

## **Edexcel A - AS Level Economics**

Theme 2 – The UK economy – performance and policies

> 2.3 Aggregate Supply (AS) **Revision Notes**

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# Contents

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- 2.3.1 The characteristics of AS
- 2.3.2 Short-run AS
- 2.3.3 Long-run AS

#### 2.3.1 The characteristics of AS

#### The AS curve

#### What is Aggregate Supply?

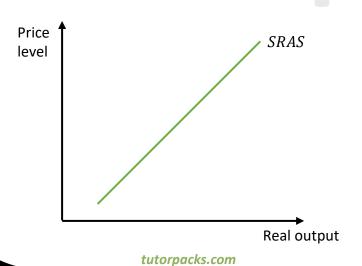
Aggregate supply (AS) is the total amount of goods and services that producers in an economy are willing and able to supply at a given price level over a certain period. Think of it as the economy's big production **line**, churning out everything from burgers  $\bigoplus$  to airplanes M.

#### The AS Curve Explained:

When you plot aggregate supply on a graph, it typically slopes upwards, especially in the short run. This means that as the price level increases, firms are happy to produce more.

#### What is the SRAS Curve?

The Short-Run Aggregate Supply (SRAS) curve shows the relationship between the price level and the total output (real GDP) that firms are willing to supply in the short run. Think of it as the economy's production response to changing prices.



#### 2.3.1 The characteristics of AS

#### The AS curve

Why Does the Short-Run Aggregate Supply (SRAS) Curve Slope Upwards?

Higher Production Means Higher Costs (5)



- As businesses **produce more**, they **need more workers**, which means **higher wages** and other expenses.
- More production = more spending on raw materials, wages, and energy bills.
- To cover these rising costs, firms raise prices, which leads to a higher price level.
- As a result, the curve slopes upwards because firms are only willing to supply more when the price is higher.

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#### 2.3.1 The characteristics of AS

#### The AS curve

Moving Along the SRAS Curve – What Does It Mean? ▮ 1 □



A movement along the SRAS curve happens only when the average price level (AP) changes.

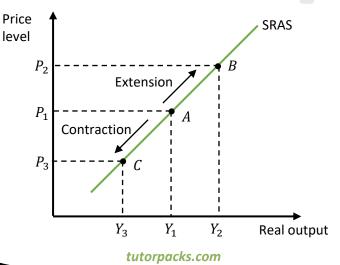
 $\Diamond$  Extension (from A to B): Price increases (P1 to P2)  $\rightarrow$  Firms produce more (Y1 to Y2)  $\rightarrow$  Movement up the SRAS curve

◆ Contraction (from A to C): Price decreases (P1 to P3) → Firms produce less (Y1 to Y3) → Movement down the SRAS curve

Therefore, if prices **rise**, businesses produce more. If prices **fall**, they produce less.

#### Why?

- Higher prices make it more attractive for firms to produce and sell goods, even if costs rise slightly.
- Lower prices discourage firms from producing more, as they might not cover their costs.



#### 2.3.1 The characteristics of AS

#### The AS curve

Why Does the SRAS Curve Shift?

Unlike movements along the SRAS curve (which happen when price levels change), a shift occurs when there is a change in production costs or supply conditions. These changes can either make production easier and cheaper (shifting SRAS right) or harder and more expensive (shifting SRAS left).

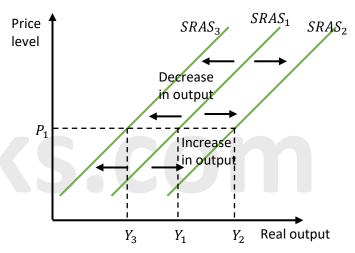


Diagram Analysis: What's Happening? (9)

SRAS Shifts Right (Good News! <a> \square</a>)

- When the **cost of production falls** (e.g., wages go down, raw materials become cheaper, or technology improves), businesses can produce more at every price level.
- This shifts the SRAS curve to the right (SRAS<sub>1</sub>  $\rightarrow$  SRAS<sub>2</sub>).
- Real output increases from Y<sub>1</sub> to Y<sub>2</sub>, meaning the economy is producing more output!

**Why?** Lower costs mean businesses can produce more at the same price, boosting supply and economic growth.com

#### 2.3.1 The characteristics of AS

#### The AS curve

SRAS Shifts Left (Uh-Oh! X)

- If labour costs rise (e.g., higher wages, expensive raw materials, or supply chain disruptions), businesses struggle to produce as much.
- This shifts the SRAS curve to the left (SRAS<sub>1</sub>  $\rightarrow$  SRAS<sub>3</sub>).
- Real output decreases from Y<sub>1</sub> to Y<sub>3</sub>, meaning the economy is producing less output.

