TJA Economics

A Level/IB Economics Revision Guide

Year 12 Macroeconomics

Contents

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Macroeconomic Objectives

Economists are very similar to doctors. A doctor looking after a patient will look at multiple measures of how healthy they are (Blood Pressure, Heart Rate, BMI, Breathing Rate, 0^2 Saturation, etc). In a similar way, an economist will look at various measures of how healthy an economy is doing. The most important measures we can use to assess the performance of our economy are:

- Economic Growth
- Unemployment Rates
- Inflation Rates
- The Trade Balance
- Fiscal Budgets
- Environmental Protection
- Income Equality

Like we've said, a true economist will use a combination of ***all*** the Macro Objectives to gain a full picture and assess the health of the economy. That's why economists find it a bit annoying when you see pundits on the news use just one figure to say the economy is doing well – it's just not enough to fully describe what's going on! So how do we actually use these? Well, for each of them we need to know 4 key things:

1. What we're trying to achieve
2. Why we use it as a measure
3. How we measure our progress
4. Any targets we may set for it

In the next couple of pages, we'll see each of these questions for each of these objectives.

The Objective	*What are we trying to achieve?*	*Why do we use it?*	*Measurements?*	*Targets?*
Economic Growth	High, Sustainable Economic Growth	Growth means higher average incomes, encourages lower unemployment, and increased tax revenue for the government	% Change in GDP per year	No specific target, but 2 – 3% is seen as desirable
Unemployment Rates	Low Unemployment/ Full Employment	Lower unemployment means increased average incomes and lower poverty levels. As well as lower Gov Spending on welfare	1. ILO Labour Force Survey 2. The Claimant Count	No specific target, but 4% is seen as desirable
Inflation Rates	Low Inflation/ Price Stability	Lower inflation means the purchasing power of consumers is protected, savings aren't eroded, and exports stay competitive	The Consumer Price Index (CPI)	2% per year, ±1% either side

The Trade Balance	Balance of Payments Equilibrium/ Current Account Surplus	A Trade Surplus ensures UK wealth isn't sent abroad, and acts as a positive in AD as (X-M) is a net positive	The UK's "Pink Book"	No specific target
Fiscal Budgets	Balanced Budget in the Long Run	Prudent spending in the current day allows future governments to borrow more easily for future policies/crises	Government Spending/ Revenue	UK Budget Deficit to be below 2% of GDP by 2022
Environmental Protection	Reduce Environmental Damage/Externalities	To ensure that growth now doesn't hinder the ability of future generations to continuing growing too	Various including: $C0^2$ emissions, $N0^2$ emissions, etc	Various in 2015 Paris Agreement/ 2021 COP26 Agreement
Income Equality	Reduce Income Inequality	To reduce poverty and improve social mobility. Providing public services also has Positive Externalities	Absolute Poverty Lines, Relative Poverty Level and The Gini Index	Income growth of bottom 40% of homes to be higher than average by 2030

How is the UK performing?

Objective	Measure	Target	Performance	
Growth	GDP Growth Rate	High + Sustainable	**1.1%** *(2021 Q3)*	
Inflation	Consumer Price Index	2% (±1%)	**5.4%** *(December 2021)*	
Unemployment	ILO Labour Force Survey	As low as possible	**4.2%** *(October 2021)*	
Inequality	Gini Index	As low as possible	**0.346** *(April 2020)*	
Trade Balance	BoP: Current Account	Depends on Government	**-£24.44Bn** *(2021 Q3)*	
Budget Deficit	Government Borrowing	Ideally a Surplus	**-£323Bn** *(2020/21)*	
The Environment	Nothing Universal	Depends on Government	**49.5% fall since 1970** *(CO^2 emissions)*	

Aggregate Demand

Aggregate Demand	The total level of planned real expenditure on goods and services in a country in a given time period. Often given as C + I + G + (X-M) = AD
AD Curve	A curve showing the relationship between levels of expenditure and the general price level
Base Interest Rate	Set by the Central Bank (Bank of England in the UK). It's the rate used by commercial banks to set their lending and saving rates

As shown in the table above Aggregate Demand (AD) is, at its most simple level, simply the total amount of expenditure in an economy in a given period of time – normally a year. We normally break AD down into 4 categories of spending:

1) Spending on Goods and Services by Consumers **(C)**
2) Investment in Capital by Firms **(I)**
3) Government Spending **(G)**
4) Net Exports **(X-M)**

In 2020, the components of AD in the UK were as follows:

Component	*Size*	*% of AD*
Consumption (C)	*£1,292 Bn*	*63.3%*
Investment (I)	*£352 Bn*	*17.2%*
Gov Spending (G)	*£397 Bn*	*19.4%*
Net Exports (X-M)	*-£3 Bn*	*-0.14%*
Total AD:	*£2,038 Bn*	*100%*

Source: NIESR UK Economic Outlook, Autumn 2021

Exam Hint: Consumption makes up by far the biggest part of AD – use this for evaluation! A 5% increase in Consumption will have a greater impact on AD than a 5% increase in Investment.

So, in 2020 there was a total of £2.038 Trillion spent in the UK economy by the 4 agents that make up AD. But what impacts how much those agents choose to spend?

Household Consumption (C)

Household Consumption is, at its most basic, simply the amount of money spent by people like me, you, your parents, and any of your friends on Goods and Services.

By far the most important factor that influences levels of Consumption is ***Income*** and, therefore, ***Disposable Income*** levels. Simply put, the more Income people have, the more they will spend on Goods and Services, and that should make sense. However, the extent to which an increase in Income leads to an Increase in Consumption depends upon the ***Marginal Propensity to Consume***. (Explained on the next page)

Also important to how much Consumers spend is ***Consumer Confidence*** - how optimistic Consumers are about their futures. A lot can happen to affect this such as Recessions, Political Crises or even Environmental Disasters At the end of the day, Consumers will not want to spend as much if they feel as though they should be saving for a rainy day. ***Interest Rates***, affected by the Central Bank's Base Interest Rate, will also be important. Lower Interest Rates will make borrowing cheaper, and makes repayments lower on any debt with a variable rate of interest, so will encourage Consumption too.

Marginal Propensity to Consume

Definition: The proportion of any additional income that is spent on Consumption

Let's say you receive £100 for your birthday, and allocate it the following ways

Consumption: £55	Savings: £5	Imports: £15	Tax: £25
*Your **Marginal Propensity to Consume (MPC)** is 0.55*	*Your **Marginal Propensity to Save (MPC)** is 0.05*	*Your **Marginal Propensity to Import (MPM)** is 0.15*	*Your **Marginal Rate of Taxation (MRT)** is 0.25*

Business Investment (I)

Business Investment is how much firms are spending on Capital Goods. Key to how much a firm decides to spend on Capital will be ***Business Confidence*** – similar to Consumer Confidence before, in that it's how positive Businesses feel about the future. This is heavily influenced by the current ***Rate of Economic Growth***, as firms will want to invest in order to expand output if the Economy is growing. Furthermore, the ***Rate of Technological Advancement*** will affect the return that firms receive from their investment as better technology will allow for more output and, therefore, more revenue and profit! Finally, much like how ***Interest Rates*** affect Consumption, they will also affect Investment in a very similar way.

Common Misconception: Economics has a very different definition of 'Investment' than in Finance. In Finance, it's to do with money going to hedge funds, buying assets, bonds, etc. However, in Economics it's very different – it's just spending by firms on Capital Goods, and nothing more!

Government Spending (G)

Governments spend money to provide public goods and services for their citizens, as well as to adjust AD over the business cycle to achieve their macroeconomic objectives via Fiscal Policy. Every year, the government publishes The Budget, in which they plan out their spending policies for the upcoming financial year. The use of taxation, borrowing and spending by governments is known as Fiscal Policy.

- ***Fiscal Surplus:*** Gov Spending < Gov Revenue, Positive Impact on AD
- ***Fiscal Deficit:*** Gov Revenue < Gov Spending, Negative Impact on AD
- ***Fiscal Balance:*** Gov Spending = Gov Revenue, No Impact on AD

Net Exports (X-M)

Net Exports can also be effectively explained by the Trade Balance – simply whether we are importing more than we are exporting. The reason we look at this is because each of them represents a movement of money – and therefore expenditure – into or out of the country. ***Exports have a positive impact on AD*** as the money from the Export enters the economy, whilst ***Imports have a negative impact on AD*** as the money is leaving the economy.

Common Misconception: Students often get Imports and Exports mixed up when thinking about which one is positive and which is negative on AD. Just remember – *follow the money.* Exports are good because income enters the economy and Imports bad as the income leaves!

2 Key factors affecting Net Exports are ***Competitiveness*** and ***Exchange Rates.***

Competitiveness is essentially just how we compare to our rivals in making goods and services. For the UK these would be countries such as Germany, The USA, Japan, France, The Netherlands, etc. Simply, can our firms produce things faster, more cheaply and to a better standard than firms in those countries? If we can, then we're likely to export more than we import and will have a Trade Surplus.

With Exchange Rates, a stronger currency means we need fewer Pounds to buy things from abroad, and foreigners need more of their currency to buy things from us. Vice versa, a weaker currency makes us less likely to buy imports and makes foreigners more likely to buy our exports. Top Tip: If you're struggling to remember how exchange rates affect our Trade Balance, just remember S.P.I.C.E.D!

Stronger

Pound

Imports

Cheaper

Exports

Dearer

Summary

Component of AD	Factors that affect it (not exhaustive)
Consumption	Consumer Confidence, Incomes, Interest Rates, MPC, etc
Investment	Business Confidence, Economic Growth, Technological Advancement, Interest Rates, etc
Government Spending	Political considerations and whether the Government can run a Fiscal Deficit or Surplus
Net Exports	International Competitiveness, Exchange Rates, Relative Inflation Rates, etc

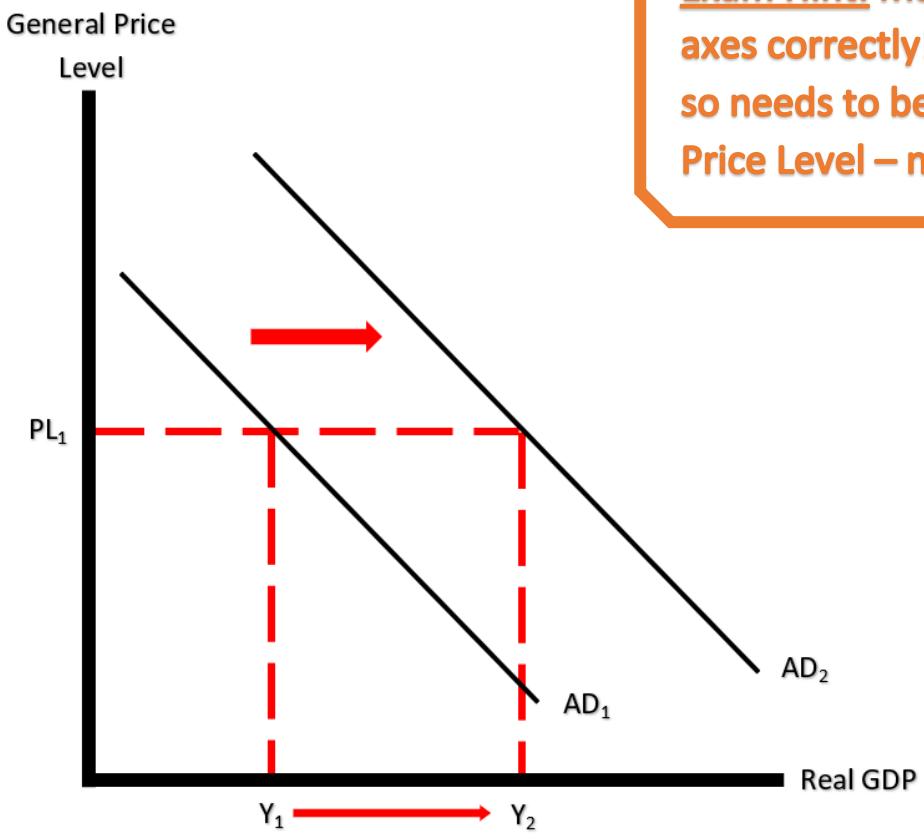
Shifting the AD Curve

An AD Curve shows the relationship between much is spent in an economy (shown on the horizontal axis with Real GDP or Real Output) and the prices we pay for those thing (on the vertical axis with General Price Level)

The AD Curve can shift outwards or inwards if there is a change in any of the 4 components of AD (C, I, G or X-M). If it shifts outwards, it means that there is now more Aggregate Demand in the economy at any given Price Level. (i.e. there is now more expenditure in the economy, despite the fact that prices haven't changed). Conversely, an inward shift means that there is now less AD in the economy at a given Price Level.

Imagine that Consumer Income have risen. As said before, this will cause Consumption to increase as a result and, as this is a component of AD, AD will increase too – shown by an outward shift on a diagram. This is shown below where the AD Curve shifts from AD_1 to AD_2

Exam Hint: Make sure you label your axes correctly! It's a macro diagram, so needs to be Real GDP/General Price Level – not Quantity and Price!

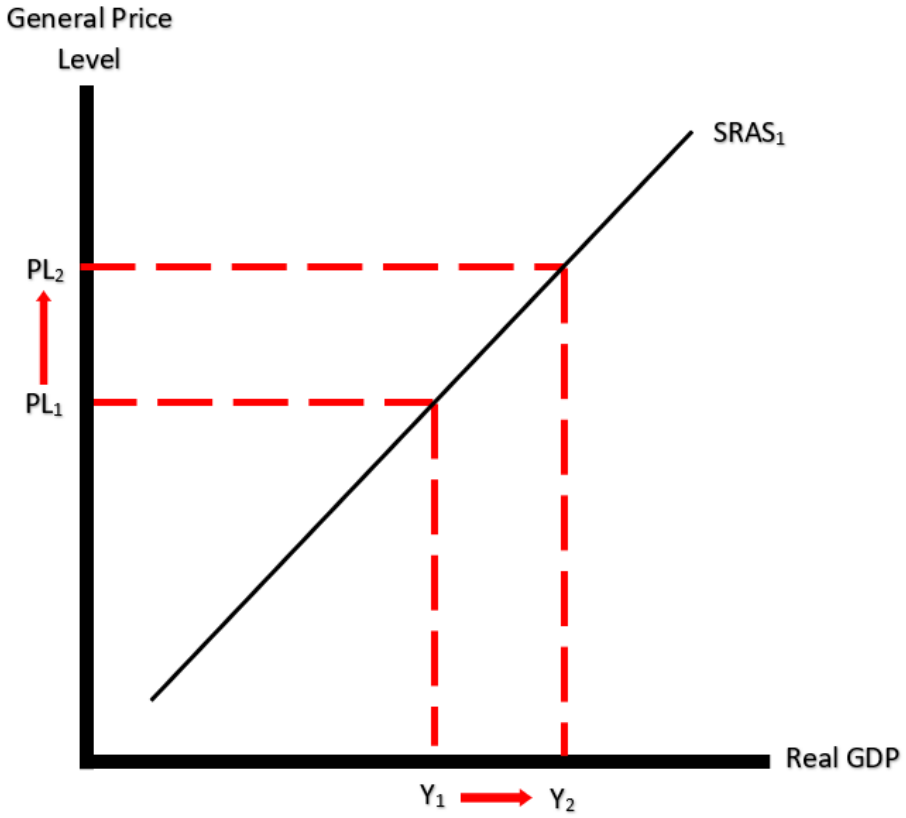


Aggregate Supply

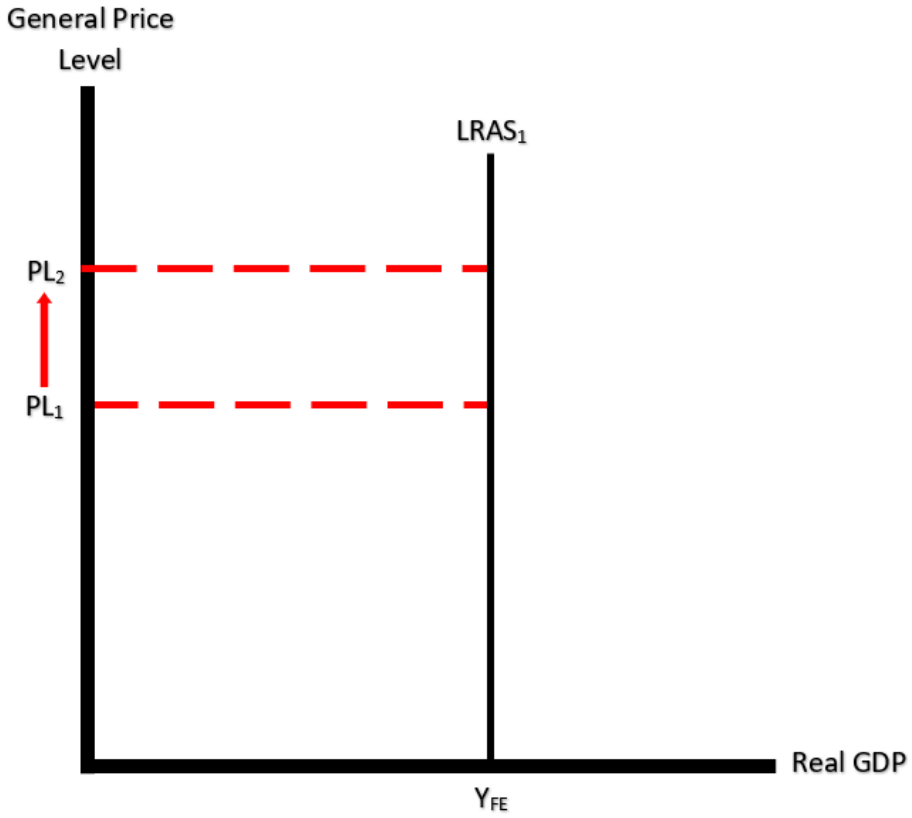
A very important point must be made here, and is one that students regularly struggle with: There are two interpretations of how Aggregate Supply works based upon 1 key assumption – ***do wages and costs adjust downwards during times of recession?*** Classical/Monetarist Economists say yes, they do; Keynesian Economists say no, they don't – and this makes a world of difference.

Classical AS:

Classical Economists say that we should split AS into two separate curves, one for Short Run Aggregate Supply (SRAS) and Long Run Aggregate Supply (LRAS). With the SRAS Curve, we assume that prices of inputs (i.e. costs of production) are fixed per unit. Therefore, if firms want to supply more units, they will have to pay more in total. As you can see below, this means that the SRAS Curve slopes upwards – higher output = higher prices. With the SRAS Curve, ***it will only shift if there is a change in the costs of production.***



In the Long Run, though, all costs can be varied and so it's possible to produce any level of output at any price level (that's why it's perfectly vertical), so LRAS isn't about costs. Instead, LRAS represents the maximum level of output that is possible in an economy when all resources are being used fully efficiently. In the diagram below, the Real GDP output level of Y_{FE} represents the output when all resources are being used efficiently, or when they're fully employed (hence the FE part of the label). Only so many people can be hired, only so many machines can be bought, etc. At some point, we simply cannot produce more than Y_{FE}, regardless of the price level. With the LRAS Curve, ***it will only shift if there is a change in the quantity or quality of the Factors of Production.***

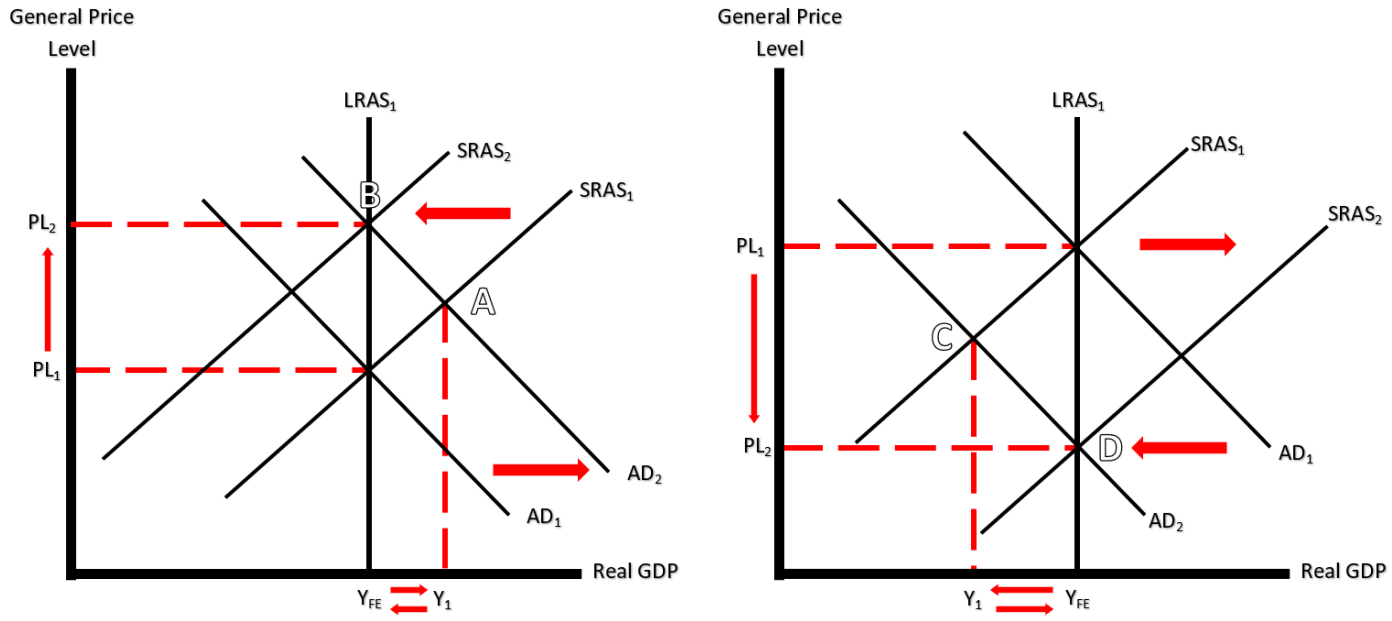


Common Misconception: It's fairly easy to get mixed up what shifts the LRAS Curve and what shifts the SRAS Curve. Try to remember though, LRAS is about the quantity/quality of resources, and SRAS is about how much they cost to buy!

An important note – The Classical Model in the Long Run

Classical Economists believe that the cost of resources adjust based upon whether we are currently producing more or less than Y_{FE}. If we are producing more (say at Point A in the diagram below), then the economy is running a Positive Output Gap at an Output of Y_1 and is overheating. Factories are open late, unemployment is plummeting, un-used oil is hard to find and workers are doing extra overtime. Therefore, the cost of these resources is likely to rise – causing SRAS to shift inwards and returning output to Y_{FE} at Point B. This is shown in the left-hand-side diagram below.

