

# Economics AS Macroeconomics Notes

**Aggregate Demand** – The total demand for a country's goods and services at a given price level and in a given time period.

**Aggregate Demand Formula:**

**AD = Aggregate Demand**

**C = Consumption / Consumer Expenditure**

**I = Investment**

**G = Government Expenditure**

**X = Exports**

**M = Imports**

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

**Exports – Imports**  $\equiv$  Net Trade  $\equiv$  Net Exports

**Consumption / Consumer Expenditure** – Spending by households on consumer products – **Consumption is the largest component of AD**

**Investment** – Spending on capital goods – **Investment is the most volatile component of AD**

**Government Expenditure** – Spending by the central government and local government on goods and services – **This is education, health care and the police service NOT including transfer payments (housing benefit, job seeker's allowance and state pensions) / an increase in job seeker's allowance would be reflected in consumption as the increase in benefits will create an increase in disposable income that would then be spent on goods and services.**

**Transfer Payments** – Money transferred from one person or group to another not in return for any good or service

**Job seeker's allowance** – A benefit paid by the government to those unemployed and trying to find a job

**Exports** – Products sold abroad

**Imports** – Products bought from abroad

**Trade Surplus** – The value of exports exceeding the value of imports

**Trade Deficit** - The value of imports exceeding the value of exports

**Real GDP** - The country's output measured in constant prices and so adjusted for inflation

**Gross Domestic Product (GDP)** – The total output produced in a country

## WII EU TIT (Consumption Determinants):

**W – Wealth** – The more wealth people have (In the form of their home, savings account and shares), the more they are willing to spend → Increased Consumption. Ex. Wealth can be spent or used to borrow against. It also results in greater consumer confidence

**I – Income\*** – **Main determinant on consumption.** The larger the amount of income available the more disposable income available for use on spending. → Increased Consumption | The distribution of income is also a factor as the poor spend a larger proportion of income so govt. measures that redistribute income from the rich to the poor are likely to increase Consumption.

**I – Interest Rate** – If interest rates fall, people get less return on their savings and can borrow money for less → Increased Consumption

**E – Expectations** – If consumers are feeling optimistic about the future they are more likely to spend more → Increased Consumption. This is why an increase in income can lead to a higher proportion of income being spent as well, as higher income can increase consumer expectation / confidence.

**U – Unemployment** – A decrease in unemployment means more people have more disposable income → Increased Consumption.

**T – Taxes** – If taxes fall, disposable income rises → Increased Consumption

**I – Inflation** – If inflation is high and people expect price to rise then they may spend more now → Increased Consumption | On the other hand if inflation is high people may instead increase their saving in order to maintain the real value of their saving.

**T – Technology** – Nowadays consumers have a tendency to throw away the old and buy the latest stuff → Increased Consumption | E.g. New iPhone is released

**Wealth** – A stock of assets E.g Property, shares and money held in a savings account

**Distribution of Income** – How income is shared out between households in a country

**Inflation** – A sustained rise in the general price level.

**Consumer Confidence** – How optimistic consumers are about future economic prospects

**Interest Rate** – The charge for borrowing money and the amount paid for lending money

## **GAFIIES(Savings Determinants(NOT A COMPONENT OF AD!)):**

**G – Government Policy** – A policy to introduce tax-free saving schemes will encourage people to save more. A policy to raise state pension on the other hand would reduce the incentive for people to save for retirement.

**A – Age Structure Of Population** – Young people tend to save very little. Middle- Aged people tend to increase their saving. Elderly people tend to dissave in order to maintain living standards when they retire. On the other hand some pensioners continue to save in order to pay for care, medical treatment or just to leave inheritance money.

**I – Real Disposable Income** – Whilst an increase in Real Disposable Income can increase spending it can also not only have the effect of households increasing saving but also saving a higher proportion of their income.

**I –Interest Rate**– An increase in the Interest rate increases the reward on saving and so generally savings increases. On the other hand though some people are target savers aiming to achieve a particular sum in savings and so in their case higher interest rates reduce the amount they need to save and so in turn may increase spending.

**E– Consumer Confidence and Expectations** – Households and firms tend to save more when they are uncertain or concerned about the future.

**S – Saving Schemes** – Some saving is contractual. People agree to save a certain amount on a regular basis in insurance and pension schemes.

**NOTE – Increases in saving → Decreased Consumption → Fall in AD, ceteris paribus and vice versa**

**Ceteris Paribus** –With other conditions remaining the same

**Saving** – Real disposable income minus Spending

**Target Savers** – People who save with a target figure in mind.

**Dissave** – Spending more than disposable income

**Savings Ratio** – Savings as a proportion of disposable income

**Net Savers** – People who save more than they borrow

## CuTE SPIRIT Pc (Investment Determinants):

**Cu – Capacity Utilisation** – Firms are **more likely to invest** if they are operating at **close to full capacity**. On the other hand though **if there is large spare capacity** then it may be **possible to increase output without investment**.

**T – Advances In Technology** – A firm **may buy new capital** equipment if **it thinks that it will produce better quality products or produce products more cheaply**. In either case the firm would **expect to earn higher profit**. In the **first case** it would be because the firm **would anticipate higher demand**, and in the **second case** the firm would **anticipate that its unit cost would fall**. If **other firms are investing in more new technology** then a firm **may be forced to do so** as well in order to **stay competitive and maintain profit levels**.

**E – Expectations About The Future** – Firms are **more likely to invest** if they feel **optimistic about future economic prospects**. **The extent and speed of changes in expectations are the main reasons for the volatility of investment**.

**S – Subsidies** – An **increase in subsidies** effectively **reduces the cost of production** which in turn **increases profits** and so **increases the amount of money available for Investment** and so **Investment may increase**.

**P – Profits** – **High Profit Levels** can **encourage investment** in two ways. They **provide finance to invest** but they also are likely to **make firms more optimistic about the future**.

**I – Real Disposable Income** – If **real disposable income is increasing**, **demand for consumer goods and services** is also likely to be **rising**. This will mean it is likely **the firm will need to expand their capacity**. In order for this to happen though the **firm must be confident that the rise in demand will last** and also that their **existing capital is 100% insufficient** to produce the required output.

**R – Relative Factor Prices** – If the **prices of other factors** of production such as labour **decrease** then this will most likely **decrease investment** as firms may look to **increase output via increasing labour** rather than capital. – **I AM UNSURE ABOUT THIS ONE!**

**I – Interest Rates** – There are 4 reasons as to why an increase in **IR** would decrease investment:

1. It will **increase the opportunity cost** of investment:
  - A firm can **use its profit for investment, placing it in financial institutions to earn interest** or for **distributing it to shareholders in the form of dividends**. By choosing to **use the profit on investment** the firm **sacrifices money that could have certainly been gained by placing it in a saving account in a bank**.
2. **Borrowing money** for use on Investment **would be more expensive**:
  - Although **most investment is from retained profit** some is **financed by borrowing**. Higher interest rates would make **borrowing more expensive** and so in turn make **investment more expensive**.
3. A higher interest rate will **affect the expected return on investment**:
  - **Firms will anticipate consumer spending falling** because borrowing is more expensive and saving would give a better return.

4. Higher interest rates **reduce the demand for shares**, which **decreases the funds for available for investment**:
  - This is because some **people who may have bought shares** may **place their money in an interest-bearing account instead**. The **lower demand for shares** will **reduce the firm's price level** and so **decrease the funds that firms can raise for investment**

**T – Corporation Tax** – A **decrease in corporation tax** increases the amount of **profit** firms can keep and so in turn **can increase investment**.

**Pc – Price of Capital Equipment** – A **reduction in the price of capital equipment** may **increase investment**. Such a fall may **make it viable for more firms to use the equipment or firms already using the equipment to expand their capacity**.

**Capital Utilisation** – The extent to which firms are using their capital goods

**Corporation Tax** – A tax on firms' profits

**Retained Profits** – Profit kept by firms to finance investment

**Unit Cost** - Average cost per unit of output

**Accelerator Effect** – When an increase in national income / An increase in demand for consumer goods results in a proportionally larger rise in investment.

**Accelerator Effect / Theory:**

- If **demand is growing at a strong pace**, firms will respond to growing demand by **expanding production and making fuller use of their existing productive capacity**. They may also choose to meet higher demand by **running down their stocks of finished products**.
- At some point, if they **feel the higher level of demand will be sustained**, they may choose to **increase spending on capital goods in order to increase their spare capacity**. If this **investment goes beyond what is needed** to simply replace worn out, fully depreciated machinery, **then the capital stock of the firms will become larger**.

**NOTE** – The **accelerator effect is not an absolute effect as it is also very possible that the higher demand will simply lead to demand-pull inflation**.

## FEET (Government Expenditure Determinants):

**F – The Govt's View On The Extent Of Market Failure And Its Ability To Correct It** – In countries where there is a high level of state intervention, government spending usually forms a higher proportion of AD than countries where free market forces play a greater role.

**E – The Level Of Economic Activity In the Economy** – If there is a high level of unemployment, a government may raise spending in a bid to increase AD and the output of the economy. If there is a high inflation rate, a government may reduce its spending .

**E – A Desire To Please The Electorate** – Voters can put pressure on the government to increase spending. A government may also increase spending before a general election in order to gain votes.

**T – War, Terrorist Attacks And Rising Crime, Or Their Threat** – All of these may cause the government to increase spending.

## HAPPIER (Net Exports (X-M) Determinants):

**H – Real Disposable Income At Home** – If income at home rises then export sales may fall. This is because firms may divert some products from the export market to the home market in order to meet domestic demand.

**A – Real Disposable Income Abroad** – A rise in income abroad is likely to increase the amount of exports being sold.

**P – The Domestic Price Level** – The value of exports may fall and the value of imports rise if the domestic price level rises relative to the price levels in the country's trading partners. If domestically produced products become more expensive, firms and households at home and abroad will switch from them to products made in other countries.

**P – Productivity** – A rise in productivity is likely to lead to a lower cost of production meaning that firms can lower the prices of their exports, making them more price competitive thus leading to an increase in exports.

**I – Innovation** – A rise in innovation is likely to increase the quality of exports which should lead to an increase in the competitiveness of exports thus leading to an increase in exports.

**E – The Exchange Rate** – The price of exports and imports are also affected by exchange rates. A fall in a country's exchange rate will reduce the price of exports and raise the price of imports. This will likely lead to an increase in export revenue and a fall in import expenditure.

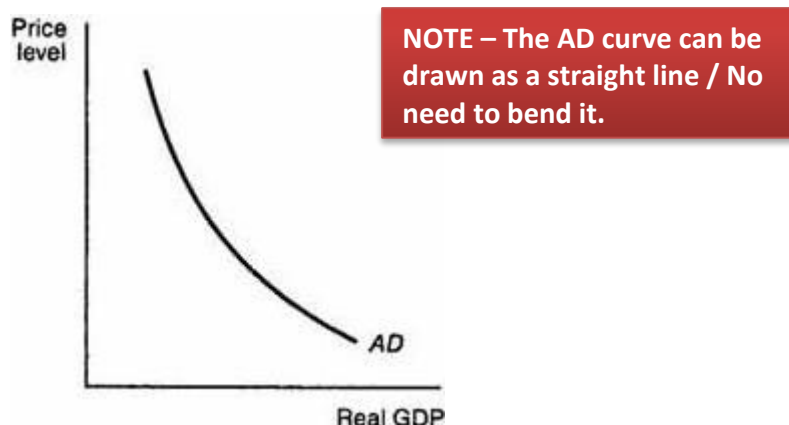
**R – Government Restrictions On Free Trade** – A country's net exports may rise if other countries' governments remove trade restrictions because if something such as a tariff was removed it would lower the price of that good/service and so make it more price competitive.

**Exchange Rate** – The price of one currency in terms of another currency

**Tariff** - A tax on imports

**Quota** – A physical limit on the number of imports into a country

# Aggregate Demand



There are 3 reasons as to why the AD curve is downwards sloping:

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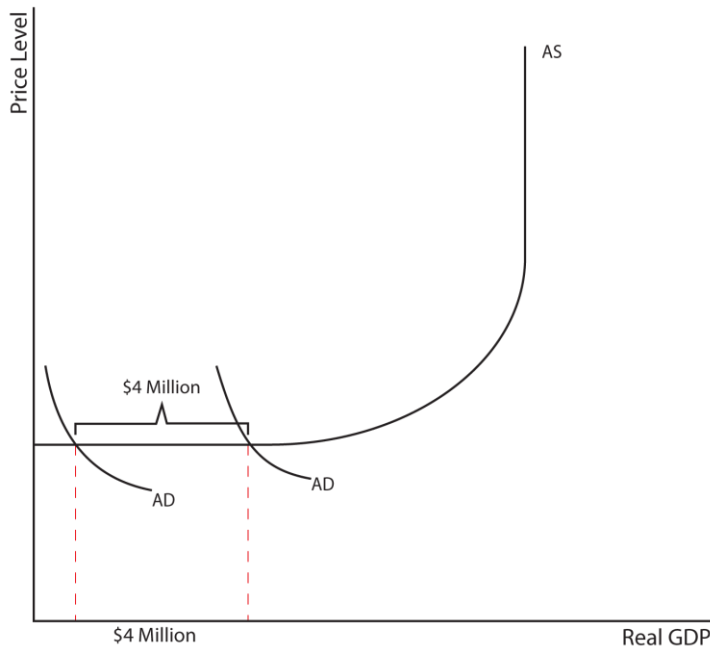
1. The **Wealth** Effect:
  - A **fall in the price level increases the amount of goods and services that wealth, kept in the form of money in bank accounts and other financial assets, can buy.**
2. The **Interest** Rate Effect:
  - A **rise in the price level** means that **some people will sell financial assets such as government bonds, to obtain more money to pay the higher prices.** The **resulting increase in the supply of government bonds reduces their price** and a **fall in the price of bonds raises Interest Rates** due to their **inverse relationship.** The inverse relationship is because the **amount paid in interest on a bond stays the same when its price alters.** The **higher interest rate** is then likely to **reduce consumption and investment** leading to a **contraction in AD.**
3. The International **Trade** Effect:
  - A **rise in the price level**, assuming no change in foreign prices and the exchange rate, will make the **country's products less internationally competitive.** This would cause **households and firms to buy from more foreign producers and less from domestic producers.** **Net exports would fall** and **AD would contract.**

**Aggregate Demand** – The total demand for a country's goods and services at a given price level and in a given time period

**Government Bond** - A financial asset issued by the central or local government as a means of borrowing money

**Macroeconomic Equilibrium** – A situation where aggregate demand equals aggregate supply and real GDP is not changing

**NOTE - AD shifting** is caused when there are **any changes in any of the determinants of any of the components of AD.** + A **change in one component of AD can be cancelled out or overturned by another** e.g. Consumption increases but Govt. Spending Decreases may result in no net change. This means if you **talk about one component of AD you are likely assuming ceteris paribus.**



P – Price Level  
 O – Output  
 E - Employment

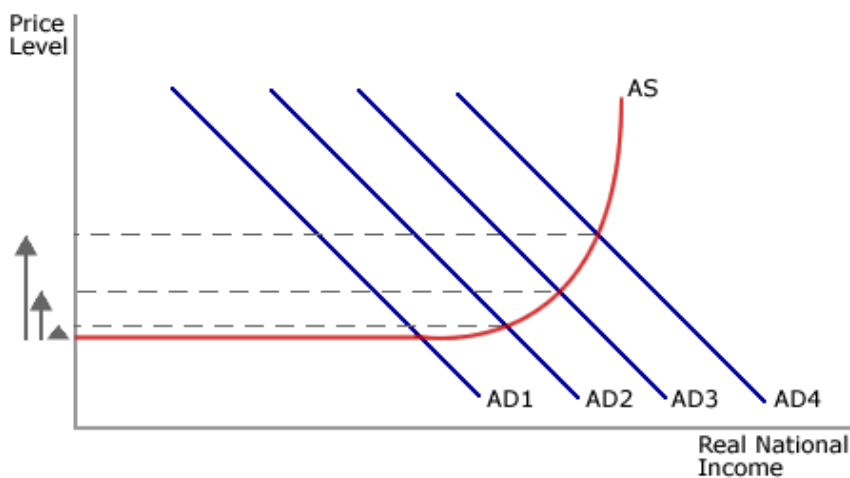
Real GDP can be calculated via Real National Output, Real National Income and Real National Expenditure so:  
 Real National Income = Real National Output = Real National Expenditure

If the economy is initially **operating with considerable spare capacity**, and **increase in AD** is likely to:

**Price Level – Unchanged**

**Output – Increases**

**Employment - Increases**



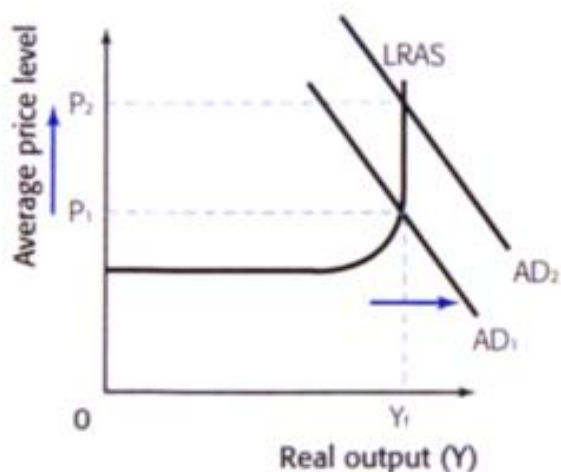
A rise in AD, if either the **economy moves from a position of significant space capacity to one where there are shortages of resources**, or it moves from one where shortages are already occurring to one where shortages are even greater, then:

**Price Level – Rises**

**Output – Increases**

**Employment - Increases**





Lastly if the **economy is already operating at full employment level with no spare capacity**, an **increase in AD** will be **purely inflationary** and so:

**Price Level – Rises**

**Output – No Change**

**Employment – No Change**

**Comment on the three key influences on the effect of a change in AD on POE:**

- The size of the initial change
- The size of the multiplier ([Next Page →](#))
- The original level of economic activity

**Average Propensity To Consume (APC)** – The proportion of disposable income spent. It is consumption divided by income

$$\text{APC} = \frac{\text{consumption}}{\text{income}}$$

**Average Propensity To Save** – The proportion of disposable income saved. It is saving divided by income.

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

**Marginal Propensity To Consume** – The proportion of an aggregate raise in pay that a consumer spends on the consumption of goods and services, as opposed to saving it.

