

INTRO TO ECONS:

Market Economic System

The central thought of this system is that it should be the producers and consumers who decide how to utilise the resources. Thus, the market forces decide what to produce, how much to produce and for whom to produce.

Features

All resources are privately owned by people and firms.

Profit is the main motive of all businesses.

There is no government interference in the business activities.

Producers are free to produce what they want, how much they want and for whom they want to produce.

Consumers are free to choose.

Prices are decided by the Price mechanism i.e. the demand and supply of the good/service.

Advantages

Free market responds quickly to the people's wants: Thus, firms will produce what people want because it is more profitable whereas anything which is not demanded will be taken out of production.

Wide Variety of goods and services: There will be a wide variety of goods and services available in the market to suit everybody's taste.

Efficient use of resources encouraged: Profit being the sole motive, will drive the firms to produce goods and services at lower cost and more efficiently. This will lead to firms using the latest technology to produce at lower costs.

Disadvantages

Unemployment: Businesses in the market economy will only employ those factors of production which will be profitable and thus we may find a lot of unemployment as more machines and less labour will be used to cut cost.

Certain goods and services may not be provided: There may be certain goods which might not be provided for by the Market economy. Those which people might want to use but don't want to pay may not be available because the firms may not find it profitable to produce. For example, Public goods, such as street lighting.

Consumption of harmful goods may be encouraged: Free market economy might find it profitable to provide goods which are in demand and ignore the fact that they might be harmful for society.

Ignore Social cost: In the desire to maximise profits businesses might not consider the social effects of their actions.

Planned Economy

In a planned economy, the factors of production are owned and managed by the government.

Thus the Government decides what to produce, how much to produce and for whom to produce.

Features:

All resources are owned and managed by the government.

There is no Consumer or producer sovereignty.

The market forces are not allowed to set the price of the goods and services.

Profit is not the main objective, instead the government aims to provide goods and services to everybody.

Government decides what to produce, how much to produce and for whom to produce.

Advantages

Prices are kept under control and thus everybody can afford to consume goods and services.

There is less inequality of wealth.

There is no duplication as the allocation of resources is centrally planned.

Low level of unemployment as the government aims to provide employment to everybody.

Elimination of waste resulting from competition between firms.

Disadvantages

Consumers cannot choose and only those goods and services are produced which are decided by the government.

Lack of profit motive may lead to firms being inefficient.

Lot of time and money is wasted in communicating instructions from the government to the firms.

Mixed Economy

A **mixed economy** is an economic system that incorporates aspects of more than one economic system. This usually means an economy that contains both privately-owned and state-owned enterprises or that combines elements of capitalism and socialism, or a mix of market economy and planned economy characteristics. This system overcomes the disadvantages of both the market and planned economic systems.

Features

Resources are owned both by the government as well as private individuals. i.e. co-existence of both the public sector and private sector.

Market forces prevail but are closely monitored by the government.

Advantages

Producers and consumers have sovereignty to choose what to produce and what to consume but production and consumption of harmful goods and services may be stopped by the government.

Social cost of business activities may be reduced by carrying out cost-benefit analysis by the government. Compared to Market economy, a mixed economy **may have less income inequality** due to the role played by the government.

Monopolies may be existing but **under close supervision** of the government.

MICROECONOMICS:

Why demand curve shifts:

Change in people's income: More the people earn the more they will spend and thus the demand will rise. A fall in income will see a fall in demand.

Changes in population: An increase in population will result in a rise in demand and vice versa.

Change in fashion and taste: Commodities or which the fashion is out are less in demand as compared to commodities which are in fashion. In the same way, change in taste of people affects the demand of a commodity.

Changes in Income Tax: An increase in income tax will see a fall in demand as people will have less money left in their pockets to spend whereas a decrease in income tax will result in increase of demand for products and services because people now have more disposable income.

Change in prices of Substitute goods: Substitute goods or services are those which can replace the want of another good or service. For example margarine is a substitute for butter. Thus a rise in butter prices will see a rise in demand for margarine and vice versa.

Change in price of Complementary goods: Complementary goods or services are demanded along with other goods and services or jointly demanded with other goods or services. Demand for cars has affected the change in price of petrol. Same way, demand for DVD players will rise if the prices of DVDs' fall.

Advertising: A successful advertising campaign may affect the demand for a product or service.

Why supply curve may shift:

Price of the commodity: A rise in price will result in more of the commodity being supplied to the market and vice versa.

Prices of other commodities: For example if it is more profitable to produce LCD TVs then producers will produce more LCD TVs as compared to PLASMA TVs. Thus the supply curve for PLASMA TVs will shift inwards i.e. a fall in supply.

Change in cost of production: Increase in the cost of any factor of production may result in the decrease in supply as reduced profits might see producers less willing to produce that commodity.

Technological advancement: Improvement in technology results in lowering of cost of production and more profits for the producer and thus more supply of that commodity.

Climate: Climate and weather conditions affect the supply of commodities especially agricultural goods.

COST OF PRODUCTION:

Fixed Costs (FC) The costs which don't vary with changing output. Fixed costs might include the cost of building a factory, insurance and legal bills. Even if your output changes or you don't produce anything, your fixed costs stay the same. In the above example, fixed costs are always £1,000.

Variable Costs (VC) Costs which depend on the output produced. For example, if you produce more cars, you have to use more raw materials such as metal. This is a variable cost.

Semi-Variable Cost. Labour might be a semi-variable cost. If you produce more cars, you need to employ more workers; this is a variable cost. However, even if you didn't produce any cars, you may still need some workers to look after an empty factory.

Total Costs (TC) = Fixed + Variable Costs

Marginal Costs – Marginal cost is the cost of producing an extra unit. If the total cost of 3 units is 1550, and the total cost of 4 units is 1900. The marginal cost of the 4th unit is 350.

Opportunity Cost – Opportunity cost is the next best alternative foregone. If you invest £1million in developing a cure for pancreatic cancer, the opportunity cost is that you can't use that money to invest in developing a cure for skin cancer.

Economic Cost. Economic cost includes both the actual direct costs (accounting costs) plus the opportunity cost. For example, if you take time off work for a training scheme. You may lose a week's pay of £350, plus also have to pay the direct cost of £200. Thus the total economic cost = £550.

Market Failure

Social Costs. This is the total cost to society. It will include the private costs plus the external cost (cost incurred by a third party). May also be referred to as 'True costs'

External Costs. This is the cost imposed on a third party. For example, if you smoke, some people may suffer from passive smoking.

That is the external cost.

Private Costs. The costs you pay. e.g. the private cost of a packet of cigarettes is £6.10

Social Marginal Cost. The total cost to society of producing one extra unit. Social Marginal Cost (SMC) = Private marginal cost (PMC)

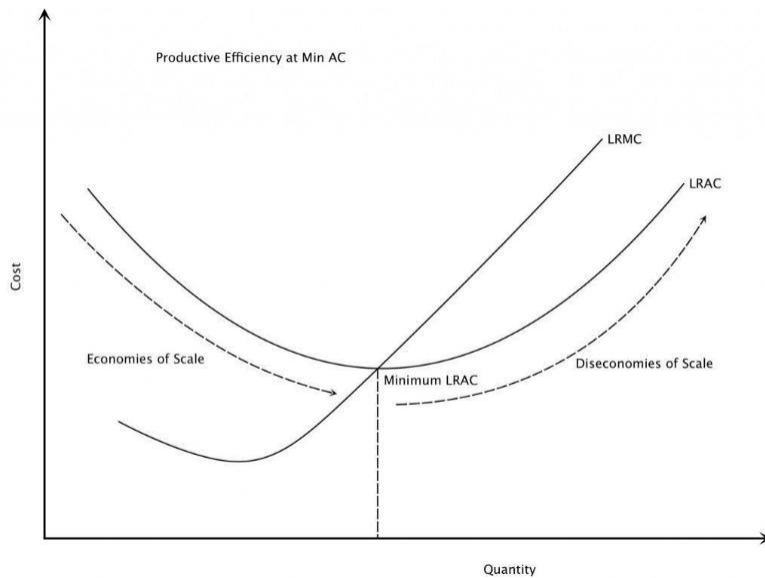
+ External marginal Cost

(XMC) Diagram of Costs

For full diagrams of costs see: Diagrams of cost curves

Average Cost Curves

cost-curves-mc-atc-avc



ATC (Average Total Cost) = Total Cost / quantity

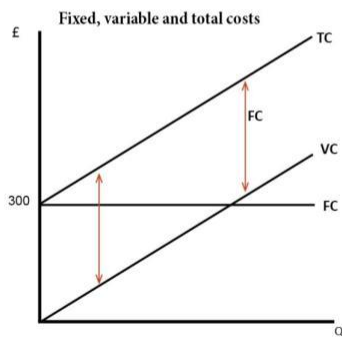
AVC (Average Variable Cost) = Variable cost / quantity

MC = Marginal cost.

AFC (Average Fixed Cost) = Fixed cost / quantity



Total costs



Total cost (TC) = Variable cost (VC) + fixed costs (FC)

Total costs

fixed-variable-total-costs $\text{Total cost (TC)} = \text{Variable cost (VC)} + \text{fixed costs (FC)}$

TAXES:

Progressive taxes

This is a type of taxation where as you have more income that is subject to tax, you pay higher average rates. This mostly relates to income taxes. The term “progressive” comes from the fact that as taxable income increases, the tax rate gets progressively higher.

The federal income tax brackets are an example of progressive taxation. The federal government uses marginal tax rates, which tax income within a certain range at one rate and income in a higher range at a higher rate.

A progressive income tax may also be referred to as a graduated income tax.

Regressive taxes

The opposite of a progressive tax is a regressive tax. This is a method of taxation where as you have more that is subject to tax, your average tax rate is lower. One example of a regressive tax is the Social Security tax, a type of payroll tax (more on that later).

All taxpayers need to pay the Social Security tax. For 2019, income up to \$132,900 is subject to the tax. The higher your income goes above that limit, the lower the average rate that you pay.

Proportional and flat taxes

A proportional tax is one where the amount you pay is proportional to how much you have. You will also hear people refer to this as a flat tax. For example, imagine you live in a state with a flat income tax of 5%. Each taxpayer will pay 5% of his or her taxable income. Since everyone is paying a proportional amount of their income, this is a proportional tax.

There are several very common types of taxes:

Income Tax —a percentage of individual earnings filed to the federal government

Corporate Tax—a percentage of corporate profits taken as tax by the government to fund federal programs.

Sales Tax—taxes levied on certain goods and services

Property Tax—based on the value of land and property assets

Tariff—taxes on imported goods imposed in the aim of strengthening internal businesses

Estate tax—rate applied to the fair market value of property in a person's estate at the time of death

Tax systems vary widely among nations, and it is important for individuals and corporations to carefully study a new locale's tax laws before earning income or doing business there.

Type of economies of scale

These can be classified into five categories:

Purchasing economies:

When businesses buy in large quantities, they are able to get discounts and special prices because of buying in bulk. This reduces the unit cost of raw materials and a firm gets an advantage over other smaller firms.

Marketing economies:

The cost of advertising and distribution rises at a lower rate than rises in output and sales. In proportion to sales, large firms can advertise more cheaply and more effectively than their smaller rivals.