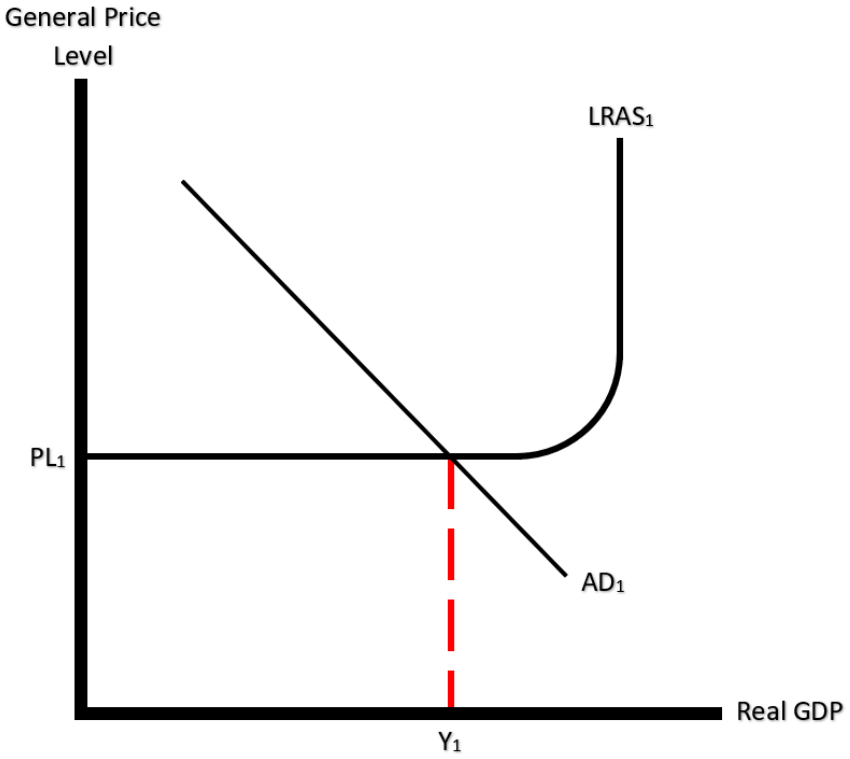
Conversely, if we are producing less than Y_{FE} (at Point C in the diagram below), then the economy is running a Negative Output Gap at Output Y_2 and is underperforming. Factories are shut and not being used, unemployment is rising, oil is abundant, and workers are being asked to work less. Therefore, the cost of these resources is likely to fall – causing SRAS to shift outwards and returning to YFE at Point D. This is shown in the right-hand-side diagram below.



Exam Hint: Remember! Producing more than Y_{FE} means costs rising and SRAS shifting in, producing less then Y_{FE} means costs falling and SRAS shifting out

Keynesian AS:

Keynesian economists agree that the Economy has a hard limit on how much it is able to produce in the long run but disagree with classical economists in the assumption we mentioned earlier about costs adjusting during recession. They believe instead that the economy can be in long-run equilibrium below full employment. This is because they believe that wages are "sticky downwards" (i.e. people will not accept lower wages in a recession if they are unemployed). This is shown in the diagram below, where AD_1 intersects $LRAS_1$. A classical economist would say that costs should fall in this instance, but a Keynesian disagrees and says that they won't adjust and, therefore, output won't go back up.



Exam Hint: Keynes said that wages were 'sticky downwards', and don't adjust down like Classical econmists claim – use this term in an exam to say why we can produce below Y_{FE} in the Long Run in a Keynesian Diagram

So, both schools of thought have their separate thoughts on AS. Classical Economists think that we should split SRAS and LRAS based upon the quality/quantity of resources and the costs of them. Whereas, Keynesians say that we should combine them, as costs don't adjust downwards in a recession.

National Income

There are 3 ways that we can measure GDP:

1. *The Expenditure Method*

For this method, which is the most common way GDP is calculated, we simply add up all the spending in the economy. Funnily enough, this is the same way we calculate AD! As before, it's C + I + G + (X – M).

2. *The Income Method*

The Income Method looks at any money received in return for Factors of Production in the economy. It adds up all the ***Wages*** received from Labour, ***Interest*** earned on Capital, ***Rent*** earned on Land and ***Profits*** earned by entrepreneurs.

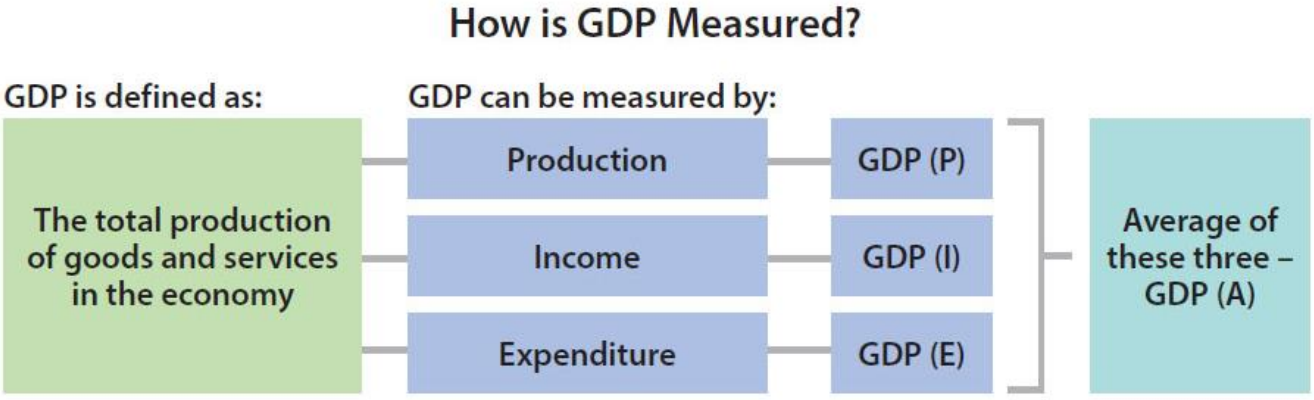
3. *The Output Method*

Finally, the Output Method looks at the value of all goods and services being produced within an economy in a time period – simply, what's the value of everything we make as a country?

As we'll see in the Circular Flow of Income later, ALL three give the same result, as:

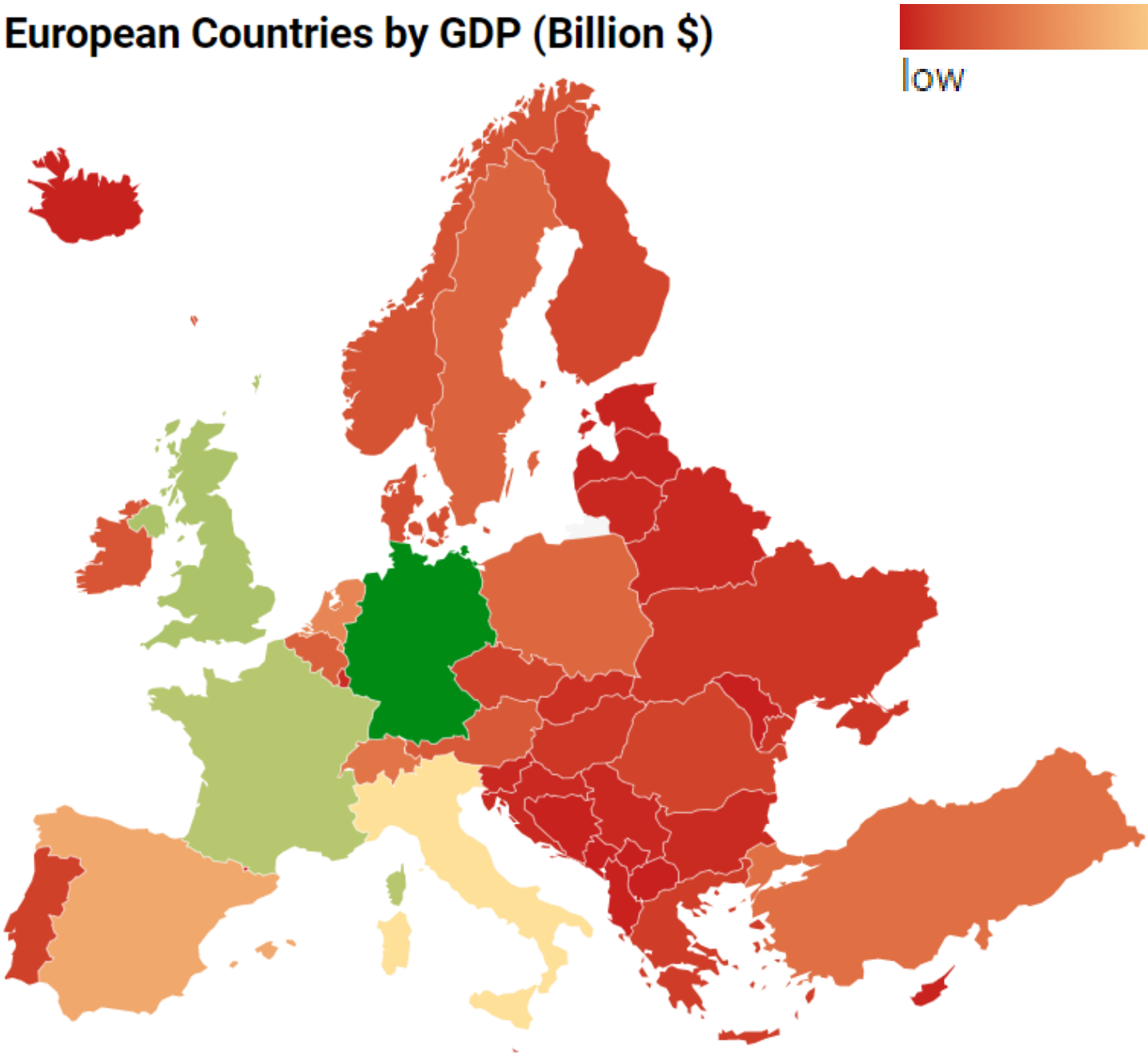
Expenditure = Income = Output

A summary:



Source: The Reserve Bank of Australia (rba.gov.au/education/resources/explainers/economic-growth.html)

European Countries by GDP (Billion $)



Top 5 in Europe:

Germany - $3,780.553 Bn

The UK – $2,638.296 Bn

France - $2,551.451 Bn

Italy – $1,848.222 Bn

Spain - $1,247.464 Bn

Bottom 5 in Europe:

Monaco – $7.188 Bn

Liechtenstein – $6.215 Bn

Montenegro – $4.943 Bn

Andorra – $3.238 Bn

San Marino -$1.410 Bn

In what ways is GDP not a good measure?

- Total vs Per Capita

GDP is great at showing us the ***total*** amount of output or income, but it doesn't tell us about the ***average*** amount produced or average income. For example, GDP in the USA is $24.79 Trillion and in China it's $17.96 Trillion. According to this, you may think that Chinese living standards are nearly as good as they are in the US – but remember, the Chinese population is about 4.2x bigger than the USA's. Therefore, GDP per Capita in the USA is $74,725 and in China it's $12,551.

- Nominal vs Real

Nominal GDP Growth is just how much the value of all goods and services produced in our economy has gone up – without accounting for the fact that prices naturally go up over time anyway. Think of it this way, if GDP goes up by 2% and prices have also gone up by 2% then there's not really been any ***real*** increase in output – it's just the higher prices making GDP look higher. Therefore, Real GDP can be more useful as it considers whether Output has actually gone up. Simply, Real GDP Growth = Nominal GDP Growth – Inflation Rate

- Purchasing Power

Normally when comparing GDP, we convert the foreign GDP to dollars using the market exchange rate. Purchasing Power Parity (PPP), however, compares how much of one country's currency is needed to buy a 'basket of goods and services' compared to another country's currency. For example, if the 'basket of goods' costs €2 in France, but £1 in the UK, French GDP should be converted using an exchange rate of €2 : £1, even if the market exchange rate is different. This will give a more realistic reflection of national income.

- National Happiness

In recent years, there has been a push for government policy and interventions to take "national happiness" more into account. The country of Bhutan, for example, has adopted the measurement of "Gross National Happiness" in place of Gross Domestic Product. Indeed, in 2014, the UK's Office for National Statistics started to measure well-being. They measure 4 factors called "Life Satisfaction", "Anxiety", "Happiness" and "Worthwhile" in order to say whether people in the UK are happy compared to historic measurements.

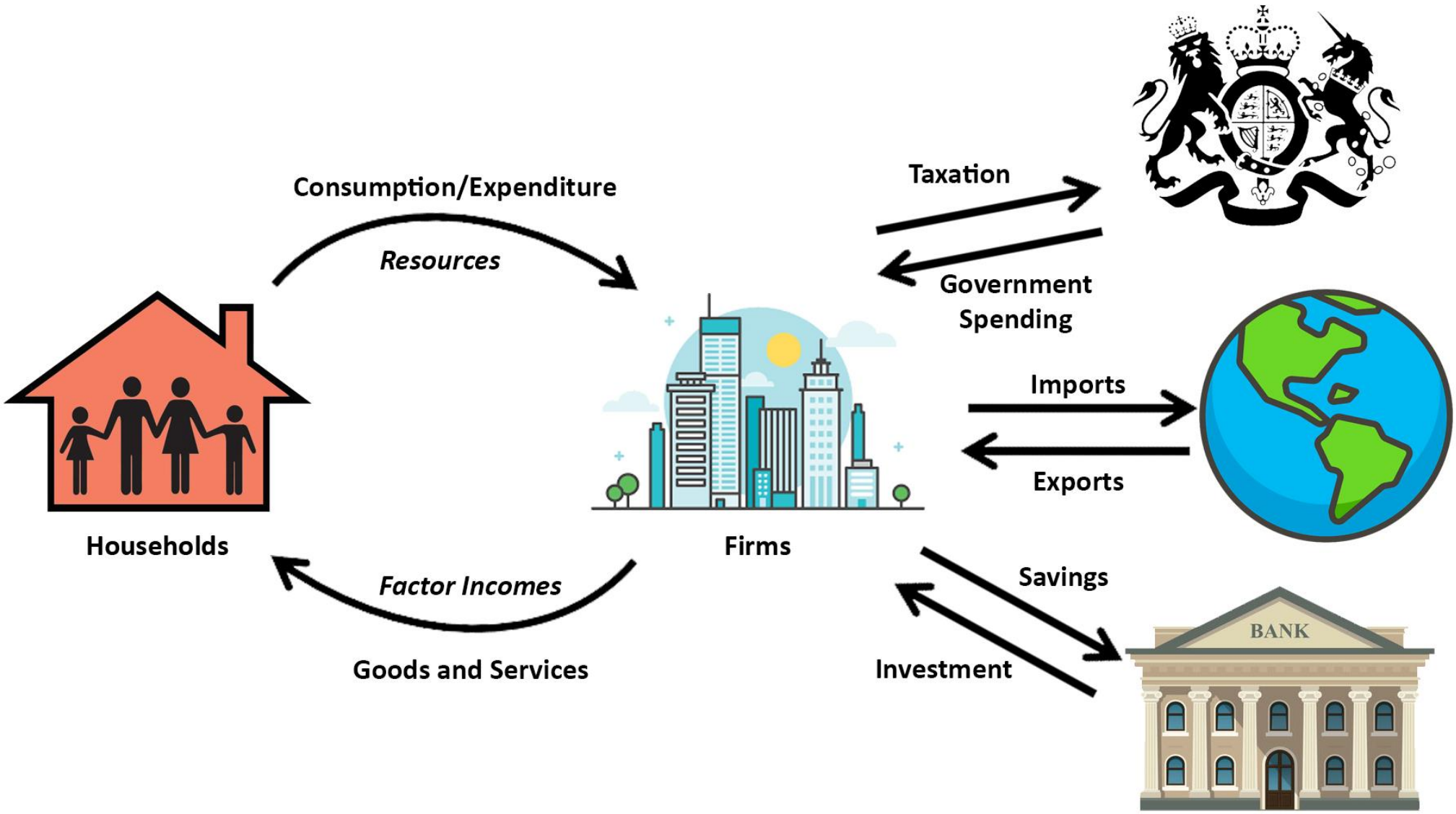
- Green GDP

One of the major problems with GDP as a measurement of national output is that it doesn't consider sustainability, environmental damage, pollution or resource depletion. For example, a lot of developing economies have high levels of growth, but are massively depleting their stock of natural resources, meaning growth may not be sustainable. Brazil has been de-foresting the Amazon at an alarming rate, and many resource-rich African countries are sacrificing the sustainability of their resources for short-term growth. Should negative impacts on the environment be counted against GDP? Doing so would significantly reduce growth rates for China, for example, and could re-frame political and economic debate.

Green GDP was introduced in China in 2004, and the first report estimated that GDP growth would be approximately 3.05% smaller as a result. Eventually, the impact of Green Accounting meant that China couldn't maintain their high GDP Growth Rates and it was abandoned in 2007.

Exam Hint: A great way to Evaluate in an exam is to criticise the data that the exam board have given you. If they just give you GDP data you can say what the data *doesn't* show you.

The Circular Flow of Income



The Circular Flow of Income is a model that shows a very simple representation of how an economy works. In core of the model (on the left-hand side), we have Households and Firms. A very simple economy is simply one in which Firms and Households are the only agents that act in the economy. Households own the ***Factors of Production (resources)*** in the economy and sell these to Firms in return for ***Factor Incomes.*** Firms, on the other hand, then use these resources to make ***Goods and Services***, which they then sell to Households in return for ***Expenditure.*** If we leave the model at this stage, it's called a *Closed Economy and, a*s said before on Page 19, there are 3 ways we can measure the size of the Circular Flow and, therefore, GDP. This is true using the Circular Flow Model too:

1. Output Method: Add up all the ***Goods and Services*** in the model
2. Expenditure Method: Add up all the ***Expenditure*** in the model
3. Income Method: Add up all the ***Factor Incomes*** in the model

However, we can add to the model to make it more realistic. The Government can make GDP bigger by using Government Spending to ***inject*** into the Circular Flow but can also make it smaller by withdrawing income via ***taxations.*** Likewise, the Financial Sector can also help grow GDP by supplying funds for ***Investment***, but we can also shrink GDP if we choose to ***save*** more. Finally, our interactions with the wider world will affect GDP too. Exports making it bigger, Imports making it smaller

Injections – Make the Circular Flow bigger	*Leakages – Make the Circular Flow smaller*
Government Spending	*Taxation*
Investment	*Savings*
Exports	*Imports*

The Multiplier Effect

The Multiplier Effect refers to how much Real GDP changes as a result of a change in Injections (Gov Spending, Investment, Exports) or Leakages (Taxation, Savings, Imports). For example, the UK Government spending £90 Billion on HS2 is likely to create more than £90 Billion of GDP Growth as a result. That money would go to the firms who construct the railway, and will be paid out to workers, managers and shareholders or other firms. Depending on the Marginal Propensity to Consume (see Page 9), some or most of that income will then be spent again in other shops and firms. This then becomes their income too, which is then paid out again, and the cycle continues – with income and expenditure. There are 3 different ways to work out the value of the Multiplier:

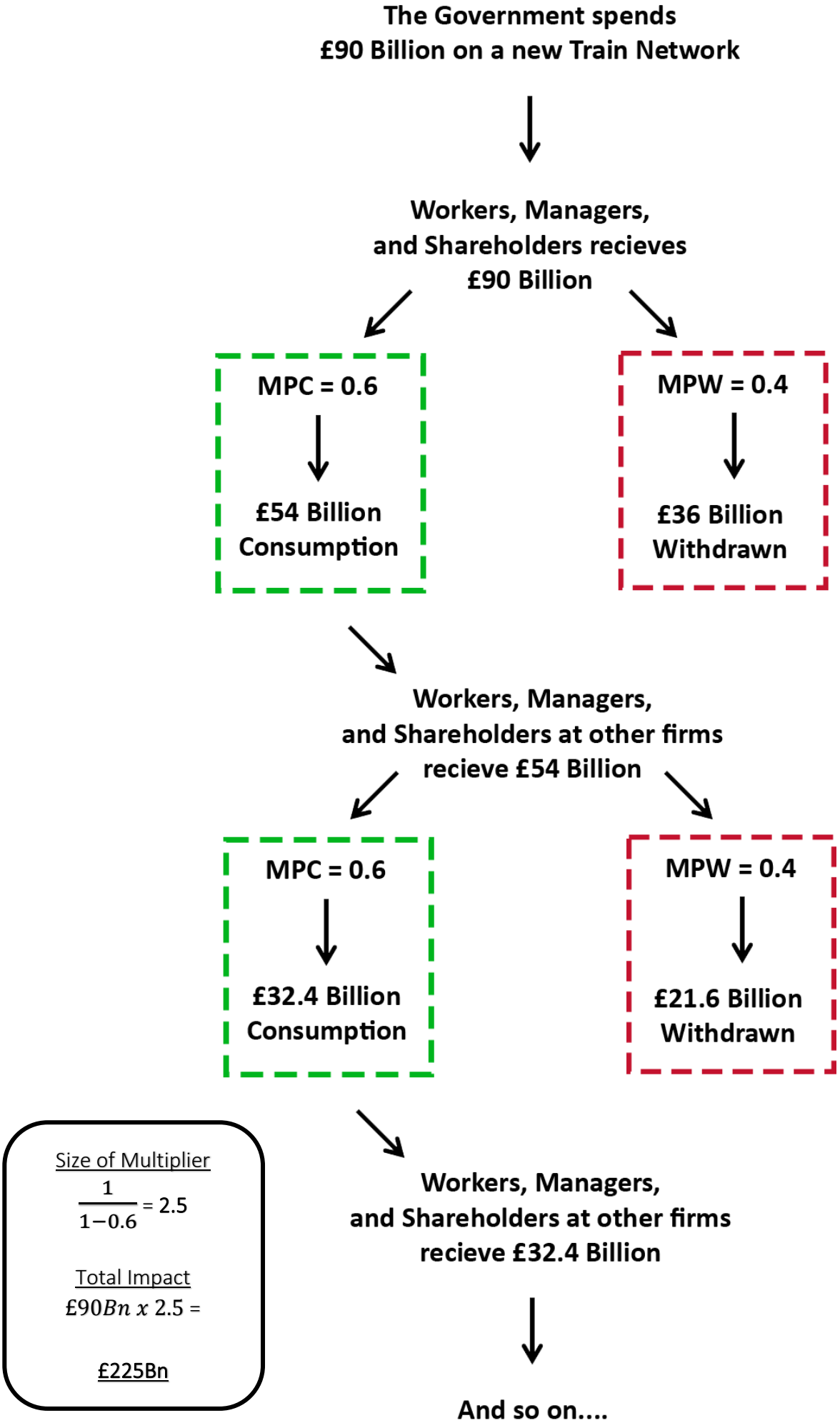
$$Multiplier = \frac{Change\ in\ Real\ GDP}{Initial\ Change\ in\ Spending}$$

$$Multiplier = \frac{1}{1 - MPC}$$

$$Multiplier = \frac{1}{MPW}$$

(MPW = MPM + MPS + MRT)

Look at the example on the next page to see how it works!