**Marginal Propensity To Save** – The proportion of an aggregate raise in pay that a consumer uses on saving rather than on the consumption of goods and services.

APC and MPC are different. Don't confuse the two. MPC means how much extra you would spend on top of what you already have spent if given for example another £100. The same is pretty much likewise for APS and MPS.

## Multiplier Effect

**Multiplier Effect** – The process by which any change in a component of aggregate demand results in a greater final change in real GDP.

**MARGINAL PROPENSITY (MPC) =  $\frac{\Delta C}{\Delta Y}$  =  $\frac{\text{change in consumption}}{\text{change in income}}$**

**MARGINAL PROPENSITY TO SAVE (MPS) =  $\frac{\Delta S}{\Delta Y}$  =  $\frac{\text{change in savings}}{\text{change in income}}$**

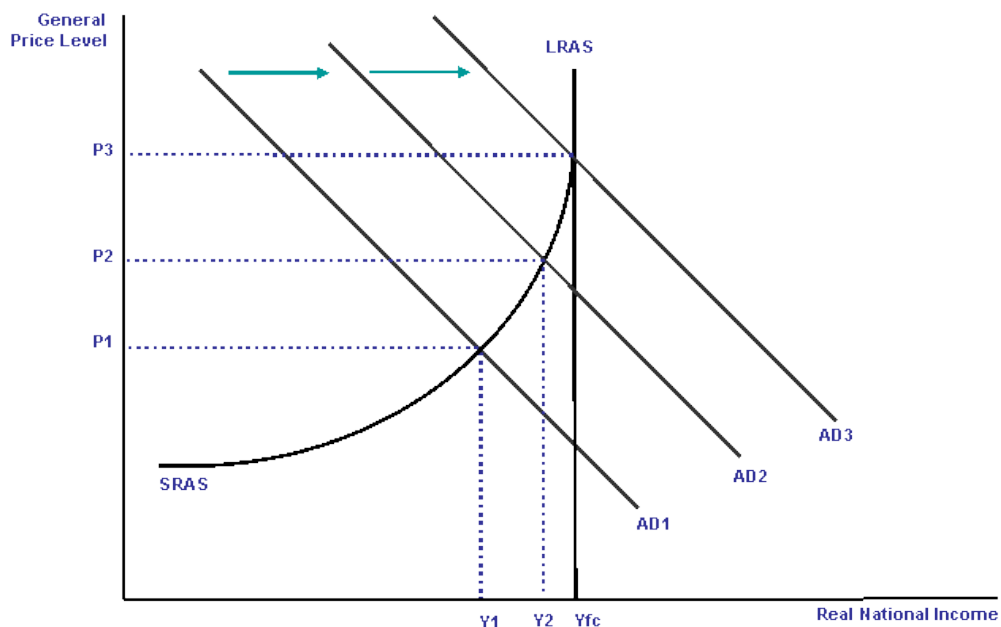
**Multiplier (m) =  $\frac{1}{1 - MPC}$**

You can use either formula.

**Multiplier (m) =  $\frac{1}{MPW}$  =  $\frac{1}{MPS + MPT + MPM}$**

**Total increase in National Income = Initial Injection x Multiplier**

Multiplier Effect Diagram:



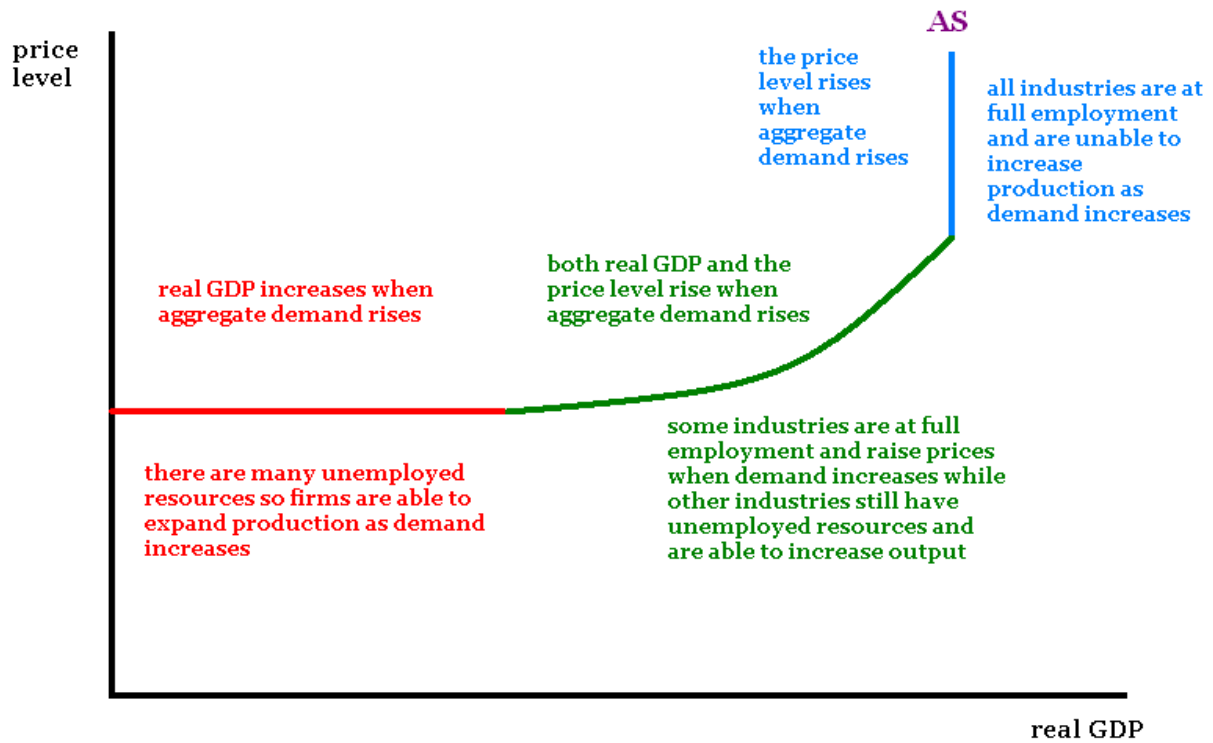
This graph is an example of how the multiplier effect can be shown on a graph. **AD<sub>1</sub> is the initial level of AD** which then **increases to AD<sub>2</sub> (the size of the initial injection)** at which the price level and output both increase. **AD<sub>2</sub> will not be the final increase** though as the **multiplier effect will cause AD to increase further from AD<sub>2</sub> to AD<sub>3</sub>** at which the price level and output have both increased further. **AD<sub>3</sub> is the final rise of AD after the initial injection.** Typically though **AD<sub>2</sub> is not drawn** and so you would just draw AD increasing from **AD<sub>1</sub> straight to AD<sub>3</sub>.**

# Aggregate Supply

**Aggregate Supply** – The total amount that producers in an economy are willing and able to supply at a given price level in a given time period

**Productivity** – Output, or production, of a good or service per worker per unit of a factor of production in a given time period

**Privatisation** – Transfer of assets from the public to the private sector

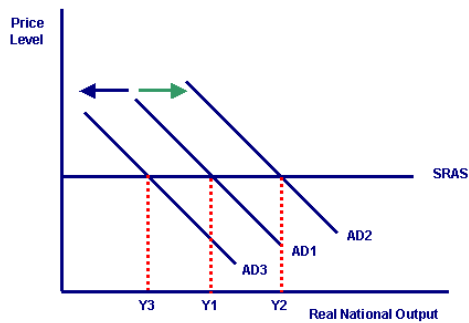


## Extra Detail:

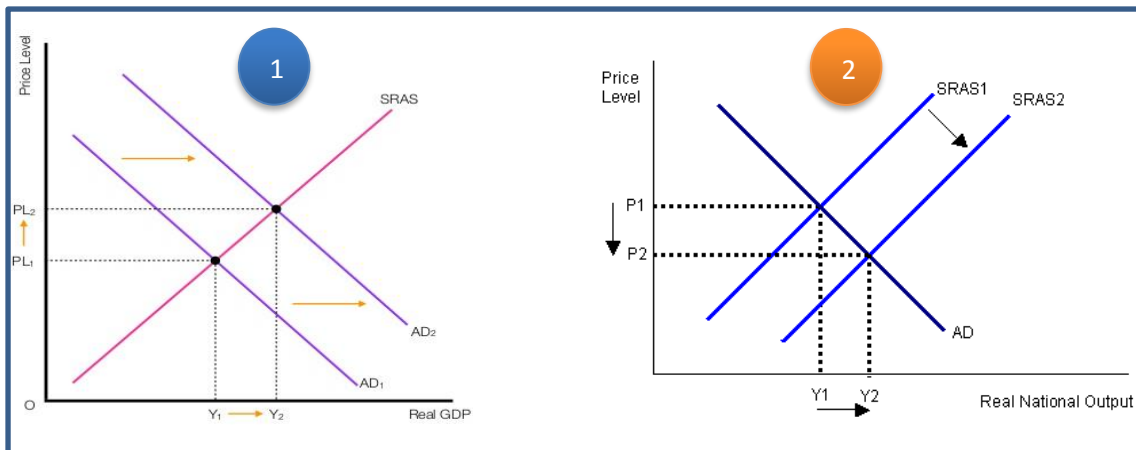
**Red Line** – AS is perfectly elastic between the start and end of the red line.

**Green Line** – AS is at first **elastic** but become **increasingly more inelastic**. In addition to the reasons given in the diagram another reason for its shape is due to **scarce resources** forcing firms to **employ less efficient workers and machinery** pushing up unit costs of production and the price level.

**Blue Line** – AS is perfectly inelastic. Production is unable to increase irrespective of how high the price level is.



This is the **flat part of the LRAS** curve and, as said before, it shows that when **AD increases** there is a **change in both output and employment (in the same direction)** and **absolutely no change in the price level**.



This is the **intermediate (middle) part of the LRAS** curve. As said before, **Fig1.** shows that if **AD changes** then the price level, output and employment will all be affected. **Fig2.** On the other hand shows that the price level, output and employment will all be affected by the increase in SRAS and that in fact an increase in SRAS would increase both output and employment but also decrease inflationary pressure unlike **Fig1.** that would increase inflationary pressure.

#### The Difference Between SRAS and LRAS:

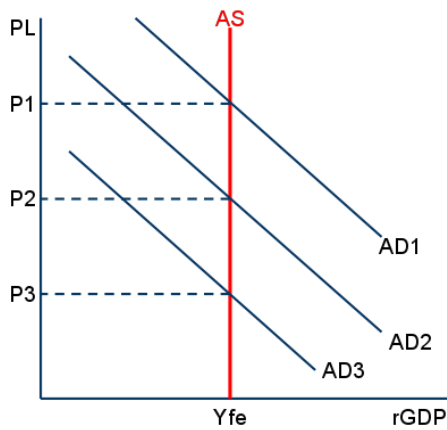
- **SRAS** assumes that the level of capital is fixed (in the short run you can't build a factory). In the short run an increase in the price of goods, encourages firms to take on more workers, pay slightly higher wages and produce more as it is now more profitable. So the SRAS curve (by itself) suggests that an increase in prices leads to a temporary increase in output as firms employ more workers. This means that SRAS supply shifts when there are any sort of changes in the costs of production such as a fall in wage rates.
- **LRAS** on the other hand is determined by all the factors of production – size of workforce, size of capital stock, levels of education (quality of labour) and labour productivity. This means that any change in the quantity or quality of resources would shift the LRAS right.

**NOTE – An increase in productivity would shift both SRAS and LRAS because higher productivity reduces cost of production but it also means the quality of labour has increased as well.**

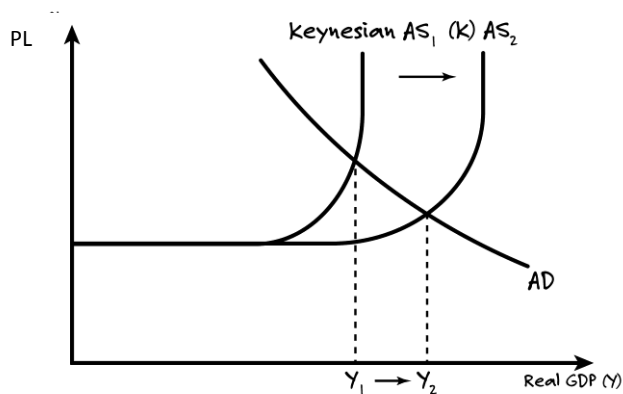
#### Knowing which curve to use:

If showing a change in wage rates, oil prices etc... I would use SRAS

If showing an increase in capital stock, investment, size of workforce etc... I would use LRAS



This graph shows the **vertical part of the LRAS**, also known as the **classical AS AD model**.  $Y_{fe}$  is **full employment** and so this graph shows that **when employment is at its highest level any change in AD will be purely inflationary or deflationary** and there will be **no change in output or employment**.

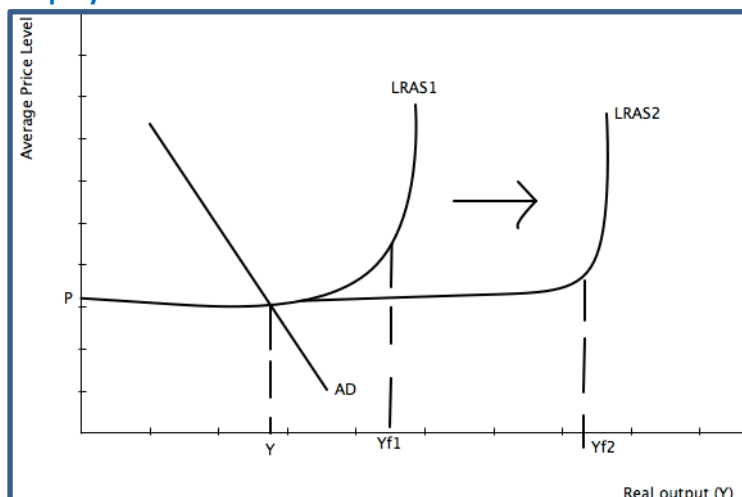


This diagram shows how an increase in AS can affect the economy. An **increase in AS** causing the AS curve to shift is great for **increasing economic growth without inflation** as:

**Price Level – Falls**

**Output – Increases**

**Employment - Increases**



Comment on the two key influences on the effect of a change in AS on **POE**:

- The size of the initial change
- The original level of economic activity

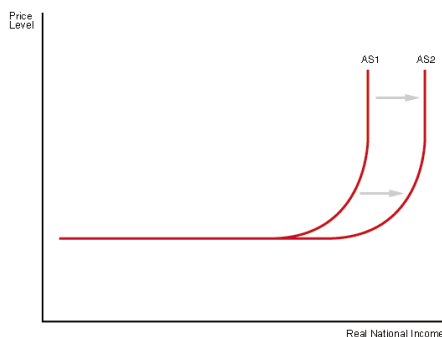
The original level of economic activity matters because if AD is so low that it is causing the economy to have large amounts of spare capacity then the increase in AS will not be utilised.



