways, internet) makes **businesses more efficient**.

◆ Example:

China's **investment in high-speed rail** helped connect cities, boosting trade and economic activity.

◆ Why it's important:

- Some investments **fail** to increase GDP (e.g., building **ghost cities** with no demand).
- Smart investment in **technology and innovation** leads to sustainable growth.

11.1.1 Economic growth and the economic cycle

Factors which could cause economic growth

4 Enterprise – Encouraging Entrepreneurs & Business Innovation 💡

Entrepreneurs **take risks and create businesses**, driving economic growth by **introducing new products, services, and jobs**.

◆ How governments encourage enterprise:

- ✓ Lower taxes on businesses
- ✓ Grants and loans for start-ups
- ✓ Reducing excessive regulations

◆ Example:

The **Silicon Valley tech boom** happened because the **US government supported innovation** with **grants, tax incentives, and strong property rights**.

◆ Why it's important:

- If taxes are **too high**, businesses **lose motivation** to expand.
- If **welfare benefits are too generous**, fewer people may **choose to work**, slowing growth.



11.1.1 Economic growth and the economic cycle

Factors which could cause economic growth

Other Key Factors That Drive Economic Growth

5 Technological Progress – The Game Changer!

New **technology** helps produce goods **faster, cheaper, and better**. It also **creates entirely new industries** (e.g., AI, renewable energy).

◆ Example:

The invention of the **smartphone** led to **app-based businesses** like **Uber, TikTok, and mobile banking**, creating millions of jobs!

◆ Why it matters:

Without **constant innovation**, economies **stagnate** and fall behind competitors.

11.1.1 Economic growth and the economic cycle

Factors which could cause economic growth

6 Efficiency – Doing More with Less

Efficiency means using **fewer resources** to **produce the same (or more) output**.

◆ How governments improve efficiency:

✓ **Encouraging competition** → Forces businesses to **lower prices and improve quality**.

✓ **Protecting property rights** → People are more likely to **start businesses** if they know their ideas are safe.

✓ **Investing in infrastructure** → Efficient roads, energy, and internet **reduce business costs**.

◆ Example:

Japan is highly efficient because of **automation, strict quality control, and advanced robotics**, making its economy strong despite a **small workforce**.

Final Thoughts – What Makes an Economy Grow?

✓ **More resources?** Great! But only if **they're used wisely**.

✓ **More workers?** Yes! But **they need the right skills**.

✓ **More investment?** Absolutely! But it must be in **productive industries**.

✓ **More technology?** Always! But **governments must support innovation**.

💡 **Bottom Line:** Economic growth isn't about **just having more**; it's about **using what you have efficiently**. The best economies **combine investment, innovation, and smart policies** to stay ahead! 🔥



11.1.1 Economic growth and the economic cycle

Economic growth happens when a country **produces more goods and services over time**, leading to **higher incomes, more jobs, and improved living standards**. Governments aim for growth because it **benefits consumers, businesses, and the government**, but it also comes with challenges.

How does economic growth affect consumers?

- ✓ **Higher Incomes, More Spending Power** – As wages increase, people can **afford better homes, cars, and holidays**. More disposable income means **higher demand for goods and services**.
 - ✓ **More Choice, Better Quality** – As businesses grow, they develop **new products and services**, leading to **greater variety and better quality**. Think about how the **food industry now offers more organic and plant-based options** due to higher consumer demand.
 - ✓ **Lower Unemployment** – With businesses expanding, **more jobs** become available, reducing unemployment and increasing financial security.
- 🚨 **Potential Downsides:**
- ✗ **Rising Inequality** – The rich often **benefit more** than the poor.
 - ✗ **Inflation Risk** – If demand rises too quickly, **inflation** can make everyday essentials **more expensive** (e.g., food, transport, and rent).

11.1.1 Economic growth and the economic cycle

How does economic growth impact firms?

- ✓ **More Investment & Expansion** – Businesses make **higher profits**, allowing them to **open new locations, hire more workers, and invest in innovation**.
- ✓ **New Markets & Opportunities** – Economic growth allows companies to **expand globally**.
- ✓ **Better Wages & Benefits** – As companies compete for workers, they **offer better salaries and perks**, improving employee well-being.

🚨 Potential Downsides:

- ✗ **Labour Shortages** – When unemployment is low, businesses **struggle to find skilled workers**, leading to **higher wages and production costs**.
- ✗ **Smaller Businesses May Struggle** – Large corporations can **dominate the market**, making it harder for small businesses to survive. **Independent bookstores, for example, struggled against online giants like Amazon**.

How does economic growth impact the Government?

- ✓ **Higher Tax Revenues** – As businesses and workers earn more, the government **collects more taxes**, which can be invested in **education, healthcare, and infrastructure**.
 - ✓ **Lower Government Debt** – When the economy is booming, the government **needs to spend less on welfare programs** (like unemployment benefits) and can focus on **reducing national debt**.
 - ✓ **Stronger Global Influence** – A wealthier country can **invest in diplomacy, military, and trade agreements**, strengthening its global position.
- 🚨 **Potential Downsides:**
- ✗ **Public Expectations Increase** – As people earn more, they **expect better public services**, putting pressure on governments to **continuously improve infrastructure and welfare**.
 - ✗ **Risk of Overborrowing** – Governments may **overinvest in projects**, leading to unsustainable spending.



11.1.1 Economic growth and the economic cycle

How does economic growth affect living standards?

- ✅ **Less Poverty, More Opportunities** – With **higher employment and rising wages**, fewer people depend on government aid, improving overall living standards.
- ✅ **Better Healthcare & Education** – Governments can **invest in hospitals, schools, and social services**, leading to **longer life expectancy and better education systems**.
- ✅ **Technological Advancements** – Growth leads to **better infrastructure, cleaner energy, and innovation in medicine and technology**. Think about how high-speed internet became widely accessible due to economic expansion.
- 🚨 **Potential Downsides:**
 - ❌ **Environmental Impact** – More production and consumption can lead to **pollution, deforestation, and climate change**. The Amazon rainforest is being destroyed partly due to economic expansion in agriculture and logging.
 - ❌ **Widening Inequality** – The rich may **benefit more than the poor**, leading to a larger wealth gap.

11.1.1 Economic growth and the economic cycle

How does economic growth affect the environment?

Economic growth (when a country produces more goods and services) can be great for jobs and income, but it doesn't always come without a cost. One of the biggest downsides? **Environmental damage**.

A **negative externality** is a cost that affects people who aren't directly involved in an activity. Example: A factory makes more shoes (good for the economy) but also pumps out more smoke (not so great for nearby lungs).

When economies grow too fast, these side effects can pile up:

Too Much Waste

Producing more stuff = more **waste**. And if countries don't have proper systems in place to deal with that (like recycling or clean energy), it can lead to serious pollution problems. 🗑️ Example: Factories dumping waste into rivers, or cities buried in plastic packaging.

Overusing Nature's Resources

More growth often means we're using more **natural resources**, things like forests, water, oil, and minerals. If we take too much, too quickly (called **overexploitation**), we can damage the environment in ways that are hard to reverse like chopping down forests faster than they can regrow or emptying rivers to water crops. 🗑️ Think: logging rainforests to meet rising furniture demand or draining aquifers for fast fashion cotton production.

Long-Term Effects on Ecosystems and Health

The damage from pollution, overuse of land, and poor waste management doesn't just disappear, it can harm entire **ecosystems** (interconnected plants, animals, and environments) and impact **public health** (especially air and water quality).

🗑️ Air pollution in cities like Delhi or Beijing is a classic case; the economy booms, but hospitals see more cases of asthma and lung disease.



11.1.1 Economic growth and the economic cycle

Actual growth rate vs long-term growth

✦ What is Actual Growth?

Actual growth refers to the **increase in a country's production of goods and services in the short term**, measured by changes in **Gross Domestic Product (GDP)**. It happens when businesses produce **more stuff**, consumers spend **more money**, and the economy is **booming**.

◆ **Example:** If the UK's GDP **grows by 3% in a year**, that's actual growth! It shows that businesses have been producing more, people have been spending more, and the economy has expanded.

💡 However, actual growth can go up and down due to recessions, booms, and external shocks like financial crises or pandemics.

✦ What is Long-Term Growth?

Long-term growth is the **steady increase in an economy's productive capacity over time**. Instead of looking at short-term fluctuations, it focuses on how much an economy **can** produce if all its resources (workers, land, machines, technology) are fully used.

◆ **Example:** Over the last 50 years, China's economy has grown significantly because of **investment in infrastructure, education, and technology**. This is **long-term growth** because it has **increased the country's ability to produce more** year after year.

💡 Long-term growth is shown by an outward shift in the Long-Run Aggregate Supply (LRAS) curve or the Production Possibility Frontier (PPF).

11.1.1 Economic growth and the economic cycle

Positive and negative output gaps

🔍 What is an Output Gap?

An **output gap** is the **difference between what an economy is actually producing (real GDP) and what it could produce at full capacity (potential GDP)**.

There are **two types of output gaps**:

✅ **Positive Output Gap** – When real GDP is greater than potential GDP.

A **positive output gap** happens when the economy is **producing more than its sustainable capacity**; businesses are working overtime, unemployment is extremely low, and demand is so high that it's **pushing prices up** (inflation).

◆ Example:

- In **2008, before the financial crisis**, many economies were booming, **businesses couldn't keep up with demand**, and inflation was rising fast.

✅ **Negative Output Gap** – When real GDP is below potential GDP.

A **negative output gap** happens when the economy is **not using all its resources efficiently**, there's **spare capacity**, meaning businesses **could** produce more, but **demand is too low**.

◆ Example:

- During the **COVID-19 pandemic**, many countries had a **negative output gap**, businesses were closed, workers were unemployed, and the economy was running below full capacity.

11.1.1 Economic growth and the economic cycle

Positive and negative output gaps

🤔 Why Are Output Gaps Hard to Measure?

