- E.g. a rise in population size would increase consumption and would be likely to stimulate investment and government expenditure.

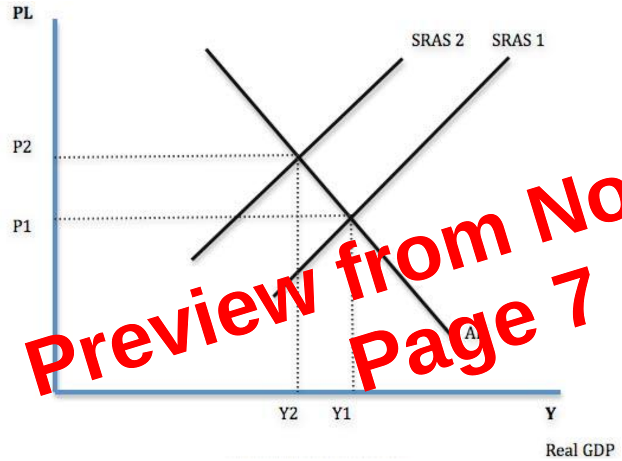
Aggregate Supply

-The shape of **aggregate supply** is influenced by the level of capacity existing in the economy.
Aggregate supply (AS): the total amount that producers in an economy are willing and able to supply at a given *price level* in a given time period.

Shifts in the aggregate supply curve:
-A decrease in aggregate supply is represented by a shift to the left of the AS curve.
-An increase in aggregate supply is shown by a shift to the right of the AS curve.
Causes of changes in AS:
a) Short run:
-Changes in the cost of production:

- If there is a fall in material costs or a fall in wages, the economy's cost of production falls and aggregate supply increases.
- However if there is a rise in material costs or in wages, the economy's cost of production rises and aggregate supply decreases.

-Graph:



b) Longer run (alter productive capacity):
-Increase in quality and/or quantity of factors of production.
-Capital:

- Invest in new, more modern machinery.
- Build new factories.
- Improve infrastructure.
- Research and development.

-Land:

- Land reclamation e.g. Singapore.
- Renting land in other countries e.g. China renting land in Ukraine.
- Improve quality of land by using fertilisers, irrigation or clearing land.

-Labour:

- Increase immigration.
- Improvement in skill of workers through education and training (higher human capital) so productivity increases.
- Population growth.
- Bonuses and incentives for workers.

Measuring economic growth

-Economists first calculate **nominal GDP**.
Nominal GDP: output measured in current prices and so not adjusted for inflation.
-They then convert it into **real GDP**.
Real GDP: the country's output measured in constant prices and so adjusted for inflation.
-Economic growth is usually measured by the annual percentage change in real GDP.
-A countries output is equal to a country's income and its expenditure, so real GDP can be calculated by finding out the output, income or expenditure of the country.

Production and productivity:

-Production is what is produced, so when real GDP increases it means that output has risen.
-**Labour productivity**, in contrast, is output per worker hour:
Labour productivity: output of a good or service per worker in a given time period *(usually per hour).*
-It is possible for production and productivity to move in opposite directions:

- When an economy is expanding, production will rise.
- If less skilled workers have to be recruited to make the extra output, productivity may fall.
- This might indicate that, while an economy may appear to be doing well, its ability to sustain rises in output may be in doubt.

Difficulties in interpreting changes in real GDP

1) A rise in output may be exceeded by a rise in population:

- So it is better to find out the real GDP per capita (found by diving real GDP by population).

2) Existence of an **informal economy**:

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.
-Its existence means that the country's output is higher than official real GDP figures suggest.
-The rate of inflation in the informal economy is usually much lower than that in the rest of the economy, meaning that the official measures overstate inflation.
-It also understates employment, which does not help when understanding real GDP.
-Tax revenue is lower than would be possible if all economic activity were taxes, which can have consequences for tax rates and government spending.
-Can result in lower productivity, as firms in the informal economy tend to stay small to avoid attention from the authorities, which limits their ability to use advanced technology and take advantages of **economies of scale**.
Economy of Scale: the advantage of producing on large scale, in the form of lower long-run average cost.

3) Composition of Real GDP, when looking at standards of living:

-A rise in real GDP does not mean that people have a better standard of living.
-A rise in GDP may not benefit many of the population if income is unevenly distributed, or if they are working longer hours, or working under worse conditions.
-The figures do not include positive and negative externalities:

- E.g. if pollution rises, real GDP does not fall, even though people will experience a lower quality of life.

Labour Force Survey: a measure of unemployment based on a survey using the ILO definition of unemployment.

- This is based on the **International Labour Organisation**'s definition of unemployment ('out of work, want a job, have actively sought work in the last four weeks and are available to start work in the next two weeks or are out of work, have found a job and are waiting to start it in the next two weeks'). **International Labour Organisation (ILO):** a member organisation of the United Nations that collects statistics on labour market conditions and seeks to improve working conditions.
- It uses a survey to collect information on the labour force, including type of employment, earnings and educational qualifications of the labour force, as well as unemployment

2) **Claimant count**:
Claimant count: a measure of unemployment that includes those receiving unemployment-related benefits.
-Claimant 'must declare that they are out of work, capable of, available for and actively seeking work in the week in which their claim is made.