### Short-Run AS Shifter:

#### 1. Changes in the costs of production:

- The economy's cost of production may fall as result of a **fall in raw material costs, fall in wages, increased productivity etc...** causing AS to increase (shift to the right).



### Long-Run AS Shifter:

#### 1. Changes in the quantity of resources

- The **quantity of labour may increase** as a result of **net immigration of people of working age, a higher proportion of women entering the labour force or a rise in the retirement age.**
- A **decrease in corporation tax** could lead to the **purchase of extra capital goods**, referred to as net investment, **increasing the quantity of capital goods** causing AS to **increase** (shift to the right).
- The **quantity of land may increase** via **land reclamation, discovery of natural resources** or through **greater use of high-yield farming methods.**
- The **quantity of enterprise may be increased** by a **reduction in rules and regulations placed on firms, more privatisations and government incentives to start up new businesses.**

#### 2. Changes in the quality of resources

- **Improvements in education and training will improve the quality of labour and raise productivity** causing AS to **increase** (shift to the right)
- The **quality of capital goods** is raised by **advances in technology.** Even if old capital is being replaced rather than the new capital being added on AS may still increase (shift right) as **new capital often has more advanced technology.**
- The **quality of enterprise may be raised** by **management training and improved education.**

What is meant by the circular flow of income(Jan 2009):

- The movement of spending and income throughout the economy or
- Flow of products and income between producers/ firms and households/consumers.

## The Circular Flow Of Income

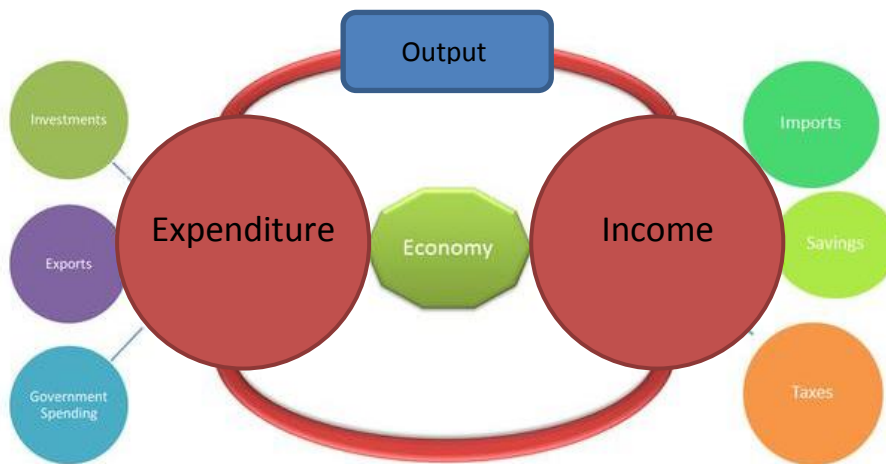


The circular flow of income is a model that seeks to explain how the economy works and how changes in AD occur. In this diagram there are **2 sectors, households and firms**. Between these two sectors are the flows: **incomes, goods / products** and **factor services** (where factors is in the diagram). Households **provide factor services** and in return **receive incomes**. They **use these incomes to buy goods / products** produced by firms.

**Circular Flow Of Income** – The movement of spending and income throughout the economy

**Factor Services** - The services provided by the factors of production

**Factor Incomes** – The returns earned by the factors of production (Profit, Interest, Rent, Wages)



### Leakages:

1. Imports
2. Savings
3. Taxes

### Injections:

1. Investments
2. Exports
3. Government Expenditure

In practice, not all the income that is earned is spent. There are additional forms of spending that do not arise from the circular flow.

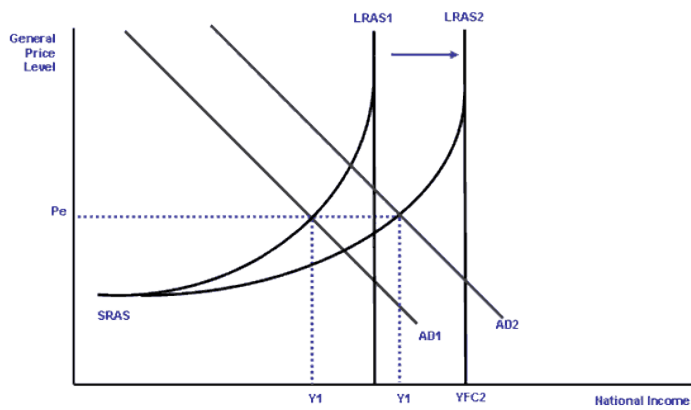
Income that is not spent on domestic output is said to leak out of the circular flow. **Leakages** reduce AD.

In contrast **injections** increase AD, injecting extra spending into the economy.

When the **value of injections equals the value of leakages**, output will not be changing and there will be **macroeconomic equilibrium**.

**Leakages** – Withdrawals of possible spending from the circular flow of income

**Injections** – Additions of extra spending into the circular flow of income



### Some changes can affect both AD and AS:

- If firms spend more on capital goods, AD will increase because investment is a component of AD and AS will increase because the productive capacity of the economy would have increased.
- Immigration of people of working age can affect both due to larger population with money to spend → Increased consumption and also an increase productive capacity .
- Government Expenditure on training that improves worker productivity also affects both as government expenditure is a component of AD and the increased productivity increases the productive capacity of the economy.

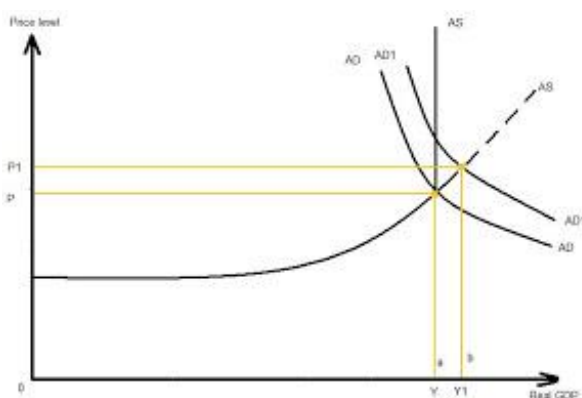
**Overheating** - The growth in aggregate demand outstripping the growth in aggregate supply, resulting in inflation

**Output Gap** – The difference between an economy’s actual and potential real GDP

**Trend Growth** – The average sustainable rate of economic growth over a period of time.

**Below Trend Growth = Negative Output Gap** – If the economy experiences a sustained slowdown or recession then output will fall short of potential GDP leading to a negative output gap. The result is a downward pressure on prices and rising unemployment because of a lack of AD.

**Above Trend Growth = Positive Output Gap** – If the economy grows too quickly then AD will eventually exceed LRAS and lead to a positive output gap emerging (excess demand in the economy). This can lead to demand-pull and cost-push inflation.



In the short run an economy can have a positive output gap. This can be made possible by workers working overtime, people who are not usually in the labour force entering it or the use of machinery flat out. This will not be possible to sustain in the long run of course unless AS increases. Most countries with a positive output gap tend to experience inflation because of this.



# Government Economic Policy Objectives And Indicators Of National Economic Performance

**Economic Growth** – **In the short run**, an increase in real GDP, **and in the long run**, an increase in productive capacity, that is, in the maximum output that the economy can produce

**Unemployment** – A situation where people are out of work but are willing and able to work

**Labour Force** – The people who are employed and unemployed, that is, those who are economically active

**Economically Inactive** - People of working age who are neither employed nor unemployed

**Deflation** - A sustained fall in the general price level

**Balance Of Payments** - A record of money flows coming in and going out of a country

**Elastic** – Responsive to a change in market conditions

**Inflation Rate** - The percentage increase in the price level over a period of time

## Government Economic Policy Objectives:

- Sustainable Economic Growth
- High Employment / Low Unemployment
- Low and Stable Inflation
- Satisfactory Balance of Payments

## Economic Stability:

- Absence of fluctuations in the economy
- Absence of booms and bust / absence of economic or trade cycle.
- Avoidance of volatility in – economic growth rates, inflation, employment, exchange rates

## Extra:

- **Redistribution of Income:**
  - One of the ways in which this can be done is by **government taxing the rich** and **providing state benefits for the poor**
- **Economic Fluctuations:**
  - Governments more recently are now **trying to achieve and promote economic stability**. This is done by **preventing significant fluctuations in output, employment and inflation**. This is because such **fluctuations make it difficult for households, firms and the govt. to plan ahead**. These fluctuations **can discourage workers from improving their skills, firms from investing and the govt. from undertaking major reforms**. So **reducing economic fluctuations should increase an economy's long term growth potential**.

## Reasons as to why the UK has had a relatively low inflation rate:

- A reduction in inflationary expectations resulting from the success of the govt.'s monetary policy
- A high value of the pound
- Increased global competition putting pressure on firms to keep their costs and prices low

**Sustainable Economic Growth** – Economic growth that can continue over time and does not endanger future generations' ability to expand productive capacity

**Trend Growth** – The expected increase in potential output over time. It is a measure of how fast the economy can grow without generating inflation

**Hyper Inflation** – An inflation rate above 50%

**Short-Run Growth** - Caused by **Increase in AD**.

**Long-Run Growth** – Increase in the **quantity and / or quality of the factors of production** causing **productive capacity to increase**.

**NOTE** – Net investment increases AD and AS

**Demand-pull inflation** - Increases in the price level caused by increases in AD

**Cost-push inflation** - Increases in the price level caused by increases in the costs of production

**How to achieve positive and stable economic growth:**

- Increasing material living standards
- Trend growth
- Avoiding depleting non-renewable resources and damaging the environment, also to reduce pollution and searching for cleaner sources of energy.

**Full employment** - A situation where those wanting and able to work can find employment at the going wage rate

Another policy is a **low and stable inflation rate**. It **does not mean a 0 inflation rate** with the price level remaining unchanged. Price stability means a **low and consistent rate of inflation**. The reasons for this are **because measures of inflation tend to overstate price rises** and **because a low inflation rate has advantages**. One use is that it **allows firms to reduce their costs by not raising wages in line with inflation rather than by making workers redundant**.

**Current Account:**

- **Trade in Goods**
- **Trade in Services**
- **Current Transfers**
- **Income From Investment**

Another policy is a **satisfactory balance of payments particularly with respect to trade in goods and services**. A government may **not be too concerned if import expenditure temporarily exceeds export revenue** due to **imported raw materials that will get used to make finished goods some of which can be exported**. The **govt. may also not mind if the current account deficit is offset by net inflow of direct and portfolio investment**. In the **long term though the government will still want to see an increase in international competitiveness of its producers**, in order to **keep AD and output high in the economy**.

**Nominal GDP** – Output measured in current prices and so not adjusted for inflation

**Real GDP** – Output measured in current prices adjusted for inflation

$$\text{Real GDP} = \frac{\text{GDP Figure} \times \text{Base Year Price Index}}{\text{Current Price Year Index}}$$

**GDP Measuring:**

- **Real GDP can be calculated by totalling up the output, income or expenditure of the country and economic growth can be measured by changes in any of these.**
- **When using the output method double counting must be avoided.** This would include things such as counting the output of raw materials and then including them again in the value of the finished product
- **When using the income method, only incomes that have been earned in return for providing goods and services are included so transfer payments are not.**
- **When using the expenditure method it is important to remember to only include exports and to exclude imports.**

**NOTE** – Production and productivity can move in opposite directions. When an economy is expanding production will rise but if less skilled workers have to be recruited to make the extra output, productivity may fall. This may indicate that an economy's ability to sustain rises in output may be unlikely.

**Real GDP Per Capita** - A measure of the total output of a country that takes the gross domestic product (GDP) and divides it by the number of people in the country.

**NOTE** – Real GDP Per Capita is especially useful when comparing one country to another because it shows the relative performance of the countries.

**Informal Economy** – Economic activity that is not recorded or registered with the authorities in order to avoid paying tax or complying with regulations, or because the activity is illegal.

**Negatives of the Informal Economy:**

1. **Distorts the range of economic data**
  - The rate of inflation in the informal economy is usually much lower in comparison to the rest of the economy. This means that official measures of inflation are overstated. The work undertaken in the informal economy also means that official data, as well understating real GDP, also understates unemployment
2. **Tax revenue is lower than would be possible** if all economic activity were taxed:
  - This can have consequences for tax rates and government spending
3. An informal economy **can result in lower productivity**
  - **Firms in the informal economy tend to stay small** to avoid attention from the authorities. This **limits** their **ability** to **use advanced tech** and **take advantage of EoS.**

**Economies of Scale (EoS)** – The advantage of producing on large scale, in the form of lower long-run average cost.

On the surface Real GDP suggests that living standards are improving as more goods and services are being produced but there are several reasons as to why this **may not be the case**:

- It is important to consider the composition of real GDP. If more is produced **but the extra output consists of capital goods**, people will **not immediately feel better off**, although they **will be in the long run**.
- Output may also rise because of an **increase in what economists call 'regrettables'**. If, for example, the rise in real GDP has been accounted for by **increasing the police force to match rising crime**, **people may actually feel worse off**.
- Other reasons include the fact that many of the population may not benefit if **income is very unevenly distributed** or if they are **working longer hours**, or under **worse conditions**. In addition the official figures do not include positive and **negative externalities**. If **pollution rises** real GDP does not fall even though **people will experience a lower quality of life**.

**Unemployment Rate** - The percentage of the labour force who are out of work

$$\text{Unemployment Rate} = \left( \frac{\text{Unemployed}}{\text{Labour Force}} \right) * 100$$

**Labour Force Survey (LFS)** – A measure of unemployment based on a survey using the ILO definition of unemployment

**International Labour Organisation** – A member organisation of the United Nations that collects statistics on labour market conditions and seeks to improve working conditions

**Claimant Count** – A measure of unemployment that includes those receiving unemployment – related benefits

**Advantages of LFS / Disadvantages of Claimant Count:**

- The LFS measure is thought to **capture more of those who are unemployed**. This is because **some people are actively seeking work but are not entitled to claim benefits**. This includes people **whose partner is working or claiming benefits** and **young people who are under 18 looking for work** – These people would not appear in the claimant count
- The LFS measure is **widely used by most countries** so it allows for **better international comparisons** unlike the **claimant count which is not suitable for such comparisons** as the **categories of people entitled to benefits differs from country to country**.
- The **claimant count can be skewed** as there **may be fraudsters claiming benefits on false pretences**

**Advantages of Claimant Count / Disadvantages of LFS:**

- On the down side, the **LFS measure is a lot more expensive to collect** and there is also a **risk that it may be subject to sampling errors**. The **claimant count is also much quicker to compile than LFS**.

**Inflation** - A sustained rise in general price level

**Consumers Price Index (CPI)** - A measure of changes in the price of a representative basket of consumer goods and services.

**How CPI is calculated – Jan 2013(5 Marks):**

1. Selecting a **base year**
  - This should be a relatively standard year in which nothing unusual happened. The variable being measured is given a value of 100 in the base year and other years are compared to it.
2. The ONS carries out the **Family Expenditure Survey (In The UK)**
  - This involves sampling more than 6,000 households, which are asked to keep a record of their expenditure
3. Use the Family Expenditure Survey to create a '**Basket of Goods and Services**'
4. These **products are put into different categories** and **weights are attached to them**
5. **Weights are based on items' importance in people's expenditure**
6. **Weights / Items are changed each year**
7. **Prices are checked in a range of outlets**
8. **Price changes are compared over time**
9. **Weights are multiplied by price changes**
10. **The weighted price changes are then totalled to calculate the inflation rate**

$$CPI = \frac{\text{updated cost}}{\text{base period cost}} \times 100$$

**Retail Price Index (RPI)** - A measure of inflation that is used for adjusting pensions and other benefits to take account of changes in inflation and frequently used in wage negotiations.