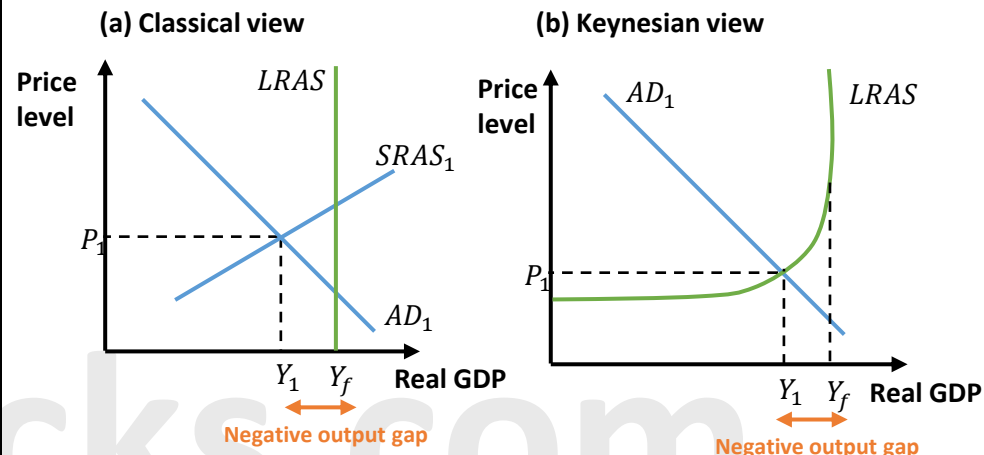
It's difficult to know exactly how much an economy *could* produce because:

- Technology changes (new innovations can increase capacity). 🤖
- Immigration and workforce size fluctuate. 👤
- Productivity improvements (better education, new skills). 🎓

11.1.1 Economic growth and the economic cycle

Positive and negative output gaps

Negative output gap



📌 What's the Situation?

The economy's **potential output** (how much it *could* produce at full capacity) is at Y_f . However, right now, the economy is **not performing at full potential** and is in a **short-run equilibrium** at P_1, Y_1 , meaning it's producing **less than it could**.

This creates a **negative output gap** ($Y_1 - Y_f$), which means there is **spare capacity**, factories, workers, and resources are available but **not being fully used**.

🤔 Why is This Happening?

A **negative output gap** usually happens when **Aggregate Demand (AD)** falls, this means:

- ✓ People are **spending less** (maybe due to higher interest rates, uncertainty, or lower wages).
- ✓ Businesses **cut production** because demand for goods and services is down.
- ✓ **Unemployment rises** as companies hire fewer workers.



11.1.1 Economic growth and the economic cycle

Positive and negative output gaps

Negative output gap



Different Economic Views on What Happens Next



The Classical View:

Economists who follow **Classical Economics** believe that the economy **will naturally fix itself** in the long run. Prices and wages will **adjust downward**, making goods cheaper and encouraging **more spending and investment**. Eventually, the economy **returns to full employment (Y_f)** at a lower price level.

◆ Example:

If wages fall, businesses **hire more workers**, increasing production and closing the output gap.



The Keynesian View:

Economist **John Maynard Keynes** had a different take, he argued that **the economy could stay stuck in a negative output gap for a long time** if people **don't start spending again**. If businesses don't see demand rising, they won't invest, and unemployment could **stay high** for years.

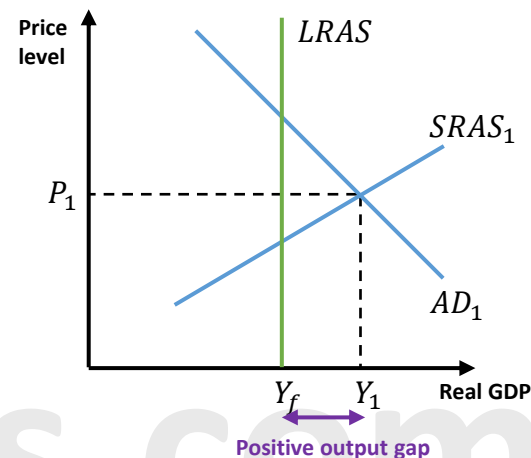
◆ Example:

During the **Great Depression (1930s)**, unemployment stayed **high for a decade** because **demand didn't recover quickly**, proving that economies don't always fix themselves fast.

11.1.1 Economic growth and the economic cycle

Positive and negative output gaps

Positive output gap



What's the Situation?

- The **potential output** of this economy is at Y_f . However, in the **short run**, the economy is operating above its full capacity at P_1Y_1 , meaning it's producing **more than usual**.
- This creates a **positive output gap ($Y_f - Y_1$)**, where demand is so high that businesses are **pushing beyond normal capacity** to keep up.
- This could happen when, **workers put in overtime** to meet rising demand or **factories run 24/7** to keep up with production.
- While high production sounds great, it **comes at a cost**. **Workers burn out** from constant overtime, **machines wear down** due to overuse or **inflation rises** as demand outstrips supply, pushing up prices.
- Classical view is that the economy naturally corrects itself over time, output returns to normal (Y_f) but at a higher price level.



11.1.1 Economic growth and the economic cycle

Understanding the trade cycle

The **business cycle** (or **trade cycle**) refers to the **regular ups and downs in economic activity over time**. It shows how **real GDP (the value of goods and services produced)** changes, creating periods of **booms and recessions**.

💡 **Think of it like a rollercoaster**, sometimes the economy is growing fast (**boom**), sometimes it slows down (**downturn**), and sometimes it crashes (**recession**) before recovering again.

📊 How Does GDP Fluctuate?

The economy doesn't grow at a **constant rate**, instead, it moves **above and below the long-term trend of growth**.

💎 Example:

- The **US economy boomed in the 1990s** due to rapid technology growth (internet, computers).
- In **2008, the Global Financial Crisis** caused a sharp **recession**, where businesses shut down and unemployment soared.
- By **2010, economies started recovering**, and by 2021, some even **overheated** due to high post-pandemic demand.

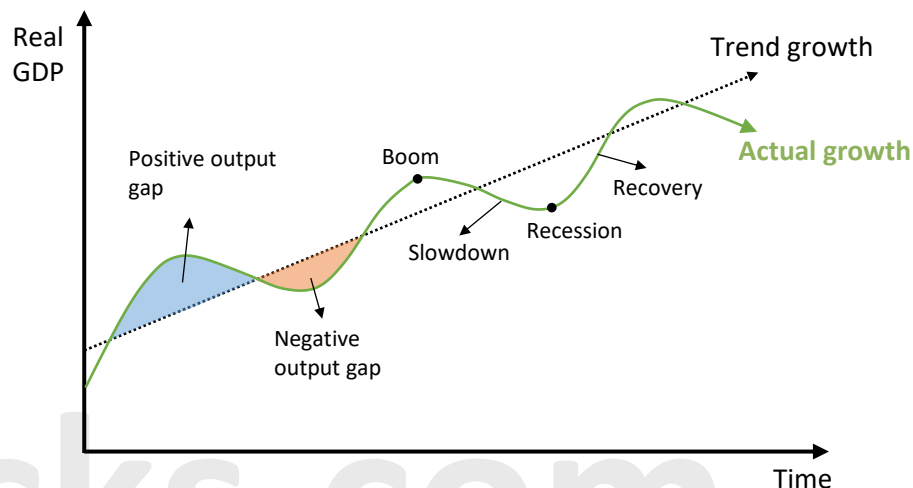
The output gap

✅ A **positive output gap** occurs when **real GDP grows faster than the long-term trend**, meaning the economy is **overheating** with high demand and pressure on resources.

✅ A **negative output gap** occurs when **real GDP grows slower than the long-term trend** or contracts, indicating **unused capacity, lower demand, and higher unemployment**.

11.1.1 Economic growth and the economic cycle

Understanding the trade cycle



📌 The Four Stages of the Business Cycle

1. **Boom (Peak)** 🚀 – The economy is **growing fast**, businesses are thriving, and unemployment is **low**. However, inflation may start rising as demand outstrips supply.
2. **Slowdown (Downturn)** ⚠️ – Growth begins to **slow**, businesses make **fewer profits**, and unemployment starts to **rise**.
3. **Recession (Contraction)** 📉 – Economic activity **shrinks**, businesses may **close**, unemployment is **high**, and GDP **declines** for at least **two consecutive quarters**.
4. **Recovery** 🔄 – The economy **picks up again**, businesses start **hiring**, consumer confidence **improves**, and GDP **starts growing**.



11.1.1 Economic growth and the economic cycle

Characteristics of a boom and recession

Boom (Economic Expansion)

◆ What is a boom?

A boom happens when the economy **grows rapidly**, and businesses struggle to keep up with demand.

Key Signs of a Boom:

-  **High economic growth** – Businesses expand, and GDP rises quickly.
-  **Unemployment falls** – More jobs are created, and there are many job vacancies.
-  **Output gaps close** – The economy uses **most of its resources efficiently**, sometimes even exceeding capacity (**positive output gap**).
-  **High consumer and business confidence** – People **spend more**, and firms take **risks** on new projects.
-  **Inflation rises** – Demand is high, so prices start increasing (**demand-pull inflation**).
-  **Better government budget** – Tax revenues increase, and governments **spend less on welfare**, reducing the **budget deficit**.

◆ Example:

During the **1990s tech boom**, companies like **Microsoft, Apple, and Amazon** saw massive growth, stock markets soared, and economies thrived.

11.1.1 Economic growth and the economic cycle

Characteristics of a boom and recession

Recession (Economic Downturn)

◆ What is a recession?

A recession happens when **economic activity slows down for at least two consecutive quarters (six months)**, meaning GDP is **falling**.

Key Signs of a Recession:

-  **Negative economic growth** – Businesses produce **less**, and GDP shrinks.
-  **Unemployment rises** – Companies lay off workers to cut costs.
-  **Negative output gap increases** – Factories and offices have **spare capacity** because demand is low.
-  **Low consumer and business confidence** – People **spend less**, and firms avoid risky investments.
-  **Low inflation** – With less demand, **prices rise slowly or may even fall (deflation)**.
-  **Higher government spending** – The government may **increase spending on benefits and support programs**, often leading to a **budget deficit** (spending more than it earns in taxes).

◆ Example:

The **2008 Financial Crisis** led to a **global recession**; millions lost their jobs, businesses collapsed, and governments had to **bail out banks** to stop the economy from crashing further.



11.1.1 Economic growth and the economic cycle

The causes of changes in the various phases of the economic cycle

The ups and downs in economic growth might seem random, but there are actually several reasons why economies go through these **cycles**. Let's break them down:

Multiplier–Accelerator Model

Imagine this like a domino effect:

- A small increase in **investment** (like building new factories or buying machines) boosts **income**.
- That boost in income increases **spending**, which leads to more **investment**, and the cycle continues. This is the **multiplier** at work.
- At the same time, the **accelerator effect** says that when demand grows, firms invest even more to meet that demand.

Put the two together? A small change gets amplified into big economic swings, kind of like a snowball rolling downhill.