Financial economies:

A larger company tends to present a more secure investment; they find it easier to raise finance. Banks and other lending institutions treat large firms more favorably and these firms are in a position to negotiate loans with preferential interest rates. Further, large companies can issue shares and raise additional capital.

Managerial economies:

A large company benefits from the services of specialist functional managers. These firms can employ a number of highly specialized members on its management team, such as accountants, marketing managers which results in better decisions being taken and reduction in overall unit costs.

Technical economies:

In large scale plants there are advantages in terms of the availability and use of specialist, indivisible equipment which are not available to small firms. Large manufacturing firms often use flow production methods and apply the principle of the division of labour. This use of flow production and the latest equipment will reduce the average costs of the large manufacturing businesses.

Central Banks:

Is the center of the banking systems at most economies. Its main function is to maintain the stability of the national currency and the money supply. It is the Banker's bank.

- 1) Supervises the banking system and regulates the conduct of banks.
- 2) Holds the account of banks and transfers money between them. (clearing system)
- 3) It is the lender of last resort.
- 4) Issues notes and coins.
- 5) Manages the national debt.
- 6) Manages payments to and from the government.
- 7) Manages the national gold's resources.
- 8) Foreign currency reserves
- 9) Operates the government's monetary policy.

Commercial Banks: Is a retail bank that provides financial services to its customers, such as accepting savings, deposits and approving bank loans.

All commercial banks are responsible for maintaining the deposits of their account holders.

- 1) Transactions are socially and legally governed by the central bank.
- 2) Accepts deposits: including private individuals, businesses and governments.
- 3) Increase the supply of money in an economy by making money available to the borrowers. This is called credit creation.

Stock exchanges: Limited liability is where you are only needed to pay how much you have invested in. The stock market is a market where you can buy shares in other companies or a place where companies can list their own company to sell shares for more money.

Functions of the stock exchange:

1. Buying and selling of shares/bonds. The way people earn money through trading is where they buy low (when the company recently went public) and sell high.
2. Companies can grow externally through merging and takeovers.
3. Helps governments and firms to raise finance.

4. The stock exchange offers countries who want to expand but can't lend more money. Thus, they go to the stock exchange and sell shares.
5. Mobilizing savings for investment. If a company grows, more people get employed and will buy goods. Thus, the economy will grow.
6. Gives protection to investors-Public reports/audited reports.
7. Provide an indication on The Economy. A bear/bull market. In a bull market, a lot of buying and selling is happening. Vice versa occurs for the bear.

Reasons to buy shares:

- 1) You buy shares to gain dividend.**
- 2) Capital gain.**
- 3) Influence of running the company.**

Notes for Economics:

- 1) Come up with different methods of payment for work
 - Time Rate: You get paid by the amount of hours they work. This is generally known as wages.
 - Piece Rate: You get paid by the number of output you produce.
 - A fixed annual rate or salary: You get paid on a fixed amount and is paid monthly
 - Performance related savings: You get paid by how productive you are.

2) Identify the periods in one's life where they might be

- a. Earning less than they spend-Part-time University students
- b. Earning more than they job: when they have a career(mid 30s)
- c. Not earning but spending their own savings or transfer from others: When you are already retired.

2) Research how earnings can change overtime in 2 specific occupations.

- a. Professional basketball player: For professional basketball players, they will be paid by how well they perform. By all means, rookies would be paid less than veterans who've been in a professional league for a decent amount of time. If the player is the face of the organization like Stephen Curry for the Golden State Warriors, they would be paid more than other players. If the players contributed to a championship, they will be paid more as well. This is because if a team wins a championship, people would be more eager to see their games and buy their merchandise and thus the gross profit of the team would increase. As players age, their performance would downgrade and even if their salary won't decrease, it will just stay constant. Players are also paid through endorsements. The more well-known a player is, the more they are paid.
- b. Pilots: Pilots are paid through their experience, flight hours as the danger they encounter. If pilots are tasked for long-haul flights, they will be paid more. If they are tasked to land in more dangerous airports, they will be paid more. For example like the airport of Bhutan.

4) Factors affecting the savings ratio of people in Indonesia and the USA for individuals.

- a. Region's minimum wage
- b. Education as people who are more educated would save more as they would know the importance of saving money.
- c. Type of occupation
- d. Interest rate of banks.

Factors that cause individuals earnings to change.

- a. Qualifications
- b. Training
- c. Skills
- d. Promotion
- e. Experience
- f. Unemployment

- a. Income
- b. Wealth
- c. Rate of interest(if they increase or decrease the supply of money by changing the reserve rate ratio and the buying and selling of bonds)
- d. Age structure
- e. Social attitudes

Reasons why China saves more?

China saves 46% of their savings.

- a. One child policy
- b. Increase in GDP
- c. Difficulty of borrowing money
- d. Less support from government (pensions)

Why would a firm, a consumer or government borrow money?

Consumers would want to borrow money to exchange for goods they need or pay their debts such as student loans, cars and accommodation.

Governments would want to borrow money for the development of infrastructure such as roads and hospitals.

Firms would want to borrow money to expand their business.

Factors affecting borrowing

- a. Confidence in the fact you can pay back the money you borrowed with interest. Confidence in the economy.
- b. Interest rate- IF the interest rates are higher, you would borrow less
- c. Inflation rates: If the inflation rates are high, you would borrow more as you need more money.
- d. Credit cards: The availability of the amount of credit you are given. If the credit is high, you would borrow more.

e. Wealth: The amount of assets you have which includes property, commodities, shares etc. If you have a lot of assets, they would allow you to borrow money. COLLATERAL: The asset you put up to borrow money.

What factors affect consumer spending?

- 1) Interest rates- If the interest rates to borrow money are high, consumers would borrow less and hence if they borrow less, they would spend less.
- 2) Wage growth- If the minimum wages of a country grows, people would have more money thus they would be able to spend more.
- 3) Inflation- If the products of the goods in a country increases, people would be less willing to spend more.
- 4) House prices- In general, someone's biggest asset would be occasionally their house. If prices of houses increase, they would be more confident and willing to spend more as they know they would be able to mortgage their house in the future.
- 5) Tax rates- If tax rates increase, a higher proportion of their income would be taken away by the government and hence they will have less money to spend.
- 6) Difficulty to borrow money- If it is hard to borrow money from the bank, people would be less likely to spend money.

How and why different income groups have different expenditure patterns?

Different people would have different occupations. They earn money through their jobs but they still need to pay tax. The amount of money left after tax was paid would be their disposable income. People get paid differently as they have different occupations. A job that requires high educational qualification would be paid more than a job that only requires brute strength. A manager would be paid more than a janitor.

People with a lesser amount of disposable income would tend to buy inferior goods such as instant noodles and so on. They would spend most of their money on daily needs such as food, water and shelter. They would not be able to spend on more luxurious things such as a family 1 week trip to Hawaii. People with slightly higher wages would be able to spend on weekly movie nights. People who earn a lot of money due to high-ranking jobs such as a CEO would be able to spend money on Normal goods. Instead of canned beef they will have steak. Instead of a staycation, they would go for a vacation. People with higher disposable income would spend less on their needs and more on their wants such as brand new watches, brand new sneakers and so on.

Choice of occupation: when people apply for a job, they either see the money they will receive or the satisfaction of doing a job. Take an example of a marine soldier. They get paid a lot but the danger in doing the job is very evident.

1) Wage factors, monetary and pecuniary.

A difference between wage and salary would be that a salary is fixed and is paid to an employee monthly whereas a wage is usually paid per week, for less technical jobs and is usually influenced by piece and time rates.

2) Non-wage, non-monetary, on-pecuniary.

This depends on job satisfaction, type of work, working conditions, working hours and flexibility of working hours. Other factors include weekends/shift work, holiday as well as pension rates. Firms who provide higher pension rates usually target older people. Another one is fringe benefits. This type of benefits include cars, health insurance, and gym membership and school fees. Job security is one as well. Factors that affect job security would be career prospects, size of firms as well as location. Length of training is also one. If the training takes less time, skills and effort, one might go for a low paying job. One might go for a low paying job as well if they have lower levels of education.

Labor Market:

Demand of labor is called derived demand.

If baker's bakes bread and the demand for bread is low, the demand for bakers will drop as well.

So long as the cost of 1 extra labor is lower than revenue gained from using 1 more labor, the producer will continue to employ more labor until the additional cost=additional revenue.

No. of workers	Marginal physical product	Price=Marginal revenue	MPPxMR	Wage rate
1	20	10	200	160
2	18	10	180	160
3	16	10	160	160
4	14	10	140	160
5	12	10	120	160
6	10	10	100	160

Why firms change their demand for labor:

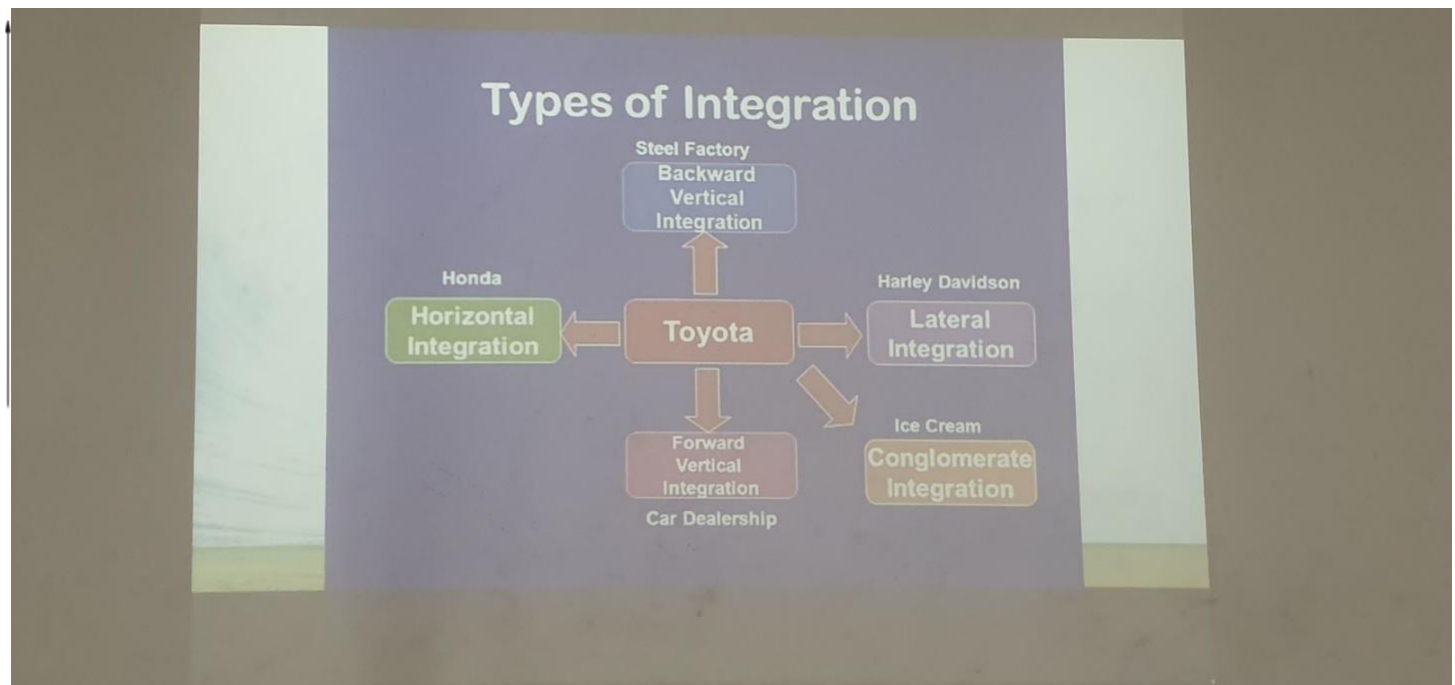
- 1) Increase in demand of their product
- 2) Increase in price of goods and services
- 3) Change in price+ productivity of capital
- 4) Changes in productivity of labor(training and an increase of hours of work)
- 5) Changes in non-wage employment + costs(insurance and health & safety costs)
- 6) Changes in subsidies

Elasticity:

Measure of responsiveness to a change in labor rate/ wage rate.