Measures of Economic Performance – Economic Growth

Economic Growth can be defined as *either Potential or Actual Growth*. The context it's used in will decide which it refers to. ***Potential Growth*** is Change in the productive capacity/potential of an economy. Shown by the LRAS Curve, or the PPF Curve and ***Actual Growth*** is Change in the quantity of goods and services produced in a country. Shown by SRAS/AD Equilibrium, or the Actual Production point inside the PPF Curve.

In terms of our diagrams, Economic Growth can be caused by anything that will cause the LRAS, SRAS or AD Curves to shift outwards. Amongst various reasons for this could be:

LRAS:

- *A change in the quality of factors of production*, such as better education leading to better human capital and Labour, R&D resulting in better quality Capital or new technologies meaning we can use Land more efficiently
- *A change in the quantity of factors of production,* such as new oil reserves being found in the country, a baby boom or an influx of immigrants or – more unlikely – a country annexing new land.

SRAS:

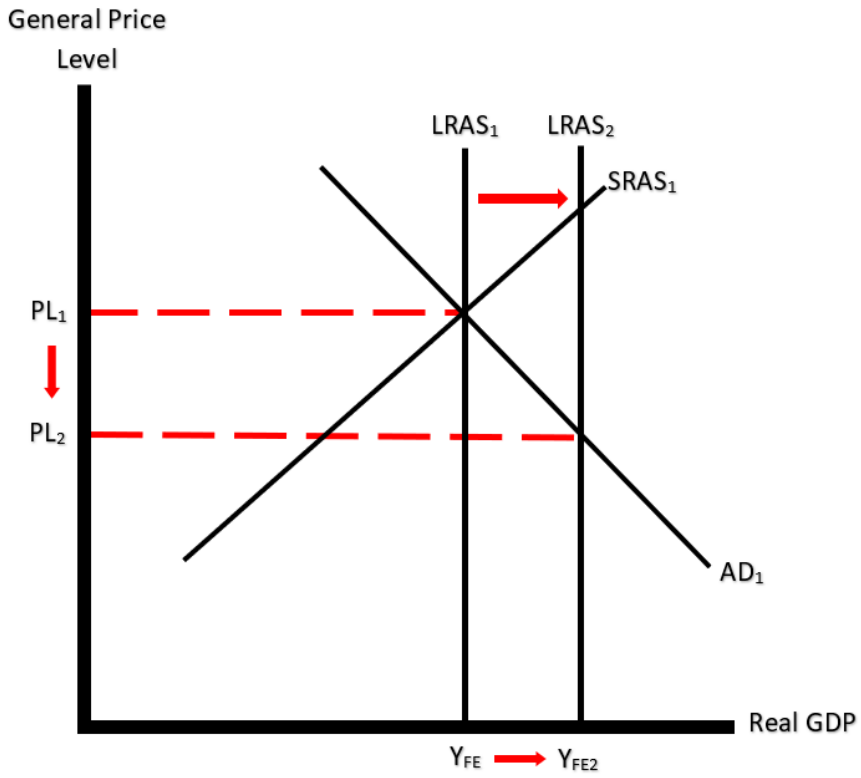
- *Anything that affects costs of production,* such as the National Minimum Wage rising labour costs, a change in exchange rate affecting the cost of imported resources or a general increase in productivity making inputs cheaper

AD:

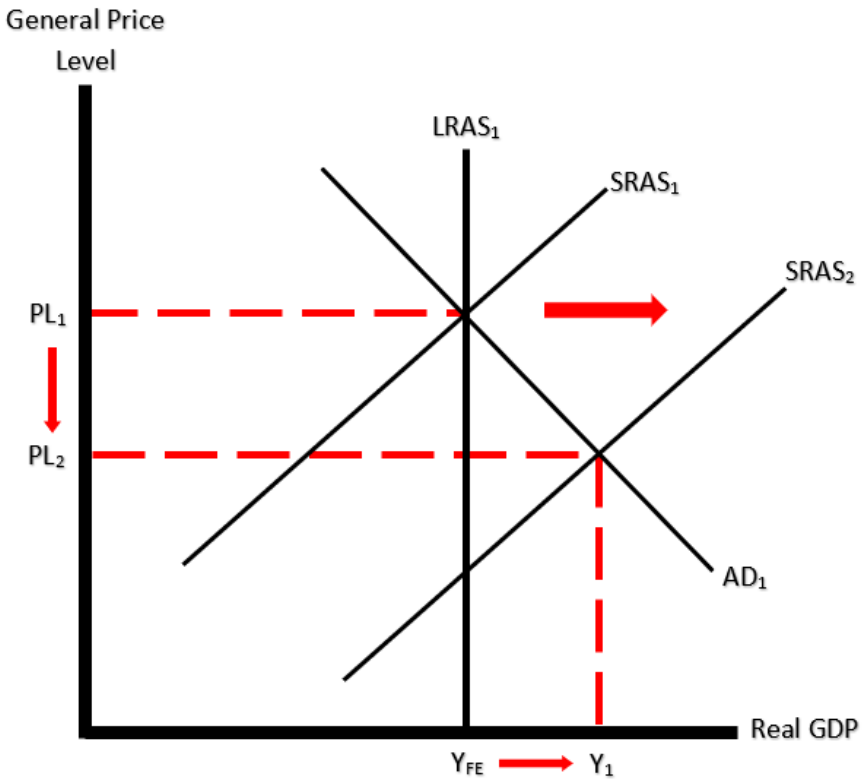
- Anything that causes C, I, G, or (X-M) to change, refer back to Pages 8 to 12

How can we show Economic Growth on a diagram?

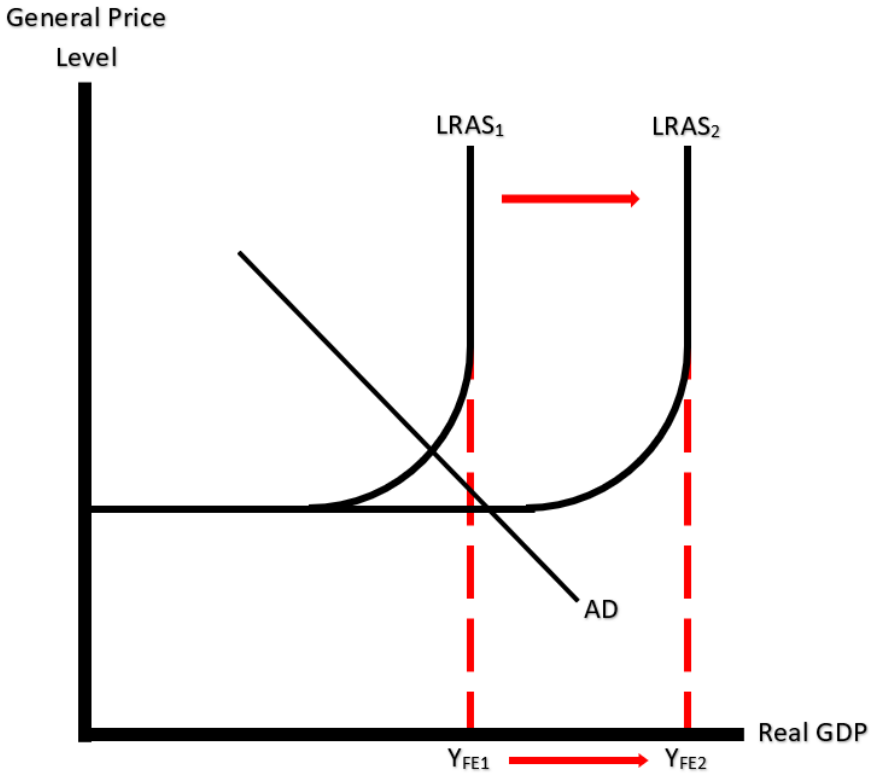
Potential Growth – Classical



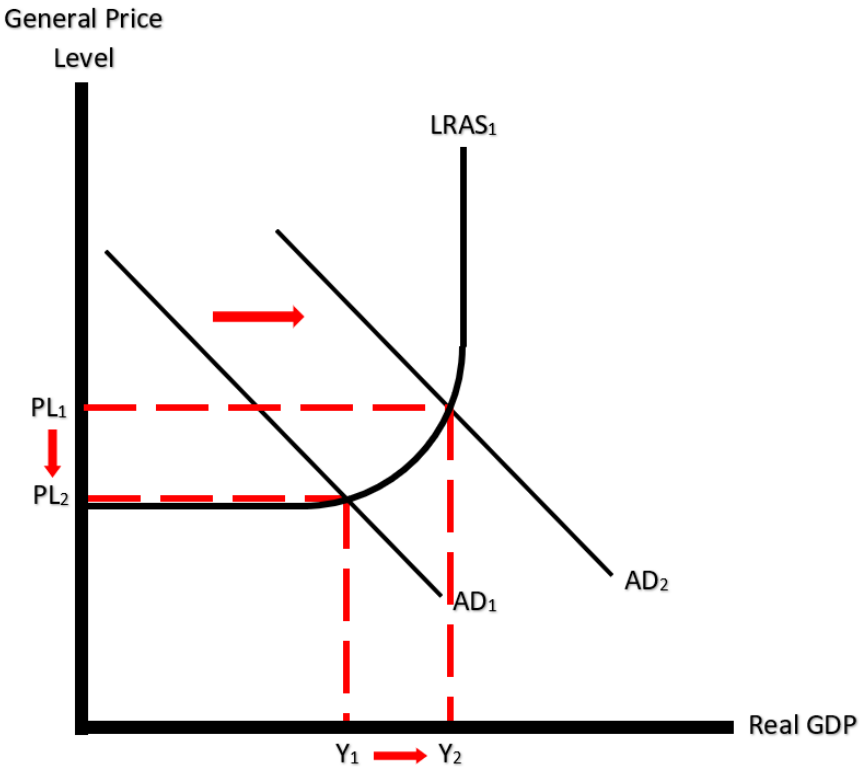
Actual Growth – Classical (NB: this diagram shows actual growth caused by an outward shift in SRAS, it can also be caused by AD shifting out)



Potential Growth – Keynesian (N.B. This diagram does show a small increase in Actual Output, but it's not labelled as the point of this diagram is to show potential growth)

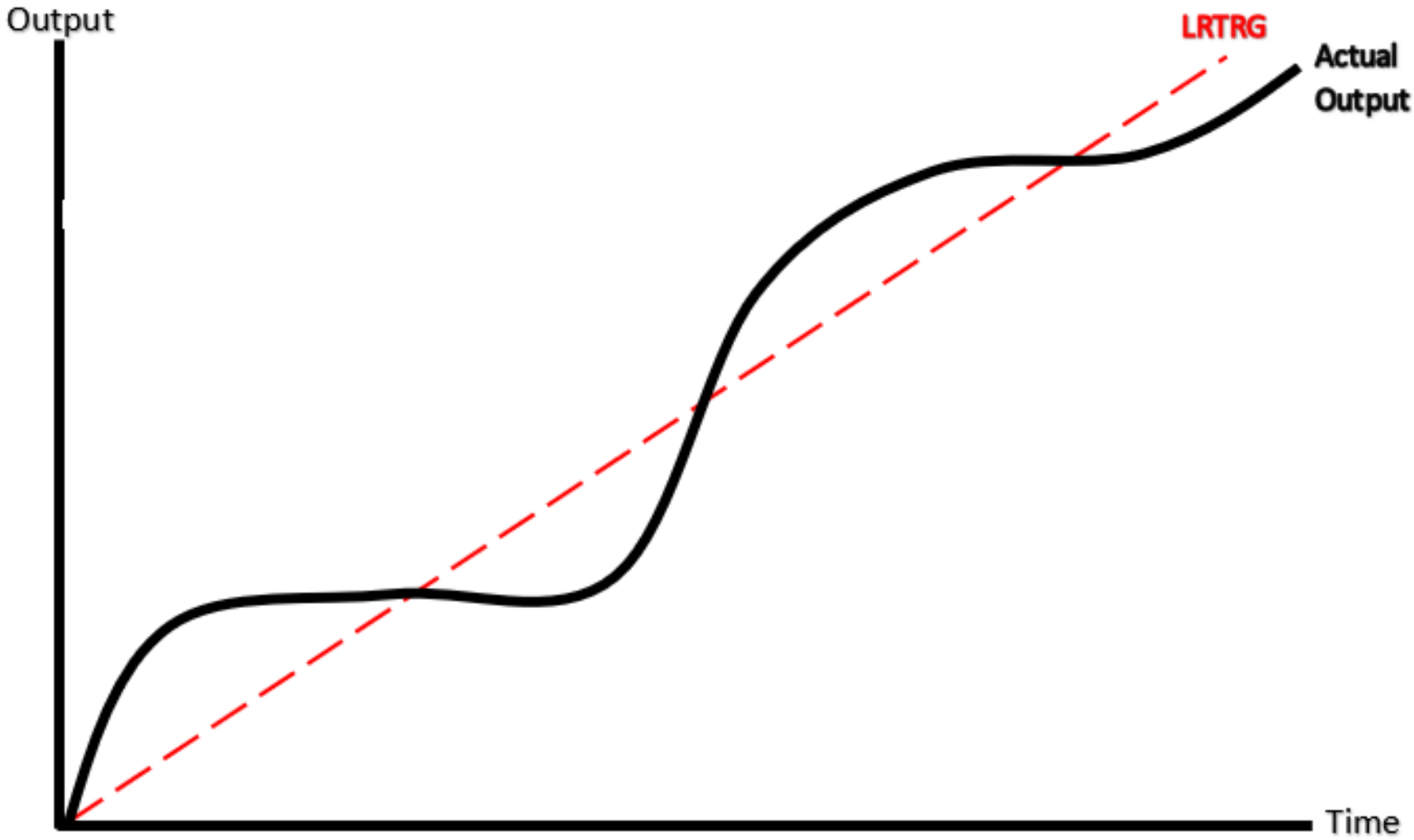


Actual Growth – Keynesian



The Business Cycle

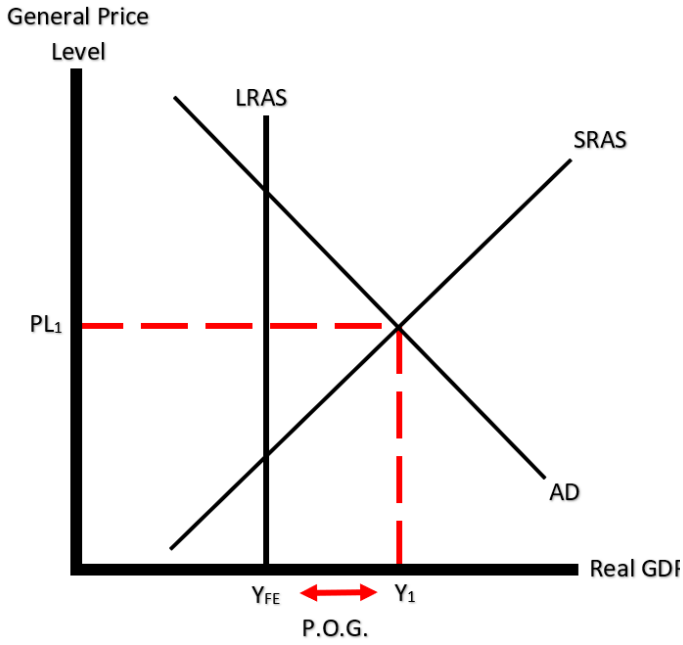
Is a diagram used to show the natural cycle of Economic Growth over a period of time. The thick, black line shows Actual Growth, whilst the thinner, dashed line shows Potential Growth (or the Long-Run Trend Growth Rate)



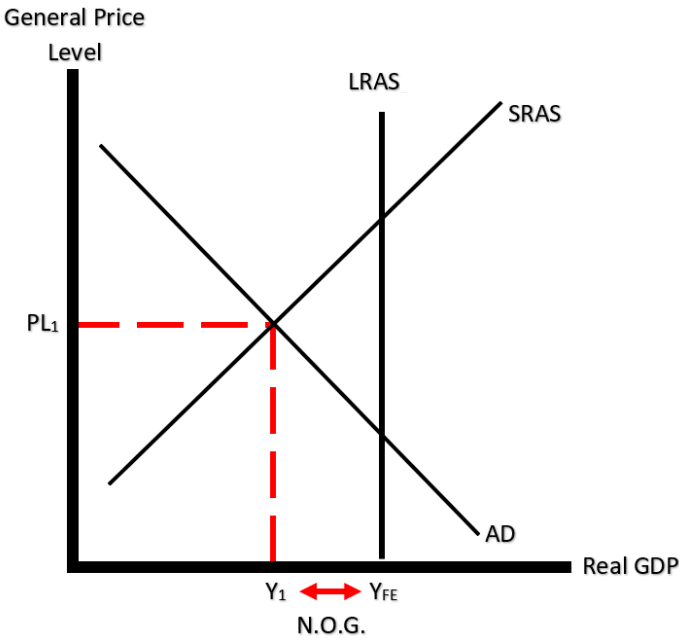
Output Gaps

An Output Gap is any time at which the Actual Output of the economy is above or below the Potential Output of the economy. We can show these on AD/AS Diagrams and on the Business Cycle too. A.K.A. – "Spare Capacity"

Positive Output Gap - Classical



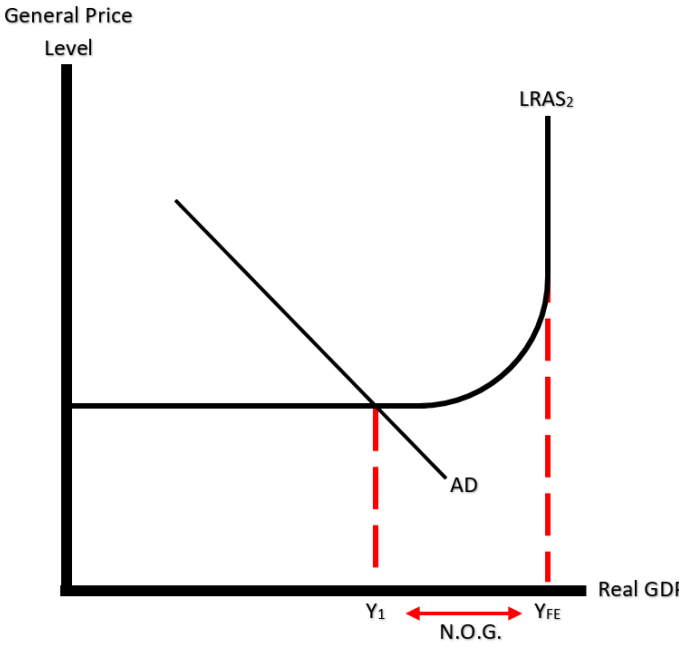
Negative Output Gap - Classical



Positive Output Gap - Keynesian

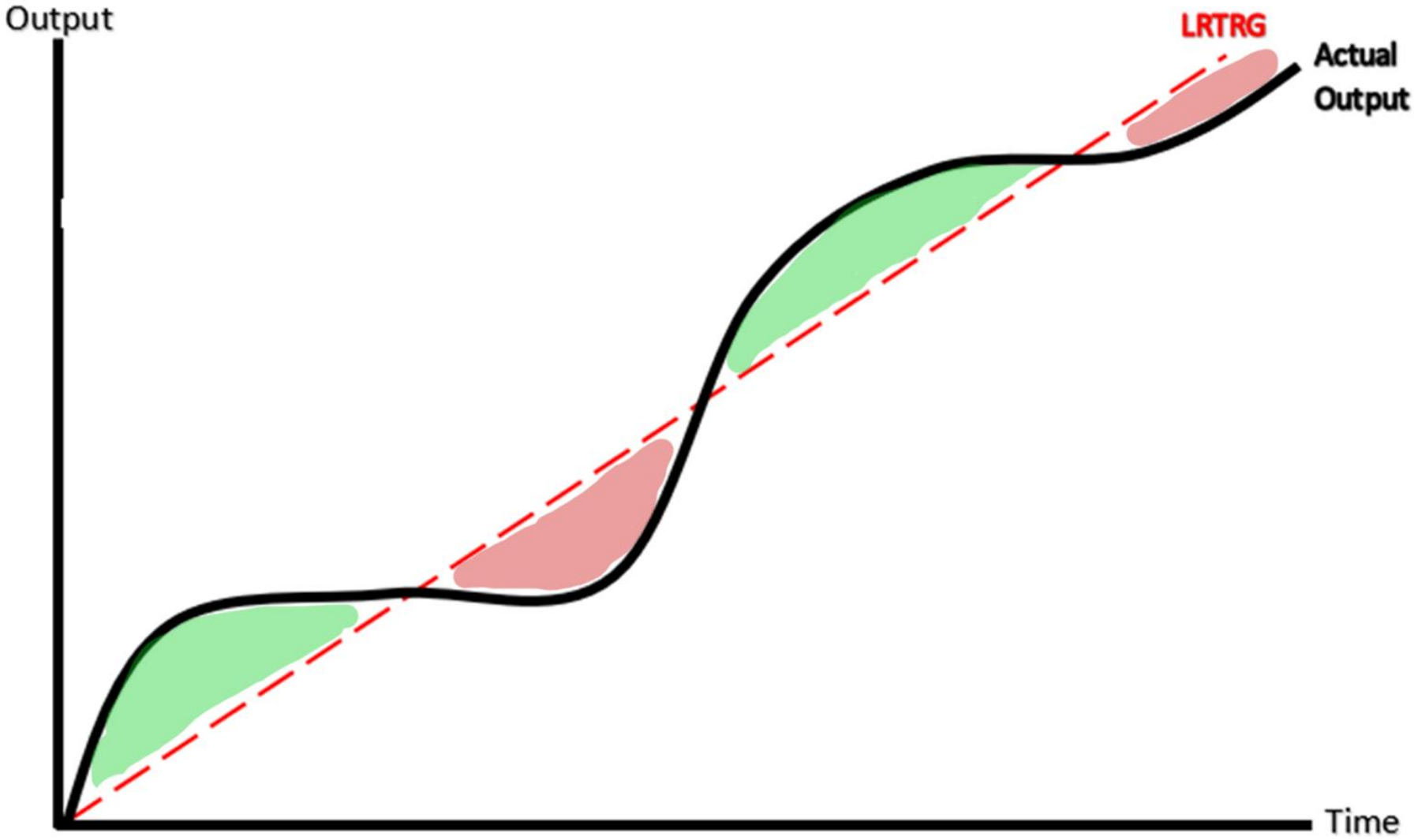
We can't show a Positive Output Gap on a Keynesian diagram – they can't exist!