Asset Price Bubbles

Ever seen housing prices skyrocket and then suddenly crash? That's a **bubble**.

- An **asset price bubble** happens when people keep buying things like houses or stocks just because prices are rising, not because the thing is actually worth more.
- They hope to sell it for profit later. But eventually, reality hits, the bubble "bursts", prices crash, and panic selling spreads.
- This leads to less spending (called the **wealth effect**) and can trigger a recession.

11.1.1 Economic growth and the economic cycle

The causes of changes in the various phases of the economic cycle

Animal Spirits (yes, really)

A term coined by economist **John Maynard Keynes**:

- It means the emotions, instincts, and confidence of businesses and consumers.
- If everyone feels positive, they spend and invest more; boom!
- If everyone feels gloomy, even if interest rates are low, they might not spend; bust!
- So economic phases can be driven just by **how confident people feel**.

Herding Behaviour

This one's straight from behavioural economics:

- When people see others investing in property or stocks, they jump in too, not wanting to miss out (FOMO).
- Just like sheep following a herd, people may make decisions without thinking it through.
- This kind of behaviour fuels **bubbles** and crashes, especially when everyone tries to sell at once.

11.1.1 Economic growth and the economic cycle

The causes of changes in the various phases of the economic cycle

Excessive Growth in Credit

Credit = borrowing money to spend now and pay later.

- In good times, people borrow more to buy homes, cars, go on holidays.
- But if things take a turn, they still have to pay that debt back.
- That means **less money left to spend**, which can suddenly reduce demand and worsen a downturn.

Economic Shocks

These are unexpected events that shake things up and they can hit hard.

- Examples include oil price spikes, financial crises, pandemics (like COVID-19), or wars.
- They cause sudden shifts in **supply** or **demand**, leading the economy from one phase of the cycle to another.

11.1.1 Economic growth and the economic cycle

The causes of changes in the various phases of the economic cycle

The Inventory Cycle

This is all about how businesses manage their **stock** (goods waiting to be sold):

- During slow times (like recessions), companies sell from their shelves instead of making new stuff. So, production drops more than sales.
- During good times (like a boom), they build up inventory for future sales which can cause a sudden rise in production.

These ups and downs in inventory levels can exaggerate the economic cycle.

11.1.2 Employment and unemployment

Unemployment: This is the **number of people** who *want* a job, are **able to work**, but currently **don't have one**.

- **Level of unemployment:** The **total number** of unemployed people.
- **Rate of unemployment:** This shows the **percentage** of the workforce that's unemployed.

Employment: This is the **proportion of people** in work compared to the **total workforce**.

The Workforce: Everyone of **working age** who is either **working** or **ready and able to work** (so it includes both the employed and unemployed).

Measures of unemployment

In the UK, **unemployment** is measured in two main ways:

1) The Claimant Count

What is it? A count of people claiming **Jobseeker's Allowance (JSA)** or **Universal Credit** because they're unemployed.

How does it work?

- Only includes those **eligible** for benefits.
- Claimants must meet **strict requirements**, like attending meetings with a **work coach**.

11.1.2 Employment and unemployment

Measures of unemployment

2) The International Labour Organisation (ILO) and the UK Labour Force Survey

The **International Labour Organisation (ILO)**, used by the **Office of National Statistics (ONS)**, defines people over the age of 16 as either **employed**, **unemployed**, or **inactive**. Let's break it down:

a) Employed

- You're **working at least 1 hour a week** for pay or profit.
- Includes people on **holiday**, in **training schemes**, or doing **unpaid family work** (15+ hours).

b) Unemployed

- You're not working but are:
 - **Actively looking for work** in the past 4 weeks.
 - Available to **start work within 2 weeks**.

c) Inactive

- You're not working and **not looking for work**.
- Includes students, carers, retirees, those with health issues, or people **discouraged from applying**.

Labour Force Survey (LFS)

- A **sample survey** of households to classify people as employed, unemployed, or inactive.
- It's used in every EU country and gives an **estimate** of unemployment since it relies on a representative **sample**.



11.1.2 Employment and unemployment

The distinction between unemployment and under-employment

Unemployment refers to people who are not working but are actively looking for a job and are ready to work. **Underemployment**, on the other hand, means people have jobs but aren't working to their full potential. Let's break it down:

Underemployment:

What does it mean?

You're underemployed if:

- You **want more hours** than you're currently working (e.g., doing part-time work when you want a full-time role).
- You're **overqualified** for your job (e.g., a trained accountant working as a cashier).

Why Does Underemployment Happen?

- During **economic downturns (recession)** when jobs are scarce. People may settle for part-time jobs or roles outside their usual skill set just to make ends meet.
- When industries change or technology evolves, and workers' **skills become outdated**. Without retraining or gaining **new skills**, it's tough to find a job that matches their qualifications.

Impact on the Economy:

While underemployment isn't as bad as full unemployment, it still hurts. With less money to spend, the underemployed reduce their consumption, which leads to lower **aggregate demand** (the total demand in the economy) and slower economic growth.

11.1.2 Employment and unemployment

Voluntary and involuntary unemployment

Let's talk about two very different reasons why someone might be out of work...

😞 Involuntary Unemployment

This happens when people want a job, are ready to work at the going wage, but **there just aren't any jobs available**.

- These folks are actively looking for work, but the economy isn't offering any.
- It's common during **recessions, economic slowdowns**, or when industries shrink or change like coal miners losing jobs due to a shift toward renewable energy.
- Think: "I'm trying my best, but no one's hiring!"

😊 Voluntary Unemployment

Here, people are unemployed because they've **chosen** not to take the jobs on offer.

- They're saying "no thanks" to current job opportunities, maybe because the pay is too low, or they're holding out for something better.
- Some might be taking a **gap year**, travelling, or switching careers.
- Think: "I could work, but I'd rather wait for a better gig (or go backpacking in Thailand)."

🔄 In short:

- **Involuntary** = No job even though you want one
- **Voluntary** = You're out of work by choice

11.1.2 Employment and unemployment

Types of unemployment

1. Seasonal Unemployment

- Some jobs are tied to seasons-like tourism or farming. For example, a strawberry picker is busy during the summer harvest but out of work the rest of the year.

2. Frictional Unemployment

This happens when people are **between jobs**-maybe they've left a job to find a better one or are fresh graduates entering the workforce. It's a **short-term problem**.

3. Structural Unemployment

This is more serious and long-term. It happens when industries decline, or new technology makes some jobs obsolete. Key types include:

- **Technological Unemployment:** Robots and machines replace workers (e.g., self-checkout tills). Workers often need retraining to get back into the game.
- **Regional Unemployment:** Certain areas are hit harder, like when a factory closes in a small town.
- **Sectoral Unemployment:** Entire sectors (e.g., coal mining) lose jobs as demand falls.

4. Cyclical Unemployment

- This happens when the **economy slows down**. For example, during a recession, a furniture company may close shops because fewer people can afford new sofas. With falling demand, jobs are cut, leading to unemployment. It's also called **demand-deficient unemployment** because less spending = fewer jobs.

11.1.2 Employment and unemployment

Understanding unemployment: Demand-side and supply-side causes

Not all unemployment is created equal. Some happens because people just aren't buying stuff (demand-side), while other times, it's more about the economy not working efficiently (supply-side).



Demand-Side Factors

This is all about **aggregate demand** (the total spending in an economy).

- If demand for goods and services drops (like during a recession), businesses sell less and may lay off workers.
- This leads to **cyclical unemployment**, which follows the ups and downs of the economy.
- **Example:** During the 2008 financial crisis, people spent less, so companies downsized not because workers lacked skills, but because there wasn't enough demand.

Think of it as:



Fewer shoppers →



Less production →



Fewer jobs



Supply-Side Factors

This is about how well the economy can produce goods and services over time also called **long-term aggregate supply**.

These factors cause:

- **Frictional unemployment:** When people are between jobs or just entering the workforce. *Example: A uni grad taking time to find their first job.*
- **Structural unemployment:** When workers' skills no longer match what employers need. *Example: A factory worker being replaced by automation and needing retraining.*

These are linked to deeper issues in the economy, like outdated skills, lack of training, or regional job mismatches.



11.1.2 Employment and unemployment

Understanding unemployment: Demand-side and supply-side causes

So, what's the solution?

Governments typically tackle unemployment with a **mix of demand-side and supply-side policies**:

- Boosting spending when demand is low.
- Improving education, training, and infrastructure to raise supply-side potential.

11.1.2 Employment and unemployment

Diagrammatic analysis of labour market equilibrium

In the labour market, there's a sweet spot where things just balance out. This is called **labour market equilibrium**. It's the point where the number of people that **firms want to hire** (called the **demand for labour**) is exactly the same as the number of people who **want to work** (known as the **supply of labour**).

Here's how it works:

- The **demand for labour (D)** comes from businesses looking for workers. Think of a cafe hiring baristas or a game company looking for developers.
- The **supply of labour (S)** comes from people who are willing to work those jobs.

This perfect balance means no one is left unemployed *because* there are too many workers, and no jobs are left unfilled *because* there aren't enough workers.

What About Wages?

In a competitive labour market, firms are what we call **price takers**. That means they can't just decide to pay workers whatever they want. They have to go with the going wage, or they risk:

- **Paying too little**, and no one wants to work for them.
- **Offering too much**, and they get flooded with job applications.

At the **equilibrium wage rate**, everything's just right. Let's say, for example, in the software developer market:

- The **equilibrium wage** is £W
- The **number of developers employed** is Q

At this point, everyone wins. There's:

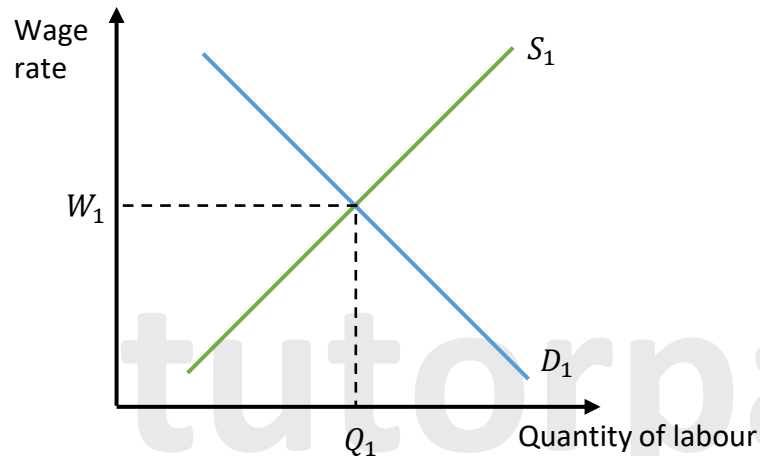
- **No excess supply** which means no group of developers is standing around with no jobs.
- **No excess demand** so companies aren't scrambling to fill positions either.



