

CIE Economics AS-level

Topic 4: The Macroeconomy

a) Aggregate Demand (AD) and Aggregate Supply (AS) analysis

Notes



Determinants of AD:

Aggregate demand is the total demand in the economy. It measures spending on goods and services by consumers, firms, the government and overseas consumers and firms.

It is made up of the following components, which make up the equation:

$$C + I + G + (X - M)$$

Consumer spending:

This is how much consumers spend on goods and services. This is the largest component of AD and is therefore most significant to economic growth. Consumer income might come from wages, savings, pensions, benefits and investments, such as dividend payments.

Influences on consumer spending:

Interest rates

- If the Monetary Policy Committee lowers interest rates, it is cheaper to borrow and reduces the incentive to save, so spending and investment increase. However, there are time lags between the change in interest rates and the rise in AD, so this is not suitable if a rise in AD is needed immediately. Lower interest rates also lower the cost of debt, such as mortgages. This increases the effective disposable income of households.

Consumer confidence

- Consumers and firms have higher confidence levels, so they invest and spend more, because they feel as though they will get a higher return on them. This is affected by anticipated income and inflation.
- If consumers fear unemployment or higher taxes, consumers may feel less confident about the economy, so they are likely to spend less and save more. This delays large purchases, such as houses or cars.

Wealth effects

- In the UK, most people own their houses. This means that a rise in the price of houses makes people feel wealthier, so they are likely to spend more. This is the **wealth effect**.



- A consumer's **housing equity** is the difference between the market value of a property and how much loan is remaining to be paid. If house prices increase, consumers experience a rise in equity, so they might be paying less on their mortgage than the house is worth on the market. This makes consumers feel wealthier, so they are more willing to spend.

Capital investment:

This accounts for around 15-20% of GDP in the UK per annum, and about $\frac{3}{4}$ of this comes from private sector firms. The other $\frac{1}{4}$ is spent by the government on, for example, new schools. This is the smallest component of AD.

Influences on investment:

The rate of economic growth

- If growth is high, firms will be making more revenue due to higher rates of consumer spending. This means they have more profits available to invest.

Business expectations and confidence

- If firms expect a high rate of return, they will invest more. Firms need to be certain about the future, otherwise they will postpone their investments.
- Also, expectations about society and politics could affect investment. For example, if a change in government might happen, or if commodity prices are due to rise, businesses may postpone their investment decisions.
- Keynes coined the term **animal spirits** when describing instincts and emotions of human behaviour, which drives the level of confidence in an economy.

Demand for exports

- This is related to the rate of market demand. The higher demand is, the more likely it is that firms will invest. This is because they expect higher sales, so they might direct capital goods into the markets where consumer demand is increasing.

Interest rates

- Investment increases as interest rates falls. This means that the cost of borrowing is less and the return to lending is higher.
- The higher interest rates are, the greater the opportunity cost of not saving the money.
- Moreover, high interest rates might make firms expect a fall in consumer spending, which is likely to discourage investment.



Access to credit

- If banks and lenders are unwilling to lend, such as shortly after the financial crisis when banks became more risk averse, firms will find it harder to gain access to credit, so it is either more expensive or not possible to gain the funds for investment.
- Firms could use retained profits, however.
- The availability of funds is dependent on the level of saving in the economy. The more consumers are saving, the more available funds are for lending, and therefore for investing.

The influence of government and regulations

- The rate of corporation tax could affect investment. Lower taxes means firms keep more profits, which could encourage investment.

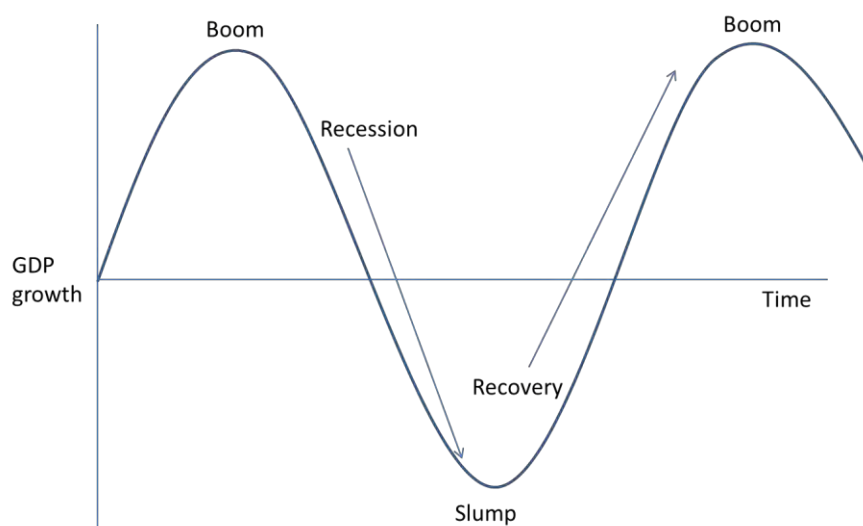
Government spending:

This is how much the government spends on state goods and services, such as schools and the NHS. It accounts for 18-20% of GDP. Transfer payments are not included in this figure, because no output is derived from them, and it is simply a transfer of money from one group of people to another. Government spending is the third largest component of AD.