Negative Output Gap - Keynesian



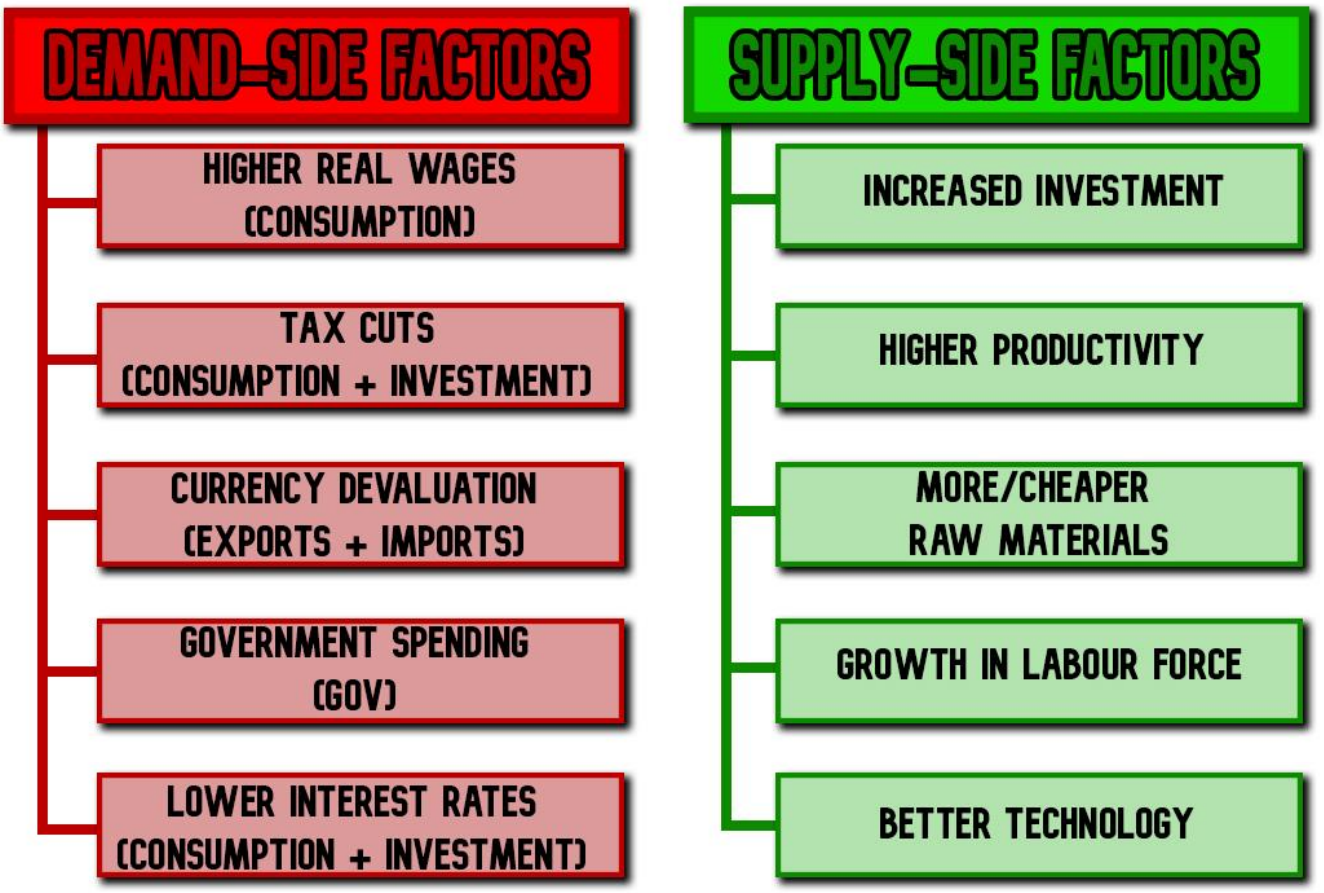
Positive and Negative Output Gaps – The Business Cycle

In the diagram below, the Green shaded areas ***above*** the LRTRG Line represent a Positive Output Gap, whilst the Red shaded areas ***below*** the LRTRG Line represent a Negative Output Gap



Causes of Economic Growth:

When thinking about what will cause Economic Growth, we can split the factors into Demand-Side Factors (those that will shift AD) and Supply-Side Factors (those that will shift SRAS and/or LRAS). Here are some examples:



You can see from the above that, in most cases, economic growth – whether it's positive or negative – that is caused by a demand-side factor generally happens when consumers, firms and the government change their levels of consumption or investment.

On the other hand, Supply-side factors generally affect economic growth when firms are able to produce things more or less efficiently, or when the costs of production change.

Impacts of Economics Growth:

See Next Page

	CONSUMERS	FIRMS	GOVERNMENT
PROS	• Greater Incomes for Households • Lower Unemployment levels Greater Standards of Living due to Higher Disposable Incomes and Lower Unemployment	• Greater Profits mean more Dividends for Shareholders • Greater Profits mean more available for Investment – increasing productivity	• Lower levels of Poverty due to rising Incomes • Greater Tax Revenues due to Greater Incomes and Greater Firm Profits • Lower Debt/GDP Ratio
CONS	• More Pollution leading to Health Issues • Demand-Pull Inflation eroding purchasing power	• Greater Costs of Production, as Economy nears Full Employment • Increased Incomes for Consumers may shift demand to foreign Firms instead of domestic Firms	• Current Account Deficit due to Greater Imports as a result of Greater Incomes • Increased Pollution • Increased Inequality

Measures of Economic Performance – Inflation

Inflation is defined as the ***sustained*** *rise in the* ***average price level*** *of an economy over a* ***given period of time.*** and, in the UK, is measured using the Consumer Price Index. Be careful with your definitions, though, as you need to know the difference between ***Inflation, Deflation and Disinflation*** which are all related, but very much different concepts. See below for an explanation:

Exam Hint: The reason why those 3 bits are in bold are because those are the 3 most important parts of the definition that an exam board will look for in an exam. Make sure you get it right!

INFLATION

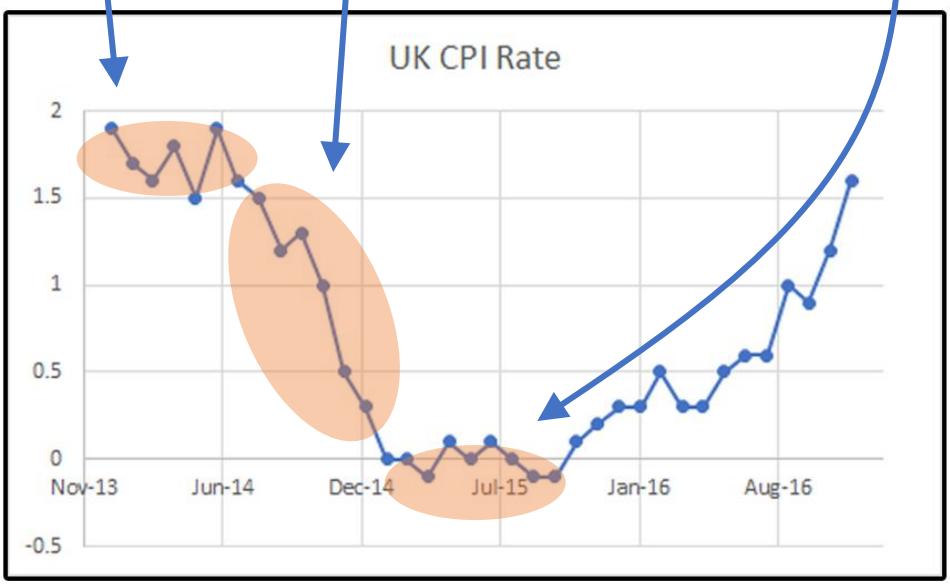
A positive inflation rate, Prices are rising across the economy

DEFLATION

A negative inflation rate, Prices are falling across the economy

DISINFLATION

A positive inflation rate, Prices are rising across the economy. HOWEVER, the RATE of Inflation is falling



How does the Consumer Price Index (CPI) Work? Step-by-Step…

1. Two surveys are carried out: **The Household Expenditure Survey** and **The Price Survey.**
    a. The Household Expenditure Survey asks households around the UK what they have spent their income on in the last year and, most importantly, *what proportion of their income they have spent it on.*
    b. The Price Survey is conducted every month and collects around 120,000 prices from all over the country to represent average prices around the country
2. Using the above surveys, the ONS produce a "basket of goods" of the 600 goods and services that best represent the standard shopping for a UK Household. Each of these items is assigned a weighting so that the products we spend more on have a greater impact on CPI Change.
3. The changes in price found in the Price Survey are then multiplied by the weightings found in the Household Expenditure Survey and added together.
4. The new data can then be compared to previous years to find out the % change

Some Limitations of The CPI Measure

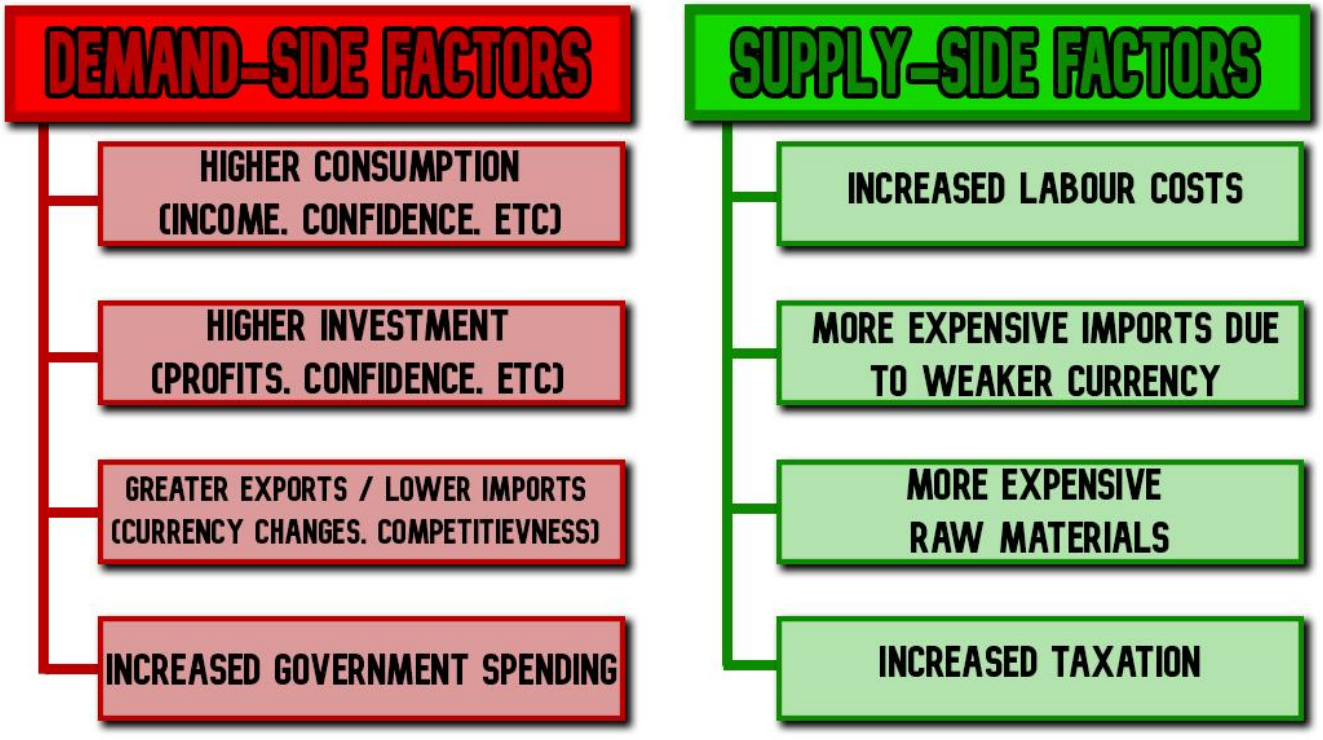
- Lack of Nuance
    - In trying to work out the CPI, the ONS uses a representative *Basket of Goods* to try and estimate inflation in the UK. However, this basket can never perfectly represent everyone's spending habits. For example, in the 2022 update to the Basket of Goods, the ONS added items such as Meat Free Sausages, A 20-Pack of King Size Cigarettes, Sports Bras and Dog Collars. The basket is so wide and varied that it can't possibly be accurate for specific groups of people or individuals – so changed in some goods will mean Inflation isn't accurate for some demographics.
- Substitute Goods
    - When some goods go up in price, consumers will naturally switch their consumption to other alternatives. Therefore, if the CPI continues to measure the original product, it may well become less accurate.
- Quality of Goods
    - CPI doesn't account for the fact that the Price of items may change more slowly than their Quality – meaning we get better value for money!
- Innovation
    - The CPI can be slow to react to new products and items that enter the market. For example, Mobile Phones weren't added to the USA's CPI until 1998, despite there being 55 Phones in the country by that point
- Shrinkflation
    - Some products may stay the same price but shrink in size. Chocolate bars are a good example of this, and the CPI may struggle to reflect this change

Types of Inflation:

There are two types of Inflation, caused by separate factors

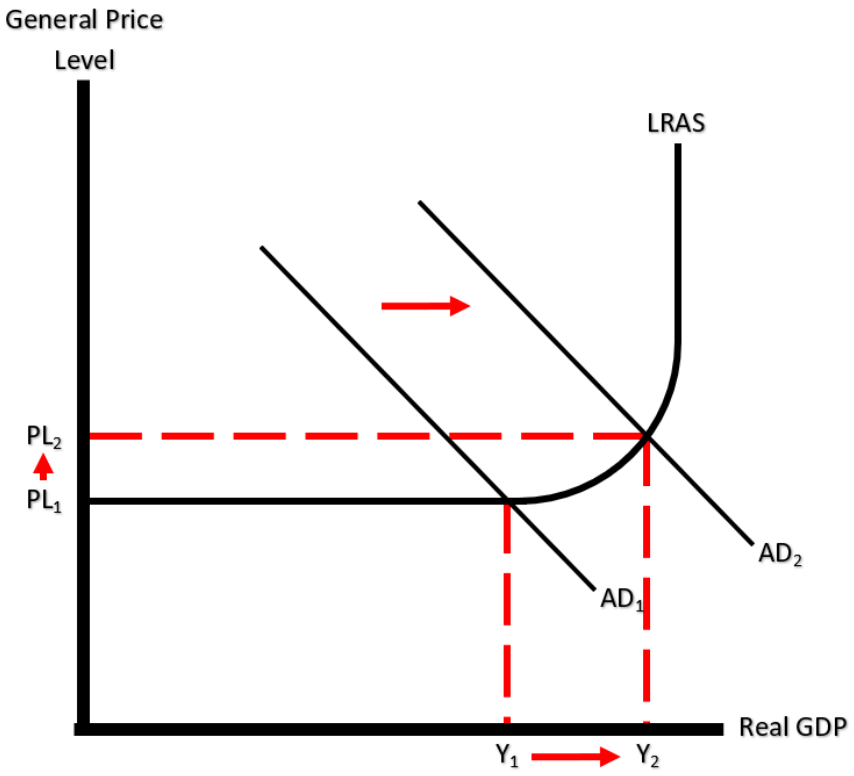
- *Demand-Pull Inflation*
    - Demand-Pull Inflation occurs when Aggregate Demand increases quicker than Aggregate Supply in an economy, causing Price Level to rise. Just like in Microeconomics when Demand causes Price to rise, the increased willingness to spend in the economy will cause increased competition for Goods and Services – increasing upwards pressure on prices. *Anything that increases AD could cause Demand-Pull Inflation.*
- *Cost-Push Inflation.*
    - Cost-Push Inflation occurs when underlying costs in the economy rise and firms increase their prices as a result. This is often referred to as a 'Supply Side Shock'. *Anything that increases costs of production could cause Cost-Push Inflation.*

Below are a few examples of what could cause Demand-Pull or Cost-Push Inflation:

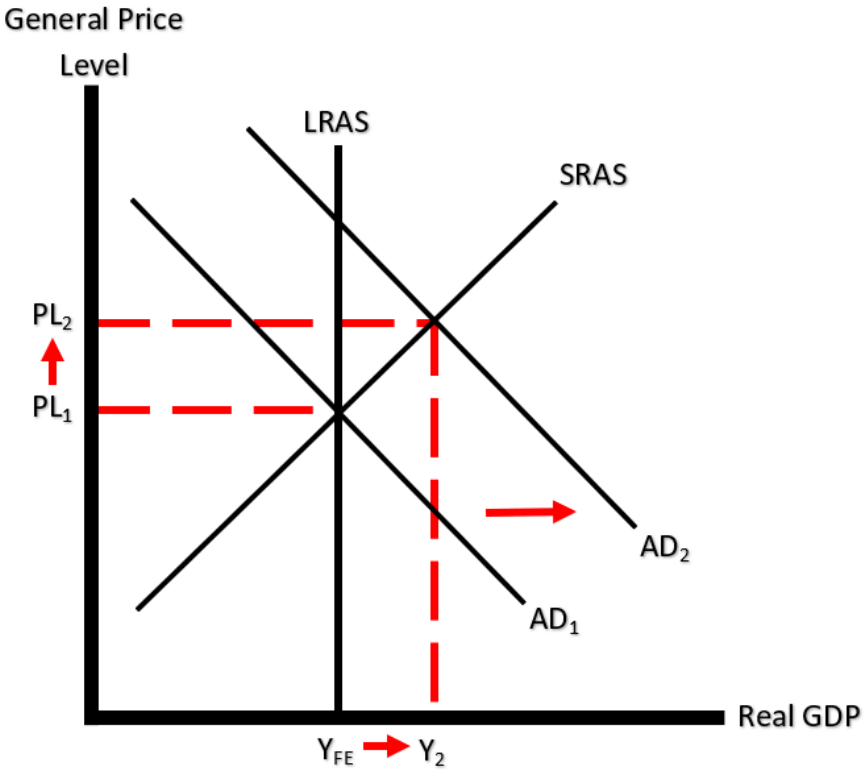


How can we show Inflation on a diagram?

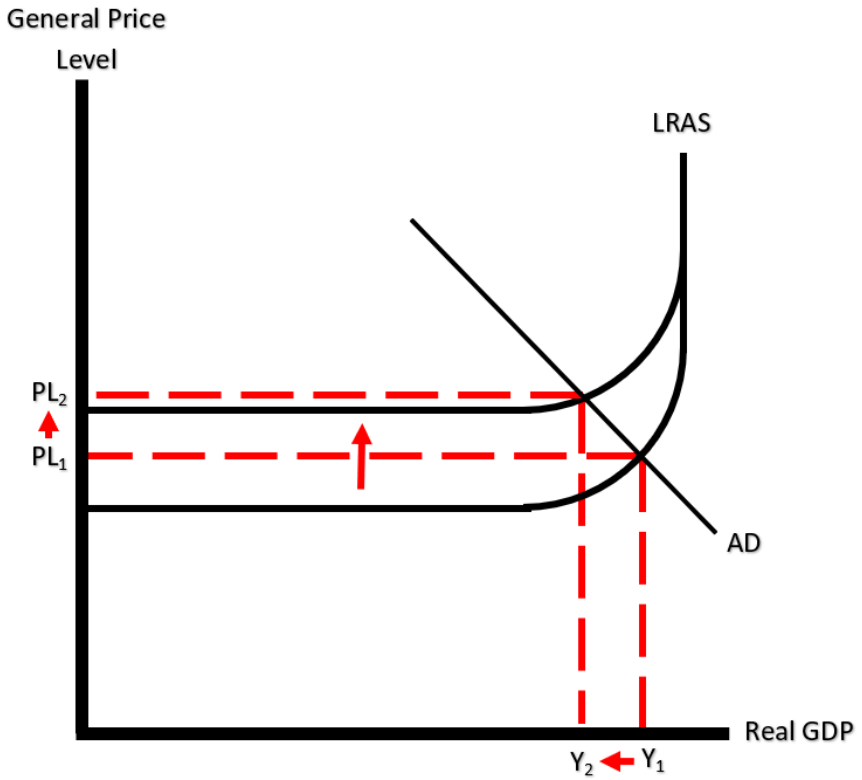
Demand-Pull Inflation – Keynesian



Demand-Pull Inflation – Classical

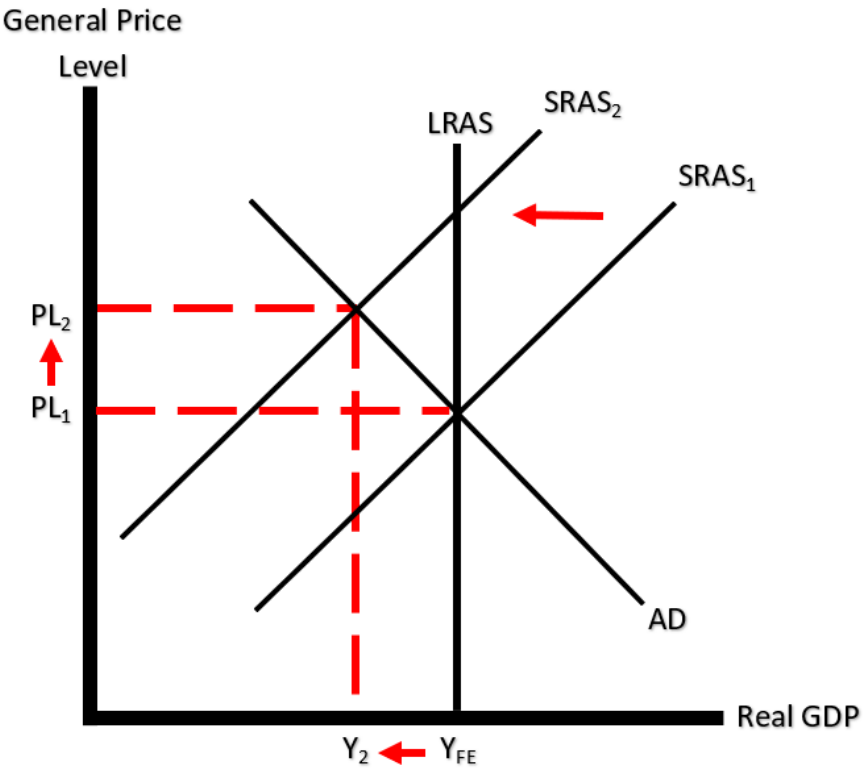


Cost-Push Inflation – Keynesian



Exam Hint: When writing about Inflation in an essay, you should always make sure to say which type of Inflation is occurring if possible!