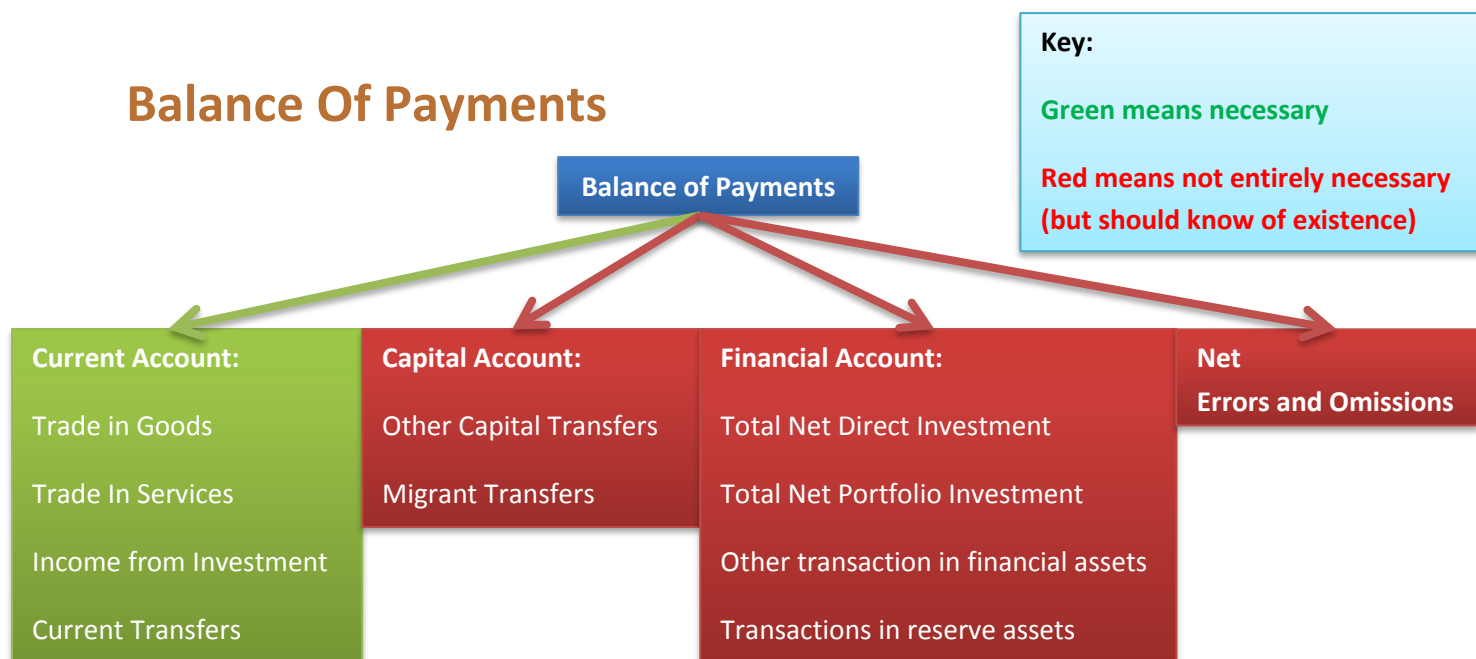
**How CPI and RPI differ in coverage and methodology:**

- The **CPI** - includes **university accommodation fees** and **stockbroker's charges** which are **not included in the RPI**. The **RPI** - includes **all housing costs including mortgage interest payments and council tax**. It also includes **the road fund licence** and **television licence** which are **not included in the CPI**.

**Difficulties of measuring inflation:**

1. **Goods and services change, often improving in quality**
  - The CPI / RPI may not give an accurate representative picture of what is actually happening in the economy
2. **CPI / RPI often overstate inflation**, as they measure the price of a fixed basket of products
  - Measures do not take into account people's ability to alter what they buy during the year

# Balance Of Payments



**Trade in Goods and Services** – Fairly self-explanatory apart from the fact that money spent by foreigners in the UK count as exports and money spent abroad by people from the UK count as imports. **NOTE** – Additionally the UK has a surplus in trade in services

**Income From Investment** – The UK usually has a surplus on this as its residents earn more in terms of profit, interest and dividends on their investments abroad than foreigners do on their investments in the UK

**Current Transfers** - Government payments to and from the EU and money sent out UK by foreigners working in the UK to relatives to abroad.

**Net Errors and Emissions** – This is added to ensure that the balance of payments is based on information relating to a vast number of transactions, it is not surprising that some mistakes are made and some items are initially left out

# Current Account

**Current Account Deficit** – A measurement of a country's trade in which the value of goods, services, investment income and transfers it imports exceeds the value of goods, services, investment income and transfers it exports

**NOTE** – The current account also includes income from investment, such as interest and dividends, as well as current transfers such as foreign aid, though these components tend to make up a smaller percentage of the current account than exports and imports

## The Causes of a Current Account Deficit:

- The country's inhabitants have **spent more on goods and services from abroad than overseas residents have spent on the country's products**
- There has been a net outflow of investment income
  - o This will occur if the **investments foreign residents have made** in the country **earn more** than the **investments the country's inhabitants have made** in other countries
  - o Whether this occurs depends on factors including the relative volume of investments made, the level of profit, interest and dividends earned on the investments

**NOTE** – A current account surplus could be caused by the opposite any of the above reasons.

## The Causes of a Deficit on the Trade in Goods and Services:

1. **Changes in income at home and abroad**
  - o If incomes are falling abroad, demand for the country's exports is likely to fall. A rise in incomes at home would also contribute to a deficit.
2. **Rise in the exchange rate**
  - o A higher pound will raise export prices | **→Decreased price competitiveness →Decreased UK Demand for exports→ Decreased Exports** |
  - o and lower import prices | **→Increased price competitiveness →Increased UK Demand for Imports→ Increased Imports** |
3. **Structural problems**
  - o More concerning than the other two as income and exchange rate are likely to change in the future. If deficit is caused by firms charging too much for products, producing bad quality products or not picking up on changes in demand, the deficit may persist.

## The Causes of a Surplus on the Trade in Goods and Services:

### 1. Strengthening economy

- The country is likely to have a surplus if its products are of high quality, are produced at a low cost and reflect what households and firms at home and abroad want to buy

### 2. Fall in the exchange rate as a lower pound will:

- Lower export prices | → **Increased price competitiveness** → **Increased Demand for UK exports** → **Increased Exports** |
- And raise import prices | → **Decreased price competitiveness** → **Decreased UK Demand for imports** → **Decreased Imports** |

### 3. Economy is in a recession

- In such a situation, a country's inhabitants may not be buying many products, including imports, and its firms, finding it difficult to sell at home, may be competing more vigorously in export markets

## Comment on the extent to which the exchange rate affects the trade in goods and services / X-M:

- How long the £ has risen / fallen for
- Size of the rise / fall

## The Consequences Of A Deficit On The Current Account Of The Balance Of Payments:

- Consuming more than producing meaning that income is going abroad
- If the deficit rises, AD will decrease in the economy leading to lower output, lower employment, downward pressure on the price level, lower exchange rate and raise external debt.

## The Consequences Of A Surplus On The Current Account Of The Balance Of Payments:

- Producing more than consuming means that a net inflow of money and income. The higher money supply means that banks have more money and so can raise bank lending.
- If surplus rises, net exports are rising, so AD rises and likely to push up the exchange rate.

## Comment On The Significance Of A Current Account Deficit:

- The significance of the effects of a current account deficit depend on
  - It's size
  - Duration
  - Cause – A deficit caused by structural problems is much more concerning
  - What is happening to the financial and capital account – **If the financial and capital account are greater than the deficit then the effects may not be so strong.**

### ILO Unemployment Definition:

- Those who are without a job, want a job, have actively sought work in the last four weeks and are available to start work in the next 2 weeks, or
- Out of work, have found a job and are waiting to start it in the next two weeks.

**Unemployment** – People available, willing and able to work at the going wage rate but cannot find a job despite an active search for work.



## BOTS CH (The Consequences Of Unemployment):

**B – Govt. Spending on Unemployment Benefits** – If unemployment rises, the govt. will have to **spend more on unemployment related benefits**. This may mean that it has to **reduce spending on other areas**, such as education, or it will have to **raise its borrowing or tax rates**. This means that the money spent on unemployment benefits has **opportunity cost**.

**O – Lost Output** – Having **people who are willing and able to work without jobs** is a **waste of resources**. If these people were in work, the country would **produce more goods and services**, and so **material living standards would be higher**.

**T – Lost Tax Revenue** – If more people were in work, **incomes, spending and possibly profits would be higher**. This would mean that the govt. would **collect more tax revenue** from all form of taxes (Direct Tax and Indirect Tax) and this **revenue could be spent on education, health transport etc...** which **could improve the quality of people's lives and increase the country's productive capacity**.

**S – Pressure on Other Forms of Govt. Spending** – Unemployment can put **upward pressure on other forms of govt. spending**. When people are unemployed they are more likely to suffer health problems, including mental health problems, marital difficulties and some even turn to crime.

1. **More health problems** means **higher waiting lists for health care** if the govt. don't increase spending on the sector raise the sector's productivity
2. **Marital break-ups** increase the need for **housing benefit** and the provision of **social housing**
3. **Increased crime** means the govt. have to spend more on **police** and the **judicial system**

**C – Costs To The Unemployed** – There are a lot of **costs of unemployment to unemployed people**:

- Poor Health
- Family Break-ups
- Unemployment benefit is likely to be lower than what they got when they had a job
- Some people feel a loss of self-purpose, worth or status when becoming unemployed
- The children tend to have worse health
- The children tend to do worse at school due to having less educational tools at home, a lower chance of having their own room to study in and their parents tend to have lower expectations of them causing demotivation.

**H – Hysteresis** – The longer people are out of work, the more difficult it is for them to get employed. **Employers are less reluctant to hire** someone who has been out of work for a long time because:

1. Being out of a job that long may **suggest they are not good workers**
2. The longer someone is unemployed, the more **there skills deteriorate** and the more the more **out of touch they become with advances in working methods and technology**.

On the supply side, the long term unemployed tend to seek work less actively over time because:

1. They may **lose the work habit** and **get used to being at home**
2. They may become **discouraged by continuous rejections**

**Hysteresis** – Unemployment causing unemployment

**Long-term unemployment** – Unemployment lasting for more than a year

**Cyclical Unemployment** - Unemployment arising from a lack of AD

**Structural Unemployment** – Unemployment caused by the decline of certain industries and occupations due to changes in demand and supply

**Frictional Unemployment** – Short term unemployment occurring when workers are in-between jobs

**Seasonal Unemployment** – When people are unemployed at certain times because they work in industries where they are not needed all year round.

**Classical Unemployment** – When real wages are kept above the market clearing wage, leading to a surplus of labour supplied

### The Costs of Unemployment To Other Economies:

- **Unemployment in a country's trading partners** is likely to **reduce demand for exports**. This, in turn, will **reduce the country's AD** and may **cause some unemployment**.
- A country may also experience **immigration from countries with high and rising unemployment**. This can be **beneficial** if the country has an **ageing population** and a **shortage of labour**, but it may place a **burden on the country's housing stock**.

### The Benefits of Unemployment:

- It may give some people time to search for a more rewarding job
- The existence of unemployment makes it easier for firms, wishing to expand, recruit workers
- It can reduce demand-pull and cost-push inflation
- It can help decrease the pressure on the price level (at the correct amounts).
- The existence of relatively high unemployment may discourage workers from seeking wage rises and may dissuade them from taking industrial action

### Comment On The Significance of Unemployment:

- The significance of the effects of unemployment depend on
  - **How much** unemployment there is
  - **How long** on average people are unemployed
  - **The type** of unemployment
  - **The distribution** of unemployment

### The Significance of Unemployment (Extra):

- The **higher the rate of unemployment**, the **more serious the costs** are likely to be:
  - **Low rates of unemployment** are **fine** and are to be expected as there will **always be frictional unemployment** but **higher rates of about 10%** will lead to a **greater loss of output, higher govt. spending on benefits and a greater loss of tax revenue**.
- **Generous unemployment benefits reduce the costs of unemployment** but they have an **opportunity costs** for the economy.
  - If the unemployment is **cyclical** it is the **worst** as it is **more likely to be widespread**, **frictional unemployment has the lowest costs** and **structural unemployment is worse than frictional but better than cyclical**.
- The **costs of unemployment are not usually borne evenly**:
  - This is because particular groups, such as **young men**, tend to be **more susceptible to unemployment**. This uneven distribution of unemployment can be **socially divisive**.

Key:

Anything in an orange box is a definition!

# Inflation

## FUN IS FAM RC (Consequences of Inflation):

**F – Fall In The Value Of Money** – With the price level rising, **each pound will buy less**. Whether or not a household **experiences a loss in purchasing power** depends on **how much their income changes relative to inflation**.

**U – Uncertainty** – Inflation creates uncertainty. If **firms are uncertain** about what their **costs will be** and **what prices they will receive** from selling their products, they may be **reluctant to invest**. Inflation also complicates household financial planning, making it difficult for people to decide **how much to save** and **where to place their savings**.

**N – Inflationary Noise** – It means the **market prices do not signal the relative scarcity of products efficiently**. For example without inflation, if the **price of a television rises**, it can be concluded that it has become **relatively more expensive**. **With inflation** on the other hand consumers will not know whether or not the good has become **relatively more expensive or if it has just in line with inflation**.

**Inflationary Noise** – The distortion of price signals caused by inflation.

**I – Inflation causing Inflation** – Demand-pull inflation may be caused by inflation as **households will expect prices to rise in the future** so they may **buy more products now**. Cost-push inflation may be caused by inflation as **workers will expect prices to rise** and so they **may ask for pay rises in order to protect their current real earnings**. **Firms expecting inflation** may also **raise their prices in order to protect their real profit levels**.

**S – Shoe Leather Costs** – During periods of inflation, **households and firms cannot afford to have money lying idle**, not earning interest, **as it will be losing value**. They have to place it in financial institutions and have to **search out the most rewarding rate of interest**. For **households the cost is of their own time and effort** and for **firms it is the cost of their staff time** (both of which have opportunity cost) **and effort spent finding good savings accounts**, opening them and moving the money out of them.

**Shoe Leather Costs** – Costs in terms of the extra time and effort involved in reducing money holdings.

**F – Fiscal Drag** – If **tax brackets are not adjusted in line with inflation**, **people's income will be pushed into higher tax bands**. Taxpayers will **pay a higher proportion of their income in tax** causing their **disposable income to fall** also causing the govt. to receive more tax revenue.

**Fiscal Drag** – People's income being dragged into higher tax brackets as a result of tax brackets not being adjusted in line with inflation.

**A – Administrative Costs** – Inflation can impose administrative costs on firms. Staff time may have to be devoted to adjusting accounts, assessing raw material costs, negotiation with unions about wage rises and estimating appropriate prices.

**M – Menu Costs** – They get their name from the need for restaurants to print new menus on a frequent basis.

**Menu Costs** – The costs of changing prices due to inflation.

**R – Random Redistribution Of Income** – Inflation increases the cost of living, as people have to pay more to buy the same basket of goods and services. This means the purchasing power of money falls but this does not necessarily mean that people's ability to buy products will fall. What determines that will be the specific consumer's change in income relative to the price level.

Additional points are that some workers with weak bargaining power may not receive wage rises keeping up with inflation. **Borrowers will gain and lenders will lose** if inflation **reduces the real interest rate**.

**Real Interest Rate** – The nominal interest rate minus the inflation

e.g. If, for example, the **rate of interest is 6%** and there is **2% inflation**, A **lender lending £100** would **expect the £106 they would receive** at the end of the loan period (£100 borrowed with 6% interest = £106 paid to lender) would **only buy them approximately £4 more goods and services** rather than £6 if there was no inflation.

**C – Loss Of International Competitiveness** – If a country's **inflation rate is above** that of its **main competitors**, its goods and services will become **less price competitive**. This is likely to result in a **decrease in exports** and an **increase in imports**.

### The Benefits of Inflation:

- A **low and stable** rate of **inflation** that is **demand-pull inflation**
  - o The higher AD and steady rise in the price level may **encourage firms to increase output**
- **Workers like rise in their pay**
  - o **Even if these are matched by higher prices**, with their real pay remaining the same, **psychologically we like to feel** that we are **being appreciated** and that our **employers think that we are doing well** even if the **pay rise is only in money terms**
- It **allows firms to alter worker's real pay easily**
  - o This can help **labour markets** operate **more efficiently** and **reduce unemployment**. **Workers tend to resist cuts** in their money (nominal) wages. **Inflation allows firms to reduce their real wages** by either **keeping money wages the same** or by **raising them by less than inflation**. **Without inflation it is difficult to cut real wages**, and so firms **may have to make some of their workers redundant** in order to reduce their costs.

### Deflation:

Deflation tends to **occur less frequently than inflation** but it **happens more often than people think**. **Measures of inflation tend to overstate prices rises** and so sometimes **mask a fall in the price level**.

### Benefits of Deflation:

- It is beneficial if it has happened because of **changes in the supply side**. If AS has increased then **output should increase** and the **country should also be more competitive**.