11.1.2 Employment and unemployment

Diagrammatic analysis of labour market equilibrium

The diagram:



The graph you see shows two curves:

- The **S_1 line (supply of labour)** slopes upward. The higher the wage, the more people want to work.
- The **D_1 line (demand for labour)** slopes downward. As wages go up, companies want to hire fewer people because it costs more.
- They meet in the middle at point **W_1Q_1** . That's your **equilibrium**.

11.1.2 Employment and unemployment

Real wage unemployment

Real wage unemployment happens when wages are set **too high** (higher than what the job market can handle) and it creates a mismatch between the number of people looking for jobs and the number of jobs available.

 **A quick definition:**

- **Real wage:** The wage a worker earns adjusted for inflation, basically, what your pay can actually buy.
- **Unemployment:** When people who want to work at current wages can't find a job.

 **How does this happen?**

Let's say the government introduces a **high minimum wage**. That sounds good for workers, right? But if the wage is **above the level that balances supply and demand** in the job market, employers may not be able to afford as many workers.

- At a **lower wage (W_1)**, the number of people wanting to work (labour supply) equals the number of jobs available (labour demand) → equilibrium.
- But at a **higher wage (W_2)**, more people want jobs, but fewer jobs are available → causing **unemployment**.

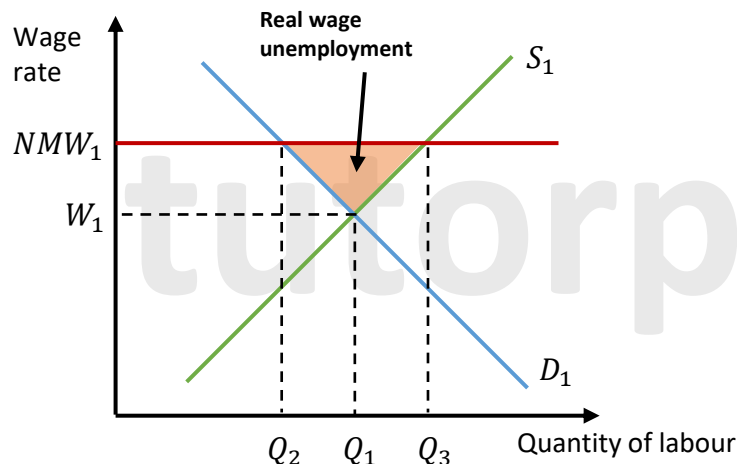


11.1.2 Employment and unemployment

Real wage unemployment

 In the diagram:

- At wage $W_1 \rightarrow$ demand = supply at Q_1 .
- At wage $NMW_1 \rightarrow$ supply = Q_3 , demand = Q_2 .
- The difference ($Q_3 - Q_2$) = **real wage unemployment**.



Real-World Example:

Imagine a small business like a local café. If the minimum wage goes up a lot, they might only afford to hire two baristas instead of four. That means two people who want the job at the new higher wage won't be hired, even if they're ready and willing to work.

11.1.2 Employment and unemployment

The natural rate of unemployment

Even when the economy is doing well and the job market seems "in balance", there will always be **some** unemployment. This is totally normal and is known as the **natural rate of unemployment**.

This unemployment usually includes:

- People who **choose** not to work right now (e.g. job-hopping or taking a break)
- People who can't find a job that suits their **skills or location**

Let's look at the two main causes:

Frictional (Voluntary) Factors

Frictional unemployment happens when people are **between jobs** or just entering the job market (like recent graduates). It's often short-term.

One big influence here is something called the **replacement ratio**, which is:

$$\text{Replacement Ratio} = (\text{Benefits received out of work}) \div (\text{Income in work})$$

If this ratio is high (close to 1 or even higher), it means people earn almost the same from benefits as they would from working, which might discourage them from taking up jobs.

 Things that can reduce frictional unemployment:

- Cutting back on generous unemployment benefits
- Raising the **minimum wage**
- Offering **tax credits** to low-income workers
- Lowering income taxes so work feels more rewarding



11.1.2 Employment and unemployment

The natural rate of unemployment

Structural Factors

Structural unemployment is a bit trickier. It happens when there's a **mismatch** between a worker's skills/location and the available jobs.

For example:

- A coal miner may struggle to find work in a city full of tech companies
- Someone in a rural area might not want to move cities even though jobs are available there

 Solutions? Better **training** and **education** to help people shift into growing industries.

The Natural Rate of Unemployment and Aggregate Supply

The terms "**full employment**" and "**natural rate of unemployment**" are often used to mean the same thing.

Here's the key idea:

At the natural rate, the economy is working efficiently, and unemployment is as low as it can go **without causing inflation**.

This level usually lines up with the **long-run aggregate supply** (LRAS) (the point where the economy is producing all it sustainably can).

 What this means in real life:

11.1.2 Employment and unemployment

The natural rate of unemployment

- Trying to lower unemployment **too much** with demand-side policies (like boosting government spending or cutting interest rates) may just push up **inflation**
- To go further, governments need to use **supply-side policies** like improving education, retraining workers, or encouraging business investment



11.1.2 Employment and unemployment

The effects of unemployment

Unemployment, especially when it lasts a long time, can be incredibly harmful, not just for individuals, but for businesses, the government, and the economy as a whole.

Impact on Individuals

- **Loss of income:** No job means no paycheck, which can make life really tough.
- **Mental and physical health issues:** Stress from unemployment can lead to anxiety, depression, and even physical health problems.
- **Family strain:** Relationships can suffer due to financial pressure, leading to marital problems.
- **Low self-esteem:** People may feel a sense of failure or lose confidence in their abilities.

Impact on Businesses (Firms)

- **Loss of sales:** If people don't have jobs, they spend less, which means lower revenue for businesses.
- **Less production:** Without enough workers, firms can't produce as much, slowing the economy.
- **Skills drain:** Over time, workers lose their skills, making it harder for businesses to find qualified staff.

11.1.2 Employment and unemployment

The effects of unemployment

Impact on the Government

- **Higher costs:** The government spends more on unemployment benefits and retraining schemes.
- **Lower tax revenue:** With fewer people earning wages, there's less income tax coming in.
- **Budget pressure:** The government has to juggle spending while dealing with a weaker economy.

Impact on Society/Economy

- **Homelessness:** Without income, more people lose their homes, putting pressure on social services.
- **Increased crime:** Financial struggles can lead to higher crime rates and vandalism.
- **Antisocial behaviour:** Communities can feel the strain as unemployment rises.



11.1.3 Inflation and deflation

Inflation, deflation and disinflation

Inflation

This is when prices **keep going up** across the economy, it's not just one or two things getting more expensive. Imagine a "basket of goods" filled with things you buy every month, like bread, milk, and shampoo. The average price of this basket is tracked using something fancy called the **Consumer Price Index (CPI)**.

For example, last year, a bread cost £1.04, and now it's £1.40. That's inflation in action. In the UK, the government tries to keep inflation steady at around **2% per year**, because a little inflation means the economy is growing.

Deflation

This is the opposite: prices **fall** across the economy. Sounds good, right? Not always. If prices drop too much, people might stop spending because they expect things to get even cheaper, which can harm businesses and jobs. Deflation happens when the **percentage change in prices goes below zero**.

Disinflation

Don't confuse this with deflation! Disinflation means prices are **still rising**, just **not as fast as before**.

For example:

- Year 1: Gym memberships go up by 10%.
- Year 2: They increase by 6%.
- Year 3: The rise slows to 3%.

Prices are still climbing, but the pace is relaxing, like a jog slowing down to a brisk walk.

11.1.3 Inflation and deflation

Inflation, deflation and disinflation

Understanding inflation is like solving a fun little puzzle using percentages, here's how it works:

Example 1:

If inflation is 20%, what will £300 worth of goods in Year 1 cost in Year 2?

Here's the process:

1. Add the 20% inflation to the original price.
2. So, 120% of £300 = **£360**.

By Year 2, those £300 goods will cost **£360**. 🛒

Example 2:

If inflation is 25%, what will £800 worth of goods in Year 2 have cost in Year 1?

Let's work backwards this time:

1. £800 is 125% of the original price (because $100\% + 25\%$ inflation = 125%).
2. To find 1%, divide £800 by 125.
3. Then multiply by 100 to find 100%:
4. Therefore, $£800 \div 125 = £6.40$. Multiply by 100 = **£640**.

So, in Year 1, those goods would have cost **£640**.

11.1.3 Inflation and deflation

The causes of inflation

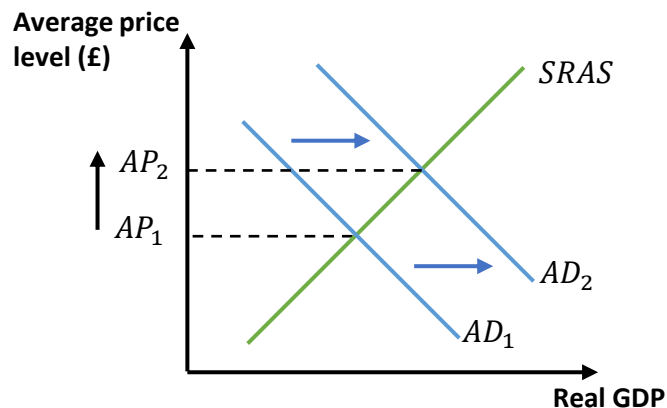
Demand-Pull Inflation

This type of inflation happens when there's too much demand in the economy – like everyone trying to grab the last PlayStation in stock.

- **Aggregate Demand (AD):** This is the total spending in an economy, made up of:
 - **C: Consumers spending** on goods/services.
 - **I: Businesses Investing** in things like factories or tech.
 - **G: Government spending** on roads, schools, etc.
 - **(X-M): Exports minus imports** (basically what we sell abroad versus what we buy from other countries).

When AD increases (like during a shopping spree), it pushes up prices.

- **Short-Run Aggregate Supply (SRAS):** This is how much the economy can supply at current price levels. If supply can't keep up with demand, prices increase, as shown in the diagram where **AD shifts right from AD₁ to AD₂**.



