

A BASIC INTRODUCTION TO ECONOMICS

You don't HAVE to know this but it *may* help

- One policy of every government is to encourage **economic growth**, or at least to maintain economic stability in their respective countries.
 - Aspects of economic stability include stable wages, stable prices, stable employment levels.
- Economic stability and social stability go hand in hand
 - Imagine how people would feel if prices were rising, unemployment was increasing and wages were low??

Economics studies how societies allocate scarce resources among competing demands.

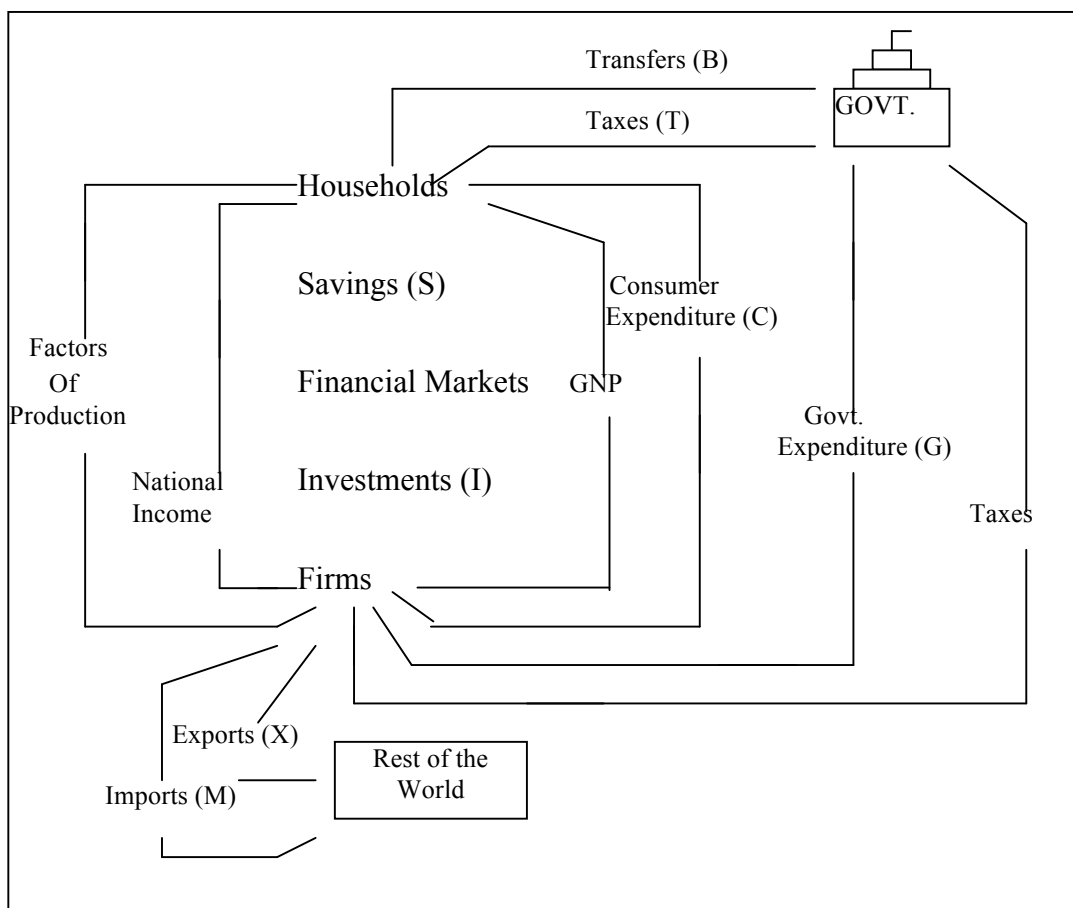
- Resources
 - 1. Primary
 - 2. Secondary
 - 3. Tertiary
 - 4. Quaternary
- Scarce A scarce resource is one for which *at a given price* demand exceeds supply.
- In a free market economy, the market determines price, demand and supply. However, few markets are 100% free in that most governments exercise a degree of control to **regulate** the market. For example, the government provides social welfare payments to help who don't earn enough money to have an adequate standard of living. The government may set maximum prices for certain goods (famously, rent prices in New York).
 - “**The market**” is a collective term for:
 1. Household decisions about what goods and services to buy.
 2. Companies decisions about what and how to produce.
 3. Workers decisions about how much and for whom to work

All of these are reconciled by the adjustment of price – i.e. price determines all of these three things.