### Consequences of Deflation:

- If deflation has occurred **because of a fall in AD** it may result in a **harmful deflationary spiral**. Lower AD will cause **firms to cut back production**, leading to **higher unemployment**. **Households** will then most likely **reduce their spending in fear of redundancy** and because they **expect lower prices in the future**, reducing AD further.

### Comment On The Significance Of Inflation:

- The significance of the effects of inflation depend on
  - o The **rate of inflation**
  - o It's **cause** - **Cost-push tends to be more harmful**
  - o Whether it is **fluctuating**
  - o Whether it was **correctly anticipated**
  - o **Rate relative to** that of **other countries**
  - o Significance of inflation **varies between people**

#### The Rate of Inflation:

- A low rate of inflation is unlikely to cause significant problems and indeed it can actually provide some benefits.

#### The Cause of Inflation:

- Cost-push tends to be more harmful because cost-push inflation is often accompanied by a fall in real GDP and a rise in unemployment.

#### Whether Inflation is Fluctuating:

- Fluctuating inflation leads to inflationary noise that makes it difficult for the govt., firms and households to plan ahead.

#### Whether or not the Inflation was correctly anticipated:

- Unanticipated inflation causes uncertainty and can result in random redistribution of income e.g. If workers expected 5% inflation they may ask for a wage rise of 8% in order to get increase in their real pay but if inflation increases by 10% the workers would actually be worse off. If inflation is anticipated then measures can be taken to prevent such problems.

#### Rate relative to that of other countries:

- If it is relatively high then exports will most likely decrease and imports increase, worsening the trade balance.

#### The significance of inflation varies between people

- For example young people may experience lower inflation than suggested if things such as electronic goods rise in price at a lower rate than the price level.

### The Cost of Economic Growth:

- If an **economy is using all its resources** (Any point lying on the PPF curve) it **can only increase output by switching resources from making consumer goods to capital goods**. Even if **in the short-run you may have to sacrifice more consumer goods to create less capital goods**, in the **long run the extra capital goods will allow more consumer goods to be made**.
- **If it is not sustainable growth** then it **may harm the environment** and also **result in a depletion of non-renewable resources**.
- It may also **reduce the quality of some people's lives**. A growing economy is one that **requires some people to adopt new skills** and **some to change jobs** which may cause the **pace of work to increase too**. Some people may **find these changes stressful** and so their **quality of life may be reduced**.

### The Benefits of Economic Growth:

- There is **likely to be a rise in people's material standard of living.**
  - o If real GDP per head / **real GDP per capita increases** then the **population can enjoy more goods and services.** Whether all of the population will be able to or not **depends on the distribution of income** because real GDP per head is an average including GDP from both the rich and the poor.
- **Poverty and/or its costs can be reduced without have to redistribute existing income.**
  - o **Higher output raises tax revenue without having to increase tax rates,** and some of this can be used to **finance schemes to help the poor, improve public services** (such education and health care) and **improve the environment.**
- **Employment is likely to increase**
  - o Whether or not this happens though **depends on whether or not AD rises in line with production or not.** If for example the productivity of workers increase by 5% but AD only increases by 2% then firms may be able to produce the extra output necessary with fewer workers which would actually lead to higher unemployment.
- **The country is likely to gain more status and power in international organisations**
  - o Economic growth raises the level of a country's real output which can **lead to gaining more power and status in organisations** such as the **IMF** and **WTO** thus **increasing their power in international negotiations as well.**

**International Monetary Fund (IMF)** – An international organisation that helps co-ordinate the international monetary system

**World Trade Organisation** – An international organisation that promotes free international trade and rules on international trade disputes

**Exchange Rate** – The price of one currency in terms of another currency

**Monetary Policy Committee (MPC)** - A committee of the Bank of England with responsibility for setting the interest rate in order to meet the govt.'s inflation target

### Trade Weighted Index:

- This is an index used by the Bank of England's MPC. It measures the £ exchange rate against a basket of currencies, giving each country a weight in proportion to the amount of trade, both in goods and services, that the country has with the UK. These weights are regularly updated to reflect changes in the pattern of trade.

**NOTE** – Most countries' exchange rates are determined by the market forces of demand and supply

### Example of how exchange rates can change:

- If the **exchange rate** of the **£** changes from **£1 = \$1** to **£1 = \$2**. In this case the **pound has risen in value** as **each pound** now **buys more dollars** and **more dollars need to be sold** to buy **£1**.

## CASHI FDI (Exchange Rate Determinants):

**C – International Competitiveness** – If UK products are internationally competitive then the **demand for pounds is likely to be high and supply is likely to be low**. This is because **foreigners would be wanting to buy pounds to buy UK products**, while **UK citizens would not be selling many pounds to buy imports**.

**A – Income Abroad** – If **incomes abroad are rising** then **foreigners are likely to buy more UK exports**. This would **increase demand for pounds** and so cause a **rise in value of the pound**.

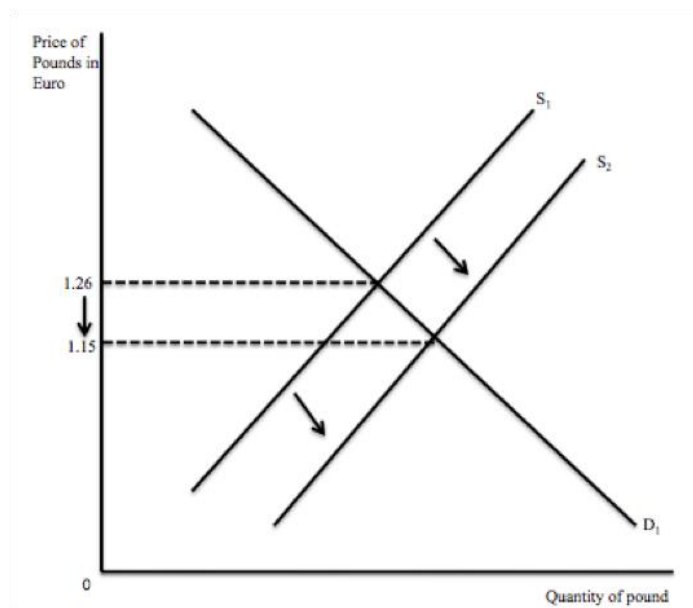
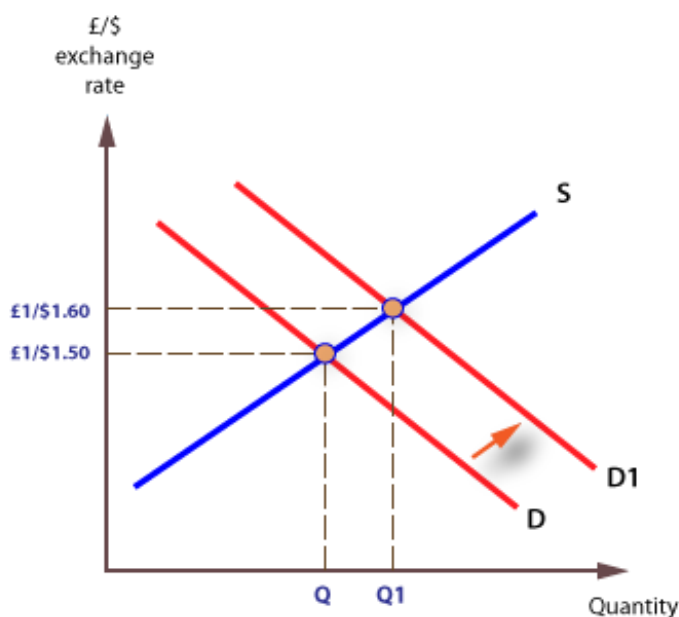
**S – Speculation** – Speculators buy and sell currency, hoping to make a profit from movements in interest rates and exchange rates. **If speculators respond to a falling exchange rate by selling of some of their holdings of the currency**, this can cause the **exchange rate to fall even further**. If, however, **they think this falling rate will soon start to rise** they will **purchase more of the currency now**, thereby preventing a large fall.

**H – Income at Home** – If **incomes at home rise** then the **supply of pounds will increase** as **UK citizens will sell more pounds to get foreign currency to purchase more imports**.

**I – Relative Interest Rates** – If **UK interest rates rise, relative to other countries interest rates**, the **demand for pounds should increase**. This is because **foreigners will want to buy pounds in order to open accounts in UK financial institutions to benefit from the higher interest rates**.

**FDI – FDI** – **Pounds are also bought and sold by those wishing to undertake FDI**. For example a Japanese firm will buy pounds if it wants to buy a UK car company or to build a new car factory in the UK. **FDI in the UK will be attracted by a strong UK economic performance, a skilful labour force and favourable gov. policies such as regional development grants being made available for incoming foreign firms**.

**Foreign Direct Investment (FDI)** – A controlling ownership in a business enterprise in one country by an entity based in another country



Key:

→ = Leads to

### The Relationship Between The Exchange Rate And The Interest Rate:

Increased Exchange Rate →

Higher Export Prices →

Decreased Price Competitiveness of UK exports →

Demand For UK Exports Decreases →

(X-M) Component of AD decreases because of Lower Exports →

Fall in AD →

Fall in Inflationary Pressure →

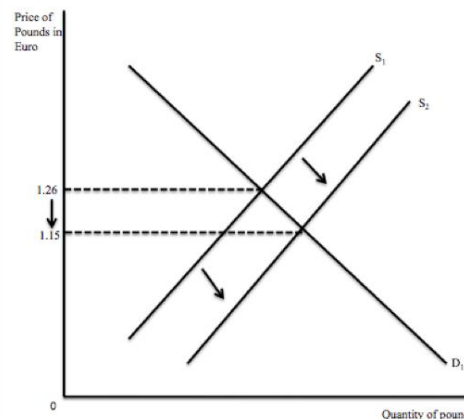
Monetary Policy Committee (MPC) may Reduce Interest Rates in order to meet Inflation Target →

Hot money flowing out of the country because of lower return on money held in financial institutions due to lower interest rates. Which means more of the currency is being sold as people are trying to get rid of it in order to buy another currency/s in a country with a better return →

Increase in Supply of £ →

Supply Shifts Right →

Lower Exchange Rate



NOTE – This means that the exchange rate is determined by the demand for and supply of a currency.

### Evaluation On The Relationship Between The Interest rate And Exchange Rate:

- Whilst a change in interest rates usually causes the exchange rate to move in the same direction, this isn't always the case. This is because a cut in UK interest rates might make foreigners more confident about the prospects of economic growth in the UK. In this case they would buy more pounds which means demand for the pound would increase causing the value of the pound to rise.

### Comment on the extent to which the level of interest rates affects the economy as a whole:

- How long the interest rate has risen / fallen for
- Size of the rise / fall

**Depreciation** – A fall in the exchange rate caused by the market forces of demand and supply



### The effect of a change in the exchange rate on export prices:

- A fall in the exchange rate will reduce the price of exports in terms of foreign currencies. For example if the exchange rate was  $\text{£}1 = 2\$$  then a  $\text{£}100$  export would sell for  $\$200$  in the USA. If the value of the pound fell to  $\text{£}1 = \$1.50$  then the export would sell for only  $\$150$ . This is because exporters would be likely to let their export prices fall in line with the exchange rate as selling at a lower price would in most cases increase their total revenue. Whether or not their total revenue would increase or not though would depend on the PED for the export. If the PED was inelastic for the export then the exporter may decide to continue to sell their product at  $\$200$  even if the exchange rate has fallen to  $\text{£}1 = \$1.50$  because that would increase their total revenue. Vice Versa for imports.

### The effect of a fall in the exchange rate on the economy (Advantages):

- A fall in the exchange rate is likely to improve the current account's position in the Balance of Payments
  - This is because the lower exchange rate should cause a fall in the price of exports which would increase export revenue (if PED is elastic) and decrease import expenditure (if PED is elastic). This means the (X-M) component of AD will increase causing AD to increase. This means that if the economy was previously operating below full capacity then the increase in AD should increase employment and raise real output.

### The effect of a fall in the exchange rate on the economy (Disadvantages):

- The fall in the exchange rate may put an upward pressure on inflation for 2 reasons
  1. The price of imported raw materials will rise thereby increasing the cost of production further causing an increase in the price of imported finished goods that count in the calculation of the country's inflation rate
  2. Domestic firms will find that imported rival products will be more expensive and so the domestic firms will be under less pressure to keep their costs and prices low, which may very well lead to a rise in the price level as firms may look to make more of a profit by increasing prices just lower than the imported rival goods or push any potential increases in costs of production onto the consumer.

### The effect of a rise in the exchange rate on the economy (Advantages):

- It is likely to put a downward pressure on inflation
- A higher exchange rate would mean that domestic firms that import products to sell or import raw materials would now find it cheaper causing their costs of production to decrease, enabling them to lower their price, making it easier to sell abroad
- People travelling abroad will find that their currency will buy them more

### The effect of a rise in the exchange rate on the economy (Disadvantages):

- Likely to worsen a current account deficit, due to worsened trade balance
- Likely to lead to a decrease in AD leading to lower real output and lower employment

E – Elastic

O – Only

I – Irritates

S - Skin

# Marshall-Lerner Condition and J Curve Effect\*(Slightly Beyond The Syllabus)

## Marshall-Lerner Condition:

- The Marshall-Lerner condition states that a currency depreciation will only correct a current account deficit if:

$$PED_X + PED_M > 1$$

## PED and Total Revenue Link:

The **EO** means that if PED is **elastic** then a change in price will cause the **opposite** to happen to total revenue:

**Elastic** – Increase in Price → Decrease in Total Revenue

**Elastic** – Decrease in Price → Increase in Total Revenue

The **IS** means that if PED is **inelastic** then a change in price will cause the **same** change to happen to total revenue:

**Inelastic** – Increase in Price → Increase in Total Revenue

**Inelastic** – Decrease in Price → Decrease in Total Revenue

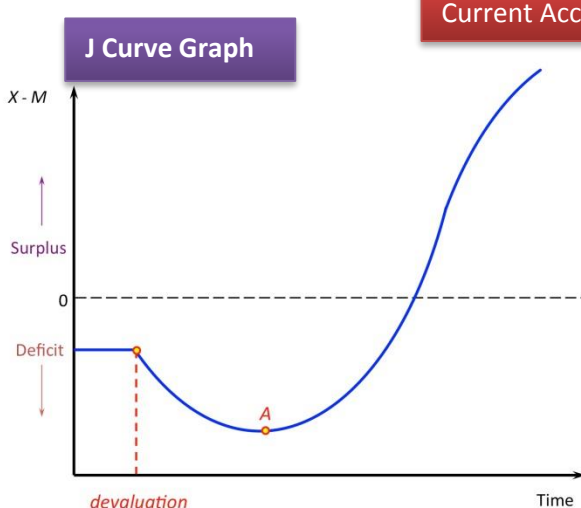
**PED<sub>X</sub> Inelastic** – Depreciation → Decrease in Price of Exports → Decrease in Total Revenue. This means that **Export Revenue would decrease**.

**PED<sub>M</sub> Inelastic** – Depreciation → Increase in Price of Imports → Increase in Total Expenditure (Because the revenue is going to another country). Means that **Import Expenditure would increase**.

This means that Export Revenue would be decreasing and Import Expenditure would be increasing which would **worsen the trade balance** thus **worsen a current account deficit**.

This effect can be generalised into one elasticity **PED(X-M)**.  $PED_X + PED_M = PED(X-M)$

**PED(X-M) Inelastic** – Depreciation → Overall Price on (X-M) is falling → Total Revenue Falls



In the short run you will find that **PED(X-M)** is often **inelastic** as firms are tied down to pre-existing trade contracts that have to be honoured and even once those contracts finish and export prices decrease and import price increase, there is an extra time lag due to it **taking time for consumers to realise the changes in price** of both imports and exports. Because of this it means that even if **PED(X-M)** is elastic in the long run, the **current account's trade balance is likely to get worse before it gets better**, hence the J curve.

# The Application Of Macroeconomic Policy Instruments And The International Economy

**Fiscal Policy** – The taxation and spending decisions of a government

## Fiscal Policy:

**Fiscal policy is using changes in govt. spending and/or taxation to influence the level of AD.** So ultimately it is basically all about affecting the **C + I + G** components of AD.

- Increasing the G component of AD is fairly self-explanatory and would just involve increasing govt. spending.
- One way of increasing the C component of AD is by decreasing income taxes as this would raise people's disposable income, causing consumption to increase, further causing AD to rise.
- One way of increasing the I component of AD is by cutting corporation tax as this would increase firm's profits causing them to be more willing and able to invest.