Why? Higher production costs force businesses to reduce output, leading to lower supply and potential economic slowdown.

#### 2.3.1 The characteristics of AS

#### The relationship between short-run AS and longrun AS

Short-Run Aggregate Supply (SRAS) – What's Happening Right Now?

**SRAS** is all about how much stuff (goods & services) businesses can produce in the short term. It's mainly influenced by changes in production costs – like wages, raw materials, and taxes.



- The **short run** refers to a period where **at least one factor of production** (land, labour, capital, or entrepreneurship) is fixed – meaning businesses can't quickly adjust all resources to meet demand.
- **Example:** If oil prices suddenly increase, it costs more to produce goods, so SRAS decreases (shifts left). But if wages drop, production costs fall, and SRAS increases (shifts right).

Long-Run Aggregate Supply (LRAS) – The Big Picture



Unlike SRAS, LRAS is about an economy's total productive capacity in the long run. It's influenced by how much the economy can produce when all factors of production are fully employed.

- What makes LRAS change?
- Quantity of factors of production (e.g., more workers, more factories).
- Quality of factors of production (e.g., better education, improved technology).
- Think of it like this:
- If a country invests in education and infrastructure, workers become more skilled, factories become more efficient, and the LRAS curve shifts right  $\rightarrow$ meaning higher potential economic output.
- If there's a **natural disaster or war**, destroying resources, **LRAS shifts left**, reducing economic capacity.

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#### 2.3.2 Short-run AS

#### **Factors influencing short-run AS**

The short-run aggregate supply (SRAS) curve represents the total output of goods and services that businesses are willing to produce at different price **levels** in the short term.

But here's the catch, SRAS can shift. The main reason? Changes in **production costs**. Three key factors influence this:

#### 1) Raw Materials & Energy Costs



If the price of raw materials (like metals, timber, or wheat) or energy (like oil & gas) goes up, it gets more expensive to produce goods. This means businesses can't afford to make as much, so SRAS shifts left (meaning lower supply at the same price level).

**Example:** Imagine fuel prices skyrocket. Factories and delivery trucks need fuel, so production costs increase, and businesses cut back on output = SRAS decreases.

• Key takeaway: Higher production costs = lower SRAS; Lower production costs = higher SRAS.

#### 2) Exchange Rates

- The value of a country's currency matters. If the British pound weakens (depreciates), it takes more pounds to buy the same amount of imported materials. That means higher costs for businesses that rely on imports  $\rightarrow$  SRAS shifts left.
- If the pound strengthens (appreciates), imports become cheaper, lowering production costs and shifting SRAS right.

#### 2.3.2 Short-run AS

#### **Factors influencing short-run AS**

#### Real Example:

After **Brexit**, the pound fell in value. Imported goods (like food, fuel, and raw materials) became **more expensive**, increasing costs for businesses and causing cost-push inflation (higher prices due to rising production costs).

#### 3) Taxation & Government Policies (5)



Taxes directly impact how much businesses pay to produce goods:

- **Higher taxes** (like corporation tax or VAT) = **increased costs** for firms, leading to less production and SRAS shifting left.
- Subsidies (government financial support) help businesses lower costs, making production cheaper and shifting SRAS right.

**Example:** If the government introduces higher carbon taxes, energy costs rise, pushing SRAS left. But if they subsidise green energy, businesses pay less, and SRAS shifts right.



Supply-Side Shocks – When Things Go Crazy!



A **supply-side shock** is when something **BIG & UNEXPECTED** happens that suddenly changes production costs.

- **Example:** A natural disaster destroying factories, a war increasing oil prices, or a sudden tax increase.
- These events can rapidly shift SRAS left, causing inflation and economic slowdowns.

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#### Different shapes of the long-run AS curve

#### What is Long-Run Aggregate Supply (LRAS)?

Long-run aggregate supply (LRAS) represents the total output an economy can produce when all resources (land, labour, capital, and enterprise) are fully employed.

- It depends on the **productive capacity** of the economy.
- This capacity can increase if the quantity or quality of the factors of production (things like labour, machinery, and natural resources) improves.

Economists have two very different takes on how the LRAS behaves:

- 1) The Classical View (aka the "original view")  $\widehat{\mathbf{m}}$
- Based on old-school economic thinking, this theory argues that the economy is always at full employment in the long run.
- 2) The Keynesian View (John Maynard Keynes, 1936)
- Keynes wasn't buying the idea that markets always fix themselves. He
  believed that economies could stay stuck in a downturn for a long
  time without government intervention.