Governments can take a variety of actions to affect the economy.

Positive economics	examines the market in a factual way – no opinions here about what should be done.
Normative economics	offers opinions about what should be done in an economy.
Micro- economics	studies consumers and their economic behaviour
Macro- economics	national level economics

MODEL OF AN ECONOMY



GDP Gross Domestic Product
The total value of goods and services produced in an economy in a year

GDP per capita example



GNP Gross National Product
 $GDP + (. \text{ imports minus exports})$

Terms of Trade

These are the conditions under which countries agree to engage in trade, i.e. the ratio of price of exports to the price of imports.

In economic analyses, the term **all things held constant** (Ceteris Paribus) is used to indicate certain assumptions about factors that may affect the analysis and may have been deliberately excluded.

SUPPLY AND DEMAND

The laws of supply and demand are central to every aspect of economics.

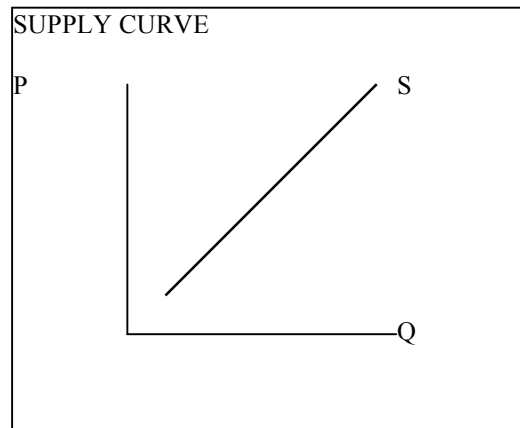
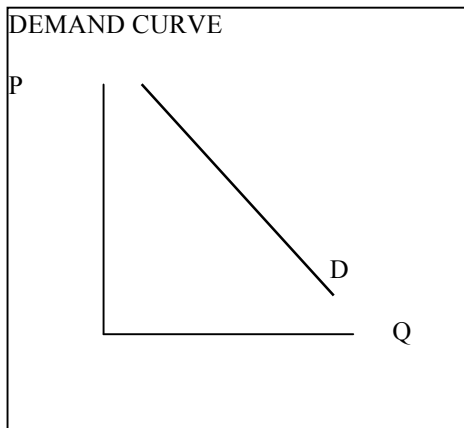
Definitions

DEMAND The quantity of a good buyers are willing to purchase at each Conceivable price

Ceteris Paribus, (all things held constant)	Low Price High Price	High Demand Low Demand
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SUPPLY The quantity of a good producers are willing to sell at each Conceivable price.