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11.1.3 Inflation and deflation

The causes of inflation

Demand-Pull Inflation

Diagram Analysis:

- If any of the 4 factors of AD increases, the curve shifts **right** ($AD_1 \rightarrow AD_2$), showing higher demand.
- At the original price (**AP₁**), there's suddenly too much demand in the economy.
- Therefore, prices rise, causing less spending (**contraction of AD**) and more production (**extension of SRAS**).
- Prices move up from **AP₁ to AP₂**, resulting in **demand-pull inflation**.

Example: Imagine a concert with only 100 tickets and 1,000 fans show up. People start offering more and more money for the tickets – that's like AD increasing and causing prices (aka ticket costs) to rise. 🎫

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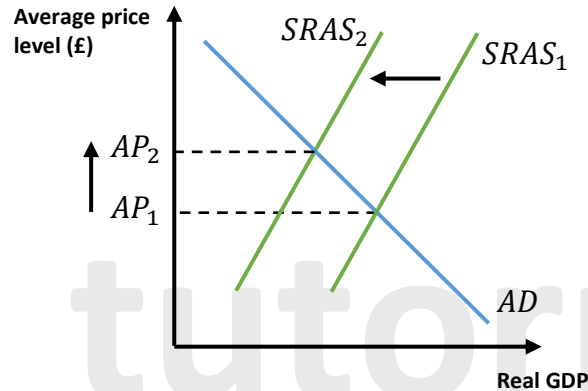


11.1.3 Inflation and deflation

The causes of inflation

Cost-push Inflation

Definition: Cost-push inflation happens when **the cost of making stuff goes up**, like higher wages, expensive raw materials, or rising fuel costs. Businesses pass these costs on to customers by **raising prices**.



What the Diagram Shows:

1. When production costs rise (e.g., oil becomes pricier), the **supply decreases**, shifting the supply curve **left** ($SRAS_1 \rightarrow SRAS_2$).
2. At the original price level (AP_1), there isn't enough supply to meet demand, leading to shortages.
3. Prices go up ($AP_1 \rightarrow AP_2$) as goods become harder (and costlier) to produce.
4. As prices increase, people buy less (**contraction of AD**), and businesses can't supply enough.
5. This is called **cost-push inflation**, it's when higher costs push prices up for everyone.



11.1.3 Inflation and deflation

The causes of inflation

Cost-push Inflation

Example: Chocolate bars need cocoa, and if cocoa prices skyrocket due to bad weather. Chocolate companies now spend more to produce each bar, so they **charge you extra**. Suddenly, your favourite £1 treat is now £1.50.

11.1.3 Inflation and deflation

The quantity theory of money

Ever wondered what causes inflation? One classic explanation comes from something called the **Quantity Theory of Money**. It all starts with a famous formula by economist **Irving Fisher**, called the **equation of exchange**:

$$M \times V = P \times Q$$

Where:

- **M** = Money supply (how much money is in the economy)
- **V** = **Velocity of circulation** – how often each unit of money is used to buy goods/services over a year
- **P** = Average **price level** (think of this like the average cost of things, measured by something like the CPI)
- **Q** = Real output – the amount of stuff we produce (also called real national income or real GDP)

This equation shows that the amount of money multiplied by how often it's spent equals the total value of goods and services sold in the economy.

What Do Monetarists Say?

Monetarist economists (like Milton Friedman) built on this theory and took it further:

- They believed **V** (velocity) stays more or less **constant** over time.
- They also said **Q** (real output) tends to grow steadily – not too fast, not too slow.

So, if **V** and **Q** are **steady**, then any change in **M** (**money supply**) must affect **P** (**prices**).

 Translation? Printing lots of money = higher prices = **inflation**.

This led to the idea that inflation happens not because people are spending too much or because of rising costs, but simply because **too much money is chasing too few goods**.

11.1.3 Inflation and deflation

The quantity theory of money

So, Why Did It Matter?

This idea became huge in the 1980s, especially under governments that tried to fight inflation by controlling the **money supply**. They thought: "If we can limit how much money is in the system, we can control inflation."

One of the biggest supporters of this theory was **Milton Friedman**, who even won a **Nobel Prize**. He believed inflation is always a **monetary phenomenon**, basically, if you want to stop prices from rising, stop printing money like there's no tomorrow.

What Happened to This Idea?

By the late 1980s, things changed:

- Governments found it **really difficult to control the money supply**.
- Plus, **velocity (V)** didn't stay as constant as people thought, it changed depending on interest rates, confidence, and other factors.

So, while the theory still has its place in economics, it's no longer the go-to method for tackling inflation.

In a Nutshell:

- Too much money in the economy → prices go up.
- Control the money supply = control inflation (in theory).
- But in real life? It's messier than the maths.

11.1.3 Inflation and deflation

Expectations and changes in the price level

People don't just react to prices; they try to **predict them**. That's what we call **inflation expectations** (what consumers and businesses *think* will happen to prices in the future). And surprisingly, these expectations can actually **influence real inflation**.

How Expectations Affect Prices:

- **If people expect prices to fall**, they might **hold off on buying** things, hoping to grab a bargain later.
 -  Example: "TVs will be cheaper next month? I'll wait."
 - That delay in spending reduces demand and this can actually help prices fall.
- **If people expect prices to rise**, they might **rush to buy now** before things get more expensive.
 -  Example: "Petrol is going up tomorrow? Fill the tank today."
 - That extra demand drives prices up, making the price rise a self-fulfilling prophecy.

This is where **inflation psychology** comes in where it's all about how our expectations and emotions impact spending and pricing behaviour.

11.1.3 Inflation and deflation

Expectations and changes in the price level

Types of Inflation Psychology

Adaptive Expectations

People look at the past to predict the future. If inflation was high recently, they assume it'll stay that way.

Example: Prices have been going up a lot lately, so I'd better ask for a big pay raise just in case.

Rational Expectations

People use **all available info** (not just past trends) to make informed guesses. They're more forward-thinking and logical.

Example: Inflation was high last month, but the government just raised interest rates. I think prices might stabilise.

Why It Matters

Expectations aren't just guesses, they **shape reality**. If people expect inflation to go up, they act in ways that push it up. That's why central banks and governments care so much about keeping expectations under control to avoid panic buying, unnecessary wage demands, and runaway inflation.

11.1.3 Inflation and deflation

The effects of inflation

For Firms:

- **Uncertainty:** Inflation makes it hard for businesses to plan because they can't predict future costs and revenues.
- **Menu Costs:** Constant price changes mean businesses have to update their price lists, menus, or catalogues frequently. It's not just annoying, it's expensive.

For Consumers:

- **Less Spending Power:** As prices rise, your money buys you less. The weekly shop feels like it costs a fortune!
- **Fixed Income Hit:** Retirees relying on pensions or others on fixed incomes feel the pinch most as their income doesn't stretch as far.
- **Savings Lose Value:** Got cash in the bank? It's worth less in real terms if inflation is higher than interest rates.

For the Government:

- **Harder Exports:** Inflation makes a country's goods more expensive abroad, reducing international competitiveness.
- **Difficult Choices:** Tackling inflation often means tough trade-offs, like potentially increasing unemployment or slowing economic growth.

For Workers:

- **Demand for Higher Wages:** To keep up with rising prices, workers push for better pay. Fair enough, right?
- **Productivity Dip:** If wages don't keep up with inflation, motivation falls and so does productivity.

11.1.3 Inflation and deflation

Deflation

Deflation is when the general price level of goods and services in an economy falls meaning prices go down instead of up. This is measured using the **Consumer Price Index (CPI)**.

◆ **Note:** Deflation only officially happens when the rate of price change is below 0% (i.e. negative inflation).

What Causes Deflation?

Deflation can come from two main places:

- **Demand-side factors** — when people are buying less
- **Supply-side factors** — when businesses can produce more at lower prices

1 Demand-Side Deflation (aka "Bad Deflation")

What is Demand-Side Deflation?

This happens when **aggregate demand** (total demand for goods and services in an economy) **falls**.

Aggregate Demand (AD) =
 C (Consumption) + I (Investment) + G (Government Spending) + $(X - M)$
(Net Exports)

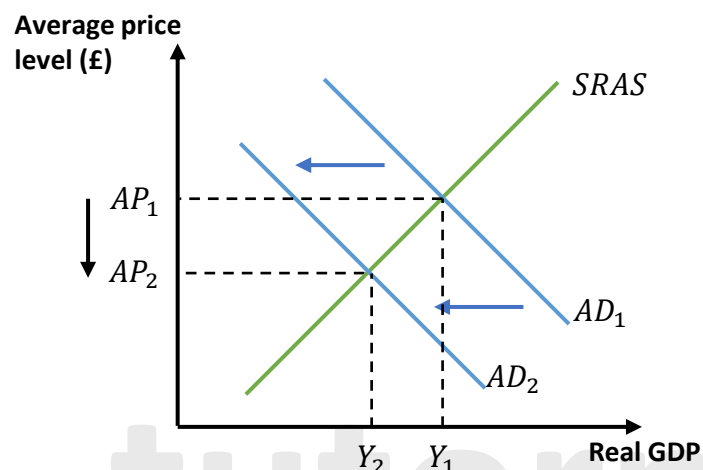
So, if people start spending less, businesses invest less, governments cut spending, or exports drop. In short, demand decreases, leading to falling prices.

Real Life Example:

Think back to the 2008 financial crisis, people lost jobs, cut spending, and businesses stopped investing. The demand for goods and services dropped sharply, and prices started to fall. That's demand-side deflation in action.

11.1.3 Inflation and deflation

Deflation



 **Diagram: Demand-Side Deflation**

The diagram shows what happens when aggregate demand falls:

- We start at **equilibrium** point AP_1Y_1 — prices and output are stable.
- But then... Something (any factor mentioned previously) causes demand to drop.
 - The AD curve shifts left: $AD_1 \rightarrow AD_2$
- As a result:
 - Average price level drops from $AP_1 \rightarrow AP_2$
 - Output (real GDP) falls from $Y_1 \rightarrow Y_2$
- This new equilibrium is now at AP_2Y_2

 This shows that lower demand leads to falling prices **and** lower output **bad news** for the economy.

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11.1.3 Inflation and deflation

Deflation

The consequences of demand-side deflation

When people and businesses spend less, prices start falling, not just for one or two things, but across the whole economy. That's **demand-side deflation**, and while falling prices *sound* good, the effects can be seriously damaging.



Consumers hit pause on spending

With businesses struggling and people losing jobs, households worry about the future and choose to **save instead of spend**.

Less spending = lower demand = even less output = the economy keeps shrinking.

Many delay buying goods and services because they believe prices will drop more, creating a cycle of falling demand.