Cost-Push Inflation - Classical



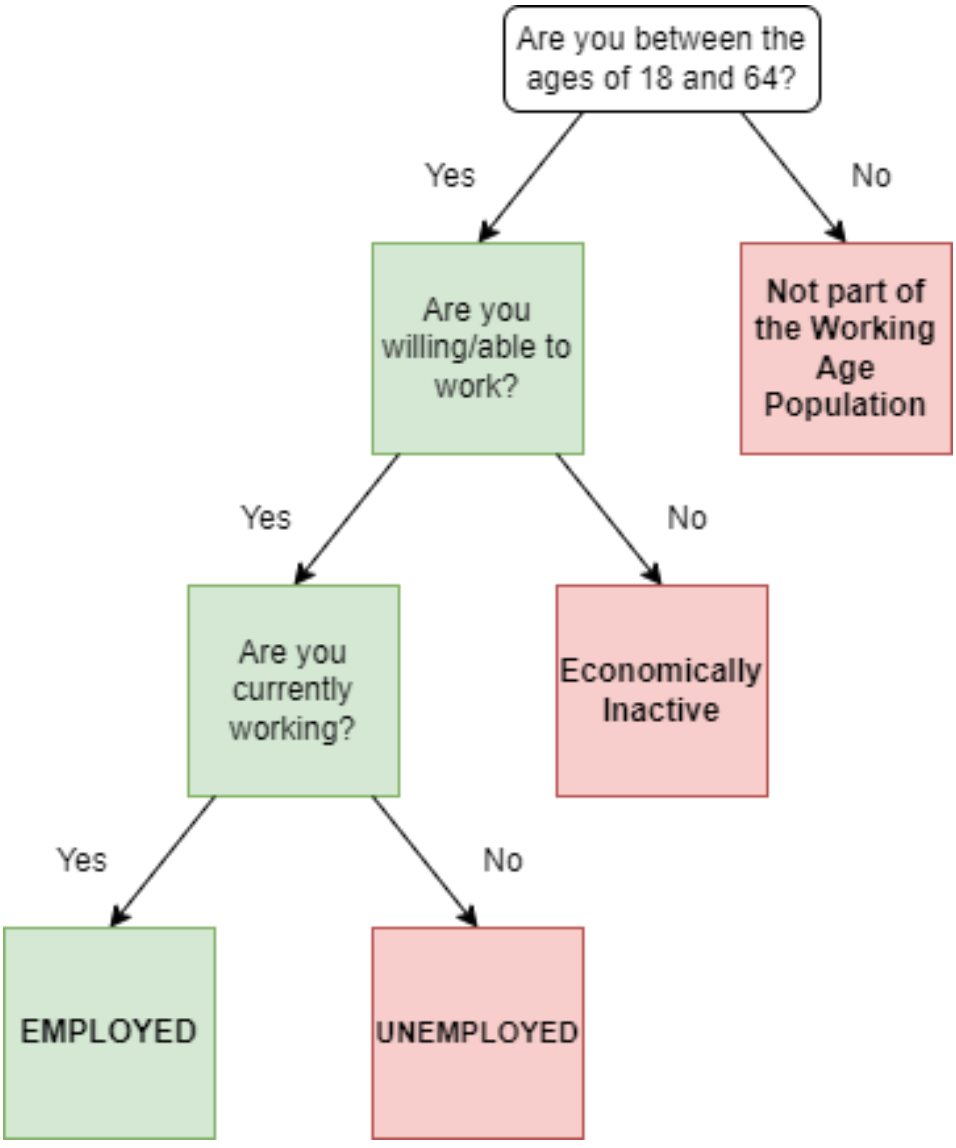
	PROS	CONS
INFLATION	• Low levels of Inflation incentivise Consumption and Investment • Inflation-linked wages will increase • Inflation levels close to target rates will inspire confidence • Decreases the real value of Debt for borrowers	• High Inflation can cause uncertainty and loss of confidence • Reduces international competitiveness in exports • Fall in the real value of savings • Fall in purchasing power
DEFLATION	• Rise in the real value of savings • Increased purchasing power • Increased international competitiveness of exports	• Discourages Consumption + Investment – leading to a deflationary spiral • Increase the real value of Debt for borrowers • Increased Real Interest Rates

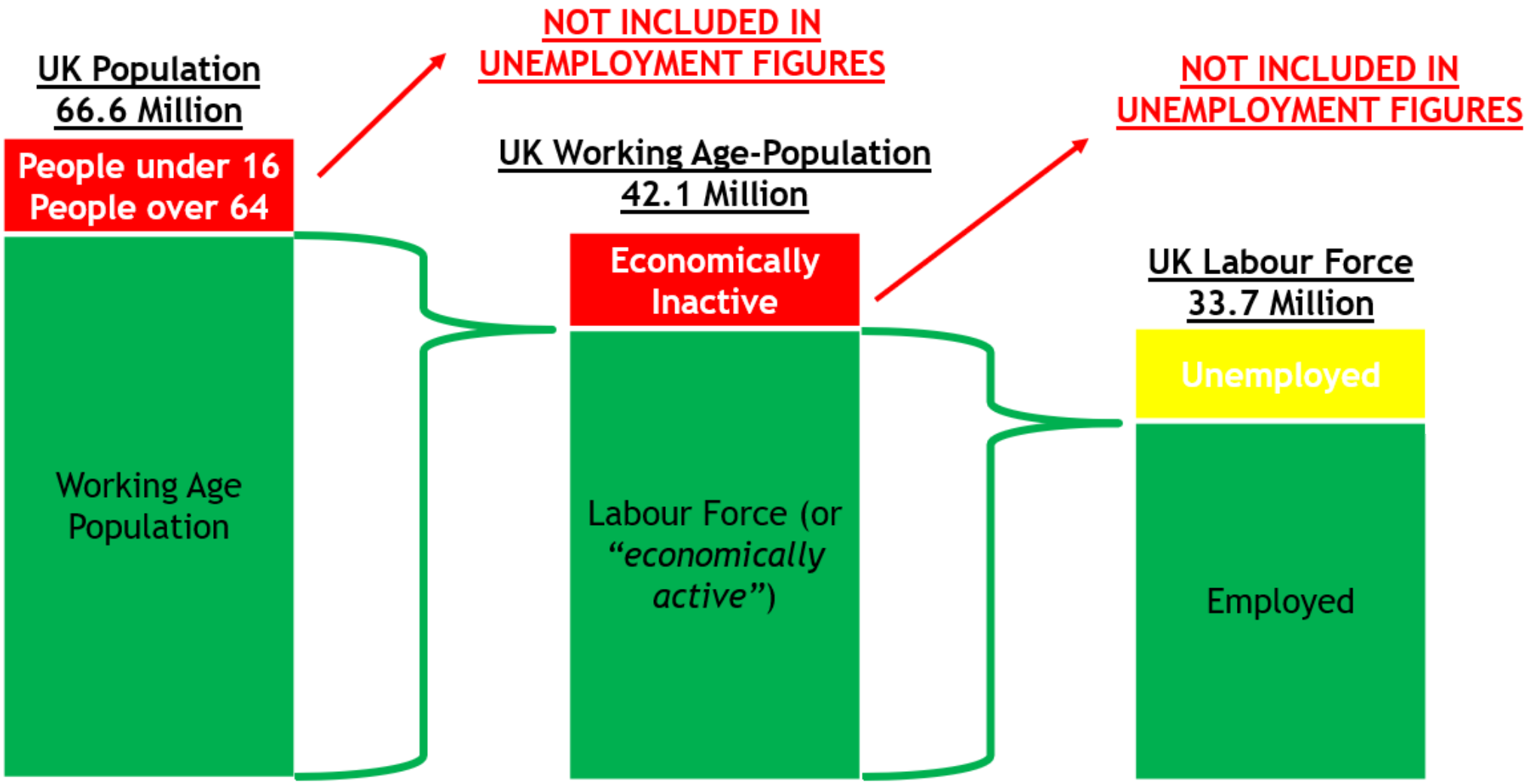
Measures of Economic Performance – Unemployment

The definition of Unemployment is actually much stricter than you might realise. To be unemployed, you need to be between the ages of 18 – 64 and then fulfil some key criteria, and if you don't match even one of them, you're not considered unemployed:

1. Currently not working
2. Willing to work
3. Actively seeking work

For example, someone who is currently not working, but not willing to work, is considered to be ***Economically Inactive***. The flow diagram below should help explain how it works. See the next page for a helpful graphic too.





As you can see from the above, The Unemployment Rate ***is not*** calculated from the Population, but rather from the ***Labour Force!***

How do we measure Unemployment?

In the UK, there are two main measures of Unemployment that we can use, and they differ quite a lot in how they do so. Crucially, ***you could be asked how they work in an exam, so you need to know them.*** They are the Claimant Count and the ILO Labour Force Survey. How do they work?

The Claimant Count

Very simple: How many people claim unemployment-related welfare payments in the UK. Be careful, it's not just any welfare payments, it has to be unemployment-related.

The ILO Labour Force Survey

Slightly more complex. The ONS conducts the International Labour Organisation's Labour Force Survey by asking around 40,000 households a variety of questions to find out exactly what category they fall into (Employed, Unemployed, Economically Inactive, etc.)

Interestingly, the two ways of counting Unemployment are often produce very different results for a number of reasons and, because of that, the ILO LFS is often the preferred method when analysing Unemployment. For example:

- It may be quite difficult to claim Unemployment Welfare in certain countries
- There may be a stigma attached to claiming Unemployment Welfare
- Unemployment Welfare may be very low and, to some, not worth the hassle
- Not everyone who is Unemployed ***needs*** the Welfare income

Types of Unemployment

There are 6 Types of Unemployment that you need to know and be able to explain in Economics. They are:

1. Frictional Unemployment
2. Structural Unemployment
3. Seasonal Unemployment
4. Real Wage Unemployment
5. Cyclical (Demand-Deficient) Unemployment
6. Voluntary (Supply-Side Unemployment)

Exam Hint: Just like when we looked at Inflation, you should be able to recognise and say which type of Unemployment you're talking about in an exam if the topic comes up – it'll make your essays look better!

Frictional Unemployment

"Unemployment caused by workers moving between jobs, or by those workers having just entered the labour market"

Workers who have recently been made redundant or laid off and those who are entering the market for the first time generally make up the Frictionally Unemployed. Normally these people are unemployed for a short period of time whilst they find new work. *But what causes Frictional Unemployment?*

- **Imperfect Information:** If the workers looking for a job can't find the right position, they may be unemployed longer than necessary
- **Incentives:** The Welfare System me be so generous that some workers take longer than they otherwise would to seek work as they are happy with receiving Unemployment Benefits in the meantime

Structural Unemployment

"Unemployment caused by the mismatch of workers' skills and available job opportunities as a result of the long-term decline in an industry"

A very obvious and relevant example of Structural Unemployment in the UK is that of the workers who used to work in our Secondary Sector, Manufacturing jobs. As the world and the UK have become more globalised, firms have moved their factories abroad. Additionally, the increasing levels of Automation in the UK mean we now are needing fewer and fewer manual workers. This means that those workers, who have skills we no longer demand in the UK, are out of work and can't find a job with the skills they do have. So *how can we go about helping this?*

- Occupational Immobility of Labour: This is when the unemployed would like a job but simply don't have the skills to change their occupation and fill a role. To solve this, we need investment in re-training schemes so that the unemployed now do have the skill that are in demand.
- Geographical Immobility of Labour: This is when the unemployed aren't in the same place as the opportunities. Maybe due to family ties, costs of living or even housing prices, the unemployed cannot move to where the opportunities are. To solve this, we can invest in infrastructure and better public transport systems.

Seasonal Unemployment

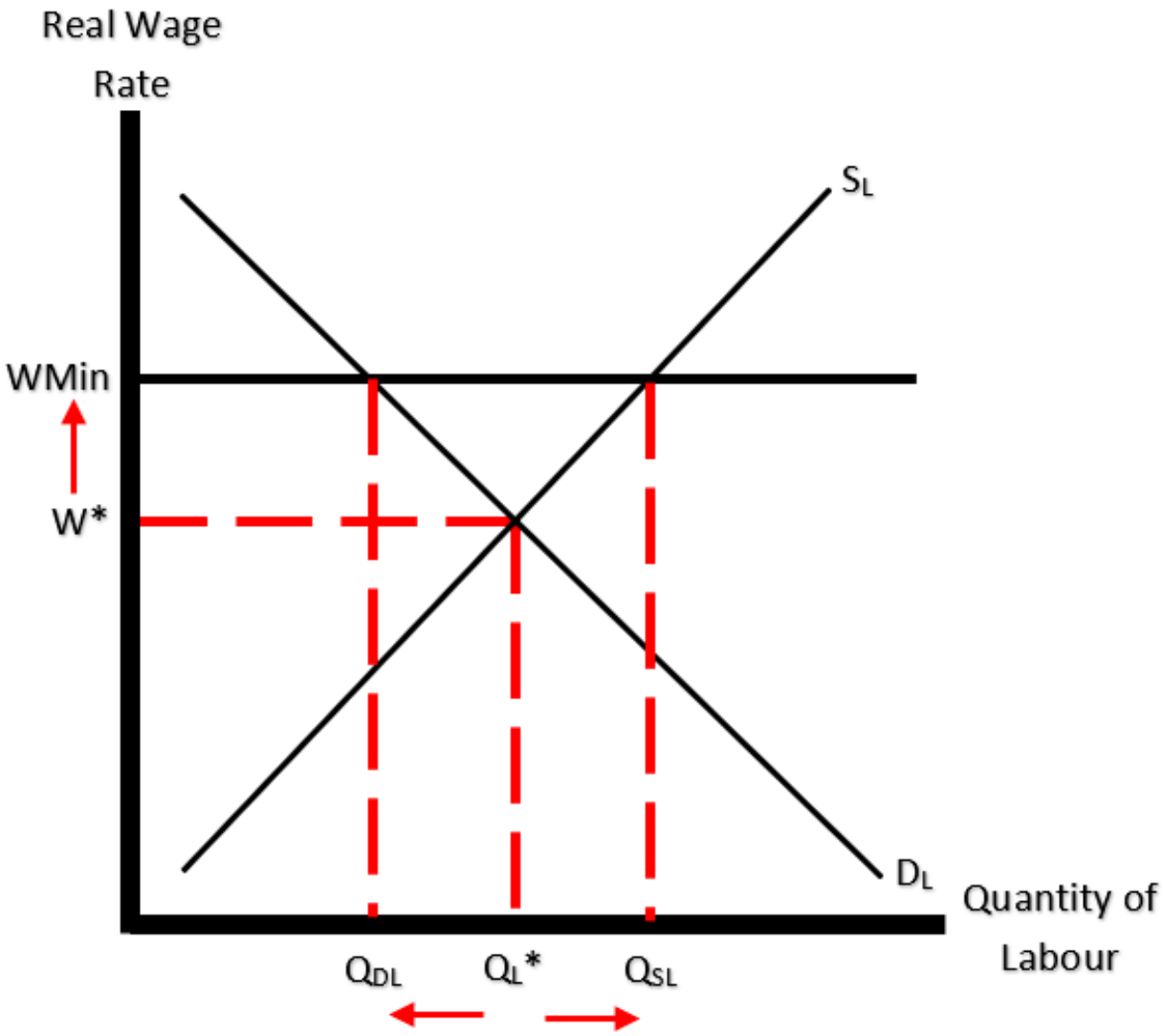
"Unemployment caused by the seasonal fluctuation in demand for specific workers between seasons"

There's not actually much we can do to solve this. Control the weather? Unlikely. Otherwise, we can only really encourage and help workers to have transferable skills so they could hold another job during the off-season.

Real Wage Unemployment

"Unemployment caused by real wages being above their market clearing level, causing an excess supply of labour"

Real Wage Unemployment occurs when wages in labour markets are forced above their natural, market-clearing, equilibrium wage rate. The two main causes of this, as argued by economists, are Trade Unions and the National Minimum Wage. As seen in the diagram below, the Minimum Wage (WMin) is set above the Equilibrium Wage Rate (W*). This causes firms to demand less labour now (Q* -> Q_{DL}) but means that more workers are willing and able to supply their labour (Q* -> Q_{SL}). Therefore, there are now workers willing to work, who can't find a role. Thus, the difference between Q_{DL} and Q_{SL} represents Real-Wage Unemployment.



Voluntary (Supply-Side) Unemployment

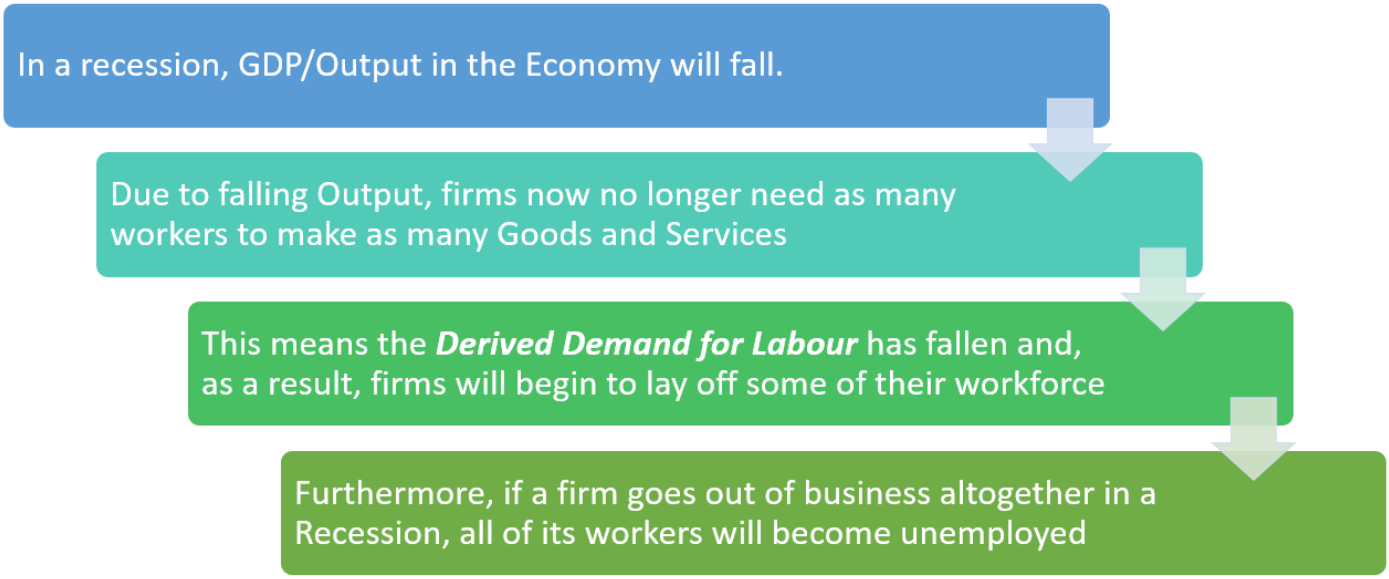
"Unemployment caused by workers preferring to claim work-related unemployment benefits as opposed to working"

This type of Unemployment is when workers choose not to work at the current, market-clearing Wage Rate. Certain reasons for this might be an overly-generous welfare system, or overly-harsh rates of taxation. To solve this? We need to change Fiscal Policy in order to change the incentives surrounding work. However, changing the entirety of Fiscal Policy just to reduced Voluntary Unemployment may be a bit overkill – it's not a large number of people.

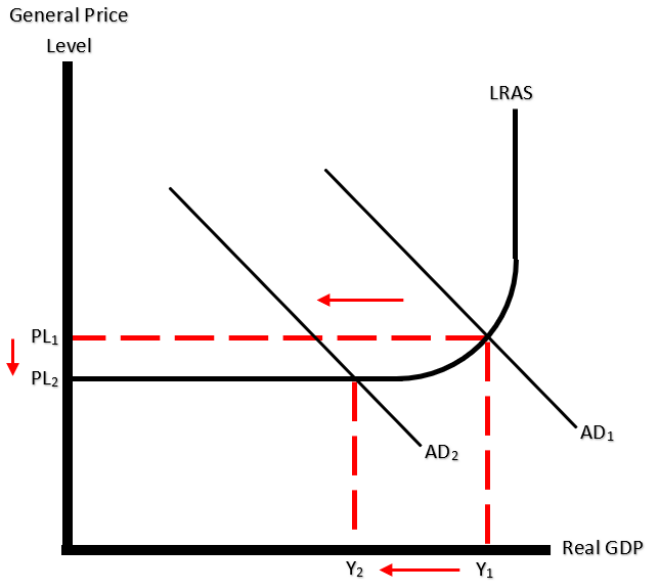
Cyclical (Demand-Deficient) Unemployment

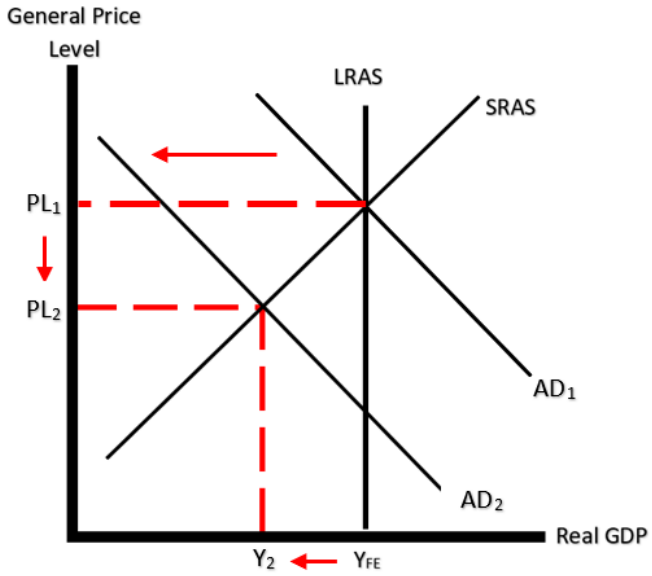
"Unemployment caused by a lack of Aggregate Demand in the economy for Goods and Services"

Along with Structural Unemployment, Cyclical Unemployment is one of the most important types of Unemployment that you need to learn. It's caused in Downturns or Recessions when there is a general fall in AD and, therefore, Output. The diagrams on the next page show Cyclical Unemployment

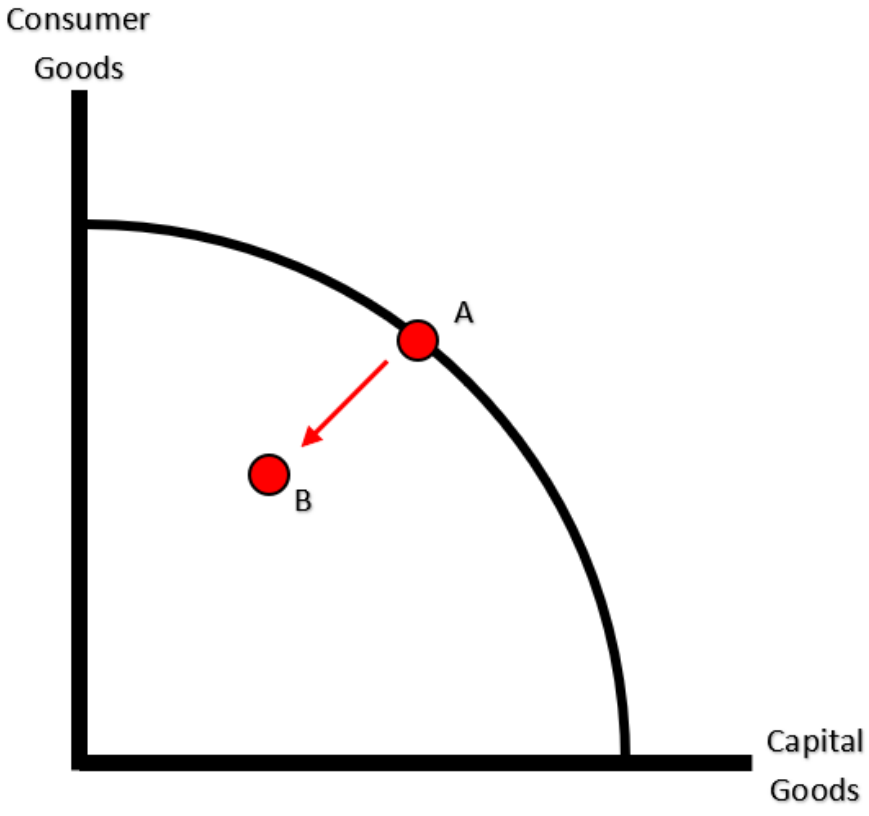


Conveniently, the way in which we show Cyclical Unemployment is very similar to how we show an Output Gap! Given an Output Gap represents unemployed Factors of Production, and Cyclical Unemployment is unemployed Labour, they should be pretty similar. The main difference is just that we need to show an inward shift in AD instead:





Also, we can show Cyclical Unemployment on a PPF Diagram:



What are the impacts of Unemployment?