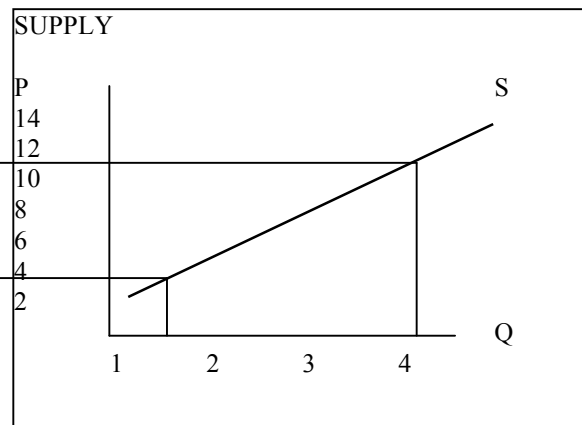
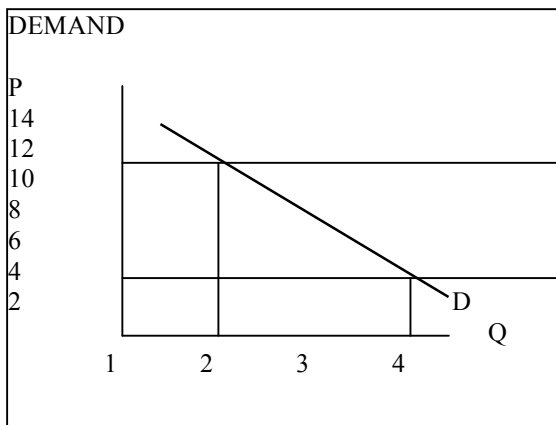
Ceteris Paribus,	Low Price High Price	Low supply High Supply
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Theory: Under free market conditions, price adjusts automatically to clear the market. Market equilibrium is achieved, i.e. Demand and supply are equal i.e. everything produced is sold.

We can make a distinction between *changes in demand* (and supply) and *changes in the quantity demanded* (supplied)

Movements **along** the curve identify a change in the quantity demanded or supplied due to a change in **price**.



Movements along the curve

Demand and supply of Jolt Cola at different prices.

Demand and supply are affected by a number of factors other than price. When changes occur in these factors, consumers demand more or less of a good at each conceivable price. These changes are illustrated by **shifts** in the demand and supply curves.

DEMAND

1. Price of related goods
2. Changes in income
3. Changes in tastes

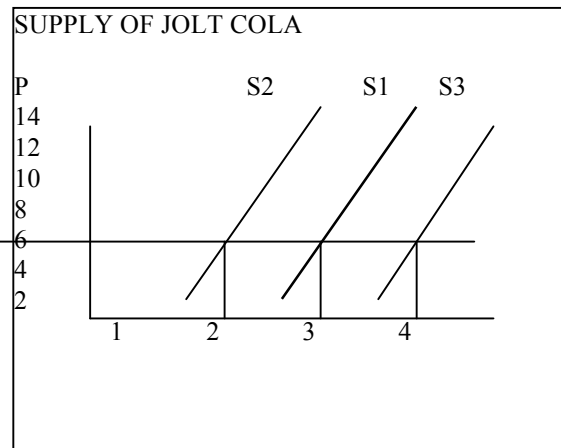
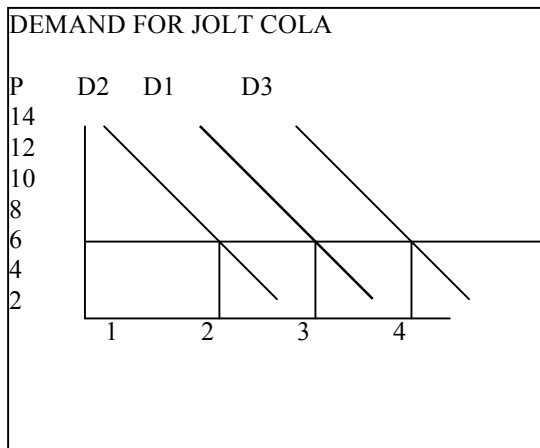
SUPPLY

1. Cost of production
2. Changes in technology
3. Regulation

Depending on the type of the change, the curve shifts to the left or the right.

LEFT reduction in demand --- reduction in supply
 RIGHT increase in demand --- reduction in supply

Note:- There is a difference between changes in the **quantity demanded/supplied** at each conceivable price and **demand and supply** at each conceivable price



- | | | | |
|----|---|----|--|
| D2 | Cost of Coca-Cola falls
People lose jobs
People give up sugar | S2 | Cost of production increases
Technology worsens (!)
Stricter regulations |
| D3 | Cost of Coca-Cola increases
People get wage increase
People's addiction worsens | S3 | Cost of production falls
Technology improves
Relaxation of regulations |

Expectations of future prices and future availability can also cause a change in demand. If people think they will lose their jobs, they will spend (demand) less (toilet roll example).