- 1) Substitutability of capital + labor = increase of wage rate; replace with machines; elastic demand for labor.
Inelastic demand = increase in wage you cannot replace. Machine for labor. Cleaning staff may not be replaced.
- 2) Elasticity of demand of product =Final product is inelastic, you can pass on an increase in wage. If the final product is elastic, the firm is unable to pass on an increase in wage rate.
- 3) Labor as a percentage of the total cost. If the percent of labor is 90% and 10% of capital, the demand of labor is inelastic. If the percent of labor is 10% and 90% capital, the demand of labor is elastic.
- 4) Time: If it is within a short term, it will be elastic. Vice versa for a long term.

SUPPLY:



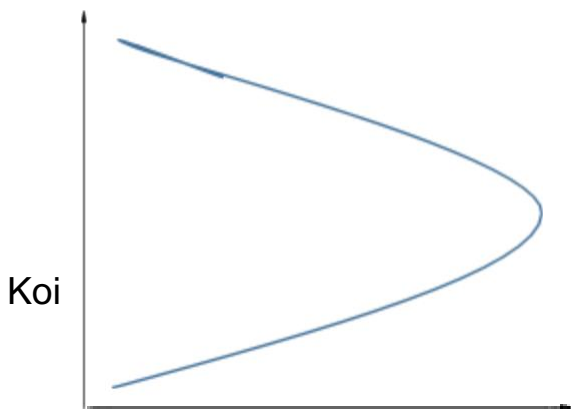
Shift to the right

- 1) Non-pecuniary factors such as conditions and fringe benefits
- 2) Decrease in training, requirements as well as professions.
- 3) Change in population (increase due to immigration)
- 4) Social attitudes due to work (women work and value of leisure time)

Shift to the left

- 1) Decrease in non-pecuniary factors
- 2) Increase in training and requirements.
- 3) Decrease in population
- 4) Change in social attitudes

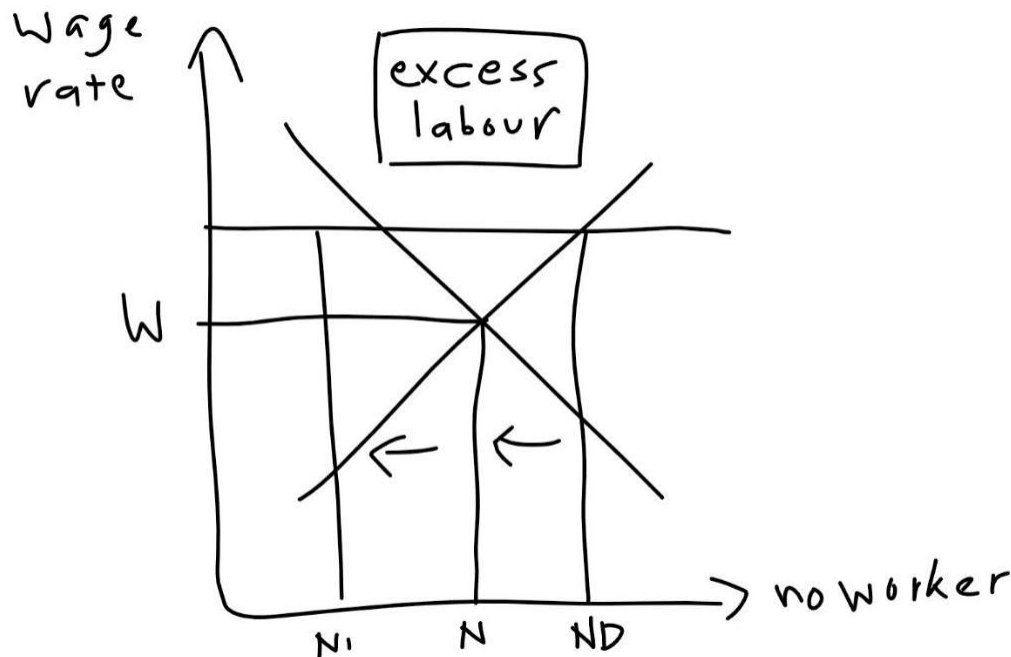
Backward supply curve: when people earn more wage, they don't want to work that hard anymore thus will work less.



What determines the elasticity of demand for labor would be how replaceable the worker is with machinery if there is an increase in wage rate.

With regards to supply, it would be its responsiveness of quantity of labor to change in wage rate. Factors would be training length as well as the skill required.

- 1) Anti-discrimination laws: Increase in wages +improve career prospects for groups. Women more valued + education= Increase in wages. Public opinion.
- 2) Advances in technology: Decrease in wage rates due to appearance of online banking. Hence, the number of bank tellers decreased. Increase in wage rates due to online shopping.
- 3) Discrimination results in low wages. Employees are not necessarily rational. Pay lower wages to groups of workers. Factors include economic inequality, age, race, gender and parenthood. In theory, discrimination is outlawed by it will manifest in other forms. One of these forms would be an increase in difficulty to gain promotion which prevents higher pay scales.



- 4) Minimum wage. Protects workers from exploitation. Increase in standard of living wage for youth plus skilled.
- 5) Advantages of minimum wage: Low skilled workers can cover the cost of living. Decrease in income inequality. This provides an incentive to work. Better than welfare. Increase in economic growth hence increase in spending/demand. Workers invest in health education.
- 6) Disadvantages: Increase in costs to firms will lead to increase in costs of goods and services. Increase in costs of labor will lead to a decrease in demand and hence may increase unemployment.

Collective Bargaining: Individual workers may not have the skills/time/willingness to negotiate. One worker is limited to bargaining power. E.g. can be dismissed/replaced. Trade unions enable workers to press their claim with collective bargaining.

Basis of a wage claim:

- 1) Real income. Less inflation, purchasing power. Increase in cost of living due to inflation.
- 2) Increase in productivity

3) Profitability of the firm/ industry.

4) Workers in comparable occupations have received an increase, then all other sectors would ask for a pay increase. Types of industrial action:

1) Negotiation breakdown on wage claim.

2) Arbitration to the 3rd party.

c. Strike: when employees refuse to work

d. Picketing: When employees stand outside the workplace and prevent the smooth functioning of the firm. E.g. they may stop the movement of Lorries in and out of the factory.

e. Work to Rule: It is when workers purposely follow all the rules in order to delay the progress of work.

f. Go slow: It is when the employees work at a very slow pace.

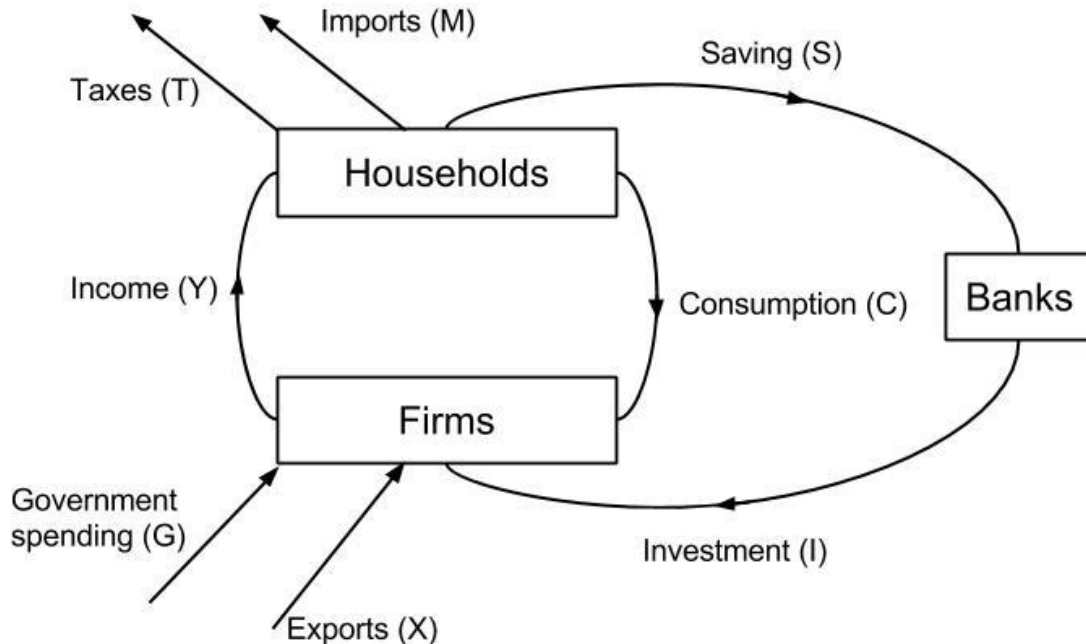
g. Non-cooperation: It involves workers refusing to follow a new procedure or rule.

h. Overtime ban: It is when the employees refuse to work overtime or for additional hours of work apart from their normal working hours.

Income = Value = Value G+S

Income= \$20= Golf Ball= \$20 = Value= \$20

Circular Flow of Income



Income going into the flow is called injections and income going out of the flow is known as leakages.

Injections = $G + I + X$

Leakages = $T + S + M$

Equilibrium of national income is reached when (planned) Injections = (planned) Leakages. The income in the circular flow is always equal to the national income, however this equilibrium does not necessarily mean the economy is at full employment.

GDP and GNI:

GDP is the total output of goods and services produced within a country's boundaries regardless of citizenship whereas GNI refers to the total income produced by a country's citizens regardless of where they are. It is important to know the value of GDP as it helps

people understand the economic health of the country as well as its growth. An investor can benefit from this. If the GDP is gradually decreasing, he can predict that the firms in that country are not doing well as their output is decreasing.

There are three methods to calculate GDP:

- 1) Expenditure
- 2) Income
- 3) Output

Theoretically, they all rise to the same final value. The cost to produce goods and services are not included as this would rise to **double counting**.