Imagine knowing that that £100 jacket might be £80 soon; why buy now?



Firms pull back

Businesses see falling prices and sales, so they stop investing in new projects or hiring, worsening the economic slowdown.



Why build a new store if no one's buying what you already have?



Bankruptcy on the rise

- Lower profits from falling prices = businesses can't survive.
- Smaller firms, in particular, might have to shut down for good.
- Less revenue + same costs = some businesses going out of business.

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11.1.3 Inflation and deflation

Deflation

Government tools lose their edge

- **Less Effective Policies:** Tools like tax cuts (fiscal policy) or interest rate drops (monetary policy) don't work well because people still expect prices to fall. They keep waiting for even better deals instead of spending now.
- **Higher Unemployment:** As output (production) drops, fewer workers are needed. So, job losses rise.

 Think of shoppers holding off on buying a new phone because they think it'll be cheaper next month.

Exports Get a Boost

- There's a silver lining. If UK prices fall, products become **cheaper for buyers abroad**.
- For example, British-made trainers might become hot sellers in Europe thanks to lower prices, helping boost exports.

11.1.3 Inflation and deflation

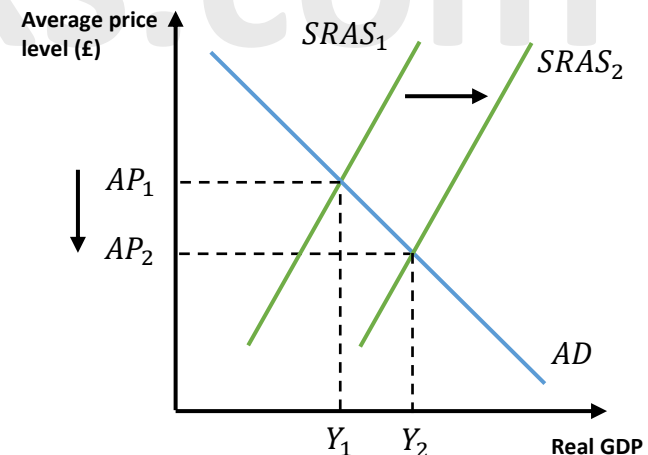
Deflation

Supply-side Deflation (aka "Good Deflation")

Supply-side deflation happens when the economy becomes better at producing goods and services, basically, when we can make **more stuff**, more efficiently. This can be due to improvements in the **quantity or quality** of what we use to produce things like better machines, more skilled workers, cheaper raw materials, or faster technology.

In simple terms:

If we can produce more goods using the same resources (or even fewer) then prices tend to **fall**, because supply has increased. But unlike demand-side deflation (which is bad), this is usually a **positive sign**. Why? Because it often means more output (real GDP increases), lower prices, and possibly more jobs.



11.1.3 Inflation and deflation

Deflation

Diagram: Supply-Side Deflation Explained

The graph shows what happens when **Short-Run Aggregate Supply (SRAS)** increases (moves to the right).

- **SRAS1 → SRAS2:** This shift happens when production becomes more efficient.
- **Average Price Level (AP) falls to AP2:** With more goods available, prices drop.
- **Output (Y) increases to Y2:** We're making more stuff.
- **New equilibrium** is at **AP2 Y2**.

Result? More output, lower prices, and a boost to the economy = **Good deflation** 🎉

11.1.3 Inflation and deflation

Deflation

Consequences of Supply-side Deflation

Supply-side deflation is like getting a bigger pizza for the same price, great news for everyone. It happens when the economy becomes more efficient at producing goods and services, leading to **lower prices** and **higher output**. Let's break down the effects in everyday terms:

Exports Get a Glow-Up

When domestic prices fall, our products become **cheaper and more attractive** to international buyers. This boosts **exports** and improves a country's **global competitiveness**.

Example: A UK-made car becomes cheaper compared to a German rival, suddenly, more people abroad want the British car.

Debt Becomes Heavier

Even in a good deflation situation, debt doesn't get a free pass. When prices fall, the value of money increases, which means debts become **harder to repay** in real terms. This can be a downside, especially for people and governments with big loans.

Real-life effect: A student loan taken out years ago might feel tougher to pay off if wages don't rise but prices fall.

Consumers Feel Good

With prices falling and jobs becoming more available, households start to **feel optimistic**. They spend more, which keeps the economy buzzing and **real GDP** climbing.

Example: If the price of groceries drops and you get a raise, you're likely to splurge on that weekend trip or upgrade your phone and there is a demand boost.

11.1.3 Inflation and deflation

Deflation

Firms Gain Confidence

When businesses can make more while spending less (like using automation or cheaper materials), they feel **confident**. That means they're more likely to invest in new projects, hire people, and expand. All of this helps grow the economy and this is reflected in rising **real GDP** (total value of goods and services produced, adjusted for inflation).

Example: A clothing company switches to energy-efficient machines and cuts costs, so it opens a second factory. There is more production and more jobs.

Unemployment Falls

As firms grow, they need more helping hands. So, they hire. With rising output, more workers are needed, and **unemployment drops**.

Example: A bakery installs faster ovens, needs more staff to handle growing orders, suddenly, the local job market gets a boost.



11.1.3 Inflation and deflation

Deflation

Continue to the next page...

11.1.3 Inflation and deflation

Commodity prices and inflation

Let's talk about **commodities** (basic raw materials like oil, wheat, and metals that are used to make other goods). Their prices go up and down a lot (we call this being **volatile**), and people often trade them to try and make a profit. Think of it like trying to guess whether gold or oil will be worth more tomorrow and placing your bets accordingly.

Now, one commodity that really affects the **inflation rate** is **oil**. Why? Because oil is everywhere; it's used to fuel vehicles, power factories, and even make products like plastic. So, when oil prices rise, it becomes more expensive to make and move stuff around. This pushes up prices across the board, which means **inflation**.

Who Controls Oil Prices?

Sometimes, oil-producing countries (like those in **OPEC**) get together and decide to **cut supply**, basically producing less oil on purpose. If demand stays the same or goes up (and it usually does, since people and businesses still need oil), the price shoots up. This is because **demand for oil is price inelastic** (people need it no matter the cost).

A real-life example? In the 1970s, oil prices skyrocketed after supply was restricted. The result? The UK saw inflation go wild, so bad at one point it hit **25% in 1975**. That's huge. Just imagine your weekly shop costing a quarter more every year.

11.1.3 Inflation and deflation

How other countries can affect inflation in the UK

The UK is what's called an **open economy**, this means we do a lot of trading with other countries. So, when things change in other parts of the world, they can have a knock-on effect on prices (inflation) right here in the UK.

1. Other Countries Boom → More Demand for UK Goods

If a country like India or the U.S. sees strong economic growth, people and businesses there might want to buy more British products; think of luxury cars, tech services, or tea from Yorkshire. This can increase UK exports and may lead to **demand-pull inflation**, which is when prices rise because people are demanding more goods than the economy can produce.

2. Recessions Abroad → Less Demand for Our Stuff

Now imagine the opposite: if a major trading partner like Germany goes into a recession (a period of shrinking economic activity), they'll likely buy fewer UK goods. That reduces demand for our exports, helping ease inflation here, especially demand-pull inflation.

3. Overseas Growth Pushes Up Prices of Raw Materials

As countries grow, they buy more stuff like steel, oil, and timber. If global demand for these materials spikes, it can push up their prices. Since the UK often **imports** these resources, we end up paying more to produce things. That leads to **cost-push inflation** (when prices rise because the cost of making things goes up).

Example: If China ramps up building projects and buys loads of copper, global prices for copper rise. UK builders pay more, and those extra costs are passed on to consumers.

11.1.3 Inflation and deflation

How other countries can affect inflation in the UK

4. Currency Exchange Rates Can Mess With Prices

When the **exchange rate** (the value of the British pound compared to other currencies) falls, it makes imported goods more expensive. So, if the pound drops against the euro or the dollar, buying foreign food, fuel, or electronics becomes pricier, again causing **cost-push inflation**.

Think of it like going abroad: if the pound is weak, your holiday spending money doesn't go far and it's the same for UK businesses buying foreign goods.

11.1.3 Inflation and deflation

How other countries can affect inflation in the UK

Continue to the next page...

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11.1.4 Possible conflicts between macroeconomic policy objectives

How output gaps relate to unemployment and inflationary pressures

An **output gap** is the difference between how fast the economy is growing *right now* (short-run growth) and how fast it *normally* grows over time (long-run trend growth).

Think of it like driving a car: if you're usually cruising at 60 mph, but today you're either going way too slow or speeding too much, you're off track. That's what output gaps are like for the economy. There are two types:

▼ Negative Output Gap

This happens when the economy grows slower than usual, like when your car is crawling along at 30 mph on a 60-mph road.

- The economy is underperforming: output is below its potential.
- There are spare workers and unused machines a.k.a. **unemployment** and idle factories.
- Even if the economy is growing, it's not enough to meet the normal pace. For example, if the usual growth is 3% a year, but this year it's only 1%, that gap means fewer workers are needed, so unemployment rises.

🔍 **Why it matters:** It often leads to **cyclical unemployment** (when people lose jobs because of a drop in overall demand).

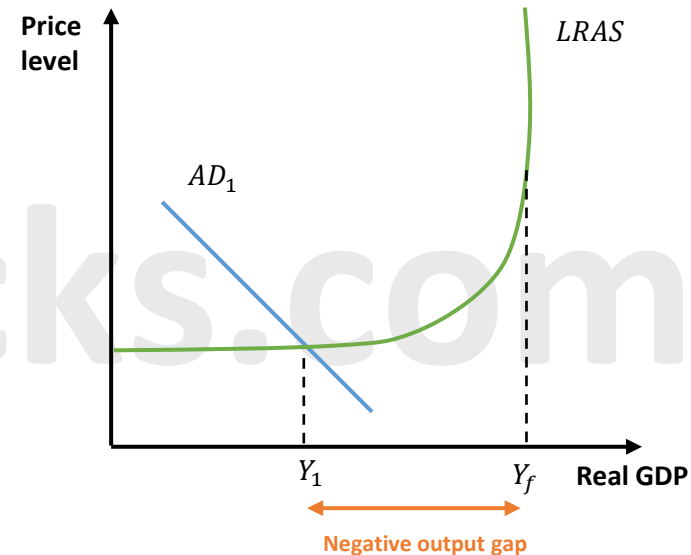
✂️ **How to fix it:** Boost **aggregate demand** (that's the total demand for goods and services in the economy). Think government spending more, lowering interest rates, or cutting taxes to get people and businesses buying again.