The application of these rules depends on the type of good under question.

- NORMAL GOODS Demand increases when income rises
 INFERIOR GOODS Demand falls when income rises
 GIFFEN GOODS Demand increases when price rises (potatoes during the Famine)

Note:- This analysis excludes the importance of **elasticities** of supply and demand. The elasticity of the curves determines their slope. Elasticity measures how **sensitive** demand and supply are to changes in income and prices (cigarettes example).

BALANCE OF PAYMENTS

The Balance of Payments is a record of all transactions between people living in a country and the rest of the world. All countries engage in trade by importing and exporting goods and services. A **demand for domestic currency** arises from exports and purchases of domestic assets by foreigners (i.e. we sell stuff abroad and they need our currency to pay for stuff so they give us their currency for our). The **supply of the domestic currency** arises from imports and purchases of foreign assets (we buy stuff from abroad and we need foreign currency to pay for stuff so we sell our currency to buy their). In the absence of intervention in the foreign exchange markets, *floating exchange rates* (freely moving) determine supply and demand for currency. Under a fixed exchange rate (can't move freely), the government meets an excess supply of currency on international markets by selling foreign reserves in order to buy back domestic currency. Increasing foreign reserves supplies domestic currency to the market.

In the Balance of Payments account, items leading to monetary inflows into the country are recorded as credits and items leading to monetary outflows from the country are recorded as debits. Since all imports and exports must be paid for, the Balance of Payments records the financial balance of all economic transactions undertaken between residents and those of a foreign country (it tells us whether we owe money or are owed money from abroad).

The Balance of Payments has three main elements:-

1. Current Account Shows the balance between imports and exports (both invisible and visible).
A balance on this account can indicate a TRADE SURPLUS (+) or a TRADE DEFICIT (-).

2. Capital Account Records capital inflows (+) and capital outflows (-)

3. Balance for Official Financing This shows the sum of the current and capital accounts.
Official Financing This records the level of Government intervention in the foreign exchange market. The foreign exchange market refers to the transactions concerning the supply and demand of foreign currencies.

Successive deficits on the total Balance of Payments increases the budget deficit. The National Debt of a country is its current and total stock of government debt (accumulated by successive **budget deficits**). This debt is owed to Banks, both domestic or foreign, and to private individuals who purchase government **stocks and bonds**.

The Balance of Trade illustrates the condition of a country's trade and whether it is importing more than it exports or vice versa. It is better to export more than to import. Ireland import's a lot of goods that it needs and the money to pay for these leaves the Irish economy. Cars are a good example. The more Irish goods we buy, the more Irish jobs are saved. The more foreign goods we buy, the safer we make foreign workers jobs!!

EXCHANGE RATES

Exports from Ireland to America must be paid for in Irish currency (US purchasers may pay for them in Dollars but they must be converted into Euro to be useful to businesses). Imports from America to Ireland must be paid for in US currency. This fact establishes an exchange rate between the two currencies i.e. the relative price of both currencies. The exchange rate is the amount of one currency that is needed to acquire another.

A strong US\$ makes US goods more expensive abroad. A weak US\$ makes US goods cheaper abroad. What actually constitutes a weak or strong value for a currency depends on a number of factors. A currency may be strong against one currency and weak against another. Generally there is a value at which, allowing for seasonal variations, a government wishes its currency to trade. Any **appreciation** against another currency indicates a strengthening of the home currency. Any **depreciation** against another currency represents a weakening of the home currency. A depreciation makes our currency cheaper to buy therefore making our products cheaper abroad. Occasionally, but not too often, and for a variety of reasons, a government may intervene in Central Bank operations to either strengthen or weaken the average value of its currency.

The Balance of Payments can be altered by changing the exchange rate.