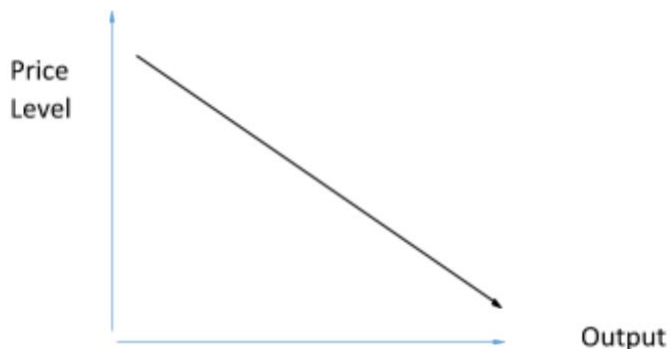
The formula to calculate GDP is by: Consumption + Investment + Government Spending + Net Exports . These are the 4 components of expenditure of GDP. Consumption refers to the purchase of goods and services for household use, investment refers to the purchase of capital for the development of a business, government spending refers to the spending of money for public goods such as roads and wages for workers in public institutions and net exports refers to the difference between the value of exports and the value of imports.

Reasons why GDP do not rise to an accurate result:

- 1) Externalities
- 2) Pollution
- 3) Inflation
- 4) Environmental damage
- 5) The Shadow or Black Market
- 6) Degradation
- 7) Depletion of resources
- 8) Health and Happiness
- 9) Distribution of income and wealth
- 10) Bad social behavior are added to the GDP

Hypothetically, two of the same goods can be sold at very different price points in different countries.

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



Factors that shift the AD curve are all the factors that affect the formula to calculate the AD.

- a. Consumption: Factors that affect consumption are confidence, interest rates, change in wealth as well as change in taxes. Take for example interest rates. If for example the interest rates increase, the price for mortgages would also increase and hence people would have less disposable income and hence spend less. If expenditure decreases, AD will as well.
- b. Investment: Factors that affect the purchase of equipment of firms are: Improvement in technology, interest rates and business tax. Other factors are much more psychological ones. If a firm owner predicts that his business would run smoothly over the long term, he would buy more capital to boost sales even more. Legalization also affects investment. If a government wants to legalize a business, the owner would not bother buying more capital. Laws for property rights.

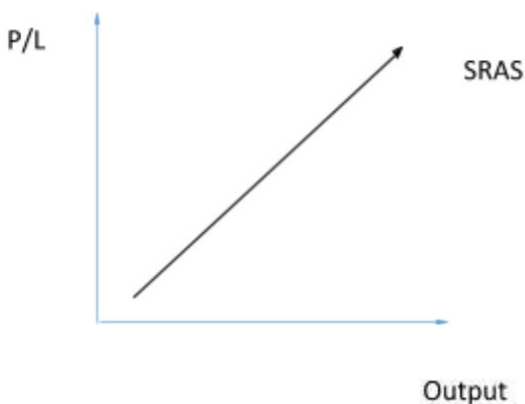
*Fiscal policy: Alternating income tax and government spending in order to affect aggregate demand.

- c. Government spending: They purchase merit/public goods as well as infrastructure and wages.
- d. (X-M): Change in national income abroad. An increase in exports would lead to an increase in AD as withdrawals increase whereas an increase in imports would lead to a decrease in AD as leakages increase. Exchange changes. If for example country X value of money increases, their exports would be more expensive and hence decrease. Due to this rise in value, imports would increase and hence AD would decrease. An increase in tariffs would lead to the increase in cost of imports hence people would spend more on local goods and AD would increase.

Aggregate Supply

Short run: price are constant/flexible

Long run: All resources are flexible with change in price.



Why are wages inflexible?

- 1) Labor contracts
- 2) Minimum wage
- 3) Workers not willing to take lower wage
- 4) Unions
- 5) Negative impact on workers

What Is Aggregate Supply?

Aggregate supply, also known as total output, is the total supply of goods and services produced within an economy at a given overall price in a given period. It is represented by the aggregate supply curve, which describes the relationship between price levels and the quantity of output that firms are willing to provide. Typically, there is a positive relationship between aggregate supply and the price level.

In the short run, a firm would want to increase their output as if they increase their output, their sales will increase at the cost of having the same wages paid as wages are inflexible.

Why does the short-run aggregate supply curve (SRAS curve) slope upwards?

- SRAS curve shows relationship b/w price level and real output while holding all factor prices constant.
- When firms increase output will incur higher total costs of production. (OT, new staff/ Bonus)
- To maintain/improve profit margins firms increase prices thereby passing the higher costs on to the consumers.
- Positive relationship between real output and the price level illustrate this

relationship the SRAS curve slopes upwards How the AS curve shifts

Changes in wages.

- Changes in minimum wage legislation, or changes brought about by labor union bargaining with employers.

Changes in non-labor resource prices.

- Such as the price of oil, equipment, capital

goods, land inputs, Changes in business taxes.

- Business taxes are taxes on firms' profits, and are treated by firms like costs of production. Therefore, higher taxes on profits are like increases in production costs

Changes in subsidies offered to businesses.

Supply shocks

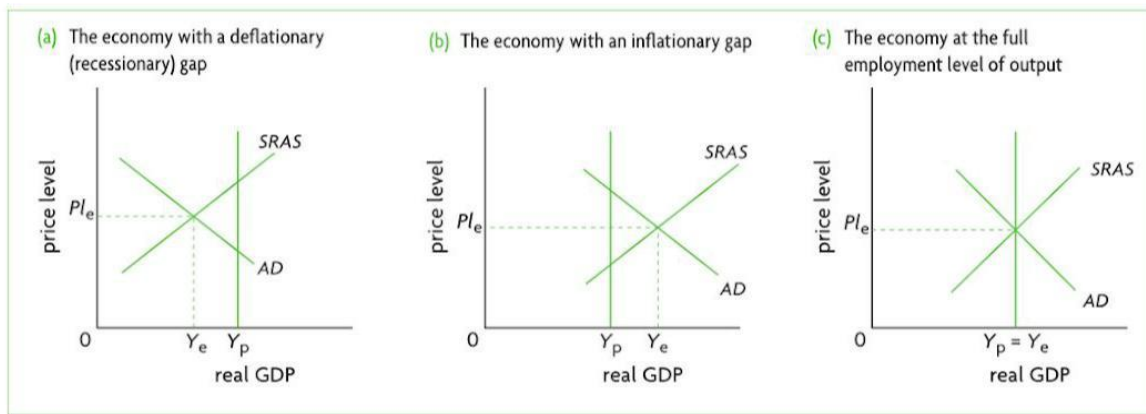
- Supply shocks are events that have a sudden and strong impact on short-run aggregate supply.

- a war or violent conflict can result in destruction of physical capital and disruption of the economy,
- Unfavorable weather conditions can cause a fall in agricultural output,

3 types of short run equilibrium

There are three types of short run equilibrium:

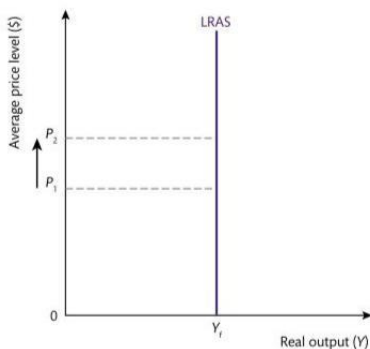
- 1) Actual GDP = Potential GDP
- 2) Actual GDP > Potential GDP (inflationary gap)
- 3) Actual GDP < Potential GDP (deflationary gap)



If the country is in a deflationary gap, this means that the natural rate of unemployment (usually 4-6%) will increase. This is because the demand for the 4 key components of aggregate demand has decreased and hence, less labor will be required, which thus increases unemployment.

If the country is in an inflationary gap, the country's rate of unemployment will decrease. Since the total demand has increased, firms would start producing much more output hence needing more labor.

Long run aggregate supply

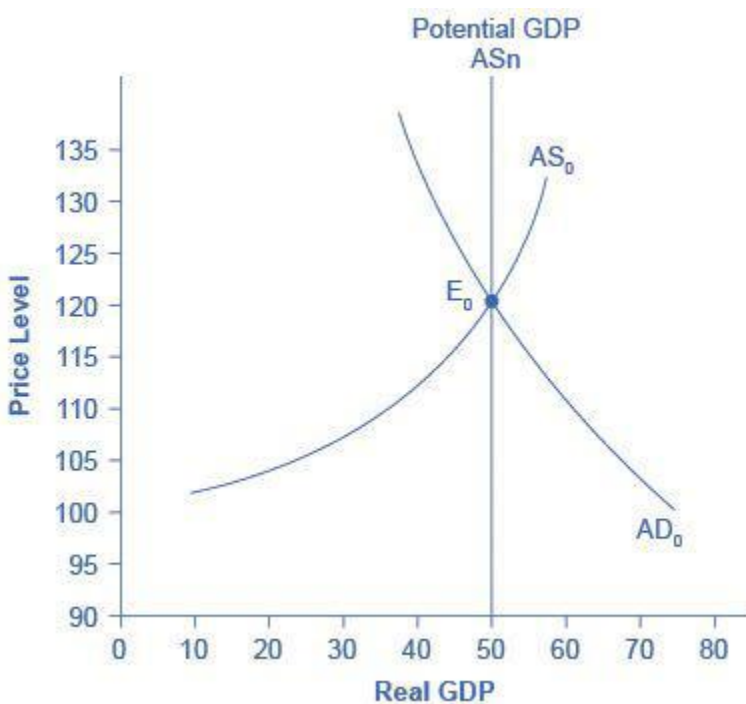


In the long run, the price of wages are **flexible** as this is because if the price of products increases, workers will also ask for an increase in wages. Hence, regardless of the price of the goods and services, a firm will still supply the same number of output as they will still obtain an equal profit margin regardless of their output produced.

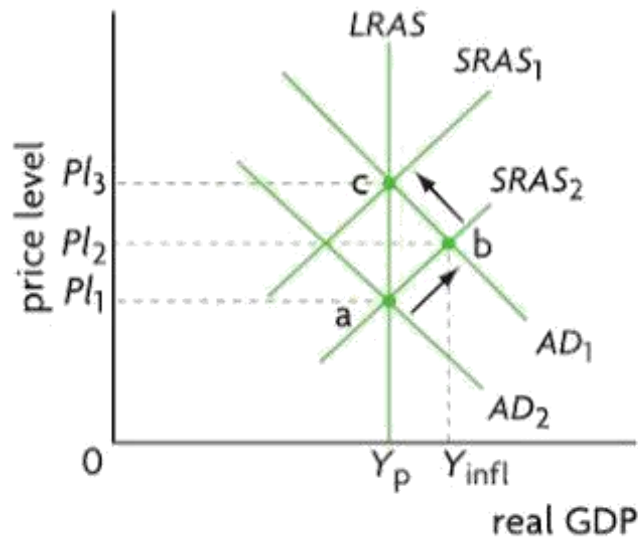
In the long run equilibrium, there are two concepts, neo classical as well as Keynesian.

In neoclassical, it is more into letting the market do its own work.