Impacts on the Unemployed

- **Loss of Income:** If you havent got a job, you're unlikely to have an Income. This means your Disposable Income and, therefore, your Standard of Living is likely to fall. Potentially, this could lead to increased Borrowing (and debt) by households and increases in Relative Poverty
- **Lower Employability:** If you remain unemployed for a dignificant period of time, you may well find that your skills become worse and your experience becomes outdated. This means your ***Human Capital*** has worsened, and you may find your earning and employability has dropped in future
- **Mental Health:** Being unemployed is stressful for many people. In the US, rates of Depression are twice as high in the unemployed

Impacts on the Government

- **Decreased Tax Revenue:** If Incomes are falling across the economy, then the amount of Income Tax will fall. Likewise, falling Profits means less Corporation Tax, falling Spending means less VAT, etc, etc.
- **Increased Spending:** Unemployed workers are entitled to claim Unemployment-Related Benefits, so will increase Government Spending. We may also see an increased reliance on Public Sector Services due to falling incomes too - increasing Government Spending.
- **Worsened Fiscal Position:** A 2015 study claimed that every unemployed workers cost the UK Government £6,243 in lost tax/increased spending

Impacts on the Economy

- **Lower GDP:** Fewer people in work ultimately means fewer people making Goods and Services, so output naturally has to fall. On large enough a scale, this may cause GDP to fall - causing a recession

- **Hysterisis:** If people are out of work for a while, their skills and competencies may become a bit rusty. This will mean that the value of their Human Capital will decrease. This could be permanent and, if so, could result in the long-term potential growth of the economy could be stunted

Impacts on Society

- **Social Issues:** In times of Recession and Unemployment, it's often noted that crime rises. As people struggle to make ends meet, some will turn to theft, fraud or other crimes in order to make a living

- **Political Instability:** The Great Depression and the 2008 Financial Crisis are all examples of how Economic Crises can become Political Crises. Great Depression -> WW2, 2008 -> Arab Spring, European Protests, Brexit, Trump, Le Pen, etc

Measures of Economic Performance – The Current Account

The Balance of Payments (BoP) is a record of all financial transactions made between consumers, firms and the government of one country with the rest of the world. The ***Current Account*** is one of the three sections of the BoP, and records the money used to purchase goods and services that we trade with the rest of the world. There are two other sections of the BoP - ***The Capital Account*** and ***The Financial Account*** – but you don't really need to know about them in Theme 2 (Year 12) as you'll cover them again in Theme 4 (Y13) Macro.

Countries generally like to have an Equilibrium or a Surplus on the Current Account and, when thinking about whether something is going to improve the Current Account, it's important to *follow the money!*

For example, if a firm sells a car to a German, that is considered an Inflow as the money is flowing into the country, despite the good leaving. This would improve the Current Account

If you buy some Spanish Sausages, this would be considered an Outflow as the money is leaving the country. This would worsen the Current Account

To work out whether the Current Account is in Surplus or Deficit, all we need to do is subtract the Total Value of Imports from the Total Value of Exports (X-M). If the result is positive, it's a Current Account Surplus. If it's negative, then it's a Current Account Deficit.

What makes up the Current Account? *(A very basic breakdown...)*

Trade in Goods **(Balance of Trade)**	Anytime we export or import a physical Good, it will be recorded in this section of the Current Account ***Shoes, Cars, Medicines, Machinery, etc***
Trade in Services	Anytime we export or import a Service, it will be recorded in this section of the Current Account ***Insurance, Legal Services, Financial Services, etc***
Net Primary Income from Abroad **(Employment + Investment Income)**	Any money moved across borders by people ***Dividends, Investment Income, Interest, Remittances, etc***
Net Secondary Income **(Transfers)**	Any money moved across borders by governments ***Foreign Aid, EU/NATO/UN Budget Contributions, etc***

CAUSES

CURRENT ACCOUNT DEFICIT

- **Poor International Competitiveness:** A decline in a country's ability to produce a good or service in which they are, or have been, specialised may lead to them being overtaken by competitors. This will lower demand for our exports, worsening the Current Account. *(Link this to the theory of Comparative Advantage)*
- **High Relative Inflation Rates:** High Inflation rates will lead to a country's export prices rising at a higher rate than their competitors. Therefore, other countries' goods and services will be cheaper and, thus, more competitive. This will lower demand for our exports, worsening the Current Account
- **Strong/Overvalued Exchange Rate:** A strong currency value causes the cost of exports to be greater for foreign consumers, meaning they demand fewer of them, worsening the Current Account. *(Think SPICED!)*
- **High Unit Labour Costs:** Firms in countries with higher average wages, or higher National Minimum Wages, will have to pay their workers more. Especially for mass-produced, low-value products *(or Primary/Secondary Sector Products)* this means higher Costs and, thus, less competitive Prices. This will lower demand for our exports, worsening the Current Account.

CURRENT ACCOUNT SURPLUS

- **High Growth Rates in Partner Countries:** Higher growth rates mean higher incomes, so if our partner countries have higher growth rates, we should see their citizens start to demand more and more of our Exports – improving the Current Account
- **Low Domestic Incomes**: Lower Domestic Incomes may mean that our domestic Firms are unable to sell their products locally (especially if they're high-value, luxury goods or services), meaning that they will try to sell them abroad as they can get a better price by exporting them.
- **Weak/Undervalued Exchange Rate:** Opposite of the above, opposite of SPICED!
- **Low Relative Inflation Rates:** Opposite of the above – lower inflation rates = better competitiveness = better Current Account
- **Low Unit Labour Costs:** Opposite of the above – lower labour costs = better competitiveness = better Current Account

CONSEQUENCES

CURRENT ACCOUNT DEFICIT

- A Current Account Deficit means X < M and, therefore, AD will fall. Therefore:
  - Lower Output -> **Lower Growth**
  - Lower Output -> Lower Derived Demand for Labour -> **Higher Unemployment**
  - **Lower Inflation** Rates
- **Financial Account Surplus. F**oreign consumers and firms will accumulate domestic assets.
- A **Weaker Currency**, as we need to sell our currency in order to buy foreign imports

CURRENT ACCOUNT SURPLUS

- A Current Account Surplus means X > M and, therefore, AD will grow. Therefore:
  - Higher Output -> **Higher Growth**
  - Higher Output -> Higher Derived Demand for Labour -> **Lower Unemployment**
  - **Higher Inflation** Rates
- **Financial Account Deficit.** Domestic consumers and firms will accumulate foreign assets.
- A **Stronger Currency**, as foreign consumers need domestic currency in order to buy our exports

Macroeconomic Government Policy – Demand Side Policy

Demand-Side Policy is any policy undertaken in order to influence levels of Aggregate Demand in the economy and is split into two types – Fiscal Policy and Monetary Policy. ***Fiscal Policy*** is the use of Government Spending, Taxation and Borrowing to influence levels of AD. ***Monetary Policy*** is the use of Central Bank Interest Rates and Quantitative Easing to influence levels of AD.

Fiscal Policy

Types of Government Spending:

- Current Spending

  Day-to-day spending on Public Sector or State=Provided goods and services, such as Nurses' or Teachers' Salaries, Equipment for schools, etc. For example, the NHS is the biggest employer in the UK with over a million people working in the healthcare system.

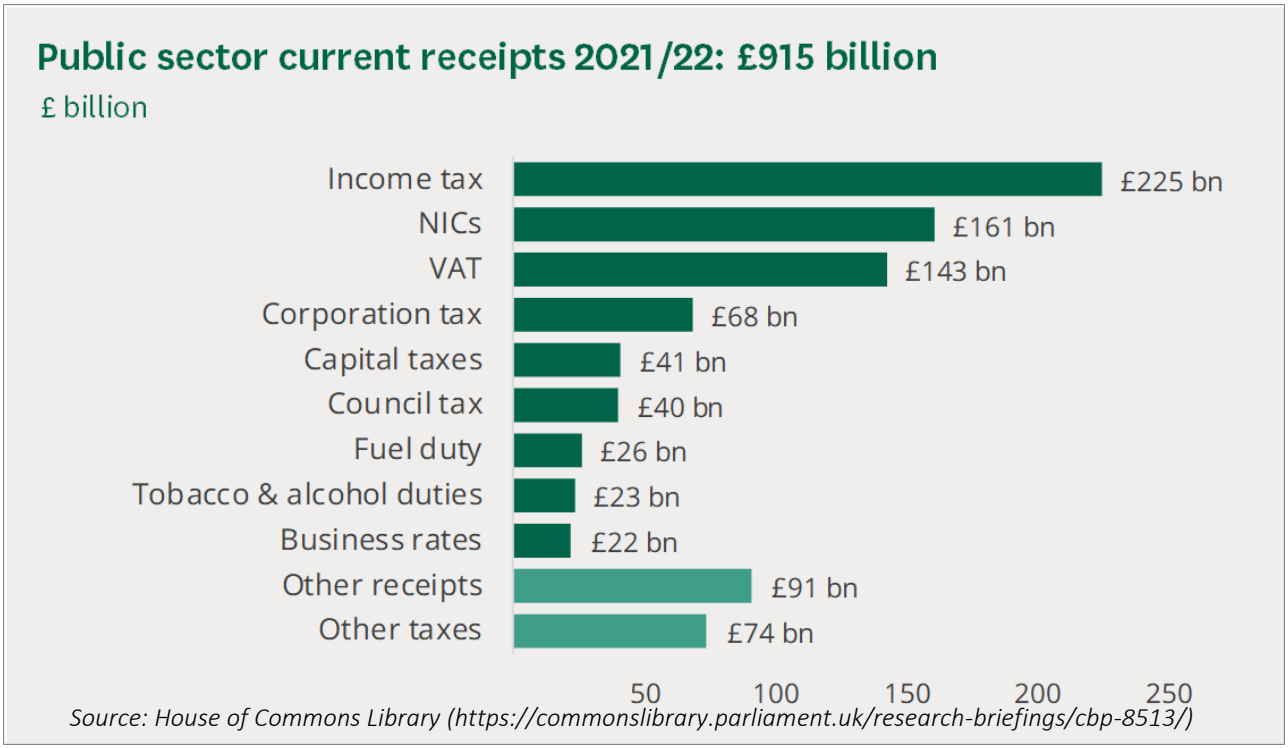
- Capital Spending

  Spending on Infrastructure such as Motorways, Hospitals, Schools, Prisons, Rail, etc. This ***does not*** count as Investment in AD, but does have a similar impact in increasing the economy's capital stock and improving LRAS.

- Transfer Payments

  Welfare Payments such as Pensions, Child Benefit or Jobseeker's Allowance. These ***do not*** add to AD via Government Spending, but do so via Consumption as the recipients will eventually spend the money – boosting AD.

Types of Government Taxation:



As you can see from the data above, by far the largest source of Revenue for the UK Government is Income Tax, followed by National Insurance Contributions and VAT. Taxes can be split into two categories:

Direct Taxes – taxation levied on Income, Wealth or Profits	Indirect Taxes – taxation levied on Consumption of Goods and Services
Income Tax - £225bn NICs - £161bn Corporation Tax - £68bn Council Taxes - £43bn Capital Taxes – £41bn	VAT - £143bn Fuel Duty - £26bn Tobacco/Alcohol Duty - £23bn Business Rates - £22bn
Total: £538bn	**Total: £214bn**

The Budget

The Chancellor of the Exchequer announces the Budget of the government each year, usually in the spring (March/April)

The Budget details **government spending, taxation and borrowing** for the fiscal year (6th April to 5th April).

If the government spends more than it receives from tax it has what's called a

Budget Deficit (G > T)

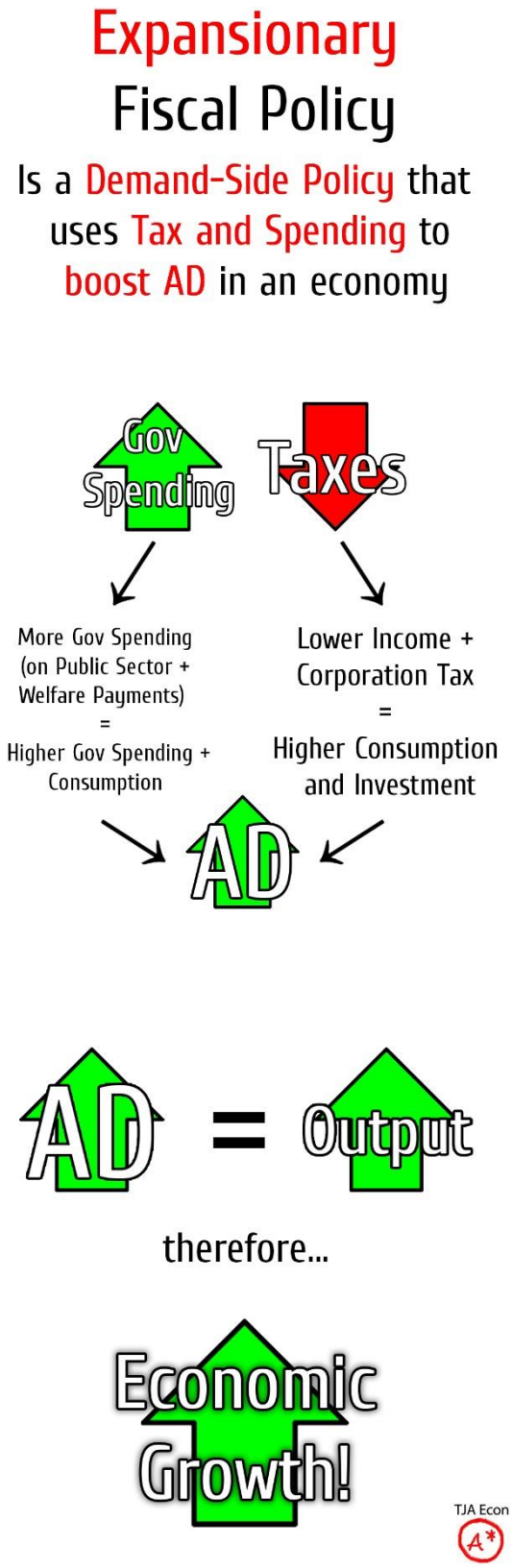
If the government receives in tax revenues more than it spends then it has what's called a

Budget Surplus (G < T)

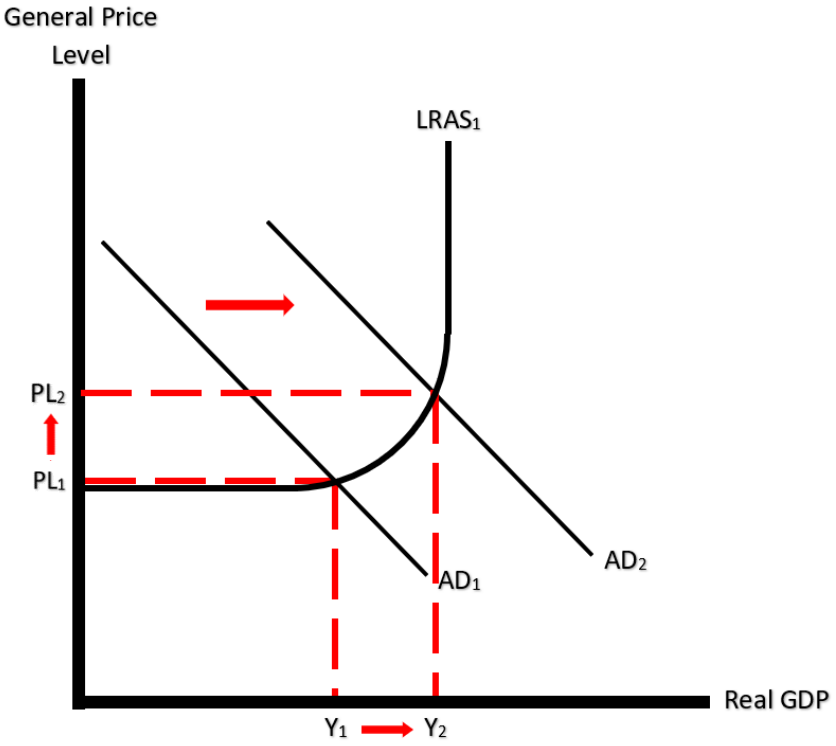
By using Expansionary Fiscal Policy, the Government can boost Aggregate Demand. For example, if the Government cuts Income Taxes, this would give consumers more Disposable Income. With this new-found Disposable Income, they could choose to spend this on Goods and Services, boosting Consumption and, therefore, Aggregate Demand. By using Fiscal Policy, we can seek to influence our objectives...

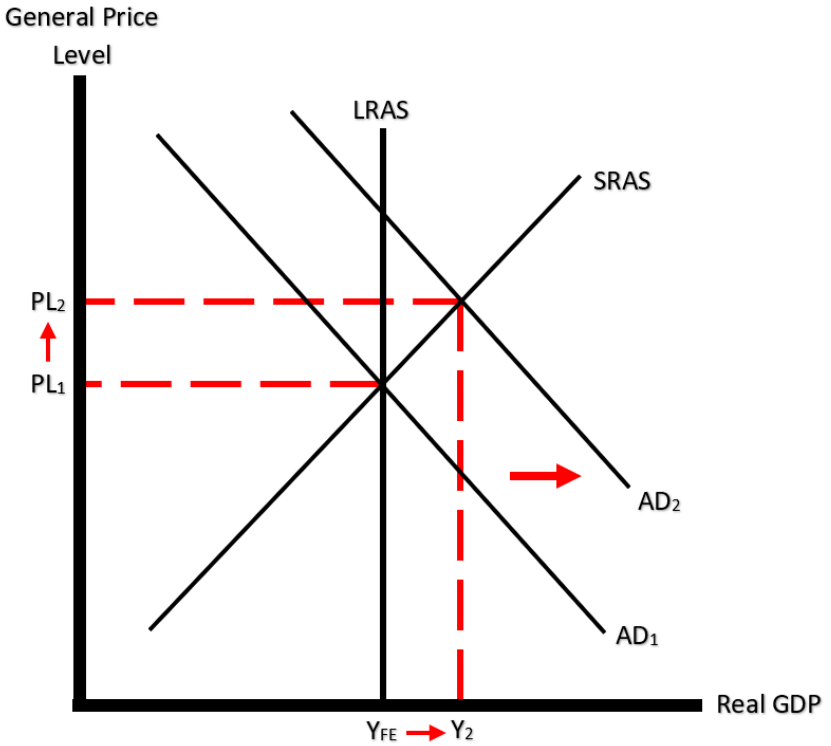
Economic Growth	Expansionary Fiscal Policy will boost Aggregate Demand, meaning that Output in the Economy will increase. Therefore, there should be Economic Growth
Unemployment	Expansionary Fiscal Policy will boost Aggregate Demand, meaning that Output in the Economy will increase. As a result, the Derived Demand for Labour will increase, meaning Firms hire more workers and Unemployment falls.
Inflation	Expansionary Fiscal Policy will boost Aggregate Demand, putting upwards pressure on Prices. Thus, Firms will raise prices in response and Price Level in the Economy will rise – causing higher Inflation
The Environment	Expansionary Fiscal Policy will boost Aggregate Demand, meaning that Output in the Economy will increase. This could cause increased usage of Natural Resources and Fossil Fuels – harming the environment
Inequality	If Expansionary Fiscal Policy boosts Welfare Payments, inequality should fall. Additionally, the lower Unemployment will mean more people have an income – reducing the Inequality Gap.

Contractionary Fiscal Policy works the opposite way, with the Government trying to cut Aggregate Demand. They can do this by raising taxes in order to cut Consumption and Investment; or they could cut Government Spending in order to cut AD.



How do we show Fiscal Policy on an AD/AS Diagram?





The above Diagrams both show Expansionary Fiscal Policy, with AD shifting outwards from AD_1 to AD_2. This results in an increase in Output to Y_2, and a rise in Price Level from PL_1 to PL_2. Contractionary Policy would be the reverse.

Automatic Stabilisers

"Automatic Stabilisers" is the term used to describe the mechanisms which **reduce the impact of a change in the economy or national income**. Automatic stabilizers adjust the levels of government spending and taxation to **offset the effects of a boom and a recession**, with ***no need for government intervention***.