#### 2.3.3 Long-run AS

#### Different shapes of the long-run AS curve

1. The Classical Long-Run Aggregate Supply (LRAS) View

The Classical economic view sees the Long-Run Aggregate Supply (LRAS) curve as perfectly inelastic, which means it's a straight vertical line. Why? Because in the long run, an economy always operates at full employment, using all available resources (such as labour, land, and capital) as efficiently as possible.

At this point, the economy is producing at its productive potential, on its **Production Possibilities Frontier (PPF)**, the maximum amount of goods and services an economy can produce when it's running at full capacity.

#### How the Economy Adjusts in the Long Run

- According to the classical perspective, no matter what happens in the short term, the economy will always return to full employment in the long run.
- But in the short term, things can get a little messy...

#### **Short-Run Output Gaps**

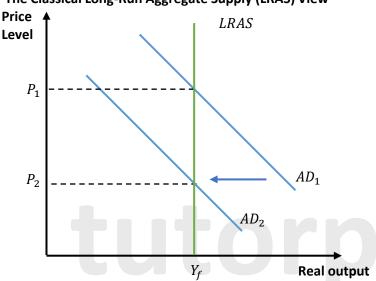
Not everything runs smoothly all the time, sometimes the economy overheats, and other times it slows down. These fluctuations create **output gaps**:

- Inflationary Gap: Happens when the economy is booming (economic growth is too high). When this occurs, demand is greater than supply, pushing up prices. But don't worry, in the long run, the economy selfcorrects, bringing output back to normal, but at a higher price level.
- Recessionary Gap: This is the opposite scenario. During slowdowns or recessions, the economy isn't producing as much as it could. But again, self-correction kicks in, and the economy returns to its full employment level, but this time, at a lower price level.

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#### Different shapes of the long-run AS curve

1. The Classical Long-Run Aggregate Supply (LRAS) View



The Classical economic theory sees the Long-Run Aggregate Supply (LRAS) curve as a vertical line at full employment output  $(Y_f)$ .

#### What Happens in the Economy?

- The economy starts in **equilibrium**, where **Aggregate Demand (AD)** meets **LRAS** at  $P_1$ ,  $Y_f$  (a stable price level and full employment output).
- If a slowdown hits, causing a **fall in aggregate demand**, output decreases (AD₁ → AD₂), creating a short-term **recessionary gap** (less economic activity, real GDP is less than the potential output).
- But don't worry. Classical economists believe the economy self-corrects over time. In the long run, wages and prices adjust, bringing output back to  $Y_f$ , but at a lower price level ( $P_2$ ).

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#### 2.3.3 Long-run AS

#### Different shapes of the long-run AS curve

- 2. The Keynesian Long-Run Aggregate Supply (LRAS) View
- John Maynard Keynes had a different take on the long-run aggregate supply (LRAS) curve. Instead of believing it's always fixed, he argued that it's more L-shaped, meaning supply can be flexible at lower output levels but eventually becomes rigid at full capacity. Let's break it down:

#### Elastic Supply at Low Output Levels 📈

- When the economy is struggling and there's a lot of spare production capacity (idle workers, unused factories, etc.), firms can easily produce more goods without raising prices. In this phase, supply is said to be elastic, meaning it can stretch without much price pressure.
- Example: If a factory is running at 50% capacity, it can hire more workers and produce more goods without increasing costs much.

#### Perfectly Inelastic Supply at Full Capacity

- However, once the economy reaches **full employment**  $(Y_f)$ , where all available **resources** (labour, capital, land) are being used efficiently, things change. At this point, supply becomes **perfectly inelastic** (i.e., it can't increase anymore). The only way for businesses to compete is by bidding for **scarce resources**, which drives **inflation** (rising prices).
- Example: If all skilled workers are already employed, companies must offer **higher wages** to attract employees, leading to price increases.

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#### Different shapes of the long-run AS curve

2. The Keynesian Long-Run Aggregate Supply (LRAS) View

Why Keynes Believed the Economy Doesn't Always Self-Correct



Classical economists believed the economy **automatically** fixes itself. Keynes, however, argued that this isn't always the case.

- The Economy Can Get Stuck Below Full Employment 🍪
  - Sometimes, demand remains too low, and businesses don't have the confidence to expand. This leads to an output gap, where actual production is below potential.
  - This happened during the **Great Depression** when businesses were too afraid to invest, and unemployment stayed high for years.
- **❖** The Role of Government **⋒** 
  - Keynes believed that when the economy is struggling, the government should increase spending (expenditure) to boost aggregate demand (AD) and stimulate economic activity.
  - This helps shift the economy back towards full employment and prevents stagnation.

Example: In a recession, governments can build roads, invest in **healthcare**, **or reduce taxes** to encourage spending and job creation.