- **The importance of the price mechanism in coordinating economic activities;**
- The concept of competitive market equilibrium;
- The economy as a harmonious system that automatically tends towards full employment
- Price mechanism has three functions: 1. Allocate – allocating scarce resources among competing uses 2. Rationing – prices serve to ration scarce resources when market demand outstrips supply 3. Signaling



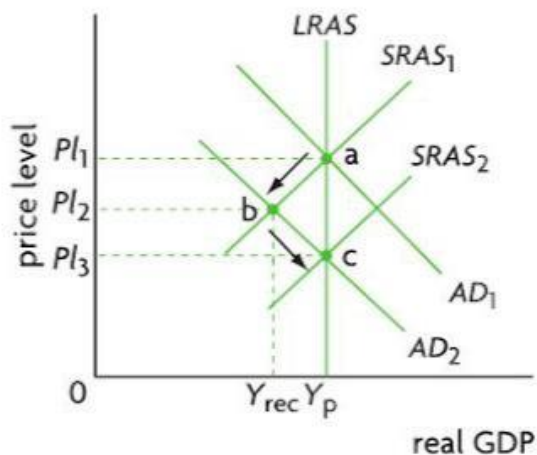
(b) Creating and eliminating an inflationary gap



According to neoclassical theory, regardless if the country is in an inflation or deflation, it will also come back to the potential GDP line.

In an inflation, since the aggregate demand has increased due to a decrease in taxes, for example, the AD curve will shift to the right. Hence, the point of equilibrium will shift from a to b and price will increase from 1 to 2. Although the country is in inflation, other factors of production will soon catch up with the increase in price. The wages will keep on increasing to restore the worker's purchasing power until the inflationary gap is eliminated. Due to an increase in standards of living as the price level increased, wages will soon increase and hence profit margin will return to normal, firms will have no incentive to produce more and the supply curve will shift left. Hence, it will intersect the long run aggregate supply curve in c, with a price level of 3.

(a) Creating and eliminating a deflationary gap

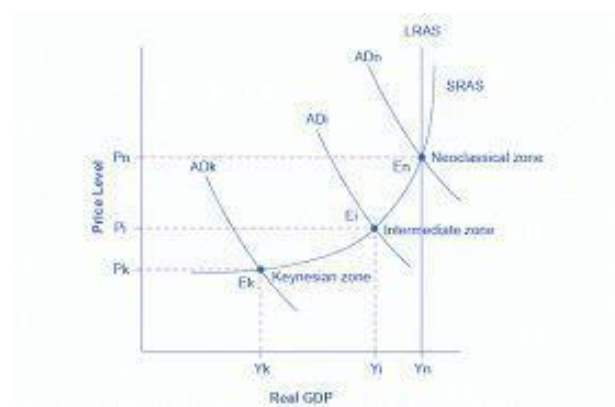


In a deflation, the aggregate demand shifts to the left. This is most likely due to a decrease in each price level of its 4 components. Due to this decrease in aggregate demand, the rate of unemployment will increase due to the fact the demand of output from firms has decreased. Hence, due to this unemployment, wages as well as other factors of production will also decrease. With this decrease in wage rate, the input cost of supplying products overall will decrease and hence supply will increase but with the increase in supply, the price of the products will decrease. With this decrease, in the long run, the short run aggregate supply curve will shift to the right and hence the equilibrium will be back the potential GDP.

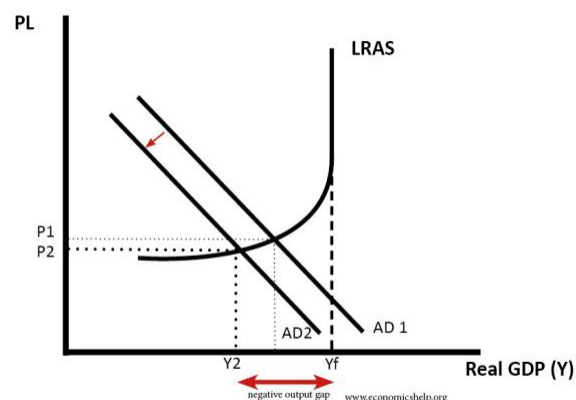
Keynesian vs Monetarist

Keynesian economics is a theory that says the government should increase demand to boost growth. Keynesians believe consumer demand is the primary driving force in an economy. As a result, the theory supports expansionary fiscal policy. Its main tools are government spending on infrastructure, unemployment benefits, and education. A drawback is that overdoing Keynesian policies increases inflation.

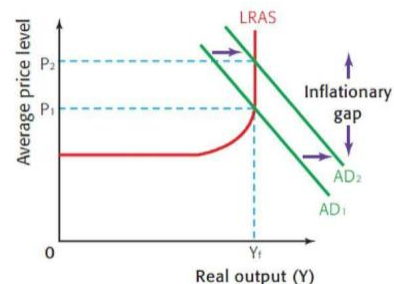
In the Keynesian concept, the sras is the slightly horizontal curve.



In the early periods of time, the price tends to be unchanging due to workers' resistivity to a change in wage. This is likely due to the existence of labor unions.



Keynesian Inflationary Gap



- Keynes didn't use the AS/AD model, and didn't place much emphasis on inflation in his work. An inflationary gap therefore is not usually shown using a Keynesian model- Economists tend to opt for the Classical model

Keynesian Multiplier

$$\frac{1}{1-MPC} = \frac{1}{MPS+MPT+MPM}$$

MPC= Marginal Propensity Consume; MPS= Marginal Propensity Save; MPT= Marginal Propensity Tax; MPM= Marginal Propensity Imports

Money never stops flowing. If a person obtained 100 dollars and decided to spend 75 to another person, that person will spend 75% of that 75 and the next person will spend 75% of the 75% of 75.

UNEMPLOYMENT:

Types of unemployment include:

- 1) **Structural:** Structural unemployment occurs when the set of skills workers offer are not required by the country. An example of this is an industry's replacement of machinery workers with robots. Workers now need to learn how to manage the robots that replaced them. Those that don't learn need retraining for other jobs or face long-term structural unemployment. A long recession often creates structural unemployment. If workers stay unemployed for too long, their skills have likely become outdated. Unless they are willing and able to take a lower-level, unskilled job, they may stay unemployed even when the economy recovers. If this happens, structural unemployment leads to a higher rate of natural unemployment. Major causes of this type of unemployment are structural and geographical immobility. Ways to fix it include:

Education/training. These training schemes need to be focused on skills and qualifications which will enable the unemployed to find work in new industries. This could include the government paying for training schemes in skills which are in short supply. For example, vocational training such as bricklaying/plumber/electrician or nursing.

- In a free market, firms may be unwilling to provide sufficient training because of the 'free rider problem' If workers benefit from training schemes, they can then go and work for other firms. If the government pays the full cost or subsidizes firms, it helps overcome this market failure.
- However, there may be the drawback of government failure. For example, a government department may be slow to respond to changing market preferences and subsidizes the wrong kind of training schemes or those which employers don't necessarily need. Also offering training schemes may not necessarily have a high take up rate. The unemployed may lack the confidence or willingness to take on new training schemes because they are unsure of their benefits.

Housing subsidies. With geographical unemployment, the government could offer housing benefits to help the unemployed take jobs in expensive areas of high employment.

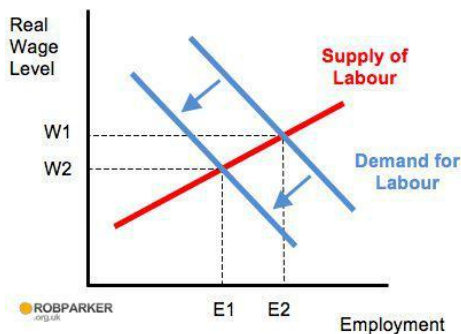
- However, this could prove quite expensive, and it may be hard to evaluate who needs the housing benefits and for how long. A long term solution may be for the government to build housing in expensive areas.

Employer subsidies. Rather than encourage workers to move, the government can offer incentives for firms to relocate to depressed areas. For example, the government has relocated many civil service jobs away from London and to areas of higher unemployment such as South Wales, Yorkshire and Scotland. However, there is a limit to how many jobs you can relocate to other regions. Employers will be reluctant to move from metropolitan cities like New York and London to struggling urban or rural areas, such as 'rust belt' in the US.

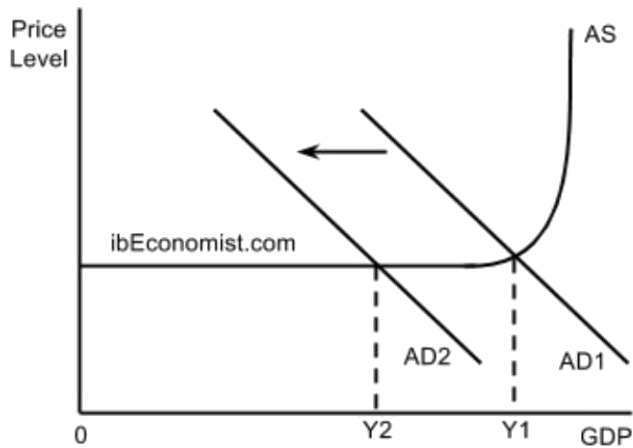
Labour market flexibility

Free market economists place greater stress on improving labour market flexibility. For example, allowing part-time, temporary work provides more opportunities for the unemployed to gain new opportunities.

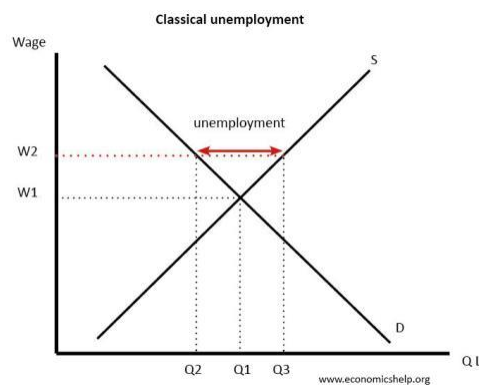
- However, these jobs are more insecure, often lower paid and lead to a form of under-employment.



- 2) **Frictional:** Frictional unemployment occurs when workers leave their old jobs but haven't yet found new ones. Most of the time workers leave voluntarily, either because they need to move, or they've saved up enough money to allow them to look for a better job. Frictional unemployment also occurs when students are looking for that first job or when mothers are returning to the workforce. It also happens when workers are fired or, in some cases, laid off due to business-specific reasons, such as a plant closure. Frictional unemployment is short-term and a natural part of the job search process. In fact, frictional unemployment is good for the economy, as it allows workers to move to jobs where they can be more productive. Frictional unemployment is a type of natural unemployment. It is one of the types of unemployment that doesn't increase during recession but in fact decreases due to workers being more worried about job security as there are less job opportunities during a recession. Cures include cutting unemployment benefits as well as an increased ease in access to information to find jobs.
- 3) **Cyclical:** This type of unemployment occurs when there is a demand deficient for a certain type of product or for products all over the nation in general. When this happens, there is no need to supply goods and hence firms start firing workers. Cures include expansionary fiscal policies or monetary policies based on increasing aggregate demand.



- 4) **Seasonal:** This type of unemployment occurs when people don't have a job during certain periods of the year as their job relies on the season. For example: people who work in skiing resorts will be jobless during the summer. Cures include cutting unemployment benefits as well as an increased ease in access to information to find jobs.
- 5) **Real wage unemployment:** This type of unemployment occurs when wages are set above the equilibrium level causing the supply of labor greater than demand.



If the wage rate increases, the line would go above the equilibrium. This would lead to the labor supplied being more than the labor demanded. What this means is that the firm will start firing people due to the increase in minimum wage.