11.1.4 Possible conflicts between macroeconomic policy objectives

How output gaps relate to unemployment and inflationary pressures

📊 **Diagram:** In a graph, a negative output gap shows output at point Y_1 , which is below the economy's max capacity (Y_f).



11.1.4 Possible conflicts between macroeconomic policy objectives

How output gaps relate to unemployment and inflationary pressures

▲ Positive Output Gap

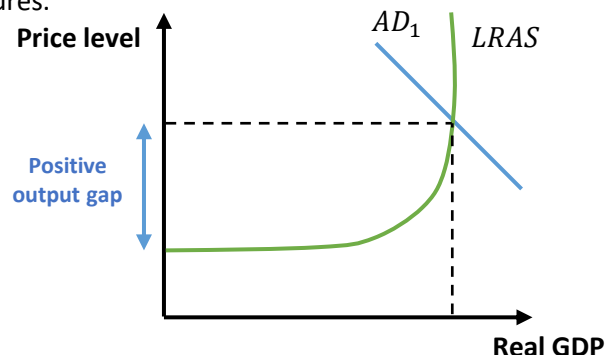
This happens when the economy is growing faster than its long-run average. Sounds good, right? But wait...

- The economy is working **above** its sustainable level.
- Workers and factories are working overtime.
- To keep up with demand, businesses may need to offer higher wages to attract workers and pay more for materials, which pushes prices up.

💣 **Result:** This creates **inflationary pressure** (when prices start to rise across the economy).

⚡ **How to fix it:** Cool things down by **reducing aggregate demand**. The government might raise interest rates or taxes to slow down spending.

📊 **Diagram tip:** A positive output gap shows output beyond the economy's full capacity ($Y > \text{Max}$). That's when you get those upward price pressures.



11.1.4 Possible conflicts between macroeconomic policy objectives

How output gaps relate to unemployment and inflationary pressures

Summary:

Output Gap Type	What's Happening?	Main Problem	How to Fix It
Negative (below trend)	Not enough demand, underused resources	Unemployment	Increase aggregate demand
Positive (above trend)	Too much demand, overheating economy	Inflation	Decrease aggregate demand

11.1.4 Possible conflicts between macroeconomic policy objectives

Short-run Phillips curve

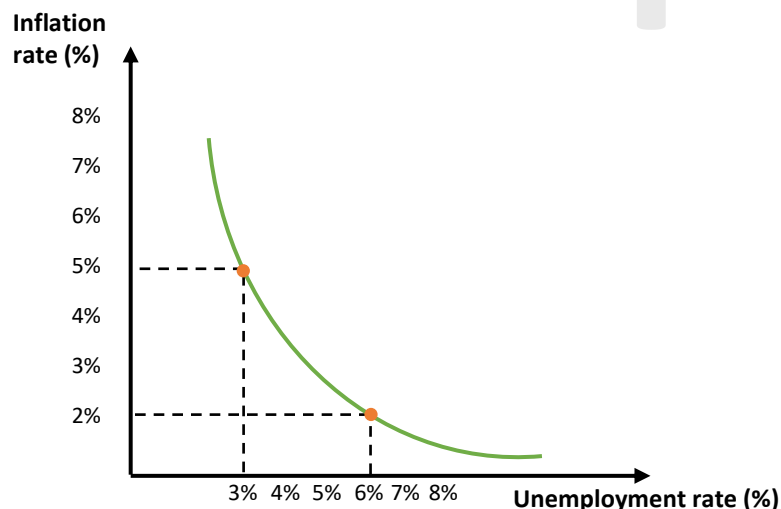
Ever wondered why **low unemployment** sometimes leads to **higher inflation**? Economist **A.W. Phillips** discovered this trade-off, now known as the **Phillips Curve**. He found that when **unemployment falls**, businesses must **compete for workers**, pushing up **wages**. These **higher wages** increase business costs, which are then **passed on to consumers as higher prices** (inflation).

The Short-Run Phillips Curve: How It Works

✓ **High Unemployment = Low Inflation** – When lots of people are looking for work, businesses can offer lower wages, keeping costs and prices low.

✓ **Low Unemployment = High Inflation** – When jobs are plentiful, workers demand higher wages, pushing up business costs and prices.

 **Graphically**, this is shown as a **downward-sloping curve**: as unemployment falls, inflation rises.



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11.1.4 Possible conflicts between macroeconomic policy objectives

Short-run Phillips curve

The Breakdown: What Happened in the 1970s?

The Phillips Curve worked **well for a while**, but then **stagflation** hit in the 1970s; **both high unemployment AND high inflation** happened at the same time! This was caused by:

✓ **Oil price shocks** – The **OPEC oil crisis** sent energy prices soaring, increasing costs for businesses.

✓ **Supply-side problems** – Factories struggled, leading to **economic stagnation**.

 **Example:** In the **UK and US during the 1970s**, inflation hit **double digits** while **unemployment remained high**, proving that the **Phillips Curve isn't always reliable**.

The Big Question: Can We Have Both Low Inflation AND Low Unemployment?

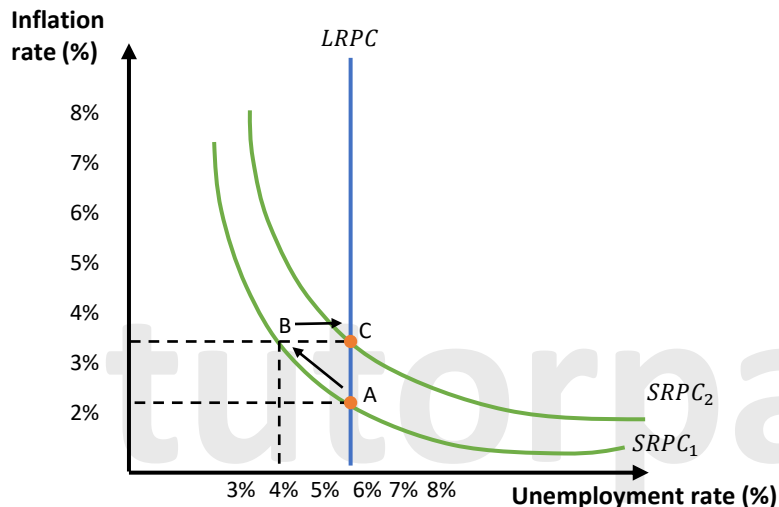
Some economists argue that **improving productivity and supply-side policies** (like education & innovation) can **shift the Phillips Curve**, allowing for **both stable inflation and low unemployment**. But others say **trade-offs are inevitable**.

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11.1.4 Possible conflicts between macroeconomic policy objectives

Long-run Phillips curve

Economist **Milton Friedman** came up with an explanation for why the trade-off between inflation and unemployment doesn't hold in the long run.



In the Short Run...

People suffer from **money illusion**; they see more money in their paycheck and think they're better off, even if prices have gone up. So, when the government boosts **aggregate demand (AD)** to reduce unemployment, businesses hire more workers. Unemployment drops, and inflation rises. That's the short-run win.

This happens along the **Short-Run Phillips Curve (SRPC)**. For example, we move from **Point A to Point B** on the diagram:

- Inflation goes up (say, from 0% to 3.5%)
- Unemployment goes down (say, from 5.5% to 4%)

Seems great, right?

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11.1.4 Possible conflicts between macroeconomic policy objectives

Long-run Phillips curve

But Then Reality Kicks In...

After a while, workers catch on. They realise that while their wages have gone up, so have prices and their **real wages** (what their money can actually buy) haven't improved. This is where **adaptive expectations** come in.

Adaptive expectations mean people adjust their future expectations based on what they've experienced. So now that they expect 3.5% inflation, they'll ask for higher wages to keep up.

Businesses, now facing rising wage bills, cut back on hiring. Unemployment rises again and this time we move from **Point B to Point C**.

We're now back to the same level of unemployment as we started with but stuck with higher inflation.

The Long-Run Picture

This brings us to the **Long-Run Phillips Curve (LRPC)**, which is:

- **Vertical** because in the long run, there's no trade-off between inflation and unemployment.
- Fixed at the **Natural Rate of Unemployment (NRU)** — the level of unemployment that exists even when the economy is stable, due to people switching jobs, mismatched skills, etc.

Trying to push unemployment below the NRU will only lead to rising inflation over time. It's like pressing down on a spring; it bounces back up, but now things are a bit messier.

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11.1.4 Possible conflicts between macroeconomic policy objectives

Long-run Phillips curve

The Lesson for Governments

There are **two kinds of Phillips Curves**:

- **Short-Run Phillips Curve (SRPC)** – In the short term, you can lower unemployment by tolerating a bit more inflation.
- **Long-Run Phillips Curve (LRPC)** – In the long run, workers adapt, and inflation expectations rise, so unemployment returns to the NRU.

 Want to reduce unemployment for good? Focus on **supply-side policies** like education, skills training, and making it easier to hire, not just pumping up demand.

Real-World Example

Imagine the government gives everyone a stimulus check to boost spending. Shops are busy, businesses hire more. Unemployment falls. But a few months later, prices rise. Workers realise their money isn't stretching as far and demand pay raises. Businesses pull back hiring. Back to square one, now with added inflation.

11.1.4 Possible conflicts between macroeconomic policy objectives

Implications of the Philips curve for economic policy

Impacts on Short-Run Policy

Governments don't have a magic wand; they often have to make **trade-offs** when pursuing their goals. Solving one problem might make another worse.

- If the government wants **faster economic growth**, it might get **lower unemployment**.
- But that growth can **overheat** the economy, pushing prices up and causing **inflation**.

 Example:
Imagine the economy is like a car engine. If you press the accelerator (economic growth) too hard, the engine heats up (inflation).

Classic Trade-Offs in Economics:

Growth vs Inflation: Faster growth = more jobs, but also higher prices. E.g., if unemployment drops, businesses compete for workers, so wages go up, and so do prices.

Growth vs Inequality: Wealth often increases faster for the rich. Example: Tech company owners gain millions, while average worker wages barely rise.

Low Unemployment vs Low Inflation: When most people are working, businesses struggle to find workers. They offer higher wages, which can raise prices across the board (wage inflation).

Growth vs Environment: More factories = more pollution. Example: Higher car production = more CO₂ emissions.

11.1.4 Possible conflicts between macroeconomic policy objectives

Implications of the Philips curve for economic policy

Long-Run Policy Decisions (Looking Ahead)

The **Long-Run Phillips Curve (LRPC)** says: "In the long run, there's **no trade-off** between inflation and unemployment."

