Edexcel Economics (A) A-level

Theme 2: The UK Economy - Performance and Policies

2.2 Aggregate Demand

Detailed Notes

2.2.1 The characteristics of Aggregate Demand

Aggregate demand (AD) is the **total level of spending** in the economy at any given price

Components of AD:

AD= C+I+G+(X-M)

Aggregate demand is made up of consumption (C), investment (I), government spending (G) and net exports (X-M).

- **Consumption** is consumer spending on goods and services; it makes up about 60% of AD, so is the biggest part.

- **Investment** is spending by businesses on capital goods, such as new equipment and buildings as well as working capital e.g. stocks and work in progress; it makes up about 15-20% of AD. Most investment is by the private sector (about 75%) but there is also investment by the government.

- **Government spending** is spending by the government on providing goods and services, generally public and merit goods, both on wages and salaries of public sector workers and on investment goods like new roads and schools. This will change year on year as governments decides how much they spend. Transfer payments such as pensions and jobseekers' allowances aren't included in the figure as money is just transferred from one group to another. Government spending tends to be around 18-20% of GDP.

- **Net exports** is exports minus imports: when imports are higher than exports this is a minus figure as more money leaves the UK than comes in. The UK has a large trade deficit, but this minor figure and is the least significant part of AD at around 5%.

The AD curve:

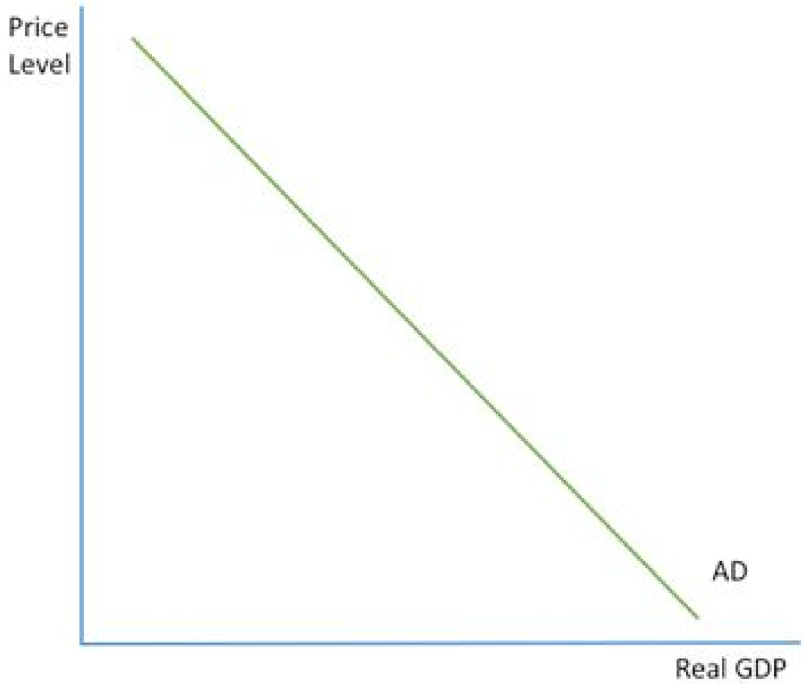
The AD curve is the same as the demand curve for an individual market, but instead of showing the relationship between price and output, it shows the **relationship between price level and real GDP.** Like the demand curve, the AD curve is **downward sloping** as a rise in prices causes a fall in real GDP and there are four key reasons for this:

- **Income effect:** As a rise in prices is not matched straight away by a rise in income, people have lower real incomes so can afford to buy less, leading to a contraction demand.

- **Substitution effect:** If prices in the UK rise, less foreigners will want to buy British exports and more UK residents will want to buy imported foreign goods because they are cheaper. The rise in imports and fall of exports will decrease net exports so AD will contract.

- **Real balance effect**: A rise in prices will mean that the amount people have saved up will no longer be worth as much and so will offer less security. As a result, they will want to save more and so reduce their spending, causing a contraction in AD.

- **Interest rate effect:** Rising prices mean firms have to pay their workers more and so there is higher demand for money. If supply stays the same, then the 'price of money' i.e. interest rates will rise because of this higher demand. Higher interest rates mean that more people will save and less will borrow and will also mean that businesses invest less, so AD will contract.