Causes of real wage unemployment include powerful trade unions which bargain for wages above the equilibrium as well as minimum wages that create a legal minimum for wages as well as deflation and sticky wages.

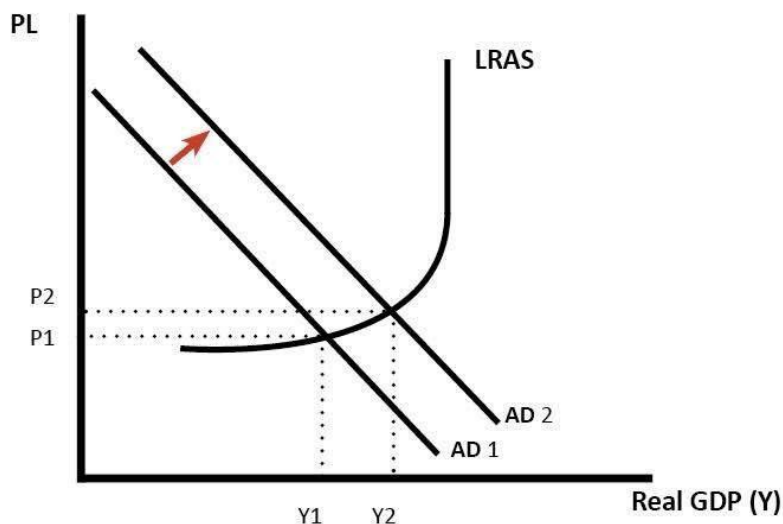
Things that can be done include an increase in government spending which will lead to the increase in AD to meet with the increase in supply. Wage cuts won't work as if people have less disposable income they will spend less which will lead to again, the decrease in AD.

	<u>Fiscal Policy (demand side)</u>	<u>Monetary Policy (both D and S)</u>	<u>Supply side</u>
<u>Frictional</u>	Increase in information to make finding jobs easier (not part of any of the above policies)		
<u>Structural</u>			
<u>Cyclical</u>			
<u>Classical unemployment</u>			

Ways to fix classical unemployment include lowering down the power of trade unions as well as to return the minimum wage back to equilibrium wage. Problems with lowering down the minimum wage is that this will lessen down the opportunities for lesser fortunate people. Both ways are all done by the government.

Fiscal policy is to increase or decrease aggregate demand through taxes and government spending. Taxes can be separated into two types: Direct and Indirect tax. Direct tax is separated into income and corporate tax. Income tax is paid on the proportion of your own profit whereas corporate tax is based on your company's overall profit. Government spending is based on projects such as roads and telecommunications.

Expansionary fiscal policy:



A decrease in income tax will lead to an increase in disposable income which will lead to an increase in **consumption**, demand then firms and then output.

On the other hand, a decrease in corporate tax will increase after tax profit. This excess amount of money can be used by firms to **reinvest** in plant and equipment which increases output and hires more workers.

Monetary policies: It is the increasing or decreasing of money supply to affect the interest rate.

Money market: Monetary policy consists of the process of drafting, announcing, and implementing the plan of actions taken by the central bank, currency board, or other competent monetary authority of a country that controls the quantity of money in an economy and the channels by which new money is supplied. Monetary policy consists of the management of money supply and interest rates, aimed at achieving macroeconomic objectives such as controlling inflation, consumption, growth, and liquidity. These are achieved by actions such as modifying the interest rate, buying or selling government bonds, regulating foreign exchange rates, and changing the amount of money banks are required to maintain as reserves. Some view the role of the International Monetary Fund as this.

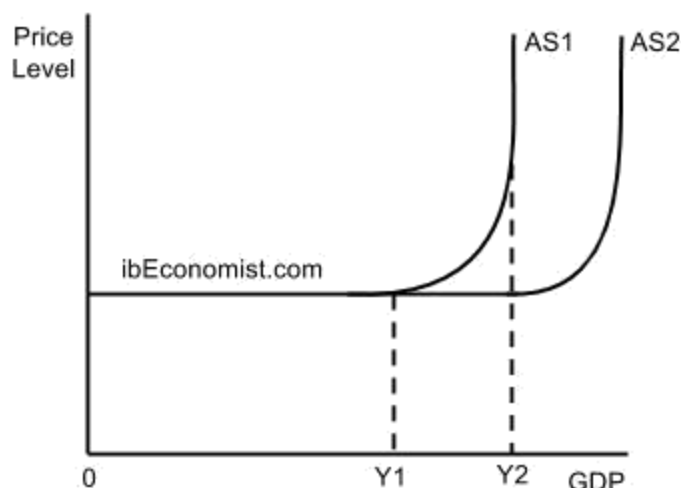
The central bank can control the supply of money. If the supply of money increases, interest rates decrease. This means that if people have loans, they would need to pay a lower interest rate and hence have more disposable income. An increase in disposable income will yield to an increase in consumption which would yield to an increase in aggregate demand.

How the monetary policy can affect money supply include:

- 1) **Open market operation:** Open market operations is the buying and selling of government bonds. "The Federal Reserve purchases and sells U.S. Treasury securities on the open market in order to regulate the supply of money that is on deposit in U.S. banks, and therefore available to loan out to businesses and consumers. It purchases Treasury securities to increase the supply of money and sells them to reduce the supply of money." There are only two ways Treasury rates can move, and that's up or down. In the Federal Reserve's language, the policy is expansionary or contractionary. If the Fed's goal is expansionary, it buys Treasury's in order to pour cash into the banks. That puts pressure on the banks to lend that money out to consumers and businesses. As the banks compete for customers, interest rates drift downwards. Consumers are able to borrow more to buy more. Businesses are eager to borrow more to expand. If the Fed's goal is contractionary, it sells Treasury's in order to pull money out of the system. Money gets tight, and interest rates drift upwards. Consumers pull back on their spending. Businesses trim their plans for growth, and the economy slows down.
- 2) **Repo rate:** The repurchase rate is the rate at which central banks loan money out to commercial banks.
- 3) **Reserve rate ratio:** The central bank controls all financial institutions. When people deposit money into a bank, the bank has a reserve rate ratio. They cannot loan all the money out. A decrease in reserve rate ratio increases the money supply which decreases the interest and hence promotes consumption.
- 4) **Quantitative easing:** The central bank went on to buy commercial bonds. Central banks give liquid money into private companies which promotes spending and hence increases aggregate demand.

With points of foreign exchange rate, an increase in interest rates will cause more people to invest in that currency which will cause an increase in demand. This increase in demand will follow suit with an increase in currency. **An increase in currency will cause a decrease in exports and increase in imports and hence decrease in Aggregate demand.**

Supply side policy:



The aims of the supply-side policies are to positively affect the production side of the economy by improving the institutional framework and the capacity (quality and quantity of factors of production) to produce. Thus, supply-side policies shift the Long Run Aggregate Supply curve (or the vertical part of the supply curve in the Keynesian model) to the right.

There are two types of supply-side policies:

1. Market based
2. Interventionist

Interventionist supply-side policies

1. Investment in human capital

Governments might invest in the education and training of people. Improve the level of schools or make education free.

Also, provide various training schemes. In the short run, such policies increase aggregate demand, but importantly – shift the LRAS curve to the right. This happens because people's skills improve. Hence, productivity increases.

2. Investment in new technology

Governments could invest in research and development of new technologies. Again, that would increase aggregate demand in the short run, however, in the long run LRAS would increase. That happens because new technology can increase productivity: e.g. 3D printers made modelling or even production of various products quicker than ever.

3. Investment in infrastructure

Government expenditure might go towards infrastructure. Simple example – improving logistics could decrease transfer times and costs in turn increasing productivity and shifting the LRAS to the right. Remember the short term effect on AD!

4. Industrial policies

Governments might target specific economic areas through tax cuts, tax allowances and subsidized borrowing which would promote the growth of those areas. E.g. Useful startups which could improve the efficiency of other areas of the economy.

Market-based supply-side policies

1. Policies to encourage competition

- Deregulation
- Privatization
- Trade liberalization
- Anti-monopoly regulation

2. Labor market reforms

- Reducing the power of labour unions
- Reducing unemployment benefits
- Removing minimum wages

All these reforms aim at making the labour market more flexible. E.g. when it is easier and/or cheaper for firms to hire and fire workers, they will be more likely to hire.

3. Incentive-related policies

- Cutting the income tax – the idea is that your leisure becomes more expensive after the tax cut and so you start working more. Refer to the Laffer curve and Substitution vs Income effects.
- Cutting the business (corporate) tax – firms get to keep more of their profit, that is an incentive to (take the risk) invest, find more efficient ways of production.

Evaluation of supply-side policies

All supply-side policies mentioned above can be evaluated in terms of:

- Time lags – some supply-side policies can take years to take effect (e.g. investing in human capital), others – much shorter.
- Ability to create employment – think whether a certain policy creates employment. E.g. investing in new technology can actually lead to technology substituting workers.
- Reducing inflationary pressure – can a certain policy help deal with high inflation? Try not to make a rather unrealistic argument that “*governments could invest in better education and that would lead to higher productivity and eventually lower prices*”. To see the effects of that investment on inflation can take up to 15 years, so does it really deal with inflation? Maybe in the very-very-long-run it does...

- Impact on economic growth – how certain policies can affect growth, which affect growth more than others and why.
- Impact on the government budget – some policies may be very costly (investing in infrastructure). However, privatization might lead to short-term budget improvements (but remember that possible long term benefits were given up!).
- Effect on equity – how will a certain policy affect the distribution of income? Think about removing or changing the minimum wages, unemployment benefits.
- Effect on the environment – could deregulation lead to higher pollution or overall quicker degradation of the natural environment? Think about policies which could lead to increasing negative externalities.

Hidden unemployment:

- 1) Given up
- 2) Working part time when looking for full time
- 3) People working in jobs although they are more qualified

Unemployment rate:

Number of unemployment/labor force x100

Labor force:

- 1) Economically active population
- 2) Legal age is from 16-65 (may differ in different regions)
- 3) Students, retired people and disabled or prison people are not included
- 4) Aspects to be noted of are occupational and geographical mobility

Consequences of unemployment:

- 1) In terms of individuality: A decrease in purchasing power, a decrease in standard of living as well as an increase in mental and physical illnesses.
- 2) Social consequences: Increase in pressure on wages which decreases the real wages.
This is due to an increase in supply of labor as well as an increase in poverty and crime.

Adverse effects of policies:

1) Fiscal Policy:

1. **Disincentives of Tax Cuts.** Increasing taxes to reduce AD may cause disincentives to work, if this occurs, there will be a fall in productivity and AS could fall.

o However higher taxes do not necessarily reduce incentives to work if the income effect dominates the substitution effect.

1. **Side effects on public spending.** Reduced government spending (G) to decrease inflationary pressure could adversely affect public services such as public transport and education causing market failure and social inefficiency.

1. **Poor information.** Fiscal policy will suffer if the government has poor information. E.g. If the government believes there is going to be a recession, they will increase AD, however, if this forecast was wrong and the economy grew too fast, the government action would cause inflation.

1. **Time lags.** If the government plans to increase spending – this can take a long time to filter into the economy, and it may be too late. Spending plans are only set once a year. There is also a delay in implementing any changes to spending patterns.