Difficulties of measuring unemployment:
1) LFS measure:
-A relatively expensive method.
-It is slower than the Claimant Count.
2) Claimant Count:
-Is thought to capture less of those who are unemployed:

- Some people can be actively seeking work but not entitled to claim unemployment-related benefits.

-You can't do international comparisons.

Causes of unemployment

1) Demand side:
-**Cyclical unemployment**:
Cyclical unemployment: unemployment arising from a lack of aggregate demand.

- In this case demand for most products will be low.
- Unemployment may be high.

2) Supply side:
-**Structural unemployment**:
Structural unemployment: unemployment caused by the permanent decline of certain industries and occupations due to changes in demand and supply. There is a mismatch between skills and the jobs available in the economy.

- People might lack the right skills due to advances in technology (technological unemployment).
- Might be people unemployed on one side and job vacancies on another part (regional unemployment).
- Firms decide to carry out some of their work abroad (outsorcing) or decide to buy imports rather than domestically produced products (international unemployment).

-**Frictional unemployment**:
Frictional unemployment: short-term unemployment when workers are in-between jobs.

-FDI in the UK will be attracted by a strong UK economic performance, a skilful labour force and favourable government policies, including regional development grants available to incoming firms.

Advantages of strong currency:
1) Cheaper imports:
-An increase in the value of a currency makes imports cheaper and so consumers can now afford to buy more imports than before.
2) Lower costs for firms:
-Imports of raw materials are now cheaper than before, and this can be represented by an outward shift of the AS curve.
3) Lower inflation:
-A strong currency helps to control the rate of inflation because domestic suppliers now face stiffer international competition from cheaper imports and will look to cut their costs and price accordingly in order not to suffer from a loss of international competitiveness.
4) Lower interest rates:
-If inflation is lower then interest rates should also be lower.

Disadvantages of a strong currency:
1) Increased size of trade deficit:
-The lower price of imports leads to consumers increasing their demand and this can cause a large trade deficit.
-Exports are also more expensive so exports will fall.
2) Lower economic growth:
-If exports fall, this causes a reduction in aggregate demand and reduces economic growth.
-Some regions of the economy are affected by this more than othrs.
3) Lower business confidence and investment:
-Lower exports and greater competition from imports may lead to lower business confidence and investment especially amongst exporters.
4) Tourism:
-A stronger currency means tourists get fewer pounds when they visit the UK and so visiting the UK becomes less attractive.
-Therefore hotels, restaurants and other touristic industries may suffer.

The relationship between exchange rate and the interest rate
Effect of changes in exchange rates on interest rates:
-If the UK's exchange rate rises, export prices expressed in terms of foreign currencies will rise.
-Demand for exports will fall and this will reduce aggregate demand.
-Lower aggregate demand will reduce inflationary pressure.
-This may mean that it will reduce the interest rate.
Effect of changes in interest rates on exchange rates:
-A reduction in the interest rate will reduce the return on money kept in UK financial institutions.
-There will probably be an outflow of fund from the UK to other countries.
-This means that more of the currency is being sold.
-The increase in the supply of currency will reduce the exchange rate.

The effect of a change in the exchange rate on export- and import-prices

-A fall in the exchange rate (depreciation) if causes by market forces, will reduce the price of exports in terms of foreign currencies:

- Most exporters would be likely to let their exports prices fall in line with a fall in the exchange rate.
- Selling at a lower price in their export markets should enable them to increase their sales.

-A fall in the exchange rate will increase the price of imports in terms of domestic currency.

Changes in the exchange rate and the macroeconomy

-A reduction in the exchange rate is likely to improve the current account position of the balance of payments:

- A fall in the price of imports will result in a rise in export revenue if demand is elastic.
- A rise in import prices will reduce expenditure on imports again if demand is elastic.

-A lower exchange rate, by boosting exports and reducing imports, will also increase aggregate demand:

- If the economy was previously operating below full capacity, such an increase will also raise employment and real GDP.
- More workers will be taken on in order to produce more products, both for exports and for the home market.

-There is a risk that a lower exchange rate will put upward pressure on inflation:

- This is because price of imported raw materials will rise, thereby increasing cost of production and the price of imported finished products that count in the calculation of the country's inflation rate.
- In addition, domestic firms facing more expensive imported ribal products at home. The prospect of their products being cheaper abroad and higher demand in both markets will be under pressure to keep their costs and price low.

Cost-push inflation:

-A government can reduce minimum wages, in order to decrease cost of production and lower inflation.

-However, they might create inflexibility in labour markets:

- Firms wanting to expand will be limited in how much they can offer to attract new workers.

-A government may try to lower firms' cost by reducing corporation tax:

- This will also have the advantages of stimulating investment.

-A government may provide subsidies, so that firms can cover rising costs without having to put up their prices:

- This measure may reduce costs in the long run if some of the subsidies are spent on investment.
- There is a danger, however, that firms may become reliant on subsidies and do not strive to keep their costs down.