For example, **Tax Revenues** rapidly increase during a boom period due to increasing Incomes and Profits, which automatically increase leakages from the economy, thus slowing down Consumption, Investment and overall Growth. **Welfare Spending** will fall in a boom as fewer people are Unemployed and fewer people need help from the State. This means any increases in Consumption will be slowed.

On the other hand, **Welfare Spending** will increase during a period of recession, increasing overall Consumption in the Economy and helping to increase AD. Likewise, during recessions, **Tax Revenue** will fall and leakages will fall too – helping to increase AD and Growth.

Automatic stabilisers are intended to be a first line of defence, since they almost immediately respond to changes National Income without the need for changes in legislation or government policy and help to turn mild negative economic trends around. However, governments often turn to these other types of larger fiscal policy programs to address more severe or lasting recessions, or to target specific regions, industries, or politically favoured groups in society for extra economic relief.

Evaluations of Fiscal Policy

Crowding Out

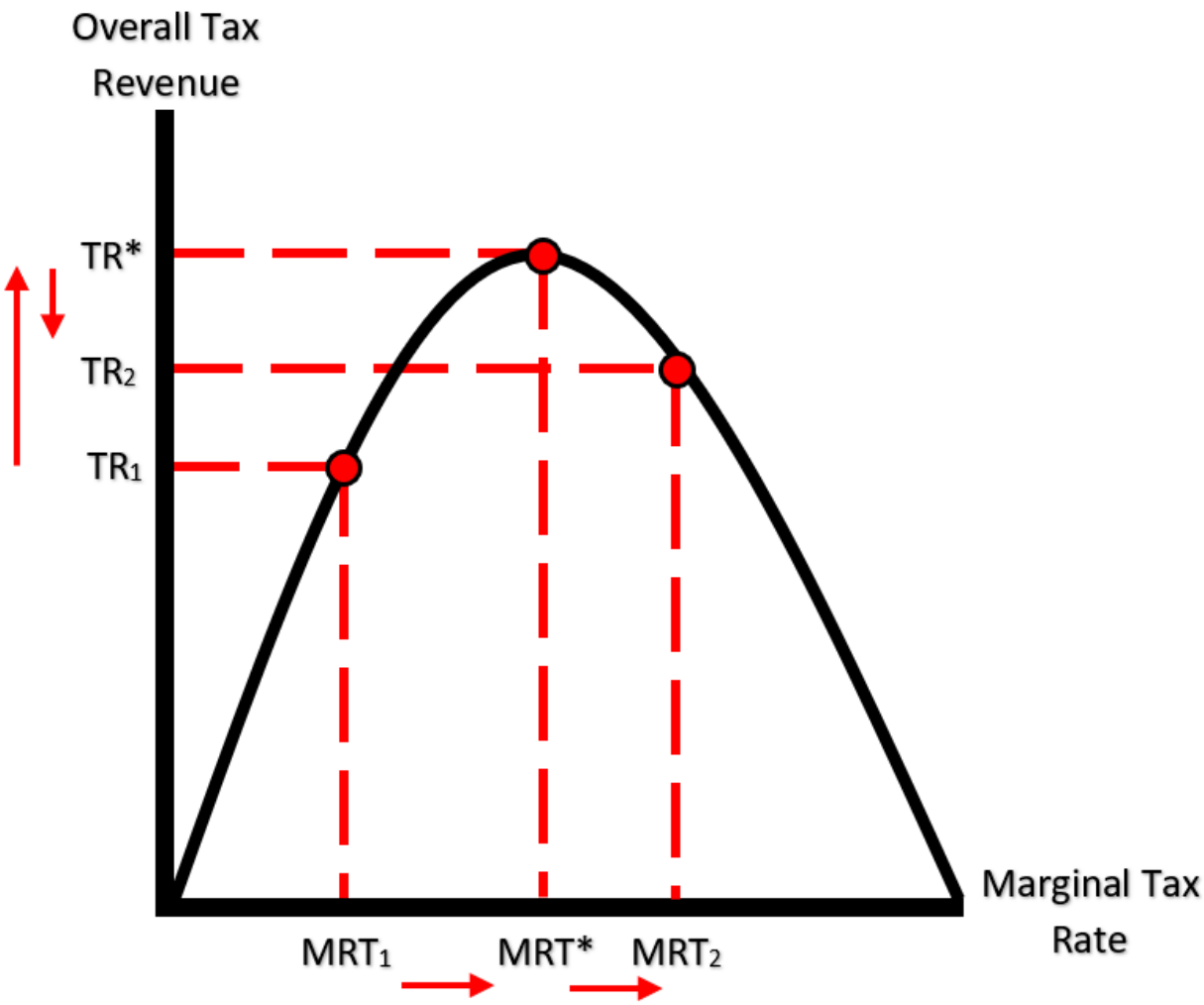
Crowding out is when an increase in Government Spending (G) causes an equivalent or larger fall in Consumption (C) and/or Investment (I). Thus, overall AD (C + I + G + X - M) will fall instead of rising. For example, Government Spending must be financed by either Taxation – reducing Incomes and Profits now – or by Borrowing – reducing Incomes and Profits in future. Therefore, private sector Consumption and Investment will fall – meaning there may be a large fall in Aggregate Demand.

Furthermore, we only have finite resources in the economy. If the government are now using more resources, they have to come from somewhere. If they buy them on the open market, what will happen to the prices and supply of those resources for private firms? Those private firms will now have to compete with the Government for resources and may well end up going out of business as a result – causing overall Output to fall.

Financial Crowding Out

Financial Crowding Out may occur when government borrowing causes higher interest rates. If the government needs to borrow more, it may unintentionally increase market interest rates. For example, in the EU, bond yields rose in 2011 because markets were worried about levels of EU debt. Therefore, the increased government borrowing was at the expense of higher interest rates on government debt. These higher interest rates on bonds lead to higher interest rates elsewhere in the economy and are likely to discourage private sector investment and spending.

The Laffer Curve



The Laffer Curve suggests that there is an optimal Rate of Tax where Total Tax Revenue is maximised. For example, if we raise the Rate of Tax from MRT_1 to MRT*, we see an increase in Total Tax Revenue from TR_1 to TR*. However, past that point an increase to MRT_2 will actually see a fall in Total Tax Revenue from TR* to TR_2. Why is that?

- When Tax Rates get too high, Economic Activity is disincentivised. For example, exceedingly high rate of Income Tax will discourage people from working, earning an Income and, therefore, paying Income Tax
- With higher rates of Tax, the incentive to evade/avoid tax increases too. If tax rates are high, the reward for doing so is greater and more people will do it – causing Tax Revenues to fall.

Monetary Policy

Monetary Policy is the manipulation of variables such as ***The Money Supply and Interest Rates*** by governments or central banks in order to ***affect Aggregate Demand.*** Therefore, is it considered ***Demand-Side Policy****.* They do this by using policy instruments such as setting the ***Base Interest Rate and Quantitative Easing (QE).*** In the UK, Monetary Policy is conducted not by the government, but by the Bank of England – the UK's central bank.

The Bank of England's Monetary Policy Committee (MPC) considers a range of economic indicators and their effect on inflation before making their interest rate decision.

1. Amount of spare capacity there is in the economy

2. How quickly is the Money Supply is growing?
   Too much money in the economy could lead to inflation.

3. Strength of AD
   Is AD growing at a sustainable rate? Is there a risk of recession (slow growth in AD) or demand-pull inflation (AD growing too quickly)?

4. House Prices - Are house prices growing too quickly?
   This may lead to an increase in consumer demand and a risk of demand-pull inflation. A slowdown in the housing market could lead to a recession.

5. Wages

   How fast are wages growing? Are average wages growing faster than productivity? If wages grow faster than productivity, then costs will rise faster than output, leading to a rise in prices (inflation)

6. Bank Lending and Consumer Credit Levels

   Including the levels of equity withdrawal from the housing market and also data on credit card lending which supports consumer demand

7. Overseas Data

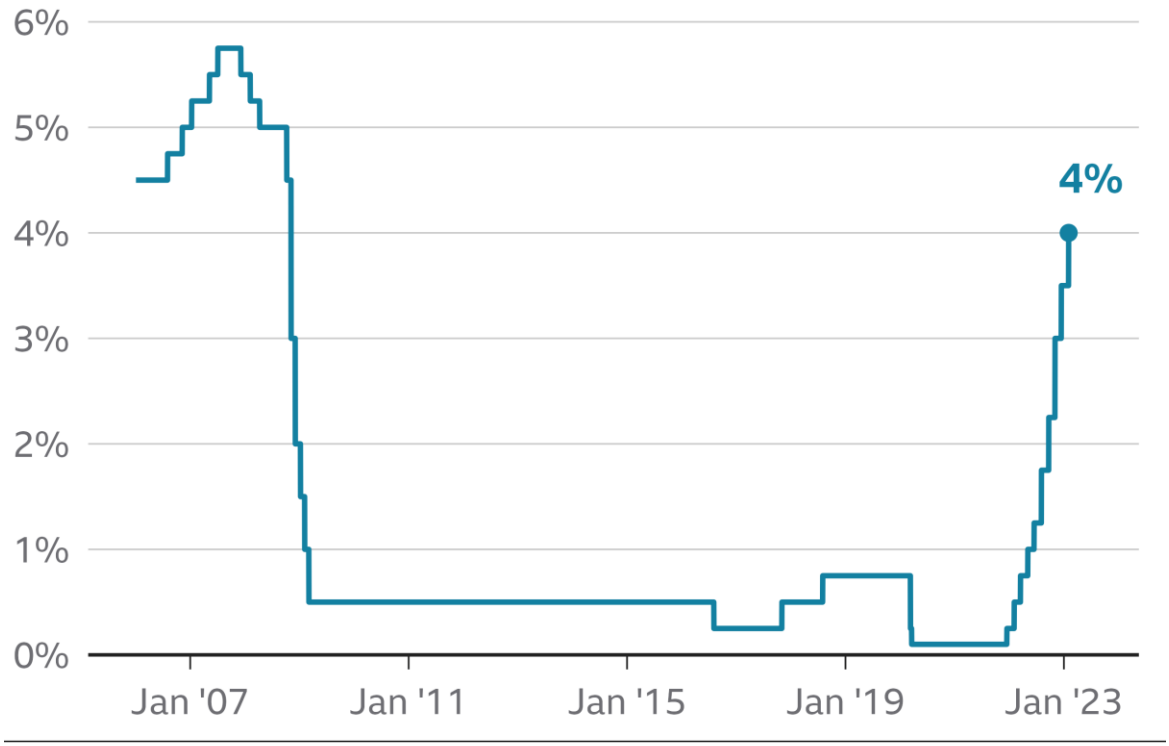
   High import costs (e.g. oil) could lead to an increase in food/clothes prices. Other countries' inflation may affect UK projections too.

8. Exchange Rates

   The exchange rate will have an effect on import and export prices.
   An appreciation of the pound would cause a decrease in exports and potential rise in unemployment (BUT depends on elasticities of our imports – we could end up importing inflation!)

Monetary Policy works by affecting the Supply of Loanable Funds (S_{LF}) in the Economy. This is simply how much Cash banks and other financial institutions are willing to lend out to Consumers and Firms. When S_{LF} increases, Market Interest Rates will fall and general Lending/Borrowing in the Economy will increase – boosting Consumption and Investment. We can also show this on a diagram, shown on Pages 70 and 72...

Interest rates rise to 4%

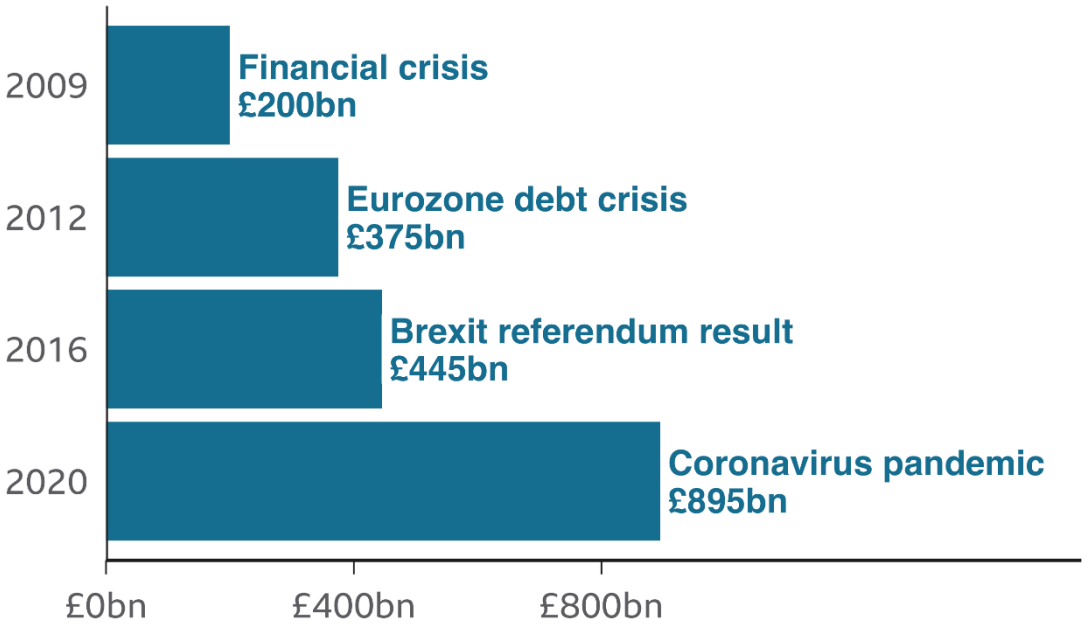


Source: Bank of England. Last updated 2 Feb

BBC

Quantitative easing in the UK

Bonds purchased by the Bank of England (cumulative)



Note: 2020 shows Bank of England target

Source: Bank of England

BBC

How Expansionary Monetary Policy Works:

CENTRAL BANK INTEREST RATES

The Central Bank Interest Rate is how much it costs Banks and other Financial Firms to borrow from the Central Bank

By lowering the Central Bank Rate, High Street Banks now have access to cheaper funds

This means that they now have more Cash to lend out and, as a result, SLF will increase

Market Interest Rates are now lower, so Consumers and Firms are more incentivised to Borrow and less incentivised to Save

Thus, Consumption and Investment will rise - causing AD to rise

As a result, GDP will rise, Employment will rise and Inflation Rates will rise

QUANTITATIVE EASING

Quantitative Easing involves the Central Bank creating new money electronically and buying illiquid assets from High Street Banks

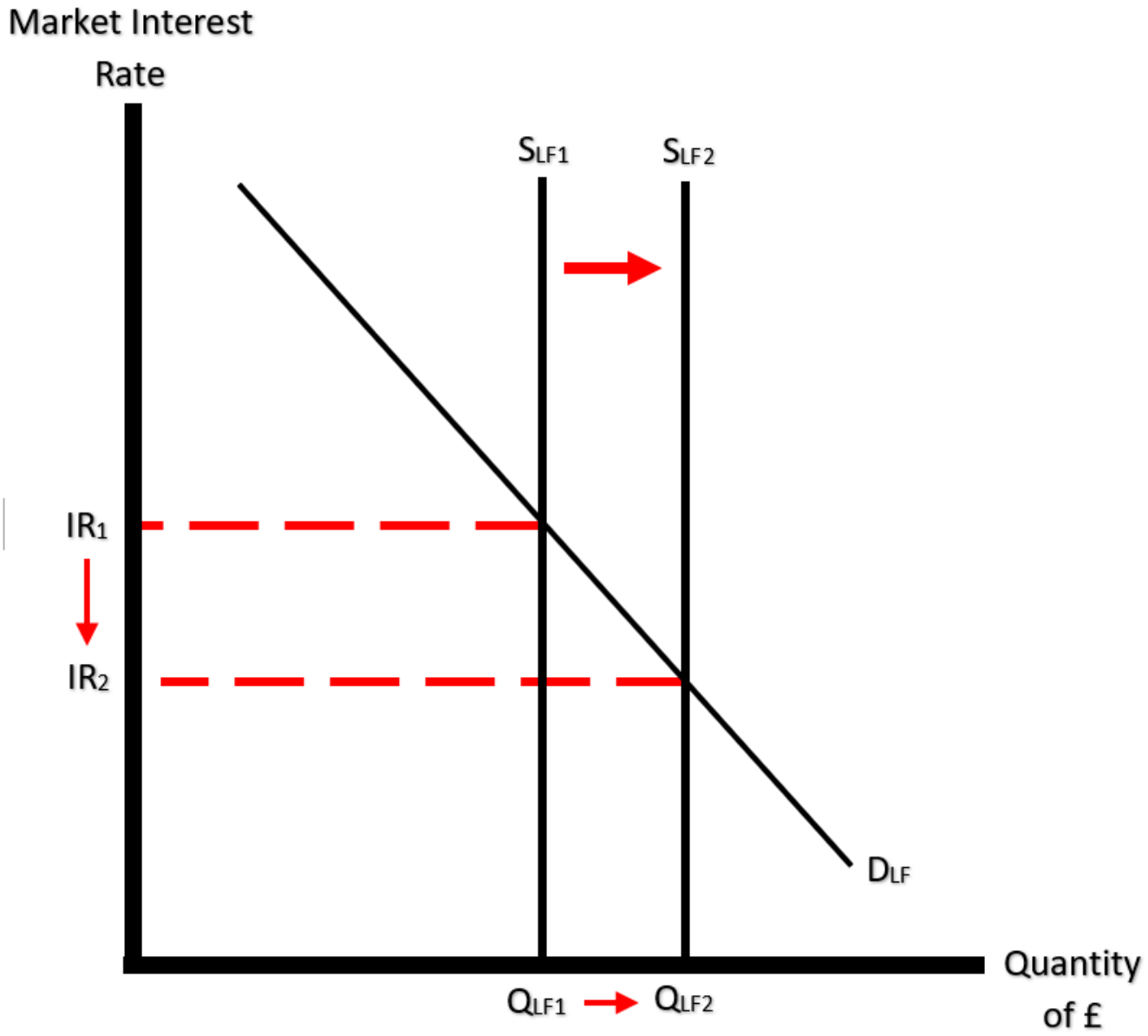
By doing this, Banks have more cash on hand and will also look to invest it in other areas

As a result, they now will want to lend out that Cash, causing SLF to increase

Market Interest Rates are now lower, so Consumers and Firms are more incentivised to Borrow and less incentivised to Save

Thus, Consumption and Investment will rise - causing AD to rise

As a result, GDP will rise, Employment will rise and Inflation Rates will rise



In the above diagram, the Supply of Loanable Funds in the Economy has increased from S_{LF1} to S_{LF2}. As a result, total Lending in the Economy has increased from Q_{LF1} to Q_{LF2} – meaning that Consumption and Investment should increase too, boosting AD. AD increasing will boost Output, Growth, Employment and Inflation Rates. The aim of Expansionary Monetary Policy is to do this and is done by ***Reducing Central Bank Interest Rates*** and by using ***Quantitative Easing.*** Contractionary Monetary Policy aims to do the opposite, and does this by ***Raising Central Bank Interest Rates*** and through ***Quantitative Tightening.***

How Contractionary Monetary Policy Works:

CENTRAL BANK INTEREST RATES

The Central Bank Interest Rate is how much it costs Banks and other Financial Firms to borrow from the Central Bank

By raising the Central Bank Rate, High Street Banks now have less access to funds

This means that they now have less Cash to lend out and, as a result, SLF will fall

Market Interest Rates are now higher, so Consumers and Firms are less incentivised to Borrow and more incentivised to Save

Thus, Consumption and Investment will fall - causing AD to fall

As a result, GDP will fall, Employment will fall and Inflation Rates will fall

QUANTITATIVE TIGHTENING

Quantitative Tightening involves the Central Bank selling illiquid assets to High Street Banks

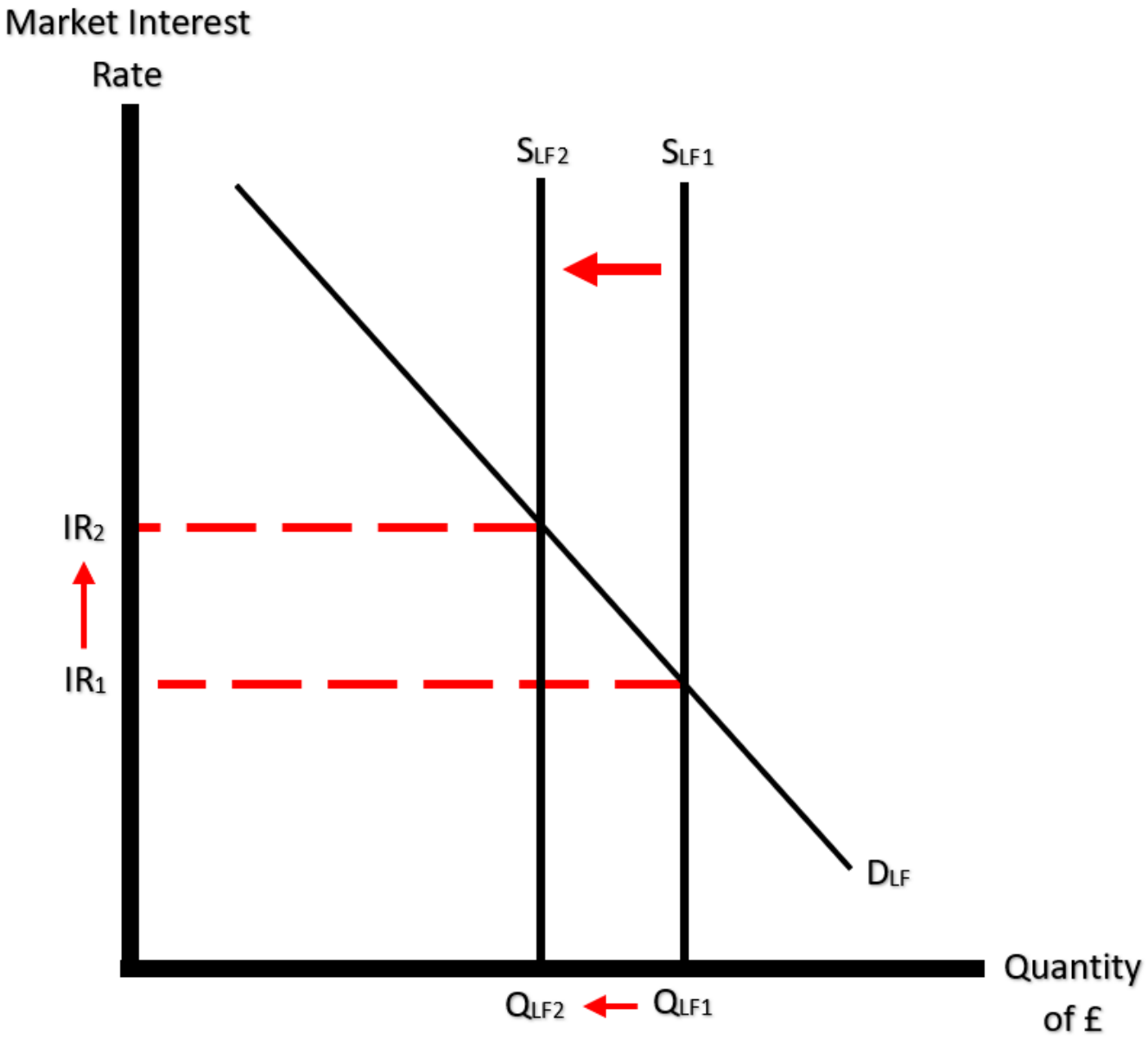
By doing this, Banks have more less on hand and are more illiquid