**NOTE** – All of the increases in AD listed above would lead to multiplier effects on the economy meaning that AD would rise even further than the initial injection of spending

**Reflationary / Expansionary Policy** – Policy measures designed to raise AD

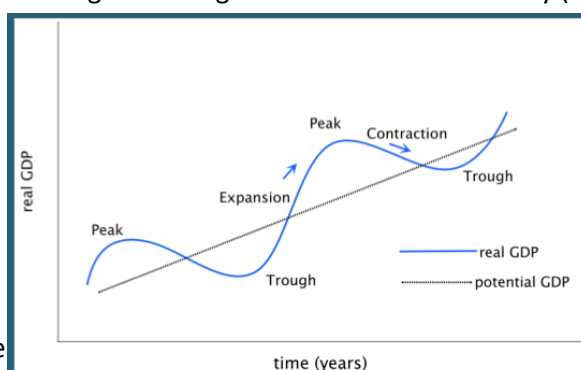
**Deflationary / Contractionary Policy** – Policy measures designed to reduce AD

**Discretionary Fiscal Policy** – Deliberate changes in government spending and taxation designed to influence AD

## Automatic Stabilisers Example:

- When economic activity rises, government spending on unemployment related benefits decreases. This is not because the government has changed the benefit rate but because there will be fewer who will claim it.
- Additionally the government will receive more tax revenue when real GDP rises without having to change tax rates. This is because there will be more people who are employed, who are receiving income, and some people may be earning higher wages.
- The fall in govt. spending and rise in tax revenue will reduce the growth in AD and so may help prevent inflation.

**Economic Cycle** – The tendency for economic activity to fluctuate outside its trend growth rate, moving from a high level of economic activity (boom) to negative economic growth (recession)



Typically there are 4 stages in the cycle.

1. Recession / Trough
2. Recovery / Expansion
3. Boom / Peak
4. Slowdown / Contraction

**Progressive Tax** – A tax that takes a higher percentage from the income of the rich e.g. **Income tax**

**Regressive Tax** – A tax that takes a higher percentage from the income of the poor e.g. **VAT**

**Government Spending can be divided into several categories:**

- Capital spending (on schools, hospitals roads)
- Current Spending (Teacher's pay, Purchase of medicine to be used in NHS etc...)
- Transfer payments (Money transferred from taxpayers to benefits recipients)
- Debt Interest Payments (Payments made to the holders of govt. debt)

**Most important areas of Government Spending (as of late):**

- Social Protection e.g. **Benefits**
- Health
- Education
- Defence
- Debt Interest

**Balanced Budget** – **Govt. Spending = Tax Revenue**

**Budget Surplus** – **Govt. Spending < Tax Revenue**

**Budget Deficit** – **Govt. Spending > Tax Revenue**

**NOTE:**

This is the government budget. It has nothing to do with the current account.

**Recession** – When real GDP falls for two consecutive quarters

**Monetary Policy** – Using changes in money supply / interest rates / exchange rate to influence the level of AD

**NOTE** – Monetary Policy involving changing the interest rate in order to affect **C I** and **(X-M)** is also known as the **Monetary Policy Transmission Mechanism**.

**Monetary Policy:**

- Monetary policy is set by the Bank of England's Monetary Policy Committee (MPC)

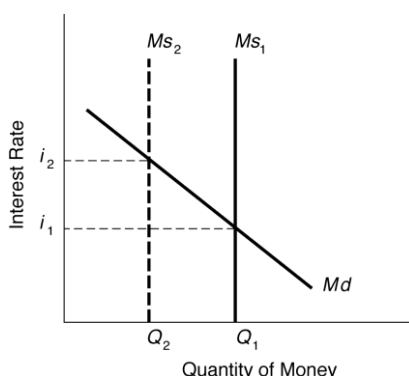
**Deflationary / Contractionary Monetary Policy:**

- Reduce AD via raising interest rates to push up the value of the £ as this will decrease (X-M)

**Reflationary / Expansionary Monetary Policy:**

- Increase AD via lowering interest rates to lower value of the £ as this will increase (X-M)

**NOTE** – A decrease in the money supply causes interest rates to go up and vice versa.



## Quantitative Easing\* (Not in the syllabus but could be used as alternative for interest rates (evaluation))

**Quantitative Easing (QE)** – The introduction of new money into the money supply by a central bank

- **Central banks recently have been switching to QE** due to **nominal interest rates already having been cut too close to zero** and because it was felt that **low interest rates were having too small an effect on AD**, the bank has decided to try something to boost AD further.

**QE Process (What it is intended to do):**

**The central bank create electronic money**

→ They use this money to buy things such as bonds and other assets

→ Leading to an increase in demand for bonds

→ Price of bonds rises leading to fall in long term interest rate (they have an inverse relationship)

→ Additionally the purchase of bank assets means that banks also have better balance sheets

→ This should incentivise banks to lend more and so further incentivise C and I

→ Increase in AD that should help central bank meet inflation target

**Problems with QE:**

1. **Cash Hoarding:**
  - Asset purchases increase the liquidity (cash) of commercial banks but rather than increase lending **banks have been happy to “sit on the cash”**.
2. **De-leveraging** (Typically done via paying off existing debt on balance sheet):
  - Commercial banks are still **desperate to reduce their existing debt before increasing lending**. Because of this they are **cautious about increasing their lending**.
3. **Credit availability remains low**
  - Due to the 2 points above it means that many **firms who need funds to expand** still feel that they are **frozen out of the loans market** or have to pay **premium interest rates as banks are reluctant to increase their lending**.
4. **Opportunity Cost:**
  - The BoE have currently **spent about £375bn on QE**. This is an incredibly large amount of money and it **could be put to better use**.
5. **Future Inflation:**
  - Such huge expansions of the money supply through QE **risk causing much higher inflation in the years ahead**. This will likely have **adverse effects on the economy** and so is a reason as to why QE is thought, by some, to be a **poor solution in the long run**.

**Conclusion on QE:**

QE could be a great method of the central bank but due to its reliance on the actions of privately owned banks, whose aims are to make profits, it is unlikely to ever actually work as it should. On top of that even if it is to work it has great opportunity cost and is also likely to have awful inflationary effects in the future.

**Supply-side Policies** – Policies designed to increase AS by improving the efficiency of labour and product markets

### Supply-Side Policies:

- **Govt. Spending on Education and Training**
  - o Govt. Spending on education and training **should raise the occupational mobility of labour and labour productivity** → Increase in Potential Output of Economy
- **Govt. Assistance to New Firms**
  - o **New, small firms provide employment, develop entrepreneurial skills and introduce new ideas.** A govt. can help them by **providing them with grants and charging them a low rate of corporation tax** → Increase in Potential Output of Economy
- **Reduction in Direct Taxes**
  - o **Whilst it would increase AD** the lower direct taxation **could also increase AS.** This is because lower direct taxes **increases incentives to firms, workers and potential workers.** A cut in corporation tax will increase the funds that a firm has available to **invest** and so **increase their willingness and ability to do so.** This would cause **both AD and AS to increase.**
  - o The lower direct tax rates are also likely to **incentivise workers to become more productive,** and the **unemployed to enter / re-enter the labour force.** This is **because the potential amount of disposable income they can obtain has increased** and the **unemployed will be more willing to accept employment at the going wage rate** which will likely **cause AS to increase.**
  - o **A potential downside to this though is that lower income tax may encourage workers to take more leisure time** as they can **earn the same disposable income by working fewer hours.** Additionally for the unemployed it **may not be the going wage rate keeping them from accepting employment but the rather that there just aren't enough jobs.**
- **National Minimum Wage (NMW)**
  - o There is debate about whether the introduction of a NMW or the removal of one is a supply-side policy. The key determinant is **whether an NMW encourages people to enter the labour force** or **whether it reduces the efficiency in the labour market.**
- **Reduction in Unemployment Benefit**
  - o A reduction in unemployment benefits will **widen the gap between income from employment and benefits** which may **incentivise the unemployed to accept employment at lower wage rates.** This in itself does not increase productive capacity but it **does reduce the negative output gap and move output closer to full capacity.**
  - o **A potential risk of this though is that unemployment may be increased by this. If the unemployment is of a cyclical nature** (lack of AD leading to unemployment) then **cutting benefits will reduce consumption** which in turn **will lower AD** causing some **firms to cut back on output further leading them to lay off some workers.** Cutting benefits is also likely to widen income inequality.
- **Reduction in Trade Union Power**
  - o A reduction in trade union power **may increase the efficiency of labour markets.** This will be the case **if trade unions reduce employment by pushing wage above the equilibrium level** and **encouraging workers to engage in restrictive practices.** In such a situation, **reducing trade union power will increase labour productivity and reduce the cost of employing labour** further causing **firms to be more encouraged to employ more workers and raise output.**

**Restrictive Practices** – An arrangement by a group of workers to limit output or restrict the entry of new workers in order to protect their own interests.

- It could be argued though that **trade unions make labour markets work more efficiently as they may act as a counter-balance to the market imperfection of very powerful employers.** They may also **reduce firm's costs as they act as a channel for communication between employers and workers** on issues and so as it is **cheaper to negotiate with one body than individual workers,** reducing trade union power may **actually raise firm's costs and unemployment.**
- **Privatisation**
  - It can be argued that more firms should be transferred from the public sector to the private. This is because **economic systems leading more towards the free market tend to be more efficient** because **if firms don't provide the products consumers want at competitive prices, they will go out of business.**
  - It can also be argued though that **government ownership of firms is useful** in a number of cases where there is a **high risk of market failure.**
- **Deregulation**
  - This should give **firms greater freedom to make their own decisions** and **increase competition by making it easier for new firms to enter an industry** which should **increase the productive capacity of an economy.**

## Policies to Reduce Unemployment

### Demand-side policies to reduce unemployment:

- If the economy is below full employment then AD could be raised by either:
  1. **Using fiscal policy via increasing govt. spending and lowering taxation.**
  2. **Monetary policy via decreasing interest rates or increasing the money supply.**
- Arguably increasing govt. spending is likely to have a greater impact on AD. This is because an extra £10 billion of govt. spending would initially raise AD by the full £10 billion whereas a cut in taxes of £10 billion may lead to an initial rise in AD of £6 billion as it is very possible £3 billion may be put into savings accounts and £1 billion could be spent on imports.
- **On the down side demand-side policies may have undesirable effects as an increase in AD may increase inflation as the economy moves closer to full employment. Additionally any existing deficit on the current account of the balance of payments may worsen as UK residents tend to buy more imported goods**

### Supply-side policies to reduce unemployment:

- Increase economic incentives and quality of labour by the (long-term) unemployed
- Improve quantity / quality of information available to the unemployed about job vacancies and to employers about those seeking jobs
- Improve education + training and provision of work experience may raise the skills of the unemployed
- Help lone parents with more provision of low cost child-care so the lone parents can work
- Widening the gap between income received from working and income received benefits should incentivise the unemployed to work
- Subsidise the special equipment and adapt buildings to help employ more disabled workers
- Cut rules and regulations firms face in hiring, employing and firing workers

**NOTE** – At any one time, unemployment may be the result of both a lack of AD and supply-side problems

Choice of Measures to Reduce Unemployment is Influenced By:

- Cause of Unemployment
- Rate and Duration of Unemployment
- State of Other Macroeconomic Objectives

## Policies to Control Inflation

The measures implemented will be influenced by what is causing the inflation

### Controlling cost-push inflation in the short-run:

- If it's due to excessive wage rises, the govt. may try restrict wage rises by restricting increases in the govt. spending allocated to public sector pay
- The govt. can try to lower firm's costs by reducing corporation tax. An additional plus is that this may stimulate investment.
- Govt. may provide subsidies so that firms can cover costs without having to raise prices. Subsidy may reduce costs in the long-run if some of it is spent on investment. The downside is that firms may become reliant on subsidies and not strive to keep their costs down.

### Controlling demand-pull inflation in the short-run:

- The govt. may use deflationary fiscal policy and cut government spending and/or raise taxes (would decrease C and I) in order to decrease AD or decrease its growth
- The govt. may use deflationary monetary policy and so raise interest rates (would decrease C, I and (X-M)) to decrease AD or decrease its growth

### Controlling inflation in the long-run:

- Govt. may try reduce inflationary pressure by increasing AS via supply side policies in order to raise productive capacity to supply more products
- If AD and AS shift at the same time people will be able to enjoy more goods and services without the economy experiencing inflation and a balance of payments problems.
- Unlike deflationary demand-side policies (that can adversely affect output and employment in the short-run), supply-side policies do not do so, but still take a long time to have full impact on productive capacity.

## Policies to Promote Economic Growth

A govt. may use different policies to achieve growth in the short run and long run to make growth more stable.

### Policies to promote short run growth:

- **Raise AD**, if the economy is below the vertical LRAS (producing below full capacity), via expansionary fiscal or monetary policy.
- Some fiscal and monetary policy have the **potential advantage of increasing both AD and AS**.
- **Cutting interest rates**, is one of these as it stimulates not only consumption but investment as well and the increase in investment will increase both AD and AS ( Because of increased quantity / quality of goods)
- **Increased govt. spending** on things such as education and research and development will also increase both AD and AS



### Policies to promote long run growth:

- **Raise LRAS** – Increase quantity / quality of resources via supply side policies
- **Raise investment and so increase AS.** Extent of the shift in AS depends on amount of extra investment, the type and how efficiently it is used.
- To **use capital efficiently**, more educated and healthy workers are needed. Investment in **human capital** should raise productive capacity. Extent to which this occurs depends on the appropriateness and the quality of investment.

**Human Capital** – Education, training and experience that a worker, or group of workers, possesses.

### Most Governments Seek Stable Growth:

- This objective is for actual growth to match trend growth and for trend growth to rise over time.
- Avoid AD growing faster than trend growth as that could lead to inflation and a worsened Balance of Payments position.
- Prevent AD rising more slowly than trend growth as this would mean a negative output gap developing with unemployed resources.

## Policies To Improve The Balance Of Payments

- Short-term measures focus on demand
- Long-term measures focus on improving the supply-side of the economy

### Correcting a current account deficit in the short run:

- Aim is to raise export revenue and/or reduce import expenditure
- **Exchange Rate Adjustment**
  - A country may seek to lower its exchange rate in order to improve current account deficit. A central bank may do this by selling of its own currency and/or reducing its interest rate (Pg. 30). A lower exchange rate will cause export revenue to increase and import expenditure to decrease thus improving the current account.
  - This policy will only work though if demand for exports and imports is price elastic, other country's currencies do not devalue and other country's don't increase any import restrictions.
- **Deflationary Demand Management**
  - In order to discourage expenditure on imports a govt. may attempt to decrease AD for all products. They may do this by adopting a deflationary fiscal and monetary policy. This can be done by higher taxation, lower government spending and/or higher interest rates.
  - A potential risk of this however is that the reduced AD may cause output to fall and unemployment to increase
- **Import Restrictions**
  - A country may seek to reduce import expenditure via **tariffs** (these will make imports less price competitive → Decrease in import expenditure assuming PED for imports is not inelastic) and **quotas** (Less imports available to buy → Decreased import expenditure)

**Tariffs** – A tax on imports

**Quota** – A physical limit on imports

- There are downsides though. One is that such import restrictions may have **inflationary side-effects**. Imposing tariffs will **increase the price of some products bought in the country, raise the cost of imported raw materials** (→ Cost-push inflation) and **reduce competitive pressures on domestic firms to keep costs and prices low**.
- Placing import restrictions may also **provoke retaliation**. If **other countries respond by increasing their restrictions** then the country may end up **spending less on imports** but also **earning less from exports**.
- Additionally **membership** to an economic bloc, such as the **EU**, and a multinational organisation, such as the World Trade Organisation (**WTO**), **limits the independent action that a country can take on import restrictions**.

#### Correcting a current account deficit in the long run:

- If deficit arises from lack of quality competitiveness, low labour productivity or high inflation then the most appropriate long-run solution would be to implement supply-side policies.
- Govt. may give subsidies to infant industries if they believe that they have the potential to grow and become internationally competitive.
- The govt. may also increase funds for research and development at universities to encourage invention and innovation
- The success of the supply side policies depends on their appropriateness e.g. training has to be in the right areas and firms / workers need to respond to the incentives provided.
- Some supply-side policies take a long time to have an effect and can also be very expensive.

#### Correcting a current account surplus:

- A Balance of Payments disequilibrium may also arise because of a current account surplus. A govt. may seek to reduce or eliminate a surplus in order to avoid inflationary pressure and raise the amount of imports it can enjoy.
- To reduce a surplus, a govt. may seek to raise the value of its currency, introduce deflationary fiscal and monetary instruments and/or reduce import restrictions.