Movement and shifts along the AD curve: Like with demand, there can be movements in the AD curve or there can be shifts. A movement along the AD curve is caused by a **change in prices**, caused by inflation or deflation. A shift of the AD curve is caused by a **change in any other variable**. Again, as with demand, a shift to the right represents an increase in AD and a shift to the left represents a fall in AD.

- It is important to distinguish between rates of change and absolute change: a fall in the amount of consumption will reduce AD but a fall in the rate of rise of consumption means that consumption is still rising so AD will still increase but by not as much.

- Some factors, for example interest rates, could cause a movement or a shift in the AD curve. When prices increase, interest rates rise (because of the interest rate effect) and this causes a movement along the AD curve but if the government increases the interest rate then there is a shift in the AD curve. It is important to always **look at whether the change is because of price or not.**

2.2.2 Consumption

Consumption is **spending on consumer goods and services** over a period of time.

Disposable income:

Disposable income (Y) is the **money consumers have left to spend**, after taxes have been taken away and any state benefits have been added. This means that disposable income is affected by government taxation as well as wages.

- It is the **most important factor in determining the level of consumption**. Those who are earning a large income will be able to spend much more than those on a minimum wage.

- However, we are also concerned with how much an increase in income affects consumption, this is called the **marginal propensity to consume** (MPC). For most people, MPC will be positive but less than 1 i.e. an increase in income increases spending but spending doesn't increase by as much as income. Some people will have an MPC of more than one as they use borrowing or savings to fulfil the demand for goods which is higher than their increase in income.

- Poorer people tend to have a higher MPC as they are likely to spend much more of their increase in income whilst richer people are more likely to save it.

- The average propensity to consume (APC) is the average amount spent on consumption out of total income. In an industrialised country, the APC for the economy is likely to be less than one as people save some of their earnings.

$$\textbf{MPC} = \frac{\textbf{change in consumption}}{\textbf{change in income}}$$

$$\textbf{APC} = \frac{\textbf{total consumption}}{\textbf{total income}}$$

Relationship between savings and consumption:

- Savings is what is not spent out of income. An increase in consumption decreases savings so the same factors which affect consumption are those which affect savings- but in the opposite way. For example, a rise in confidence will decrease savings.

- The marginal propensity to save (MPS) is how much of an increase in income is saved whilst the average propensity to save (APS) is the average amount saved out of income.

MPS= $\frac{\text{change in savings}}{\text{change in income}}$

APS= $\frac{\text{total savings}}{\text{total income}}$

Other influences on consumer spending:

- **Interest rates**: Most major expenditures are bought on credit so therefore the interest rate will affect the cost of the good for consumers. If interest rates are high, the price of the good will effectively be higher since more interest needs to be paid back and this will lead to a reduction in consumption. High interest rates also increase mortgage repayments so reduce consumption. Also, a rise in interest rates decreases the value of shares and so people experience a negative wealth effect.

- **Consumer confidence:** One major factor that affects people's spending is what they think will happen in the future. If people are confident about the future and expect pay rises, then they will continue or increase their spending. If they expect high levels of inflation in the future, they will buy now as it will be at a cheaper price, so consumption will increase. If they expect a recession and fear possible unemployment, consumption will decrease as people may save more. Expectations about a change in the taxation level will affect consumption: if consumers expect tax to increase prices in the future, they will buy now whilst if they expect it to reduce prices in the future, they will delay their purchases. Similarly, expectations on interest rates will affect consumption: if consumers expect interest rates to fall they may delay their purchases as things on credit will be cheaper.

- **Wealth effects**: Wealth is a stock of assets. People with greater wealth tend to have greater levels of consumption, known as the wealth effect: a change in consumption following a change in wealth. The wealth effect is experienced when real house prices rise as owners now have more wealth so are more confident with spending as they know that if they go into financial difficulty they could simply borrow more against the house, since their house is worth more than their current mortgage. It can also be experienced when share prices rise as people may sell some of their shares and spend the money or may be more confident in spending the money they have as they know they have the shares to fall back on in case of financial difficulty. Greater wealth will improve a consumer's confidence and thus lead to greater spending.

- **Distribution of income:** Those on high incomes tend to save a higher percentage of their income than those on low incomes and so a change in the distribution of money in the economy will affect the level of consumption. If money is moved from the rich to the poor, consumption is likely to increase as the poor have a higher MPC.