Influences on government expenditure:

The trade cycle

- This is another term for the **business cycle**, which refers to the stage of economic growth that the economy is in.
- The economy goes through periods of booms and busts.



- Real output increases when there are periods of economic growth. This is the recovery stage.
- The boom is when economic growth is fast, and it could be inflationary or unsustainable.
- During recessions, there real output in the economy falls, and there is negative economic growth.
- During recessions, governments might increase spending to try and stimulate the economy. This could involve spending on welfare payments to help people who have lost their jobs, or cutting taxes.
- This will increase the government deficit, and they may have to finance this.
- During periods of economic growth, governments may receive more tax revenue since consumers will be spending more and earning more. They may decide to spend less, since the economy does not need stimulating, and fewer people will be claiming benefits.

Fiscal policy

- Governments use fiscal policy to influence the economy. It involves changing government spending and taxation.
- Governments might spend on public goods and merit goods, as well as welfare payments.
- Fiscal policy is a **demand-side policy**, so it works by influencing the level or composition of AD.
- **Discretionary** fiscal policy is a policy which is implemented through one-off policy changes.
- **Automatic stabilisers** are policies which offset fluctuations in the economy. These include transfer payments and taxes. They are triggered without government intervention.
- The government might use **expansionary fiscal policy** during periods of economic decline. This involves increasing spending on transfer payments or on boosting AD, or by reducing taxes.
- During periods of economic growth, governments might use **contractionary fiscal policy** by decreasing expenditure on purchases and transfer payments. Additionally, tax rates might increase. This reduces the size of the government budget deficit.

Exports minus imports:

This is the value of the current account on the balance of payments. A positive value indicates a surplus, whilst a negative value indicates a deficit. The UK has a relatively large



trade deficit, which reduces the value of AD. This is the second largest component of AD. The UK has a relatively large trade deficit, which reduces the value of AD.

The main influences on the (net) trade balances:



Real income

- During periods of economic growth, when consumers have higher incomes and they can afford to consume more, there is a larger deficit on the current account.
- When consumers increase their spending, they consume more domestic products as well as more imports.
- During periods of economic decline, real incomes fall and historically, this has led to improvements in the UK's current account.



Exchange rates

- A depreciation of the pound means imports are more expensive, and exports are cheaper, so the current account trade deficit narrows.
- Depreciations make the currency relatively more competitive against other currencies.
- However, it depends on which currency the pound depreciates against. If it is the dollar or euro, it is likely to have a more significant effect, than a currency which is not from one of the UK's major trading partners.
- Moreover, the demand for UK exports has to be price elastic to lead to an increase in exports. If demand is price inelastic, exports will not increase significantly, and the value of exports will decrease.



State of the world economy

- A decline in economic growth in one of the UK's export markets means there will be a fall in exports. This is because consumer spending in those economies will fall, due to falling real incomes.
- For example, the UK's largest export market is the EU. If they face an economic downturn then demand for UK goods and services will fall, since consumers in the EU are less able to afford imports.



Degree of protectionism

- Protectionism is the act of guarding a country's industries from foreign competition. It can take the form of tariffs, quotas, regulation or embargoes.
- If the UK employed several protectionist measures, then the trade deficit will reduce. This is because the UK will be importing less due to tariffs and quotas on imports to the UK.