2. **Budget Deficit.** Expansionary fiscal policy (cutting taxes and increasing G) will cause an increase in the budget deficit which has many adverse effects. A higher budget deficit will require higher taxes in the future and may cause crowding out.

1. **Other components of AD.** If the government uses fiscal policy, its effectiveness will also depend upon the other components of AD, for example, if consumer confidence is very low, reducing taxes may not lead to an increase in consumer spending.

1. **Depends on the Multiplier effect.** Any change in injections may be increased by the multiplier effect, therefore the size of the multiplier will be significant. If consumers save any extra income, the multiplier effect will be low and fiscal policy less effective.

2. **Crowding Out.** Expansionary fiscal policy of increased government spending (G) to increase AD may cause “**Crowding out**” Crowding out occurs when increased government spending results in a decrease in the size of the private sector.

– For example, if the government increases spending it will have to increase taxes or sell bonds and borrow money, both methods reduce private consumption and investment. If this occurs, AD will not increase or increase only very slowly.

– Also classical economists argue that the government is more inefficient in spending money than the private sector, therefore, there will be a decline in economic welfare

– Increased government borrowing can also put upward pressure on interest rates. To borrow more money the interest rate on bonds may have to rise, causing slower growth in the rest of the economy.

2) Monetary Policy

1. They create technical limitations.

The lowest interest rate can go under current economic structures is 0%. If the central agency sets rates at this level, then there are limits to what monetary policy tools can do to continue limiting inflation or stimulating economic growth. Keeping rates very low for prolonged periods of time can lead to a liquidity trap. This is when interest rates are low and saving rates are still high, which makes the policy ineffective. This may be because of lack of confidence in the economy. Consumers will also stay away from bonds which will reduce circulation of money.

2. Monetary Tools Are General and Affect an Entire Country

Monetary policy tools such as interest rate levels have an economy-wide impact and do not specify solutions for specific industries.

3. The Risk of Hyperinflation

When interest rates are set too low, over-borrowing happens. This can then cause the prices to increase too quickly. Adding more money to the economy can also run the risk of causing out-of-control inflation due to the premise of supply and demand: if more money is available in circulation, the value of each unit of money will decrease given an unchanged level of demand, making things priced in that money more expensive.

4. Time Lag

Even if implemented quickly, the macro effects of monetary policy generally occur after some time has passed. The effects on the economy may take months or even years to materialize

5. They can hurt imports.

When the monetary policy tools reduce the value of the national currency, then fewer imports occur. That happens because international purchases become more expensive for consumers using the currency in question.

Evaluation of supply-side policies

All supply-side policies mentioned above can be evaluated in terms of:

- Time lags – some supply-side policies can take years to take effect (e.g. investing in human capital), others – much shorter.
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SEM2

Inflation:

It is the general increase of the price of goods and services all over the economy.

Deflation:

It is the general decrease of the price of goods and services all over the economy.

Disinflation:

It is the decreasing rate of increase of price level of goods and services all over the economy.

Hyperinflation:

It is the massive increase of the price of goods and services all over the economy.

4 sectors:

Primary, secondary, tertiary and quaternary. Last sector is in charge of IT as well as communication and AI.

Why do firms stay small:

- 1) risk
- 2) harder to manage
- 3) hard to find a source of finance for expansion.

Growing can be internal or external.

Internal is defined by expansion from within a business by expanding the range of products and or locations. This may take time. A merger involves two firms combining to form one larger company; it can occur due to a takeover or mutual agreement.

The pros and cons in summary:

Advantages of mergers

- Economies of scale – bigger firms more efficient
- More profit enables more research and development.
- Struggling firms can benefit from new management.

Disadvantages of mergers

- Increased market share can lead to monopoly power and higher prices for consumers
- A larger firm may experience diseconomies of scale – e.g. harder to communicate and coordinate.

External is defined by the involvement of a merger with another business or a take over of that business. Takeover is when one company buys shares of another company and gains control of it. Mergers are when two or more firms agree to merge into one single company.

Quantity Theory of Money:

$$MV=PY$$

M=Money supply

V=Velocity of circulation (The amount of times a dollar gets spent; usually it is 7)

P=Price level

Y=National output

V and Y are fairly stable.

Nominal GDP=Nominal GDP

Hence, if the money supply increases, the price level will go up due to other 2 factors remaining fairly constant. Thus, if a country starts printing more money, inflation occurs.

Consumer price index:

$$\text{Inflation rule} = \frac{CPI(\text{year2}) - CPI(\text{year1})}{CPI(\text{year1})} \times 100$$

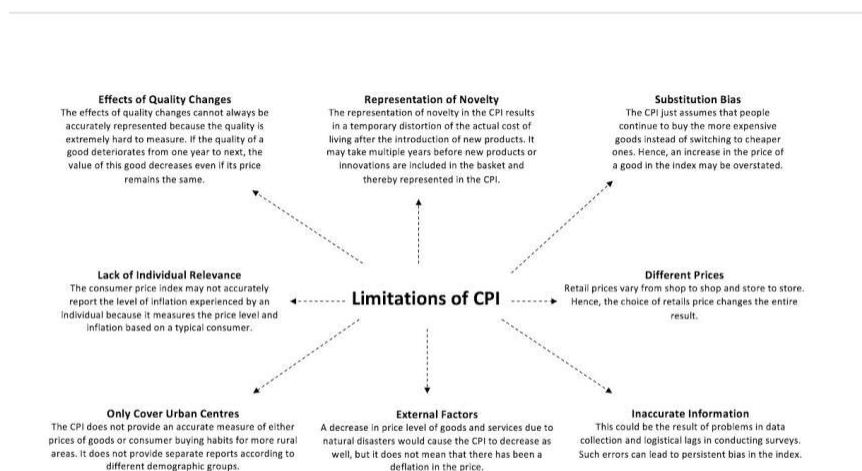
Type	2011	2012
Pizza	\$10	\$10.50
Haircuts	\$20	\$19
Wine	\$8	\$10
Total	\$38	\$39.50

CPI 2011: price of basket of goods in 2011/Base year

$$CPI = 38/38 \times 100 = 100$$

$$CPI\ 2012 = 39.5/38 \times 100 = 103.95$$

$$(103.95 - 100)/100 \times 100 = 3.95\%$$



Type	2017	2018	Weight
Banana	\$2	\$1.50	25%
Haircut	\$11	\$10	30%
Taxi ride	\$8	\$10	45%

Economics:

Winners and losers of Inflation:

While inflation often has negative connotations as it can increase the opportunity cost of money, discourage saving and ultimately lead to higher interest rates, there can be positive impacts too. These include encouraging consumers to spend and business to undertake capital expenditure, reducing the real cost of debt and enabling central bank policy by keeping nominal interest rates above zero so central banks can reduce interest rates when required.

There is some debate amongst economists around the causes of inflation which include changes in the real demand for or supply of goods and services, changes in real wages and the growth of money supply outstripping growth in the economy.

Winners	1) Debtors on fixed interest rates	Since the value of money has decreased, the amount of money the debtor needs to pay has decreased in value. For example, if A owes B 100 dollars yet due to 5% inflation, that value has decreased to 95 dollars
	2) Government with high public sector debt	Same reason; due to decrease in real value of money
	3) Owners of land and physical asset	This is due to the fact that the real value of physical assets remain the same, unlike paper money where real has dropped.
Losers	1) Debtors on changing interest rates	With inflation, since money supply has increased due to a larger money supply,

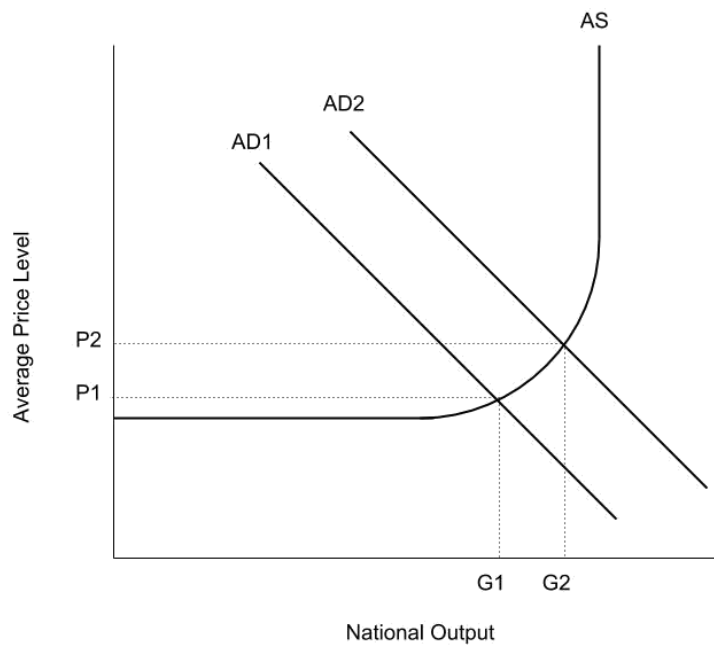
		interest rates will also increase hence, debts and mortgages will increase
	2) Savers	People who saved money in the bank will see their value of savings drop due to the decrease in value of money. This is typically due to inflation percentage higher than interest rate
	3) Workers on fixed contracts	With inflation, people would need more money to accommodate a rise in prices of goods. Hence, workers who signed contracts will see their purchasing power drop drastically as their wage will not rise even though there is inflation.
	4) Economy growth and confidence	If inflation is high and variable, it creates uncertainty for both consumers, banks and companies. There is a reluctance to invest and this can lead to lower economic growth and less job availability. Therefore, in the long-term, higher inflation can cause economic growth to fall
	5) Exports	Due to the rise in the price of goods, exports will become less competitive due to it being more expensive than other products. Due to this, injections will fall in value hence GDP will suffer.

Two causes of Inflation:

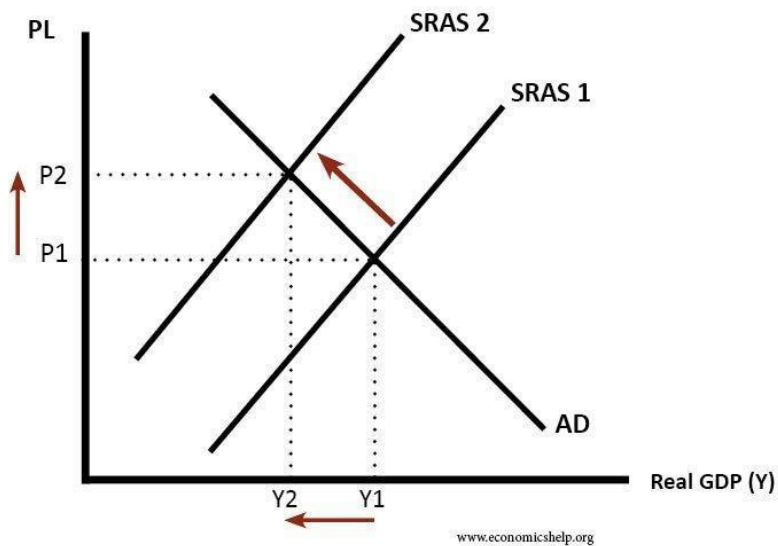
1. Demand pull
2. Cost push

A) Demand pull inflation occurs when aggregate demand shifts right. If an economy is at its maximum capacity of producing or at

full employment and still AD increases due to C, I, G or (X-M), this will cause firms to increase the price level of goods.