## Effectiveness of Govt. Policies

#### Effectiveness Of Fiscal Policy (Advantages):

- A number of taxes and forms of govt. spending adjust automatically to offset fluctuations in real GDP.
- Changes in govt. spending directly affect the G component of AD while changes in taxation affect C and I by altering the disposable income of households and the post-tax income of firms.
- Cuts in corporation tax and training grants and an increase govt. spending on health and education have the potential to increase both AD and AS.

#### Effectiveness Of Fiscal Policy (Disadvantages):

- Changes in taxation and government spending take time to have an effect on economy e.g. **Households may take time to change spending when income tax is changed**.
- Takes time to recognise the need for a change in policy and to gather information on which to base the change. Also takes time to draw up new tax codes and govt. spending plans.
- Policy instruments need to be based on accurate information to work effectively
- Some forms of govt. spending are inflexible e.g. Hard to cut spending on health care.

- Households and firms may react in unexpected ways e.g. A cut in income and corporation tax may not lead to higher consumption and investment if households and firms lack confidence.
- Even if changes in taxation and govt. spending move the economy in the right direction, it may not alter economic activity to the extent the govt. want because the size of the multiplier effect may have been inaccurately estimated.
- Changes in fiscal policy may have an adverse effect on incentives and other macro objectives:
  - A rise in income tax rates or an increase in state benefits may discourage people from working.
  - Higher corporation tax may discourage investment.
  - A rise in taxation designed to reduce inflation may cut AD too far and cause a fall in real GDP and a rise in unemployment.
  - Similarly there is a risk that reflationary fiscal policy, while raising real GDP and lowering unemployment, may increase inflationary pressure and worsen a current account deficit.
- Fiscal policy changes can be offset by change in economic activity e.g. If the UK is pursuing expansionary fiscal policy but its main trading partners are experiencing a recession, AD may not rise much in the UK.

#### Effectiveness Of Monetary Policy:

- **Needs to be based on accurate information** in order to **work effectively** e.g. **Overestimating the prospect of inflation may cause interest rates to be too high → Limited economic growth.**
- **Monetary policy** instruments can be **difficult to control** e.g. **In the past, the UK have tried to keep inflation in check by controlling the money supply but found it difficult due to the strong profit motive commercial banks have to increase bank lending**
- Difficult to influence the exchange rate as it can be offset by large movements of speculative funds
- **Takes time for interest rate change to work through the economy. Commercial banks and other financial institutions do not always adjust quickly to reflect the change in base rate. A significant proportion of borrowing is taken out on fixed rates and those take time to alter.** Even once changes take place it **takes time for C I and (X-M) to adjust** and for the **alteration in AD to be reflected in the inflation rate** (Process is estimated to take about **2 years**).
- **Households and firms may react in unexpected ways. Increase in interest rate may not reduce C and I** if households and firms are **optimistic about the future.**
- When **interest rate levels fall to very low levels**, a **further cut is likely to be ineffective in stimulating economic activity.**
- The **effects of monetary policy** tend to be **concentrated on certain groups** e.g. **A rise in the interest rate will hit firms that export a high proportion of their output more than it will affect other firms.** This is because they will **not only be affected by higher costs** but also a **fall in demand resulting from a rise in the exchange rate decreasing export revenue (assuming PED for exports is not inelastic).**
- May have **undesirable side-effects.** Interest rates **being raised to push up the £** in order to **reduce inflation may worsen the current account deficit** thus **worsening the balance of payments position.**

### Effectiveness Of Supply-Side Policies (Advantages):

- Increasing AS enables AD to continue to rise over time without inflationary pressure building up.

### Effectiveness Of Supply-Side Policies (Disadvantages):

- If there is not a sufficiently high level of AD then the extra capacity will be unused and economic performance will not increase.
- Some policies such as increased govt. spending on education can take a long time to have an impact.
- Some policies can also be expensive and there is no guarantee that they will work.

### Possible Conflicts Between Policy Objectives (Advantages):

- The govt. may use a combination of policies to reduce the possibility of policy conflicts e.g. using Interest Rates to control inflation and labour market + Supply-side reforms to promote economic growth

### Possible Conflicts Between Policy Objectives (Disadvantages):

- Expansionary demand-side policies may benefit economic growth and reduce unemployment but they may make it hard to achieve a low inflation rate and a satisfactory Balance of Payments position.
- The MPC may seek to raise Interest Rates in order to reduce inflationary pressure but the higher £ caused by it may worsen output, employment and the Balance of Payments position.

### Changes In The UK pattern Of International Trade Since 2000:

- International trade plays a key role in influencing output, employment and the price level in the UK.
- The UK **is** internationally competitive in: Telecommunications, aerospace engines, chemicals / pharmaceuticals, services (**especially financial services**)
- UK is least competitive in industries dependent on heavy capital equipment or cheap labour.

### The Advantages That May Be Gained From International Trade:

- It enables a country to specialise as the products it cannot produce it can import.
- **Consumers** can benefit from the **lower prices, higher quality** products and a **greater variety** of products that **result from the higher level of competition that arise from countries trading internationally.**
- **Firms** will have **access to larger markets** in which to **sell their products** and from which to **buy raw materials** (enabling them to **take greater advantage of economies of scale**).

### The Disadvantages That May Arise Due to International Trade:

- **Competition** from other countries **and access to their markets** can result in **some industries expanding but some contracting as well.** The contraction of an industry requires the **shifting of resources** which **may be difficult** to achieve **due to occupational immobility of labour.**

**International Trade** –Exchange of goods and services across international boundaries.

**Occupational Immobility Of Labour** –Difficulty in moving from one type of job to another.

# Methods Of Protection

**Protectionism** - The protection of domestic industries from foreign competition.

## Tariffs / Custom Duties / Import Duties:

- These are **taxes on imported products**. They can be imposed with the **intention of raising revenue** and/or **discouraging domestic consumers from buying imported goods**.

## Effect Of Imposing A Tariff:

- Raising prices for domestic consumers and, in the absence of any retaliation, shift demand from imports to domestically produce products

## Quotas:

- Limit supply of a good or service (This can imports or exports). Quotas on exports are more rare but they can happen e.g. **A developing country may seek to limit the export of food during a period of food shortage.**

## Effect Of Quota:

- Reducing supply in order to push up the price.
- Foreign firms would face a fall in the quantity they can sell but they may benefit from it if demand for their produce was price inelastic and if the quotas are not operated via the selling of import licences.

**Voluntary Export Restraint (VER)** – A limit placed on imports from a country with the agreement of that country's government.

## Voluntary Export Restraint (VER):

- A country may agree to restrict its exports in return for a similar limit being put on the exports of the other country or to avoid more damaging import restrictions being imposed on its products.

**Foreign Exchange Restrictions** - Limiting the amount of foreign exchange made available to those wishing to buy imported products or to invest or to travel abroad.

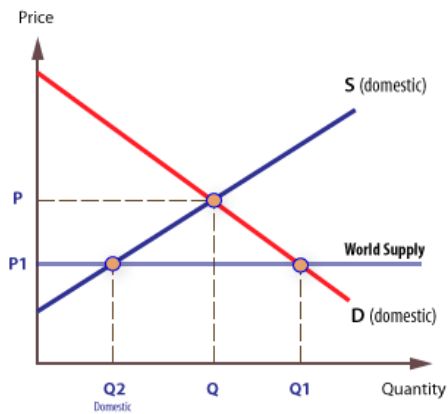
**Embargoes** – A ban on the export or import of a product and/or ban on trade with a particular country. **NOTE – These tend to only be for political reasons rather than economical ones.**

**Red Tape** – Time delaying customs procedures. **NOTE – If it takes a long time to complete complex custom forms it will be more expensive to import products.**

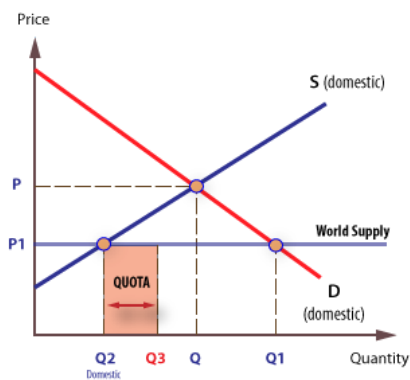
## Other Measures:

- **Quality standards may be set high** and **complex requirements** may be put in place in order to **raise the costs of foreign firms** seeking to export to the country.
- The govt. may try to reduce imports by **favouring domestic firms when it places orders, even when domestic firms are producing at a higher cost or lower quality.**

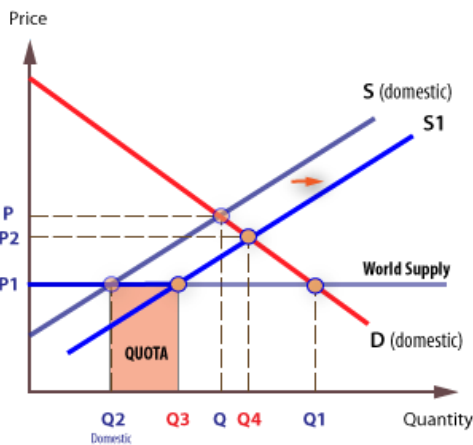
# Quota Diagram



1  
**With no international trade**, the equilibrium market price in the country will exist at where **Domestic Supply = Domestic Demand** where **Price = P** and **Quantity = Q**. Of course though basically every country nowadays is open to free trade and **due to other country's specialisation and comparative advantages the world supply curve will be perfectly elastic at the lower world price P<sub>1</sub>**. The new equilibrium price is **P<sub>1</sub>** and total output is **Q<sub>1</sub>**. The domestic share of output is now **Q<sub>2</sub>**, compared with **Q**, the self-sufficient quantity. The amount imported is the distance between **Q<sub>2</sub>** and **Q<sub>1</sub>**.



2  
 In an attempt to protect domestic producers, a **quota of Q<sub>2</sub> to Q<sub>3</sub>** may be imposed on imports.

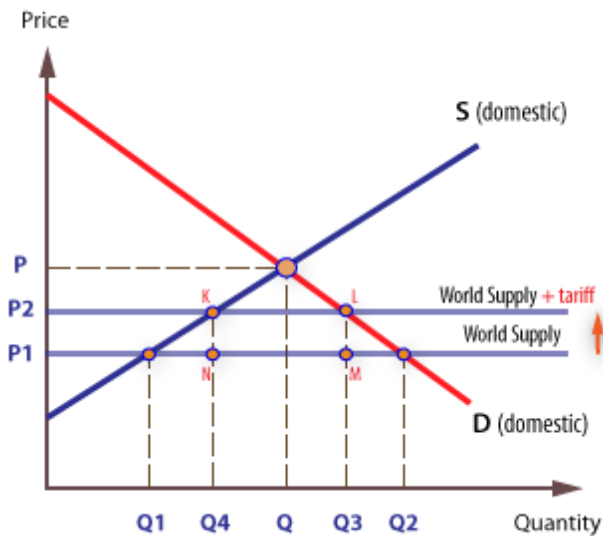


3  
 This enables the domestic share of output to rise to **0 → Q<sub>2</sub> + Q<sub>3</sub> → Q<sub>4</sub>**

4  
 The **quota creates a relative shortage and drives the price up to P<sub>2</sub>**, with **total output falling from Q<sub>1</sub> to Q<sub>4</sub>**. The amount of imported products falls to the quota amount. It is **this price rise that provides an incentive for less efficient domestic firms to increase their output causing domestic supply to shift from S(domestic) → S<sub>1</sub>**.

One of the key differences between a tariff and a quota is that the **welfare loss associated with a quota may be greater because there is no tax revenue earned** by the government. Because of this **quotas are less frequently used than tariffs**.

# Tariff Diagram

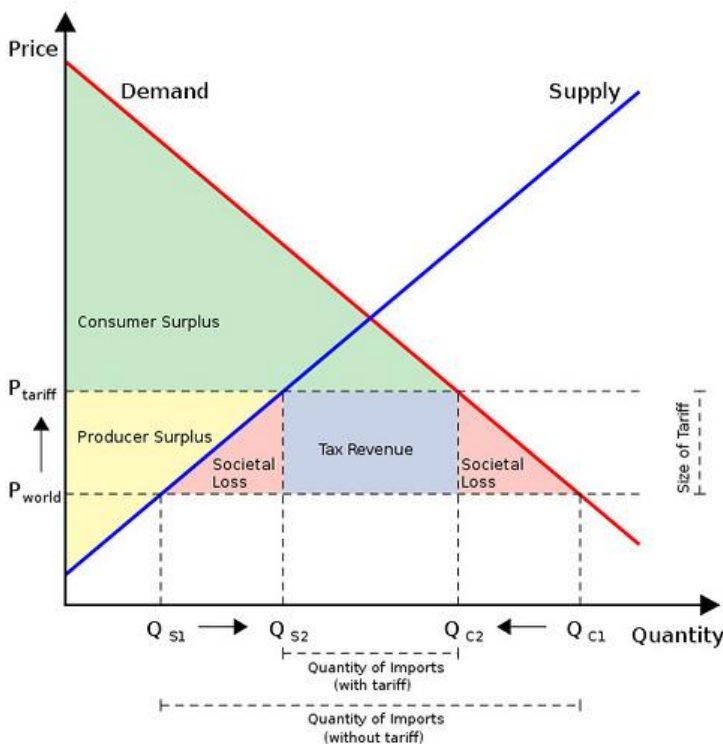


1  
A tariff is a tax on imports and so it raises the price. This means that **domestic consumers face higher prices**, which also means that there is a **loss of consumer surplus**. However there is an **increase in domestic producer surplus** as **domestic producers are protected from cheap imports** and so receive a **higher price than they would without the tariff**. However, it is likely that there will be an **overall net welfare loss**.

2  
Without trade, the domestic price and quantity are P and Q. As explained before countries that are open to international trade get a perfectly elastic world supply curve at price P<sub>1</sub> and so output increases from Q to Q<sub>2</sub>. As a result **domestic producers' share of the market falls to Q<sub>1</sub>** and so the amount imported is the distance between Q<sub>1</sub> and Q<sub>2</sub>.

3  
The imposition of a tariff shifts up the world supply curve to World Supply + Tariff. This causes price to rise from P<sub>1</sub> to P<sub>2</sub> and total output to fall from Q<sub>2</sub> to Q<sub>3</sub>. Domestic producers share of the market then rises from Q<sub>1</sub> to Q<sub>4</sub> and so the amount of imports decreases from the distance between Q<sub>1</sub> and Q<sub>2</sub> to the distance between Q<sub>4</sub> and Q<sub>3</sub>. The result is that domestic producers have been protected from the rest of the World.

4  
As explained before this means that **domestic consumers face higher prices** and so they suffer a **loss of consumer surplus**. In contrast, **domestic producers increase their producer surplus** as they receive a **higher price than they would without the tariff**. The increased market share also means that **jobs will be protected in the domestic economy**.



5  
However, the reduction in consumer surplus is **greater than the increase in producer surplus**. Even when adding the tariff / tax revenue there is still a **net welfare loss** as shown by the **two triangles surrounding the tax revenue box**.

**NOTE - Do NOT say "Societal Loss" as the diagram does, instead say Welfare Loss.**

**Discuss whether a rise in a country's exchange rate will always reduce its inflation rate (Mark Scheme + Model Answer):**

**Level 1 KNOWLEDGE (1–4 marks)**

These answers will show some awareness of the terms.

Examples of L1 answers:

- Inflation rate is the percentage rise in the general price level,
- The inflation rate is measured by the CPI/RPI.
- AD/AS diagram showing inflation.
- Diagram showing exchange rate determination.
- The exchange rate is the price of a currency in terms of another currency.
- The exchange rate is determined by the demand for and supply of a currency.
- A rise in the exchange rate means the currency will buy more of another currency.
- A rise in the exchange rate means a stronger exchange rate/appreciation.

**Level 2 APPLICATION (5–8 marks)**

Answers should recognise how a rise in the exchange rate will affect inflation by identifying how export and import prices and volumes may change.

Examples of possible L2 answers:

- A rise in the exchange rate raises export prices/reduce price competitiveness of domestic producers.
- A rise in the exchange rate reduces import prices.
- A rise in the exchange rate may reduce exports/export revenue.
- A rise in the exchange rate may increase imports/import expenditure.
- An accurate AD/AS diagram showing a shift to the right of the AS curve (SRAS would shift right due to lower cost of production via cheaper imported raw materials).
- An accurate AD/AS diagram showing a shift to the left of the AD curve (X-M component of AD would decrease due to lower export revenue and higher import expenditure).