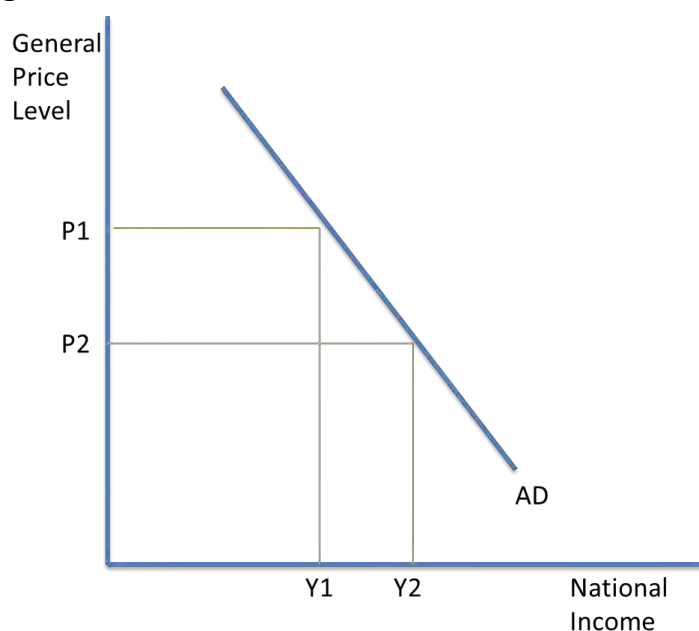





- However, since protectionism leads to retaliation, exports might decrease too, which undoes the effect of reduced imports.

Non-price factors

- The **competitiveness** of a country's goods and services, which is influenced by supply-side policies, impacts how many exports the country has.
- A country can become more competitive by being innovative, having higher quality goods and services, operating in a niche market, having lower labour costs, being more productive or by having better infrastructure. These increase exports.
- Moreover, trade deals and being part of trading blocs can influence how much a country exports. This either opens up a country to, or closes a country from, significant export opportunities.

Moving along the AD curve:



-  A fall in the price level from P1 to P2 causes an expansion in demand from Y1 to Y2.
-  A rise in the price level from P2 to P1 causes a contraction in demand from Y2 to Y1.
-  Changes in the price level cause movements along the demand curve.

The downward slope of the AD curve can be explained by:


- Higher prices lead to a fall in the value of real incomes, so goods and services become less affordable in real terms.
- If there was high inflation in the UK so that the average price level was high, foreign goods would seem relatively cheaper. Therefore, there would be

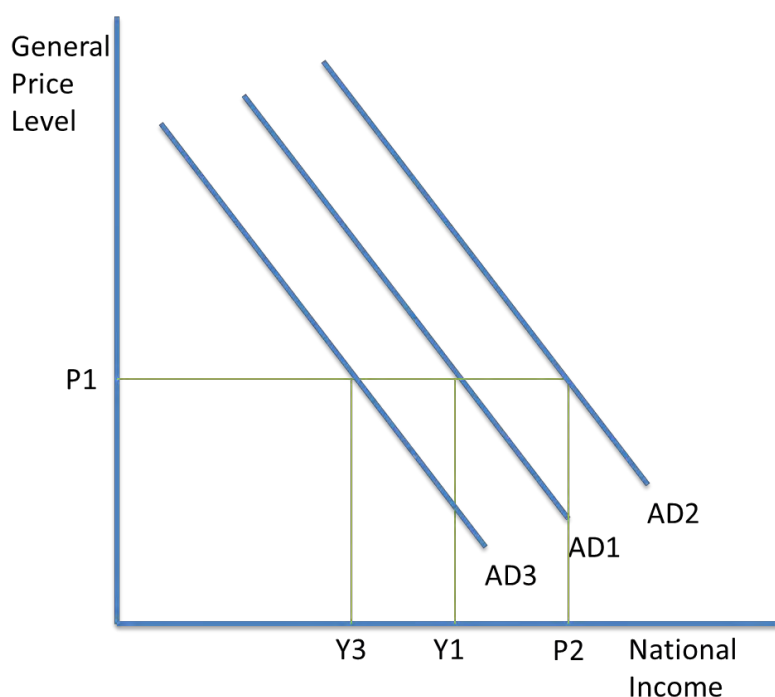



more imports, so the deficit on the current account might increase, and AD would fall.

- High inflation generally means the interest rates will be higher. This will discourage spending, since saving becomes more attractive and borrowing becomes expensive.

Shifting the AD curve:

 The AD curve is shifted by changes in the components of AD (C, I, G or X-M):



 A rise in AD is shown by a shift to the right in the demand curve ($AD1 \rightarrow AD2$). This rise in economic growth occurs when:

- Consumers and firms have higher confidence levels, so they invest and spend more, because they feel as though they will get a higher return on them. This is affected by anticipated income and inflation.
- If the Monetary Policy Committee lowers interest rates, it is cheaper to borrow and reduces the incentive to save, so spending and investment increase. However, there are time lags between the change in interest rates and the rise in AD, so this is not suitable if a rise in AD is needed immediately.
- Lower taxes mean consumers have more disposable income, so AD rises.
- An increase in government spending will boost AD.