Increasing the number of US\$ which can be purchased with Euro is equivalent to a weakening of the Dollar : Euro exchange rate (strengthening of the Euro : Dollar exchange rate). US goods become cheaper (not because the price changes but because more US\$ can be purchased by Irish people so that it takes less Euro to buy US goods), more are sold and this leads to a surplus on the American Balance of Payments. American jobs are safer.

The exchange rate therefore determines the sale of goods.

Two cars, both similar: €6000
 US\$12000 Exchange rate €1 : US\$2

The relative price of the two cars is determined by

$$\frac{\text{EXCHANGE RATE IR : US X IRISH CAR PRICE IN EURO}}{\text{US CAR PRICE IN US DOLLARS}} = \frac{ePd}{Pf}$$
$$= \frac{2 \times 6000}{12000} = 1$$

If the exchange rate (only) falls, the Irish car becomes relatively cheaper.

But if the Irish car price (only) rises, the Irish car becomes relatively more expensive.

$$\frac{2 \times 8000}{12000} = 1.33$$

In reality, a government will only change exchange rates directly in exceptional situations. **Hence inflation in a country can become the main determinant of relative prices between countries.** More usually, the government will alter interest rates to control the exchange rate and dampen inflation. (In 1992 the government depreciated the Punt and this helped our economy but since joining the Euro, the Irish government is no longer able to change the exchange rate).

It's not really possible to say whether a hamburger is cheaper in the USA compared to Ireland without looking at the exchange rate.

Windows 7 €287 in PC World
 £164 on Amazon.co.uk

Which is cheaper?

INTEREST RATES

All banks are required to hold a certain percentage of the value of their customer deposits in reserve with the Central Bank (in addition to holding their own day –to – day reserves) in case of expected demand withdrawals. The Central Bank can issue loans to commercial banks upon request. It charges an interest rate and this usually determines the interest rate charged by banks. In reality, commercial banks have a variety of interest rates; a rate for mortgages, a rate for car loans, college fees etc.

Commercial banks can raise or lower it's own interest rates within certain limits. Any increase in the Central Bank rate causes a increase in commercial bank rates and a lowering of the Central Bank rates leads to a lowering of commercial bank rates. While Central Banks usually operate independently of government action, a government can direct the Central Bank to alter interest rates. In this way the government can directly affect the prevailing market interest rates in order to control inflation. In recent years, government have tended to avoid doing this so as to avoid criticism of trying to manipulate the economy to suit their narrower political interests. **Higher interest rates usually reduce spending and this tends to reduce the pressure of inflation.**

Effect on the Balance of Payments

↑ INTEREST RATES leads to ↑ EXCHANGE RATE (+ Capital Inflow i.e. money flows into a country)

↓ INTEREST RATES leads to ↓ EXCHANGE RATES (- Capital Outflow i.e. money flow out of a country)

This was an important economic instrument especially among EU countries that are part of a fixed exchange rate system. This meant that even if the government decided to change the exchange rate (through devaluation or revaluation) it has to consult member states that may be affected by the action. More usually, where a currency is being subject to speculation on the foreign exchange markets, the government will request the Central Bank to buy up foreign currency by selling domestic currency to weaken the exchange rate; or to sell foreign currency by buying domestic currency to strengthen the exchange rate.

Reflecting changes in the demand for currency,

If there is an excess currency on the market (currency is weak and inflation begins to creep up) then

Increase interest rates Reduce reserves to buy up Punts
Prevents a fall in the exchange rate

If there is a shortage of currency on the market (currency is strong, exports are expensive, job losses occur)

Decrease interest rates Sell reserves to release Punts on the market
Prevents a rise in the exchange rate.

The European Union's EMS operated a managed floating exchange rate system to keep European currency values stable relative to each other in order to promote economic and price stability across the Union. This means that governments can intervene if necessary to smooth out minor fluctuations. Under fixed exchange rate systems, government intervention is more usually an occurrence. Under freely floating exchange rate systems, governments do not intervene in the markets and supply and demand determines the exchange rate. Since the adoption of the Euro, EU Member States in the Euro zone can no longer change the Central Bank interest rate in their country as this is now determined by the European Central Bank.