- **Tastes and attitudes:** In our modern society, there is a strong materialistic drive that encourages people to have the newest and the best and therefore spending can be very high, in some cases even above income. If people were less materialistic, consumption would decrease.

2.2.3 Investment

Investment is the **addition of capital stock to the economy** i.e. machines and factories used to produce other goods and services. It is only seen as investment if real products are created so buying a share in a company would be saving but buying new machinery is investment.

Gross and net investment

Machinery depreciates (loses its value) over time as it wears out or gets used up. **Gross investment** is the amount of investment carried out and ignores the level of depreciation, whilst **net investment** is gross investment minus the value of depreciation.

For example, if a firm was to buy 5 new machines then the gross investment would be the value of these 5 machines but if they also got rid of 2 old machines then the net investment would be the value of the 5 machines minus the value of the 2 old machines. The distinction between net and gross investment is important as in the UK depreciation accounts for about 75% of gross investment.

Influences on investment:

- **Rate of economic growth:** In a growing economy, there will be higher levels of investment as businesses would be more confident about their investments and the higher demand would lead to a higher return rate on the investment. For example, buying a new machine would lead to more products being made, but if the economy was declining these products wouldn't be bought so there would be no or little return on the investment. On top of this, a growing economy needs more investment in order to cope with the higher levels of demand. If the same products and the same output is being produced every year, and no more is demanded, investment will stay the same as firms only have to replace old machines. However, if the economy is growing, firms will need to increase investment to match the level of demand and if it is shrinking, firms will not need to replace their old machines and so investment will fall.

This is called the **accelerator theory**: the investment over a period of time is the change in real income times the capital-output ratio. The capital output ratio is the amount of investment needed to produce a given amount of goods. Thus, if incomes rise, the level of investment will rise.

- **Business expectations and confidence- 'Animal spirits':** When businesses are confident about the future and expect future growth, investment will increase as they want to prepare for the future. If they are fearful of the future, then they will not invest money in new ideas or machinery. John Maynard Keynes used the term 'animal spirits' to describe the feeling of managers and owners of firms on whether their investment would be profitable. He argued that it is difficult to measure.

- **Demand for exports:** If the world economy is booming, demand for exports is likely to increase and therefore exporting firms' investment is likely to increase to cope with this extra demand. This will have a knock-on effect and encourage other firms to increase their investment.

- **Interest rates:** Most investment is done through borrowing. High interest rates mean that borrowing is more expensive, so a business needs to be more confident of good profits in order to cover the extra costs of borrowing. Other investment is done through retained profits or savings. A rise in interest rates increases the opportunity cost of a business using retained profits as they are able to get higher interest payments than before. Keynes' Marginal Efficiency of Capital (MEC) graph shows how higher interest rates will lead to a fall in investment. This displays the expected rate of return from an investment at a particular given time. If interest rate is at 10% then firms need an expected rate of return which is at least equal to 10% to make it worthwhile.

- **Influence of government and regulations:** Governments can encourage investment by their own policy decisions. For example, they could offer tax breaks or grants to businesses to try and encourage them to invest. Regulations also affects investment as a highly regulated economy tends to see less investment as regulation increases the cost and time taken to invest, such as planning regulations.

- **Access to credit:** Investment will be lower when an investment has a high risk attached to it, as it means there will be less access to credit and interest rates will be higher. In recessions, it is usually more difficult to access credit as risks are higher and banks become more risk aware, fearing firms will not be able to pay the money back.

- **Retained profit:** Retained profits are the profits kept by a firm and not shared with shareholders or used to pay taxes. Not all firms, particularly small firms, take into account the opportunity cost of investment from their retained profits i.e. the interest gained from keeping it in a bank account. Many firms are also unwilling to borrow money for investment in case the investment fails to make a profit and they are unable to pay it back. Therefore, if firms are making higher retained profits, investment is likely to increase as they have money available to invest.

- **Technological change:** Improvements in technology will improve or speed up production which will increase the level of profitability, meaning the investment has a better prospect of success. Change also means businesses need to invest to keep up with the best technology.