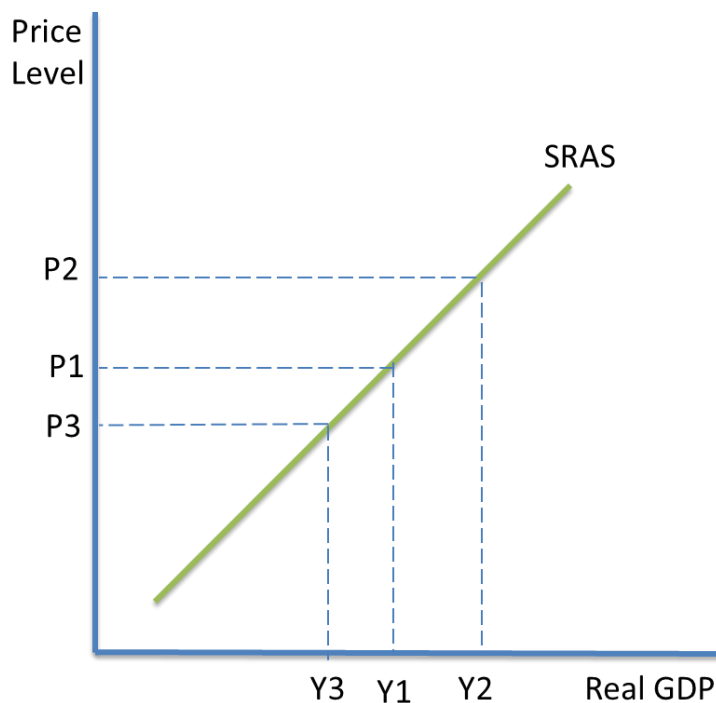
- Depreciation in a currency means M is more expensive, and X is cheaper, so AD increases. A decline in economic growth in one of the UK's export markets means there will be a fall in X, so AD falls.
- In the UK, most people own their houses. This means that a rise in the price of houses makes people feel wealthier, so they are likely to spend more. This is the **wealth effect**.
- If credit is more available, then spending and investment might increase. Recently, since the financial crisis of 2008, banks have been less willing to lend due to the risks associated with lending.

Aggregate supply:

The AS curve:

- Aggregate supply shows the quantity of real GDP which is supplied at different price levels in the economy.
- The AS curve is upward sloping because at a higher price level, producers are willing to supply more because they can earn more profits.

Moving along the AS curve:

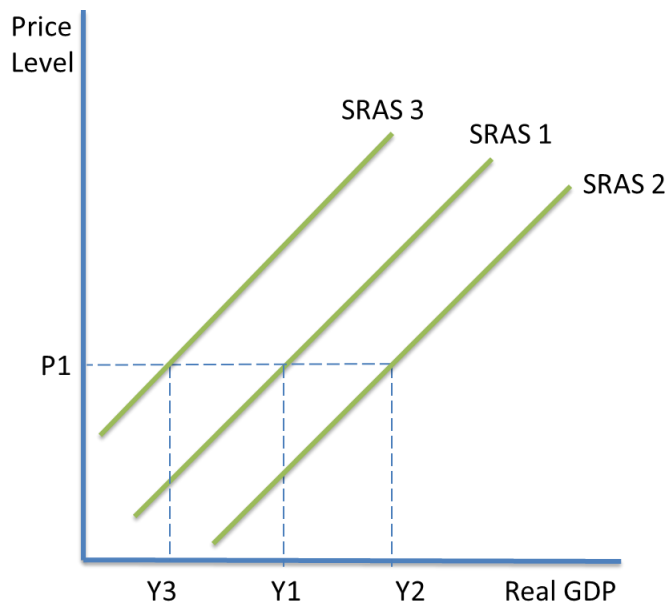


- Only changes in the price level, which occur due to changes in AD, lead to movements along the AS curve.



- If AD increases, there is an **expansion** in the SRAS, from Y1 to Y2. If AD falls, there is a **contraction** in SRAS, from Y1 to Y3.

Shifting the AS curve:

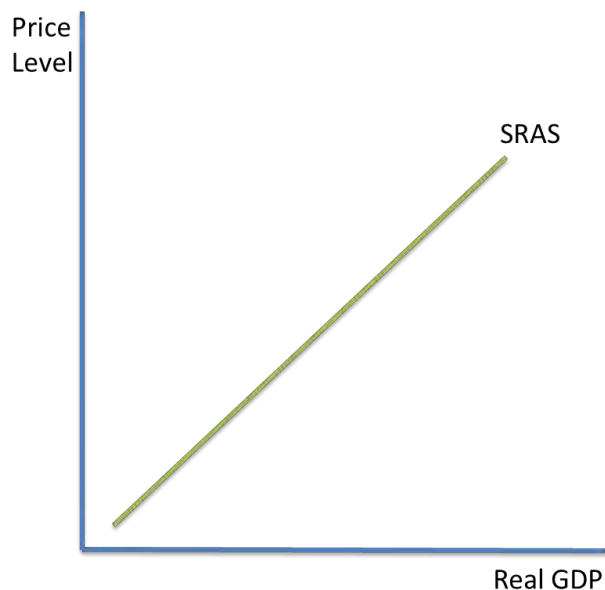


- The SRAS curve shifts when there are changes in the conditions of supply.
 - The cost of employment might change, e.g. wages, taxes, labour productivity
 - The cost of other inputs e.g. raw materials, commodity prices, the exchange rate if products are imported
 - Government regulation or intervention, such as environmental laws and taxes, and business regulation. Business regulation is sometimes called 'red tape'.

The relationship between short run AS and long run AS:

- The short run aggregate supply curve (SRAS) only covers the period immediately after a change in the price level. It shows the planned output of an economy when prices change, whilst the cost of production and productivity of the factor inputs are kept constant. These could be wage rates or how technologically advanced capital is, for example.
- The curve is upward sloping because supply is assumed to be responsive to a change in AD, which is reflected in the price level.





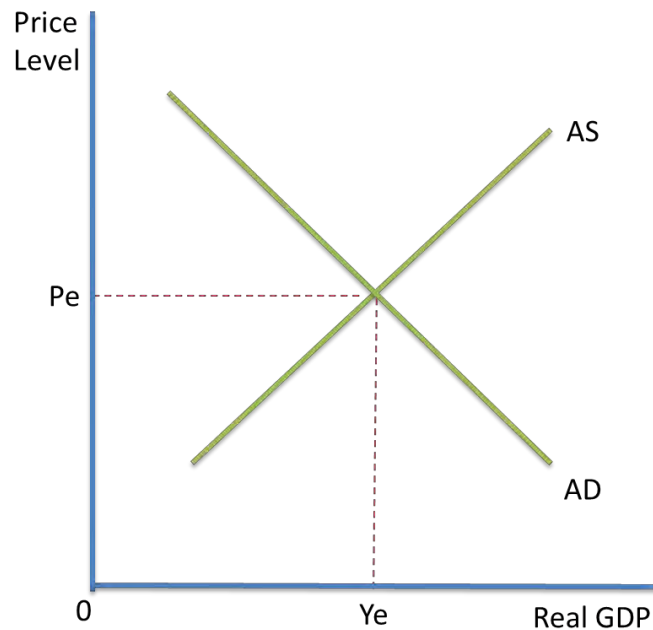
- The long run aggregate supply curve (LRAS) shows the potential supply of an economy in the long run. This is when prices, and the costs and productivity of factor inputs, can change. Similarly to the PPF, it can show the economy's productive potential.
- The curve is vertical, because supply is assumed not to change as the price level changes.



Equilibrium real national output

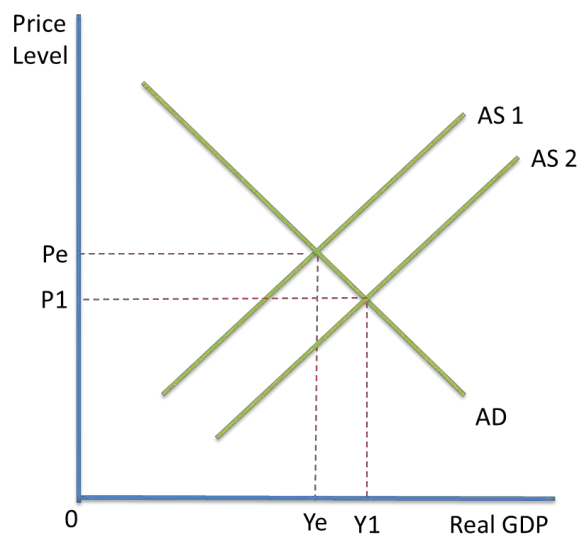
The economy reaches a state of equilibrium where $AD = AS$.

The effects of shifts in AD and AS on the price level and real national output



At a price above equilibrium, there will be excess supply. At a price below equilibrium, there will be excess aggregate demand, in the short run.

Shift in AS:



- 📄 If the economy becomes more productive, or if there is an increase in efficiency, supply will shift to the right. This lowers the average price level (Pe to P1) and increases national output (Ye to Y1).
- 📄 If AS shifts inwards, price increases and national output decreases.
- 📄 **Shift in AD:**
- 📄 If firms have less confidence or there is a recession, AD might shift inwards. This causes the price level to fall from Pe to P1, and national output to fall from Ye to Y1.
- 📄 If AD increases, the price level and level of national output both increase.