Demand Pull Inflation:

-To reduce demand-pull inflation, a government may use deflationary fiscal and/or monetary policy instruments:

- These are ones that seek to reduce inflation by decreasing aggregate demand, or at least the growth of AD.

-A government could raise income tax, in order to reduce people's disposable income and so their ability to spend.

-Increase interest rate, which is likely to reduce AD by reducing consumption, investment and net exports.

Inflation targeting:

-Can lower the chance of both demand-pull and cost-push inflation by reducing expectations of inflation.

-If people are convinced that a central bank has a determination, experience and ability to meet its target they will act in a way that does not cause inflation.

1) Long run:

-In the long run, a government is likely to seek to reduce the possibility of inflationary pressure by increasing aggregate supply.

-If the productive capacity of the economy grows in the line with AD, with rightward shifts in the AD curve (from AD1 to AD2) being matched by rightward shifts in the LRAS curve (from LRAS1 to LRAS2), the economy can grow (from Y1 to Y2) without the price level changing (remains at P1):

- This means people will be able to enjoy more goods and services without the economy experiencing inflation and balance of payments problems.

-To do this, the government uses supply-side policies, in a long-run approach to controlling inflationary pressure.

-Graph:

-These measures may however have inflationary side effects:

- Imposing tariffs will increase the price of some products bought in the country, raise the cost of imported raw materials and reduce competitive pressure on domestic firms to keep costs and prices low.
- Placing restrictions also runs the risk of provoking retaliation (if other countries respond by increasing their restrictions, the country may end up spending less on imports but also earning less from exports).

Long-run:

-If a deficit arises from a lack of quality competitiveness, low labour productivity or high inflation, then reducing the value of the currency, deflationary demand-side policy instruments and import restrictions will not provide long-run solutions.
-In such a situation the government should use supply-side policies:

- A government may give subsidies to infant industries so they have the potential to grow and become internationally competitive.
- It may also increase funds for research and development at universities to encourage invention and innovation.

-How successful supply-side policies are depends on the appropriateness of the policies.
-Some supply-side policies can also take a relatively long time to have an effect and can be very expensive for the government.

Current account surplus:

-A government may seek to reduce or eliminate surplus in order to avoid inflationary pressure and to raise the amount of imports it can enjoy.
-To reduce a surplus, a government may seek to raise the value of its currency, introduce reflationary fiscal and monetary instruments and/or reduce import restrictions.

Effectiveness of fiscal policy

Advantages:

-A number of taxes and forms of government spending adjust automatically to offset fluctuations in real GDP.
-Changes in government spending affect 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.
-Some forms of government spending and taxation including cuts in corporation tax and training grants, have the potential to increase both AD and AS.

Disadvantages:

1) Time lag:

-To recognise the need for a change in policy.
-To gather the information on which to base the change.
-To draw up and implement new tax codes and government spending plans.
-Between introducing a fiscal policy instrument and that instrument having an impact on the economy.

2) Inflexibility of government spending:

-Difficult to cut spending on health care and pensions.
-Once an investment project, such as a new hospital or road, has been started, it may be politically and economically difficult to stop it.

3) Not always based on accurate information:

-This means there is an increases the price from Wp to Wp + tariff.
-This causes domestic demand to fall from Qd to Qd1 and domestic supply to increase from Qs to Qs1.
-This means the excess demand falls and the domestic suppliers supply more so they suffer less.
-Therefore, the level of imports falls from Qd – Qs to Qd1 – Qs1.
- The triangles on each side of the box are labeled **A** and **B**.
-Area **A**: Production distortion as domestic supply increases.
-Area **B** is a consumption distortion as domestic demand falls.
-The government of the importing country receives tariff revenue, of the box under the equilibrium, which is equal to the tariff multiplied by the imports after the tariff.
<u>Winners of tariff:</u>
-Government of the importing countries.
-Domestic producers.
<u>Losers of tariff:</u>
-Government of the exporting country.
-Foreign producers.
-Domestic consumers.
<u>It depends on:</u>
-How high tariff is.
-The products of services it affects.
-The price elasticity of demand.
-The price elasticity of supply.
-The cross elasticity of demand.

<u>Quotas</u>
-Quotas can be imposed on imports to ban a certain amount by the quantity of by the value of the exports.
<u>-Effect:</u>
-The effect of a quota is to reduce supply.
-This is likely to push up price.

-Foreign firms would experience a reduction in the quantity they can sell but may benefit from the higher price of demand for their products is inelastic and if the quotas are not operated via the selling of import licenses.

<u>**Voluntary Export Restraint** (VER):</u>
-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 damaging import restrictions being imposed on its products.

Voluntary export restraint (VER): a limit placed on imports from a country with the agreement of that country's government.

<u>Foreign exchange restrictions:</u>
-A government may seek to reduce imports by limiting the amount of foreign exchange made available to those wishing to buy the imported goods and services or to invest or to travel abroad.

<u>Embargoes:</u>