The "Animal Spirits" Theory 🐂 🐯

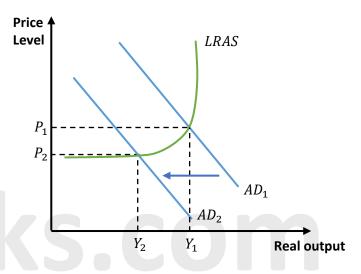


Keynes also introduced the concept of "animal spirits", which refers to the emotions and confidence that drive consumer and business decisions. If businesses and consumers fear a recession, they spend and invest less, making the downturn worse. To counteract this, governments can step in to **restore confidence** and keep the economy moving.

#### 2.3.3 Long-run AS

#### Different shapes of the long-run AS curve

2. The Keynesian Long-Run Aggregate Supply (LRAS) View



#### Diagram analysis

- The long-term output of an economy is determined by using all available factors of production (land, labour, capital, and entrepreneurship). This means LRAS occurs at  $Y_1$ —the full employment level of output.
- Initially, the economy is in equilibrium, where aggregate demand (AD<sub>1</sub>) and LRAS meet at price level  $P_1$  and output level  $Y_1$ .

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### Different shapes of the long-run AS curve

2. The Keynesian Long-Run Aggregate Supply (LRAS) View

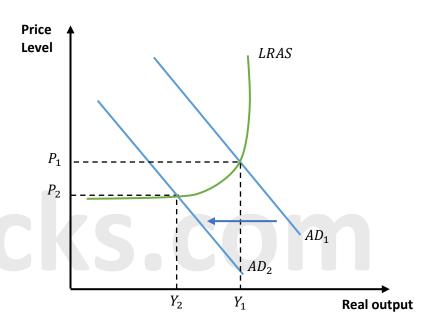
Diagram analysis continued...

- But then, a slowdown hits, maybe due to a financial crisis, uncertainty, or external shocks. This causes aggregate demand to fall from AD<sub>1</sub> to AD<sub>2</sub>, reducing output and creating a recessionary gap (Y<sub>2</sub> Y<sub>1</sub>).
  - At this point, the economy might reach a stage where average prices stop falling (P<sub>2</sub>), but output remains low.
  - The economy may not self-correct for years, meaning that market forces alone won't restore full employment.
  - The drop in output leads to high unemployment and low confidence in businesses and consumers.
    - As a result, investment drops, and consumption shrinks further deepening the downturn.
- **John Maynard Keynes** argued that in such situations, the government **must step in** with policies to boost demand.
  - This could be large-scale government spending (fiscal stimulus), such as Roosevelt's New Deal during the Great Depression or responses to financial crises like 2008.

#### 2.3.3 Long-run AS

#### Different shapes of the long-run AS curve

2. The Keynesian Long-Run Aggregate Supply (LRAS) View



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## **Factors influencing LRAS**

Again, the **long-run aggregate supply (LRAS)** represents the total amount of goods and services an economy can produce when all **factors of production** (land, labour, capital, and entrepreneurship) are fully utilised. Any improvement in the **quantity** (amount) or **quality** (effectiveness) of these resources will shift **LRAS outward**, increasing the economy's potential growth, while declines in these factors will shift **LRAS inward**. This is closely linked to the **production possibilities frontier (PPF)**, which illustrates the maximum output an economy can achieve with its available resources.

Here are some key factors that can **increase LRAS** and drive long-term economic growth:

1 Technological advances – New inventions and process improvements boost efficiency, allowing businesses to produce more with fewer resources. Example: The development of 3D printing revolutionised manufacturing by reducing material waste and speeding up production.

2 Changes in relative productivity – When workers become more efficient, output per worker rises. Example: The introduction of cloud computing has enabled businesses to automate data storage and management, significantly improving productivity in industries like banking and retail.

3 Changes in education & skills – A more skilled workforce can produce more output with the same resources. Example: Countries like Finland invest heavily in education, ensuring workers have advanced skills in technology and engineering, increasing overall economic output.

4 Changes in government regulations – Strategic government spending can boost long-term supply. Example: High-speed rail projects, such as China's bullet train network, improve transport efficiency, reducing travel times and increasing economic productivity.

#### 2.3.3 Long-run AS

#### **Factors influencing LRAS**

5 Demographic changes & migration – A larger and more dynamic labour force increases production potential. Example: The United States has historically benefited from high-skilled immigration, bringing in top scientists, engineers, and entrepreneurs who contribute to economic expansion.

6 Competition Policy – Reducing monopolies and encouraging competition forces firms to innovate and improve efficiency. Example: The European Union's antitrust policies have prevented large tech companies from stifling competition, allowing smaller businesses to thrive and contribute to economic growth.

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