B) Cost push inflation: This occurs when supply curve shifts to the left due to several factors including a rise in the price of raw materials such as oil, supply shocks, increase in wages of workers due to labour unions etc. In this case, price level increases yet output decreases and also, the number of people unemployed will also increase.



Why is Deflation very bad?

- 1) If prices are lower, people will feel it will get lower and hence will postpone purchases. This will yield to firms having no profit and hence start firing people. Firms will lower prices again. This will yield to people believing the price will get even lower and hence postpone purchases. This cycle repeats itself and hence explains why deflation is very bad and very hard to get out of.

Pros and Cons of policies to deal with inflation:

Type of inflation	Type of Policy	Pros	Cons
Demand Pull	Fiscal (Tax rates and government spending)	1) Effective in dealing with rapid demand pull inflation 2) Government spending is a large part of AD hence will directly impact it	1) Time constraints 2) Political constraints 3) Inability to fine tune the economy 4) Hard to stop government spending as it focuses on merit and public goods such as infrastructure and healthcare. 5) Deflationary policies has an impact on future growth
pull	Monetary (Money supply with respect to interest rates)	1) Independent of the government as it is based on the central bank 2) Able to fine tune the economic	1) Time lags 2) Conflict in government objectives 3) An increase in interest rates would result in an increase in currency value hence exports would be less competitive hence demand will drop and trade deficit will increase 4) There is a tradeoff between inflation and unemployment

			as if inflation increases, unemployment decreases
			5) Discourage investment and entrepreneurship
Cost push			

Deflation:

Winners in the current crisis

1) Those with **cash** in the bank will find huge opportunities in the current crisis – as assets come up for sale at a real bargain price (business, land, property and other things).

2) Those with large loans on rates which are fixed to **government** rates will enjoy huge cost reductions.

3) Those who work for the government, who are locked into regular salary increases for the next year or two will do well – secure jobs, more income, falling costs.

Losers in the current crisis

1) Those who run out of **cash** and borrowing power, with hardly any value left in their assets, who could lose everything they have worked for over the years

2) Those with large loans, locked into high fixed rates for several years

3) Those who work in the private sector, who may be faced with falling income or loss of job

EVALUATION:

- 1) Stakeholders
- 2) Long run / short run
- 3) Assumptions
- 4) Pros + Cons
- 5) Prioritise(Which are most important)

SLAPP

In Answering Economics Questions:

- D – Define
- E – Explain
- E – Example (Apply it to the question's case)
- D – Diagram

Dealing with Inflation

1.Demand-Pull Inflation

- Fiscal

Policy Pros:

- ØEffective in dealing with rapid demand pull in inflation.
- ØGovernment spending is a large part of AD/Direct Input on AD.

Cons:

- ØTime constraints.
- ØPolitical constraints (votes).
- ØInability to fine tune the economy.

ØHard to stop government spending (Public goods and Merit Goods).

ØDeflationary Policies (reducing domestic demand, which leads to unemployment) – Impact for future growth.

- Monetary Policy

Pros:

- ØAble to fine tune the economy.
- ØIndependent of the government's central bank.

Cons:

- ØTime lags. (Time for measuring)
- ØConflict in government objectives.
- Ø For Exports: Higher interest rate – Increase in currency value – Higher price of exports– Decrease in demand for exports – Increase in trade deficit

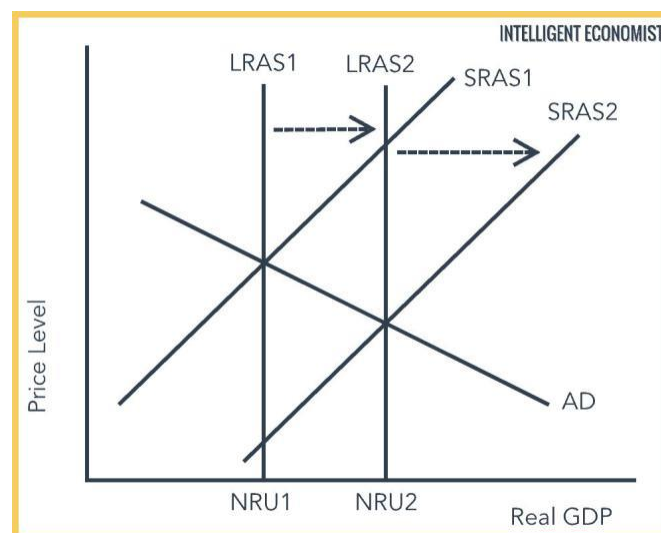
- Ø Trade off between inflation and unemployment. (if the AD curve shifts to the right (increase), inflation increases, unemployment decreases, and vice versa)
- Ø Discouraged investment and entrepreneurship – Decrease in future growth.

***Demand Side Policies** are attempts to increase or decrease aggregate **demand** to affect output, employment, and inflation. **Demand Side Policies** can be classified into fiscal **policy** and monetary **policy**.

2. Cost-Push Inflation

Increase in costs of production and supply shocks (oil).

- Demand Side Policies are not used for supply shocks.
- If the government used a contractionary fiscal/monetary policy to lower the inflation – Deeper recession and increase in unemployment. The problem with using higher interest rates is that although it will reduce inflation it could lead to a big fall in GDP.
- Depends on the causes:
 - Ø Due to increase in wage by minimum wage/trade unions
Using the supply side policy – Decrease in union power and minimum wage.
 - Ø Due to increase in imported inputs
Using the supply side policy – Develop an alternative input.
 - *oil – more difficult
 - Ø Decrease in currency value – More expensive imports – Increase in costs of production – Increase in



cost push inflation.

§ Supply Side Policy (for long term)

*All the causes above can be solved by the supply side policy

Cons:

- ©Costly to implement.
- ©Decrease in standard of living for some groups.
- ©Possibility of wrong investment.
- ©Huge time lags.

Pros:

Improving the quality and quantity of factors of production which leads to an increase in productivity and a decrease in price, to apply this policy, there are 2 methods;

©Government Intervention

vSubsidies

vEducation and training

©Market Based Policies

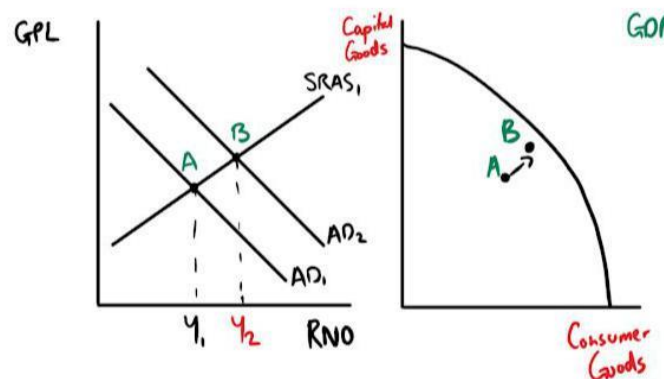
vImprove competitiveness of the markets

Economic Growth

- Increase in the output of the economy, and there are 3 ways to measure it.
- It is important as it boosts the standard of living.

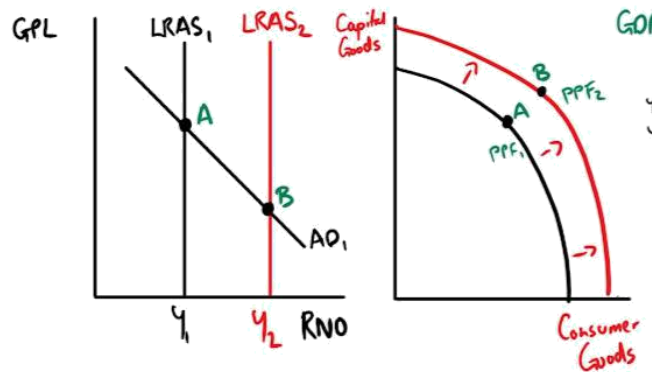
In short-term growth;

- The AD curve will shift to the right (increase), as long as there is spare capacity in the economy.



In long-term economic growth;

- The LRAS curve will shift to the right, as the quantity and quality of the factors of production and potential output increase.



*A PPF (Production Possibility Frontier) curve is a graphical representation showing all the possible options of output for two products that can be produced using all factors of production, where the given resources are fully and efficiently utilized per unit time.

International Economics:

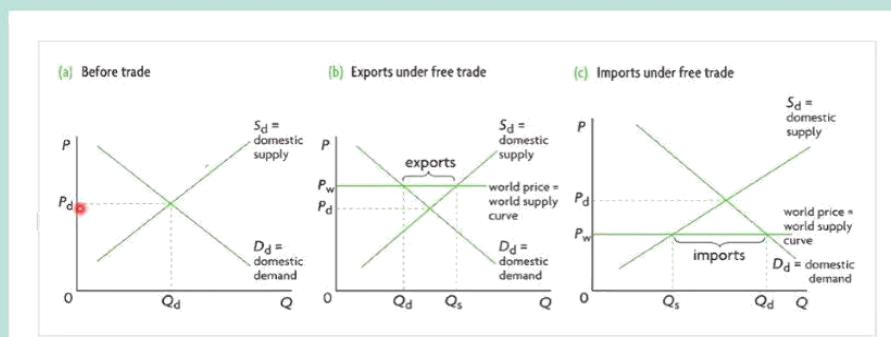
- 1) reasons to trade
- 2) comparative advantage

Problems with the theory of comparative advantage



USING DIAGRAMS TO ILLUSTRATE INTERNATIONAL

- Equilibrium of widgets
- Open its economy to international trade, the question arises, should bindles be imp
- Domestic price compare with international price
- Domestic price higher or lower than international price



Protectionism policies include tariffs, quotas and subsidies. All are to make domestic produce more competitive. Pros in the short term include a decrease in unemployment and increase in living standards but in the long term, the firms will get too reliant on these policies and hence become less competitive. Efficiency drops and so does quality.

Exchange rate:

It is the price of a currency based on another currency value. If fixed, it is determined by the central bank/government. If floating, it is based on the forces of demand and supply. There will be an increase in demand for the currency if its value increases due to hot money theory. In graph, demand is downward sloping due to the fact that if a currency appreciates, there will be an increase in demand of that currency. Supply is upward sloping as if the currency appreciates, the central bank will print more money and hence, increase in supply.

A fixed exchange rate regime reduces the transaction costs implied by exchange rate uncertainty, which might discourage international trade and investment, and provides a credible anchor for low-inflationary monetary policy. On the other hand, autonomous monetary policy is lost in this regime, since the central bank must keep intervening in the foreign exchange market to maintain the exchange rate at the officially set level. Autonomous monetary policy is thus a big advantage of a floating exchange rate. If the domestic economy slips into recession, it is autonomous monetary policy that enables the central bank to boost demand, thus 'smoothing' the business cycle, i.e. reducing the impact of economic shocks on domestic output and employment. Both types of exchange rate regime have their pros and cons, and the choice of the

right regime may differ for different countries depending on their particular conditions. In practice there is a range of exchange rate regimes lying between these two extreme variants, thus providing a certain compromise between stability and flexibility.