Why? Because the economy naturally settles at its **potential output**; the maximum it can produce without causing inflation.

So, here's what smart policymakers should do:

Don't Rely on Demand-Side Policies

- These are things like tax cuts or increasing government spending.
- They may reduce unemployment *temporarily*, but inflation can creep up and undo the benefits.

Focus on Supply-Side Policies

These aim to make the economy more productive in the long term.

- Invest in **education and training** (so workers can do more skilled jobs)
- Reform the **labour market** (e.g., easier hiring and firing)
- Improve **technology and infrastructure**

11.1.4 Possible conflicts between macroeconomic policy objectives

NAIRU

NAIRU stands for **Non-Accelerating Inflation Rate of Unemployment** which is basically the "sweet spot" of unemployment where **inflation stays steady**.

It's the lowest unemployment rate an economy can have **without causing inflation to speed up**.

Think of it like this:

- If unemployment is **too low**, businesses might compete for workers by offering higher wages. That pushes up prices = **inflation rises**.
- If unemployment is **too high**, there's less pressure to raise wages. Demand drops = **inflation falls**.

What Happens at Different Unemployment Levels?

-  **Unemployment = NAIRU** → Inflation stays the same
-  **Unemployment < NAIRU** → Inflation goes up (think: labour shortage, higher wages)
-  **Unemployment > NAIRU** → Inflation falls (think: surplus of workers, wages stay flat)

What affects NAIRU?

NAIRU isn't set in stone. It changes based on:

- **Structural unemployment** (e.g., mismatch between skills and job openings)
- **Frictional unemployment** (people between jobs)
- **Government policies** (like better training programs, benefits reform, or job creation schemes)

 **Example:** If a country improves its job-matching services (like better job centres or online platforms), NAIRU might drop because people can find work more easily.

11.1.4 Possible conflicts between macroeconomic policy objectives

NAIRU

🚩 In short:

NAIRU helps us understand the balance between unemployment and inflation. Staying close to it means we can enjoy low unemployment **without sending prices through the roof**.

11.1.4 Possible conflicts between macroeconomic policy objectives

Policy conflicts

A **policy conflict** happens when solving one economic issue makes another problem worse. This is super common when dealing with **inflation** and **unemployment**, because the solutions for each one often pull the economy in opposite directions.

1. Economic Growth vs. Protection of the environment 🌱🏭

- Growth often leads to **more production, more pollution, and depletion of non-renewable resources**.
- **Faster growth = Higher carbon emissions and environmental damage.**

Example: China's industrial boom led to **higher GDP** but also **severe air pollution and resource depletion**.

2. Economic Growth vs. Inflation 📈🔥

- As the economy **expands**, businesses demand more **workers and resources**, pushing wages and prices **higher**.
- **If demand grows too fast**, it **exceeds supply**, leading to **demand-pull inflation** (rising prices due to excessive demand).

Example: The **UK's rapid recovery post-COVID-19** saw **economic growth** but also **rising inflation**, prompting the Bank of England to increase **interest rates**.

3. Economic Growth vs. Budget Deficit 📊📉

- Governments use **expansionary fiscal policy** (higher spending and tax cuts) to **stimulate growth**, but this **increases the budget deficit** (when government spending exceeds revenue).



11.1.4 Possible conflicts between macroeconomic policy objectives

Policy conflicts

Example: The US government stimulus packages during COVID-19 boosted growth but increased national debt significantly.

4. Economic Growth vs. Balancing the Current Account

- Growth raises household incomes, leading to more imports (buying goods from abroad).
- If imports grow faster than exports, the current account deficit worsens.

Example: The UK consistently runs a current account deficit because high consumer spending leads to more imports than exports.

5. Unemployment vs. Inflation

- As the economy nears full employment, businesses struggle to find workers, so they offer higher wages.
- Higher wages = Increased production costs = Higher prices (inflation).

Example: In post-Brexit Britain, labour shortages led to higher wages for lorry drivers, but this also caused rising prices for goods.

And let's not forget **the multiplier effect** (small changes in spending can have big knock-on effects). For instance, cutting government jobs may save money... but it also means less income, less spending, and a bigger drop in overall economic activity.



11.1.4 Possible conflicts between macroeconomic policy objectives

Policy conflicts

What About the Long Run?

Economists mostly agree that these conflicts happen in the **short run** but they don't necessarily stick around forever.

In the long run:

- The economy should operate at its **natural level of output** (a steady, sustainable level).
- There's no **cyclical unemployment** (that's unemployment caused by a lack of demand).
- So, we don't need to constantly push AD higher to reduce unemployment.

This is where **supply-side policies** can shine ; they improve productivity and efficiency without causing inflation. Examples include:

- Investing in education 
- Reforming tax and welfare systems 
- Improving infrastructure 

Please see the '11.2 Economic performance
Worked Examples' pack for exam style questions.

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Causes of growth

Actual vs Potential Growth

When we talk about **economic growth**, we're really talking about **two different things**: **actual growth** and **potential growth**.

◆ Actual Growth – What's Happening Right Now?

📌 **Definition:** Actual growth is when a country **produces more goods and services** than before, leading to a **higher Gross Domestic Product (GDP)**. It's the **real, measurable increase** in output.

Example: If a country's GDP grows from **£2 trillion to £2.2 trillion**, that's actual growth! This happens when businesses **produce more**, **hire more workers**, and **use resources more efficiently**.

What causes actual growth?

More **consumer spending** 🛒, More **investment by businesses** 🏢, Government spending on **infrastructure, healthcare, education** 🎓, Higher **exports** 📦

◆ Potential Growth – What the Economy *Could* Produce

📌 **Definition:** Potential growth refers to an **increase in the economy's capacity to produce goods and services** over time. It doesn't mean we are producing more right now, it means we **could produce more in the future**.

Example: Imagine a country discovers **new oil reserves** or invents a **revolutionary AI technology**. These things don't instantly increase GDP, but they **increase the country's ability to grow** in the future.

What causes potential growth?

- **New technology** (e.g., AI, robotics, green energy) 🤖, **More workers** (higher birth rates, immigration, later retirement) 👥, **Better education & skills training** 🎓, **Investment in infrastructure** (faster internet, better transport) 🛣️
- Potential growth is shown by a shift in the Long-Run Aggregate Supply (LRAS) curve or the Production Possibility Frontier (PPF).

Causes of growth

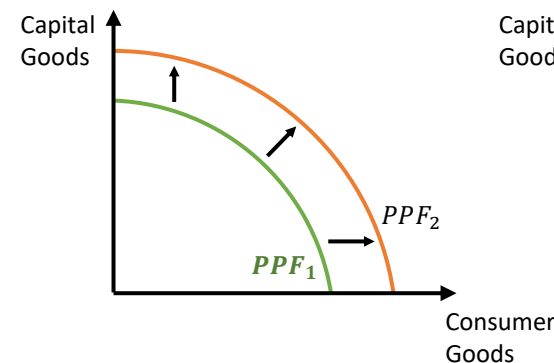
Actual vs Potential Growth

◆ The PPF and Economic Growth – A Simple Explanation

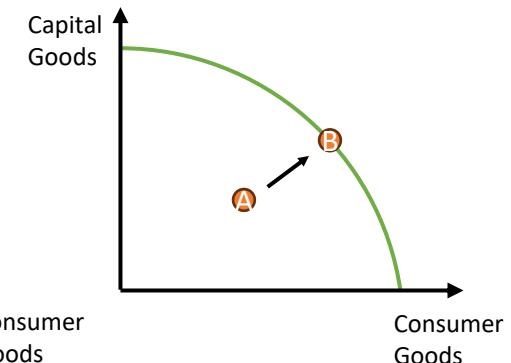
The **Production Possibility Frontier (PPF)** shows the **maximum amount of goods and services** an economy can produce with its current resources.

- If the **PPF shifts outward**, the economy **can now produce more** → **Potential growth**. Shown below in **figure (a)**.
- If the economy **moves from inside the PPF to the PPF itself**, it means resources are being **used more efficiently** → **This is economic recovery, not growth**. Shown below in **figure (b)**.

✅ **Example:** If a country has **high unemployment**, it's **not using all its resources**. When unemployment falls and people start working again, the economy moves **closer to its PPF**, this is recovery. But **if the economy invents new technology or trains a highly skilled workforce**, the PPF shifts outward, this is potential growth.



a) PPF shift



b) Movement to the PPF

Causes of growth

International trade for (export-led) economic growth

 International trade plays a **huge role** in economic growth, especially when a country **exports more than it imports**. This is known as **export-led growth**, where a country's economy grows because **more people from around the world are buying its goods and services**.

Export-Led Growth – How Does It Work?

Many economists believe that a rise in **Aggregate Demand (AD)** (the total demand for goods and services in an economy) can **fuel economic growth** when exports increase. This is called **export-led growth** because higher exports mean:

- ✓ **More money flows into the country** from foreign buyers.
- ✓ **Businesses expand** to meet the demand.
- ✓ **More jobs are created** as firms hire workers to produce more goods.
- ✓ **The economy grows.** 

Examples of Export-Led Growth

- **South Korea** – Became a major global economy by **exporting electronics (Samsung, LG) and cars (Hyundai, Kia)**.
- **Germany** – Known for **exporting high-quality machinery, cars (BMW, Volkswagen), and chemicals**.
- **Vietnam** – Rapid economic growth thanks to **exports of textiles, electronics, and agriculture**.

These countries **focused on producing goods the world wanted** and became **export powerhouses**.

Causes of growth

International trade for (export-led) economic growth

How Exports Lead to Long-Term Economic Growth

At first, a rise in exports **only increases Aggregate Demand (AD)** because more people are buying the country's products. But if **high exports continue**, businesses:

- ✓ **Invest in better technology** to stay competitive 
- ✓ **Expand production** to meet global demand 
- ✓ **Hire more workers**, reducing unemployment 

This **increases Long-Run Aggregate Supply (LRAS)**, meaning the economy can **produce more in the long run**, leading to **sustainable economic growth**.

Competing in International Markets = More Efficiency

When businesses **sell internationally**, they **compete with companies from all over the world**, not just local firms. This **forces them to become more efficient**, producing **better quality goods at lower costs** to stay competitive.

◆ Example:

- **Tesla & Toyota** constantly **innovate and improve** their electric and hybrid cars to compete in global markets.
- **British companies** wanting to succeed abroad **must also improve efficiency, cut costs, and boost productivity**.