As a result, they now will want to lend out less Cash, causing SLF to decrease

Market Interest Rates are now higher, so Consumers and Firms are less incentivised to Borrow and more incentivised to Save

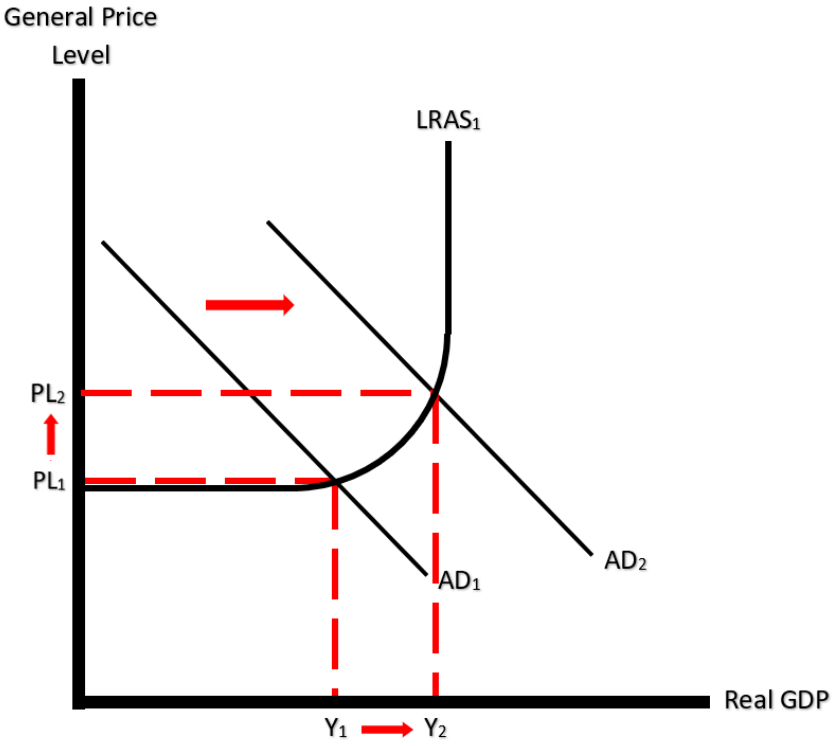
Thus, Consumption and Investment will fall - causing AD to fall

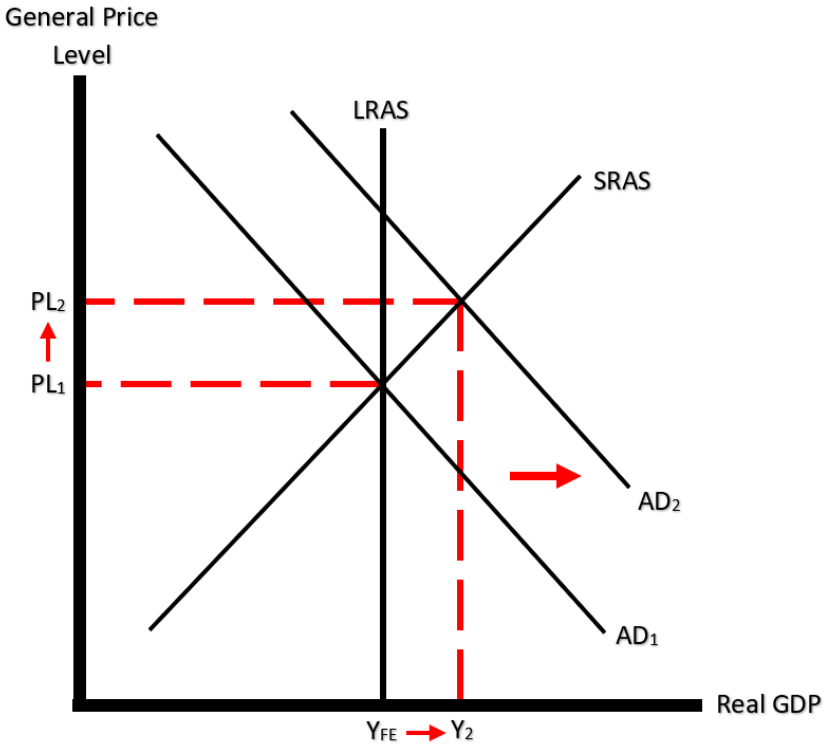
As a result, GDP will fall, Employment will fall and Inflation Rates will fall



In the above diagram, the Supply of Loanable Funds in the Economy has decreased from S_{LF1} to S_{LF2}. As a result, total Lending in the Economy has fallen from Q_{LF1} to Q_{LF2} – meaning that Consumption and Investment should fall too, cutting AD. AD falling will cause Output, Growth, Employment and Inflation Rates to fall too.

How do we show Monetary Policy on an AD/AS Diagram?





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Limitations of changing Interest Rates

- Time Lag

  There is always a time lag between changes and their impact on Aggregate Demand. A change in interest rate takes between 18 and 24 months to feed through the Economy, so the impact of a change in interest rates won't be felt in the economy immediately – not useful in a sharp Recession!

- Interest Elasticity of Demand

  The effect of the interest change depends on the interest elasticity of demand. Some industries and groups of people are more interest sensitive than others..

- Banks don't always pass on the interest rate onto consumers or businesses

  Mortgage interest rates are not always passed on, following a base rate change. This may be due to increased risk for the bank or the fact that it isn't profitable.

- Fixed Rate mortgages

  Many home-owners on fixed rate mortgages are not affected by the interest rate cut, as well as those in rented accommodation.

- Shortage of available credit

  If there is a shortage of confidence in the economy, then interest changes will have little effect, as there is less money that banks are willing to lend.

- The Liquidity Trap

  Occurs when interest rates get so low that consumers become increasingly concerned about the economy, a possible recession and losing their job, that they hoard cash rather than spend it – despite the Central Bank incentivising them to do the opposite!

Limitations of changing Quantitative Easing

- **Banks may not actually lend the liquidity they receive from selling assets**

  Will banks actually lend out more money if they receive a cash injection by selling assets to the Central Bank? If times are tough, or if they have holes in their balance sheets, they may hold on to it in order to build their reserves.

- **The effect may just be to push up asset prices**

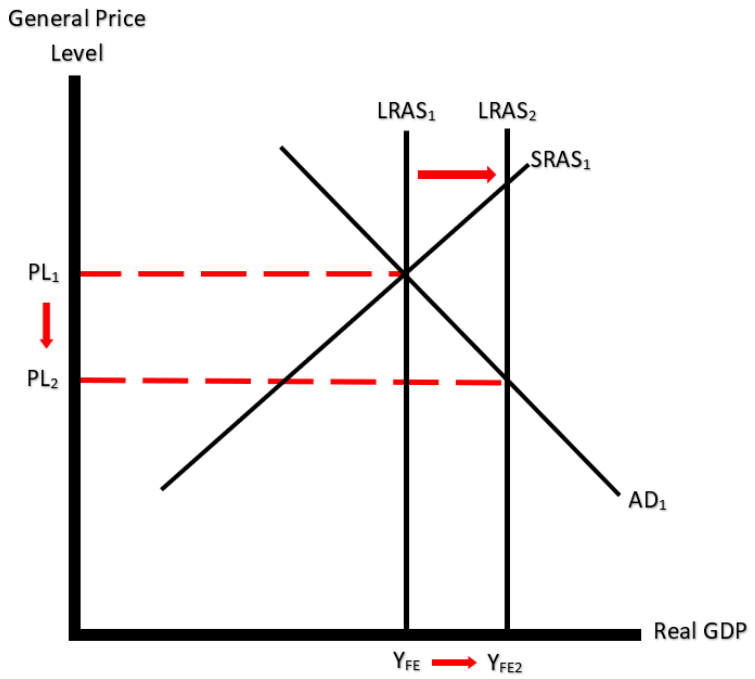
  Quantitative easing may just simply push up asset prices as opposed to actually stimulating more lending and borrowing in the economy to boost AD. This is because Banks may use the extra cash to invest in assets and, as a result, simply pish their price up. This will make wealth inequality worse.

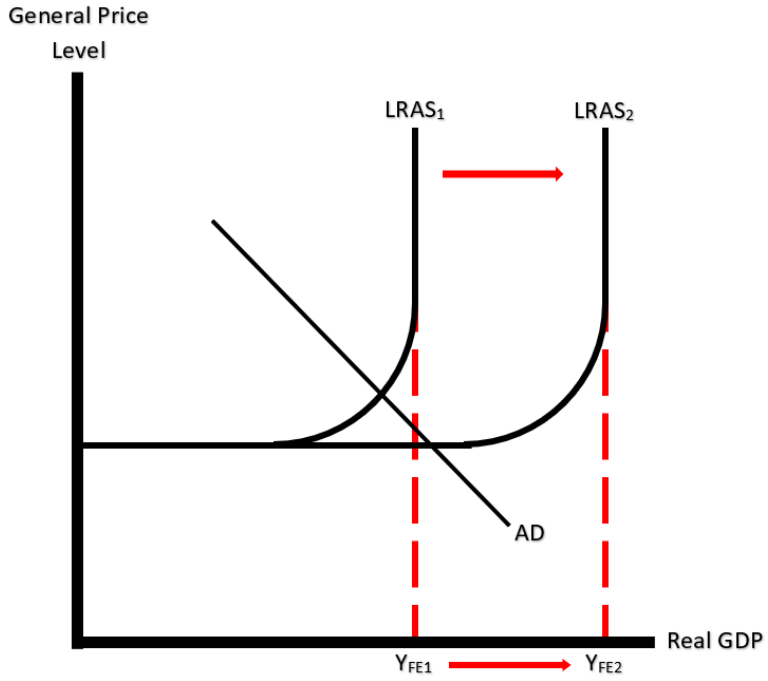
- **Potentially much higher inflation in the years ahead?**

  Monetarist economists warn that a huge expansion of the money supply through quantitative easing risks causing much higher inflation in the years ahead as there is now much more cash in the economy chasing a relatively smaller amount of Goods and Services.

Macroeconomic Government Policy – Supply Side Policy

As the name suggests, Supply Side Policies (SSPs) aim to improve the Supply Side of the Economy and boost the Productive Capacity of the Economy. This is done by improving either the Quantity or Quality of Factors of Production in the Economy. Generally, SSPs will seek to improve Productivity in the Economy in order to boost LRAS – as shown below.





Types of Supply-side Policy

Market-Orientated *These policies seek to improve the functioning of Market Forces in the Economy in order to improve resource allocation and improve overall Productivity*	Interventionist *These policies seek to combat Market Failures in order to improve resource allocation and improve overall Productivity*
Privatisation Selling state-owned assets will allow the Private sector to better allocate resources due to the Profit Incentive – resulting in Productivity gains. **Deregulation** Allows firms to be less restricted in how they conduct business and, therefore, better allocate resources - resulting in Productivity gains **Income Tax Cuts** Cutting Income Tax will create a greater incentive to return to work or to work longer hours. **Labour Market Reforms** Reducing Trade Union power, minimum wages and regulation will allow labour to be better allocated. **Welfare Reform** Re-working welfare systems will mean that Labour will have an incentive to return to work or to be more productive.	**Infrastructure Investment** Improving Infrastructure will improve transportation and reduce costs – meaning Mobility of Labour will improve, resulting in Productivity gains. **Education Investment** Improving Education will improve Human Capital in the Economy – meaning Occupational of Labour will improve and the quality of Labour will improve, resulting in Productivity gains. **Health Investment** Improving Education will Human Capital in the Economy – that the quality of Labour will improve, resulting in Productivity gains. **Housing Supply** More secure housing will mean that workers will have greater Mobility of Labour, resulting in Productivity gains.

Limitations of Supply Side Policies

- **Time Lags**

  Supply-Side Policies can take a long time to have an impact. Train Lines or Airports can take decades to full open, and Primary School Education funding wouldn't have an impact until the students reach 18!

- **Opportunity Costs**

  A good number of Supply-Side Policies require large amounts of funding. As of March 2023, HS2 is estimated to cost roughly £100bn – that's more than twice the annual UK Army budget, and nearly twice as much as the annual funding for State Schools. The argument for that money to be spent elsewhere is very strong

- **NIMBY-ism**

  Plenty of people may support the idea of Airports, Trains, etc being built in the country – as long as it doesn't go through their local area. Hence the acronym NIMBY – standing for Not In My Back Yard. In the UK, planning permission is very difficult to come by for large projects and they can often be bogged down for years in this stage.

- **Inequality**

  Market-Based policies such as Privatisation, Labour-Market Reform and Welfare Reform are controversial due to the increased Inequality that is often associate with them. For example, Growth may have boomed under Margaret Thatcher's leadership, but so did Inequality

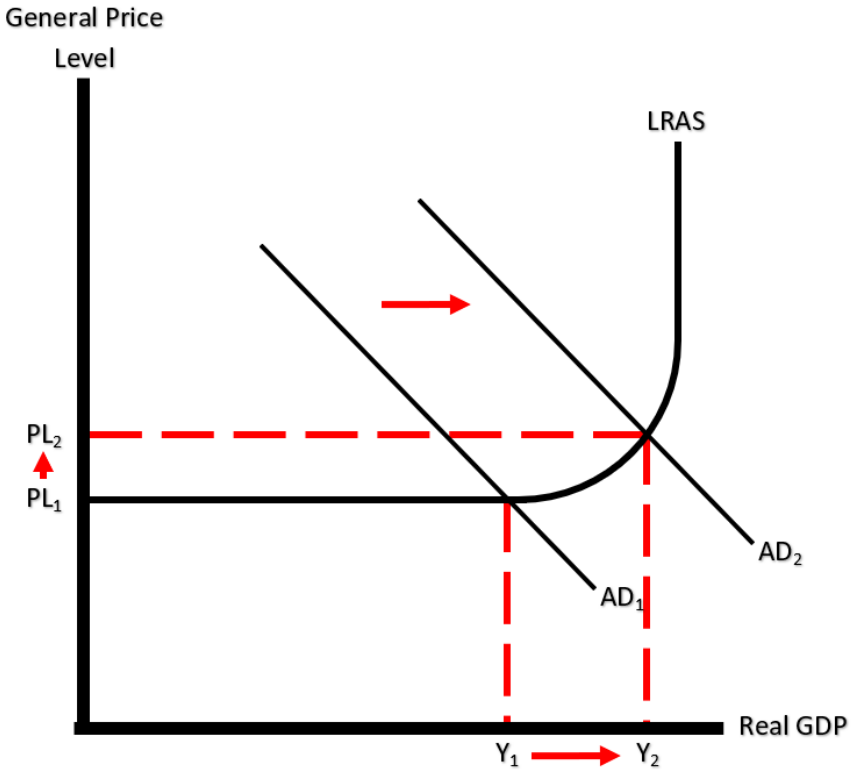
Conflicts between Objectives and Policy

In A Level Macroeconomics, you need to know about how certain objectives conflict with each other. After all, ***you can't always get what you want.*** Given that governments cant always achieve every objective, there are inherent ***trade-offs*** when we make a policy decision. We'll look at the following in detail, but arguably there are conflicts between all objectives

- Economic Growth and Inflation
- Economic Growth and the Environment
- Economic Growth and the Balance of Payments
- Economic Growth and Inequality
- Unemployment and Inflation
- The Balance of Payments and Inflation

Economic Growth and Inflation

If Aggregate Demand increases, this will cause National Output and, therefore, GDP to grow. Whilst this will cause Economic Growth, this will also put upwards pressure on prices – meaning that the Price Level of the economy will increase too and we will have Demand-Pull Inflation. This will happen any time we use Expansionary Fiscal or Monetary Policies in order to boost AD.



This is shown in the above diagram where AD shifts from AD_1 to AD_2 and, as a result, Real GDP increases from Y_1 to Y_2, and Price Level also increases from PL_1 to PL_2.

Economic Growth and the Environment

If Real GDP in an economy increases, that means that the economy is now producing more Goods and Services. As a result, derived demand for resources will increase and there is a strong likelihood that the use of these will cause various Negative Externalities such as Air Pollution (contributing to Climate Change), Noise Pollution and Visual Pollution – all of which cause falls in Standard of Living.

Economic Growth and the Balance of Payments

If Real GDP in an economy increases, that means that National Income in the economy is now higher and consumers are likely to have higher Incomes. Therefore, consumers may choose to spend more on imported goods and services instead of consuming domestic goods and services. As a result, Imports will increase and overall Net Exports will fall – meaning a deteriorating Current Account

Furthermore, higher growth levels are likely to cause inflationary pressures too. This will cause domestic goods and services to raise in price and, as a result, lose their international competitiveness. This will cause Exports to fall as well – worsening the Current Account

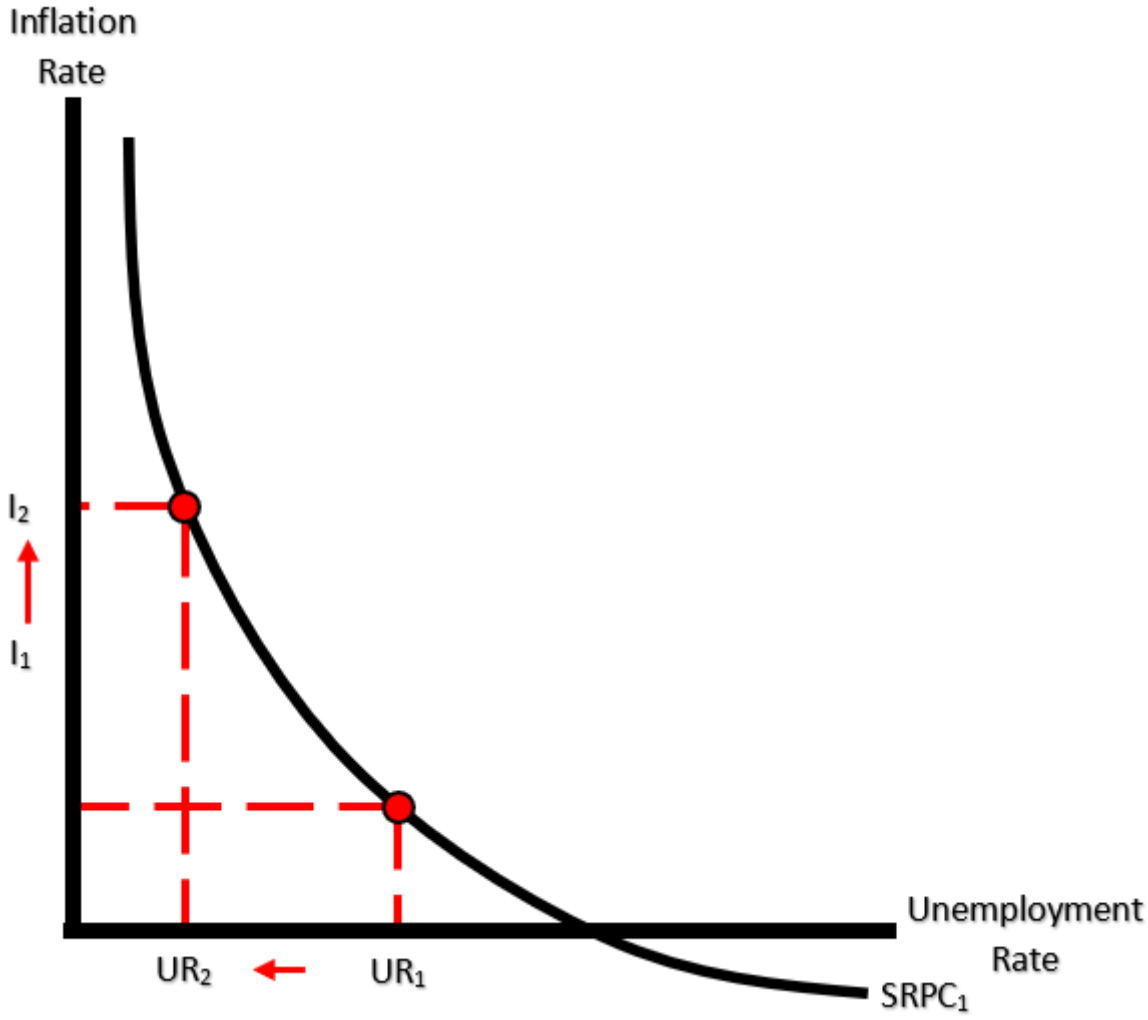
Economic Growth and Inequality

Higher Rates of Economic Growth should mean that Average Incomes rise – after all, *a rising tide lifts all boats*. However, it isn't always the case that everyone gets equally better off. For example, in Boom periods, it's often the industries with already higher-paying jobs that see higher incomes, worsening the inequality gap. Furthermore, a lot of the falling Unemployment associated with recent Growth has been in the part-time or Gig Economy where wages are much lower. This means that, whilst more people do have an income, they're still not actually earning that much.

What's more, those who's main source of income is welfare payments have lost out. These are often linked to Inflation, which has been very low for the last 10/15 years, meaning they have missed out on increases in Income. All the whilst they have missed out, a lot of wealthy individuals have been able to leverage their wealth to create more wealth – thus worsening Inequality in the UK.

Unemployment and Inflation

The Phillips Curve shows the relationship between Unemployment and Inflation. As Unemployment falls, Inflation rises. This means that it may be difficult for Governments to balance these two objectives. This is because, as Unemployment falls, we move close to Full Employment. Therefore, resources become scarce and the price of resources (especially Labour) climbs. As a result, firms may have to raise prices – causing Cost-Push Inflation.



As the above diagrams shows, if the Government wants to reduce Unemployment, they may have to sacrifice their objective of Low and Stable Inflation as a result.

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