MONEY AND MONEY SUPPLY

Money has four functions

1. Medium of exchange (I swap you my €3 for that cappuccino)
2. Measure of value (that cappuccino is with the same as that sandwich)
3. Store of value (this €3 was worth €3 last week)
4. Standard for deferred payment (pay me €3 next year for that €2.90 coffee)

The “Money Supply” is a term that describe all the money in an economy.

1. Narrow	M0	Monetary Base = Notes and coin
	M1	Notes and coins outside banks and private sector cheque accounts
	M2	M0 plus retail deposits
2. Broad	M3	M1 plus interest bearing time deposits
	M4	M3 plus building society accounts
	M5	M4 plus private sector holdings of money market assets

People have “Demand for money”, i.e. they want money for these reasons:

1. Transaction motive (to buy stuff)
2. Speculative motive (to try make more money)
3. Precautionary motive (to save for a rainy day)

“Quantity theory of money” describes how the government can alter the volume of money in circulation to control inflation (hence impact job creation; production of goods and services etc)

$$M.V = P.T$$

M = money supply

V = Velocity of circulation

P = Average price of each transaction

T = Number of transactions

If V and T stay the same then changes in M must be linked to changes in P

Increases in P leads to increase in M (banks will loan money to people who want to buy stuff)

Controlling the money supply or prices can become an important instrument in government policy especially vis a vis inflation.

If the relationship between money supply and national income is subject to wide variability; and that private expenditure and interest rates is more stable and predictable, **it is better to control interest rates** and allow the quantity of money to assume any value consistent with the interest rate target, i.e. control interest rates to control money supply (and control inflation and control.....).

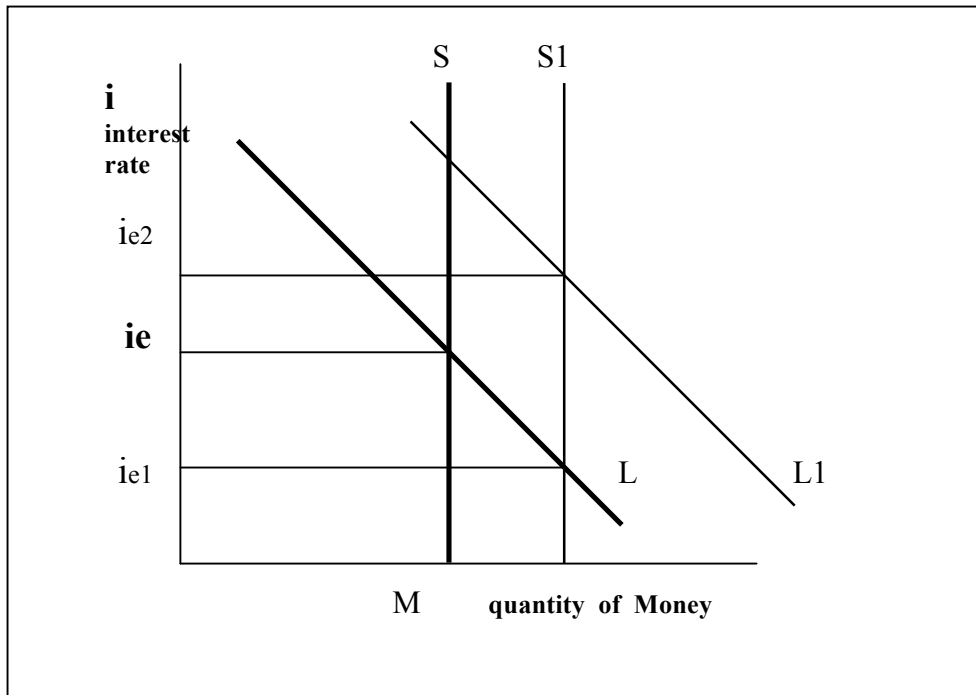
Conversely, if the relationship between money supply and income is known to be more stable than that between interest rates and private expenditure, it is more sensible to control the money supply allowing interest rates to assume any value consistent with the money supply target.