- **Costs:** A rise in the cost of any capital project increases the level of risk that you are taking and therefore leads to lower levels of investment. Also, rises in the costs of making goods, such as the raw materials and wage, will decrease investment as it will reduce profitability. This means firms have less money to invest and decreases the rate of return on their investment.

2.2.4 Government spending

The government has a very significant part to play in the level of AD, through spending. They spend money on defence, education, the NHS etc. The impact of a rise in government spending depends on the changes in tax: if government spending and tax rise by the same amount then there is likely to be no overall increase in demand as people have less disposable income so C decreases but G increases.

Influences on government expenditure:

- **The trade cycle**: Decisions over government expenditure may be made in order to manage AD, and therefore regulate the trade cycle. In a recession, the government may increase spending in order to increase demand to reduce unemployment. Government spending also automatically rises during a recession as they have to spend more on unemployment benefits. During booms, the government may decrease spending to decrease demand and reduce inflation.

- **Fiscal policy:** Some government spending is fixed from year to year, for example schools must be funded and pensions must be paid. However, governments can vary what they spend each year, and this is set out in their budget. Fiscal policy is the decisions about government spending and taxes and it will depend on the priorities of the government. The level of government spending depends on what they lay out in their fiscal policy.

- **Age distribution of the population:** An ageing population leads to increased government expenditure on pensions, social care etc. whilst a young population leads to increased spending on education. The more dependents in the economy (the young and old), the higher government spending tends to be.

2.2.5 Net trade

Exporting goods abroad brings money into the country as there is an increase in AD whilst importing goods means money leaves the country. Net trade is the **total exports minus the total imports.**

Influences on net trade balance:

- **Real income:** When real income in the UK is high, there tends to be increased imports as people demand more goods and services and the UK is unable to meet their needs. This will mean that net trade decreases. However, if an increase in real income is due to export-led growth then net trade will increase. Therefore, the effect of changes in real incomes is dependent on many factors.

- **Exchange rates:** A strong pound (when the pound is worth a lot in comparison to other countries) makes imports cheap and exports dear because it costs foreigners more to buy pounds with their local currency. As a result, imports will increase and exports will decrease so net trade will decrease. This depends on the elasticity of imports and exports. If imports are price elastic, a rise in price will cause a large fall in demand so the value of imports will fall. If imports are inelastic, a rise in price only leads to a small fall in the amount of imports so the value of imports will rise. This is the same for exports: if prices rise and PED is inelastic then there will be a rise in value but if they are elastic then it will cause a fall in value. If both imports and exports are elastic, a rise in the value of the pound will lead to a fall in net trade. This is looked at in more detail in Theme Four (4.1.8)

- **State of world economy:** If the UK's main export country is doing well, then UK exports are likely to rise and so net trade is likely to rise. The effect of the state of the world economy is dependent on which countries are doing well and the trade relationship the UK has with them.

- **Degree of protectionism:** Protectionism is an attempt to prevent domestic producers suffering from competition abroad. Tariffs, quotas and technical barriers are introduced which makes it harder for producers from abroad to sell their goods in the UK. If there is high protectionism on UK exports in other countries, exports will decrease as it will be harder for UK firms to sell their goods in other countries. If there is high protectionism on imports into the UK, imports will decrease. If the UK imposes protectionist measures, other countries are likely to retaliate and therefore exports are likely to decrease. Free trade means that net trade will be a more significant part of AD, whether this be in a positive or negative sense.

- **Non-price factors:** Two non-price factors which affect net trade are quality and design and marketing. If UK goods are of a higher quality and design, exports will be high as foreign demand for UK goods will increase and imports will decrease as people will buy the British goods instead of foreign goods. This means net trade will increase. If UK goods are well marketed, people will have a stronger desire to buy British goods so exports will increase and imports will decrease, so net trade will increase. Strong quality/design and marketing will mean that British exports are likely to be more inelastic.

- **Prices:** High prices of UK goods will mean that the goods are less competitive compared to international goods since people make decisions partly based on price. This means the volume of exports will decrease and the volume of imports will increase Prices are affected by the inflation rate: if the UK inflation rate is higher than other countries, prices will rise faster. They are also affected by productivity in UK (output per worker) as higher productivity leads to lower costs and so prices will be low. The effects of changing prices on the value of imports and exports depends on the price elasticity of demand. If PED is elastic, then higher prices will lead to a fall in net trade.