### **Level 3 ANALYSIS (9-12 marks)**

Answers should analyse how an increase in its exchange rate may reduce an economy's inflation rate:

- Higher export prices and lower import prices may reduce net exports and so lower aggregate demand which may lower demand-pull inflation. This may be combined with an explained AD/AS diagram.
- Lower imported raw material prices may reduce costs of production and so slow down price rises and increase AS/reduce cost-push inflation.
- Lower import prices may put competitive pressure on domestic firms to keep their costs/prices low.
- A fall in import prices will directly reduce the prices of some of the products included in the basket of goods and services used to calculate the consumer prices index.

### **Level 4 EVALUATION (13-15 marks)**

Answers should evaluate whether a rise in the exchange rate will always reduce an economy's inflation rate:

- The effect of the rise will depend on how demand responds to the price changes. If, for instance, the quality of domestic products increase, demand for the economy's exports and demand for its imports may remain unchanged.
- If incomes abroad rise or trade restrictions abroad are reduced, the economy may continue to enjoy a large current account surplus and so aggregate demand may not decrease.
- Lower aggregate demand will have more of an impact on an economy's inflation rate if the economy is initially operating close to full capacity.
- Producers may not pass on lower imported raw material costs to consumers.
- If domestic firms do not have substitutes in the form of imports they may continue to raise their prices.
- A higher exchange rate may discourage FDI as it will make exports from the country more expensive/encourage domestic firms to move abroad. This could reduce AS and lead to a higher inflation rate.
- The impact on the economy's inflation rate may be greater, the more open the economy is.
- The effect on aggregate demand will be influenced by what is happening to the other components of AD.
- The effects may be offset by a rise in productivity or higher inflation abroad.

### **EE ANSWER TO QUESTION + CONCLUSION (16 –18 marks)**

- Stated or elaborated judgement

## Model Answer for “Discuss whether a rise in a country’s exchange rate will always reduce its inflation rate”

I only know how to do 18 markers so well, so I have just highlighted all the areas I think you would get marks for. Additionally it is important to note that this 18 marker could be improved in some parts but I think this would be sufficient for getting 17 - 18 marks.

Key:

**Red** = Knowledge – Level 1

**Orange** = Application – Level 2

**Purple** = Analysis – Level 3

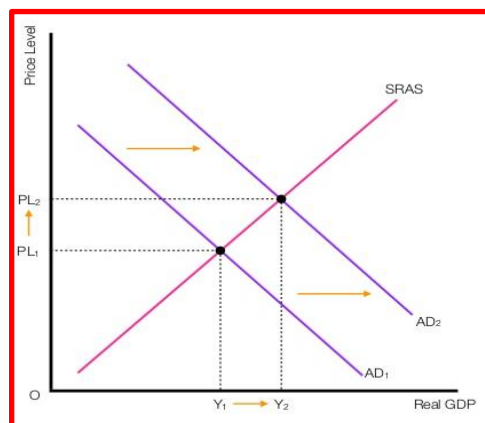
**Blue** = Evaluation – Level 4

**Green** = Stated Judgement + Conclusion - End

State all the definitions relevant to the question asked, any other extra information that is relevant and a basic graph if possible.

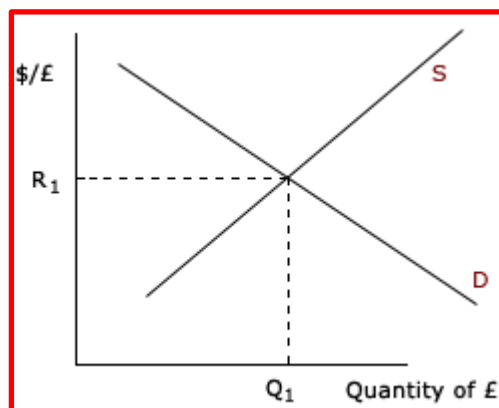
Inflation is a sustained rise in the general price level and in the UK it is measured by CPI/RPI.

**Graph Showing Inflation:**



Exchange rates are the price of a currency in terms of another and they are determined by the demand and supply of a currency. A rise in an exchange rate is called appreciation.

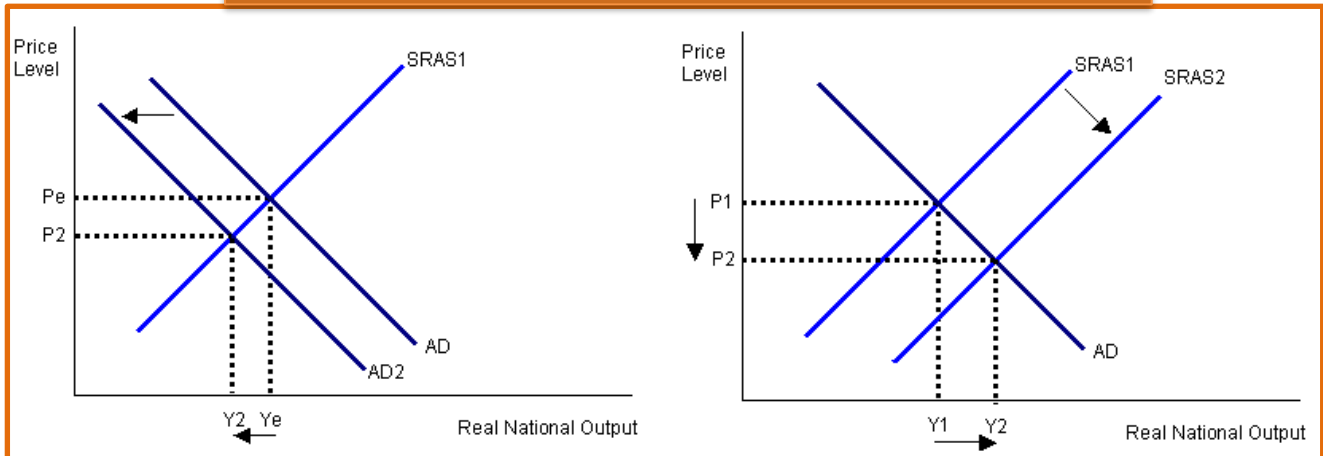
**Graph Showing Exchange Rate Determination:**



Typically in Unit 1 you had to apply your essay to the text from the start of the test but in Unit 2 it is less of a necessity. I would still advise doing it but in this specific case there wasn't really anything relevant from the starting text that you could mention.

An increase in the exchange rate would cause exports to become more expensive leading to a decrease in price competitiveness, leading to a decrease in export revenue. A rise in the exchange rate would cause imports to become cheaper which would increase their price competitiveness leading to an increase in import expenditure due to the increased demand for it. The decreased demand for exports leading to lower export revenue and the increased demand for imports leading to increased import expenditure would most likely cause the trade balance to worsen over time.

I couldn't find a diagram online that showed AD shifting left and SRAS shifting right so just imagine that the graphs below were joint together.



The lower value of export revenue and higher value of import expenditure is likely to cause the  $(X-M)$  component of AD to decrease which should in turn cause AD to fall. Due to imports being cheaper it is also likely that a lot of firm's cost of production would be reduced due to cheaper imported raw materials causing SRAS to increase.

The graph shows an increase in SRAS from  $SRAS1 \rightarrow SRAS2$  and a decrease in AD from  $AD \rightarrow AD2$  that will lead to a fall in the price level from – wherever the price level has fallen to- and real national output staying the same if both curves shift by equal amounts so it is possible that real national output could increase or decrease depending on how much both of the curves shift by. On an additional note, the lower price of imports could put competitive pressures on domestic firms to keep their costs and so their prices low thus potentially lowering inflation more and also the reduction in the price of imports that are included in the basket of goods and services will directly affect the calculation of CPI causing it to decrease it's measure of inflation.

In this example you had to draw a graph and analyse the effects shown by the graph but it is important to know that the mark schemes for 18 markers in Unit 2 are not so rigid and so you may not even have to heavily analyse a graph in order to get past the analysis section. It really just depends on the question so just make sure to mention everything that could possibly be relevant in the analysis section before you move onto evaluation so that you don't get capped.

All of this of course means that a rise in the exchange rate should lead to a reduced rate of inflation but there are other factors on the other hand that could affect this outcome.

If the PED for exports and imports is inelastic then an increase in the price of exports and a decrease in the price of imports will actually cause export revenue to increase and import expenditure to decrease which would cause the trade balance to improve over time and so cause  $(X-M)$  to increase which would cause AD to increase and so improve the inflation rate / not reduce the inflation rate.

It is also important to take into account that there are **other components of AD** and so that just because the (X-M) component of AD decreases does not mean that a **change in another component of AD will not cancel or overturn it and potentially cause AD to stay the same or even increase** and so inflation would not be reduced. Additionally just because firms may experience a lower cost of production due to the cheaper imported raw materials there is **no guarantee they will definitely pass it onto the consumer via lower prices**, especially for **firms whose substitutes do not include imports** and so this would mean that inflation would not be reduced.

It is also possible that **incomes abroad could be rising** which would likely lead to an increase in export revenue which would cause (X-M) to increase and so AD would potentially stay the same or increase and so inflation would not be reduced.

Finally it is also important to take into account that price competitiveness is not the only form of competitiveness. The **quality of domestic products could increase over the quality of imports** and so (X-M) may remain unchanged or even increase depending on how great the increase in quality and so AD would not decrease meaning that inflation would not be reduced.

Evaluation is pretty straightforward for Unit 2 and most of the possible evaluation points will have been mentioned or at least suggested in these notes. The general rule I would say to use would be:

1. Size of change
2. Length of change
3. Current level of economic activity
4. It is ceteris paribus (Other components of AD, conflicting policy objectives etc...)
5. Firms and consumers can act in unexpected ways based on optimism (Slightly more specific)

This of course will only work for some 18 markers as for some it may be completely irrelevant to mention such points but if you find yourself lost then thinking back to these should help.

**All in all I would say that a rise in a country's exchange rate does NOT always reduce its inflation rate.**

I believe this as there are so **many extra factors that can affect export prices, their competitiveness and changes in AD or AS**. It is rare that in economics you will ever find certainties because of such factors and as made quite **clear in the evaluative points made prior to this there is a multitude of reasons as to why a rise in the exchange rate may not reduce the inflation rate of a country** thus proving the statement "A rise in a country's exchange rate always reduces its inflation rate" to be completely false.

The conclusion for this one was a particularly straightforward one as there is basically only one right answer and you do not need to say much to justify what you have said. Ideally though if I were you I would write a conclusion slightly longer than this just to ensure I got all the marks to get 18 / 18 as you don't want to throw stupid marks away for simply being lazy and not writing enough.

**Discuss whether a decrease in aggregate supply is always harmful to national economic performance (Mark Scheme):**

**Level 1 KNOWLEDGE (1–4 marks)**

These answers should show some awareness of the terms or limited understanding of changes e.g.:

- AS is the total amount that producers in an economy are willing and able to supply at a given price level.
- National economic performance covers economic growth, unemployment, inflation and the current account of the balance of payments.

**Level 2 APPLICATION (5–8 marks)**

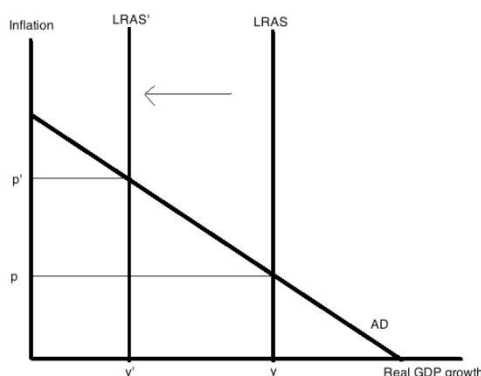
Answers should recognise how a decrease in aggregate supply may affect national economic performance e.g.:

- Lower AS may cause inflation
- Lower AS may reduce real GDP/national output
- Lower AS may reduce employment/increase unemployment/reduce unemployment.
- Lower AS may increase a current account deficit
- A diagram with identification of changes.

**Level 3 ANALYSIS (9-12 marks)**

Answers should analyse how a decrease in aggregate supply may harm national economic performance e.g.:

- The inclusion of an AD/AS diagram showing how it may affect an economy with some written explanation of the effect of the change in the price level and output/real GDP on macroeconomic performance.
- A reduction in productive capacity will result in greater competition for resources and so generate cost-push inflation.
- Lower AS may reduce real GDP/growth of real GDP and so lead to a recession/fall in economic growth and raise unemployment.
- Lower output may decrease employment in the long run especially if fewer capital goods result in fewer workers being needed to operate them.
- A reduction in AS may raise the relative price of exports and so increase a current account deficit.
- A decrease in AS resulting from a decrease in labour productivity may reduce net exports due to a fall in their quality and/or rise in their price.



I know this graph isn't exactly the same as the one we usually use but essentially it is just the vertical part of the Keynesian LRAS (the one that curves up) shifting left and so if you were to draw that version it would be exactly the same as this but you would just show the vertical part and the curved part both shifting left.

**Level 4 EVALUATION (13-15 marks)**

Examples of possible L4 answers:

- A conclusion that it is generally harmful as it is likely to have an adverse effect on the government's macroeconomic objectives.
- A recognition that it is likely to be harmful and this is why governments' supply-side policy measures always seek to increase aggregate supply and do not try to reduce it.
- It is important for AS to increase to keep up with increases in aggregate demand.
- The effect of a decrease in AS will partly depend on the cause. A decrease in investment will be particularly harmful as it will also decrease aggregate demand.
- A fall due to e.g. a rise in the school leaving age/numbers in HE may later increase AS.
- The effect will be influenced by the size and duration of the decrease. A larger, long run decrease will have a larger impact.

**EE ANSWER TO QUESTION + CONCLUSION (16 –18 marks)**

- Stated or elaborated judgement

## Discuss whether inflation always harms an economy (Mark Scheme):

### Level 1 KNOWLEDGE (1–4 marks)

Examples of L1 answers:

- Inflation is a rise in the price level.
- Inflation means that the value of money falls.
- Inflation is measured by the CPI/RPI.
- Inflation may be caused by demand-pull or cost-push factors.

### Level 2 APPLICATION (5–8 marks)

L2 For an application of knowledge and understanding of the effects of inflation. Answers should recognise some of the costs and/or benefits of inflation.

Examples of possible L2 answers:

- Inflation reduces exports.
- Inflation causes shoe leather costs.
- Inflation causes menu costs.
- Inflation causes people to pay more tax.

### Level 3 ANALYSIS (9-12 marks)

L3 For an analysis of either the costs or the benefits of inflation. (9 – 12) Answers should analyse the effects of inflation. Examples of possible L3 answers:

- Interest rates do not tend to increase in line with inflation and so there may be a random redistribution of income from savers to borrowers.
- Inflationary noise may result in consumers, workers and firms making inefficient choices.
- Inflation may reduce the international competitiveness of the country's firms and so reduce export revenue and increase import expenditure.
- Firms may have to spend time and effort moving money around financial institutions in order to ensure it does not lose its real value – shoe leather costs.
- Fiscal drag may occur with tax bands not being adjusted in line with inflation and so workers' pay may be dragged into higher tax bands.
- Firms may have to spend time and effort adjusting prices in catalogues labels etc. – menu costs.
- A low and stable rate of demand-pull inflation may encourage firms to increase their output as they will expect to sell more at a higher price.
- As the rate of interest does tend to rise in line with inflation, the real burden of debt facing e.g. home buyers may fall.
- Firms can reduce their real wage bill by raising money wages by less than inflation. This may stop firms making workers redundant to cut costs.

#### **Level 4 EVALUATION (13-15 marks)**

L4 For a discussion of whether inflation is always harmful. (13 – 18) Answers should evaluate whether inflation is always harmful.

Examples of possible L4 answers:

- A high inflation rate is likely to cause more problems than a lower rate. For example, hyperinflation can lead to money ceasing to carry out its functions. In contrast, menu and shoe leather costs are not likely to be significant if inflation is low.
- A country may be experiencing inflation but if its rate is below rival country's inflation rates, it may still be becoming more price competitive.
- If the inflation rate has been correctly anticipated, measures can be taken to offset its harmful effects e.g. raising pensions in line with inflation.
- A stable inflation rate is likely to cause fewer problems than an accelerating one as it will be easier for consumers, workers and firms to plan ahead.
- Cost-push inflation tends to be more harmful than demand-pull inflation as it tends to be associated with a fall in output.
- Inflation may be harmful to some groups but beneficial to others. eg the government as a borrower and beneficiary of fiscal drag may gain whereas taxpayers and savers may lose.
- Inflation can cause both costs and benefits. Whether inflation is harmful or not will depend on the relative balance of costs and benefits.
- Advances in technology are reducing the significance of menu costs and shoe leather costs.

#### **ANSWER TO QUESTION + CONCLUSION (16 –18 marks)**

- Stated or elaborated judgement