According to Keynesian economists, control of the money supply is difficult if exchange rates are not free to fluctuate. People who say it is best to control the money supply are called monetarists.

All this tells us is that controlling the interest rate can be important in managing the economy *under certain circumstances.*

CONTROLLING INTEREST RATES INTEREST RATE EQUILIBRIUM

“Liquidity preference” describes people wish to hold money.



Assuming fixed money supply shown by curve S.

Demand for money is shown by curve L.

The equilibrium interest rate is shown by i_e .

If the interest rate increases, people demand less money from banks and will save more of their own money. If the interest rate falls, people will demand more money from banks and save less. At some point, the volume of money people demand will match the amount of money available at a particular interest rate (think of the interest rate as the price of money).

An **increase in the money supply** causes S to shift to the right (S1). This lowers interest rates. Private investment increases (businesses borrow more money to invest in expansion; people borrow money for home improvements, cars etc) and the economy receives a boost (but it can also cause inflation).

If **demand for money increases**, curve L shifts to the right and this causes interest rates to rise (banks see more people want to borrow so they increase rates to make more profit). Investment falls as a result of this (businesses stop borrowing to invest etc).

There is a trade off between money supply and interest rates. Both cannot be controlled at the same time. Similarly balancing the Balance of Payments may be achieved through changing the level of foreign reserves. Any change in the foreign reserves trades off against the money supply.

GOVERNMENT POLICY

The political implications of rising (or falling) interest rates, prices, unemployment and other economic indicators require government intervention because

- Economic instability can produce social (and political) instability
- International prestige can suffer
- Politicians may not be re-elected if they manage the economy poorly
-

However there are many demands made by the private and public sector on governments.

- Unions want higher wages and more employment
- Businesses want lower wages, lower interest rates and capital allowances
- Workers want lower taxes
- Everyone wants better health care and education provision, lower prices, more police, less crime, better roads, ad infinitum.

A government cannot directly satisfy every demand but it can develop **policy goals** which may go some way towards satisfying some of the demands made on it while managing the economy. A number of economic policy goals are open to a government

- Full employment
- Stable prices
- Growth and efficiency
- Equality
- Balance of Payments equilibrium

Governments are increasingly under pressure to add **Income Distribution** to this list. To achieve these goals governments use or can use a variety of policy instruments.

ECONOMIC POLICY INSTRUMENTS

- Taxing and spending
 - Borrowing and lending
 - Monetary policy
 - Wage and price controls
 - Regulation policy
-
- One economic aim of a government is to increase aggregate demand i.e. the **total demand for goods and services in a country** since this is a major indicator of economic growth. The government does this while trying to keep inflation low and maintaining full employment.
 - Low inflation is achieved through balancing wages and prices. Monetary policy (primarily controlling interest rates) and partnership agreements with unions and businesses are important here.
 - Full employment in effect means no higher than an unemployment rate of about 4%. If the rate were less than this, there would be pressure on wages to increase with knock on effects on prices. If the rate is higher governments become preoccupied with this issue, tax receipts fall, and reaching partnership agreements become more difficult with employers bargaining from a position of strength. A government can contribute to full employment by spending on goods and services however such spending must be sensitive to the business cycle.
 - All this must be achieved while trying to balance the national budget.

Year 1			
	Taxes		
	Spending		
		_____	Budget Surplus/deficit
Year 2			
	Taxes		
	Spending		

	Borrowing		
	Total net		

Year 3			
	Taxes		
	Spending		
	Interest Repayments		
	Borrowing	_____	
	Total Net		Stock of Debt
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If a country cannot pay its debts, it can cease to function as a State. Banks will not give it loans, so the government won't have any money to operation or pay public servants. In this 'worst-case scenario', the government can apply to the International Monetary Fund (IMF) to money (called Special Drawing Rights SDRs) to help finance the State. However, the IMF wants to be certain it will get its money back so it will impose conditions on giving money. These conditions will include the government adopting Structural Adjustment Policies (SAPs) – which could include cutting the number of social programmes, teachers, doctors and other public servants and/or cutting their pay and any number of other programmes in order to save money.

Nations are encouraged to trade when they can obtain goods and services for less than it would cost them to produce. Under **Absolute Advantage**, a country will have no incentive to trade unless the exchange rate results in relatively cheaper goods from abroad. The Law of **Comparative Advantage** states that countries specialise in producing and exporting the goods that they produce at a lower cost relative to other countries (i.e. goods they can produce more competitively than other countries).

All governments exercise a commercial policy which underlines the condition under which it trades with other countries. Increased trade generally leads to increased wealth. Countries will produce goods they are expert in and which they can produce relatively cheaper than the rest of the world. Resources to do this are diverted from producing goods that they can acquire more cheaply abroad. Government which want to **protect** industries which do not have a comparative advantage can impose tariffs on similar goods imported into the country in order to give domestically produced goods a price advantage over imports.

However, tariffs increase prices paid by consumers, can affect the quality of production and international relations. To reduce world barriers to trade, a organisation called the General Agreement of Trade and Tariffs was established after World War II with the aim of improving world trade. This is now called the World Trade Organisation. However, improved access to markets by, and improved prices for exported primary produce for Developing countries has not yet improved sufficiently to level the world trade playing field.

Developing countries face higher cost in entering markets eg. Clothes market; electronics market compared to countries already producing these goods. Often this means they are caught in a bind where they can only sell commodities but not process them. By not processing them, they lose out on the value added to the processed product. By having to purchased processed products that cost more than the commodities, they end up having to borrow money to finance their imports. This money then becomes part of their national debt which grows and grows.

Absolute Advantage

	<u>PRODUCTION</u> (1 unit of labour)	
	<u>Pottery</u>	<u>Grain</u>
Britain	9	6
US	8	12

The US has an advantage in grain production- it produces grain better than Britain. Britain has an advantage in pottery production – it produces pottery better than the US. Both agree to trade – Britain produces pottery and the US produces grain.

Comparative Advantage

	<u>PRODUCTION</u> (1 unit of labour)	
	<u>Pottery</u>	<u>Grain</u>
Britain	6	3
US	9	12

The US has an absolute advantage in both. **Will trade occur?**

In the US 1 unit of grain = $\frac{3}{4}$ unit of pottery (1P = 1 $\frac{1}{3}$ G)
 In Britain 1 unit of grain = 2 units of pottery (1P = $\frac{1}{2}$ G)

1 unit of US grain = 2 units of Britain's pottery US exports grain
 1 unit of Britain's pottery = 1 $\frac{1}{3}$ units of US grain Britain exports pottery

The US has a comparative advantage in one good only

The comparative cost of pottery : grain production is less in Britain than in US

The comparative cost of grain : pottery production is less in the US than in Britain.

i.e. Britain can produce pottery relatively cheaper than the US. The US will tend to specialise in grain production and Britain will tend to specialise in pottery production.

Comparative Advantage

In the model, land and labour are excluded as factors of production. This is important since different costs will result from different factors. Countries with abundant labour will produce labour intensive goods.

Technologically advanced countries will specialise in producing goods and services that utilise technology. Both theories help explain why trade takes place in homogenous (similar) goods. But most world trade consists of non-homogenous goods. Such factors as quality and reliability can lead to trade even if costs are different. Trade in non-homogenous goods usually requires similar economic development between trading countries, and will involve goods that are successful on the home market.

Preference similarity theory states that countries trade because consumers demand a wider range of goods.

Technological gap theory states that countries trade because of differences in the level of technology between countries.

Barriers to Trade

1. Tariffs
2. Quotas
3. Exchange controls
4. Protectionism – overt
5. Protectionism – covert
 - Bureaucracy
 - Regulations

Trade Agreements

1. Free Trade Areas
2. Customs Unions
3. International (GATT)