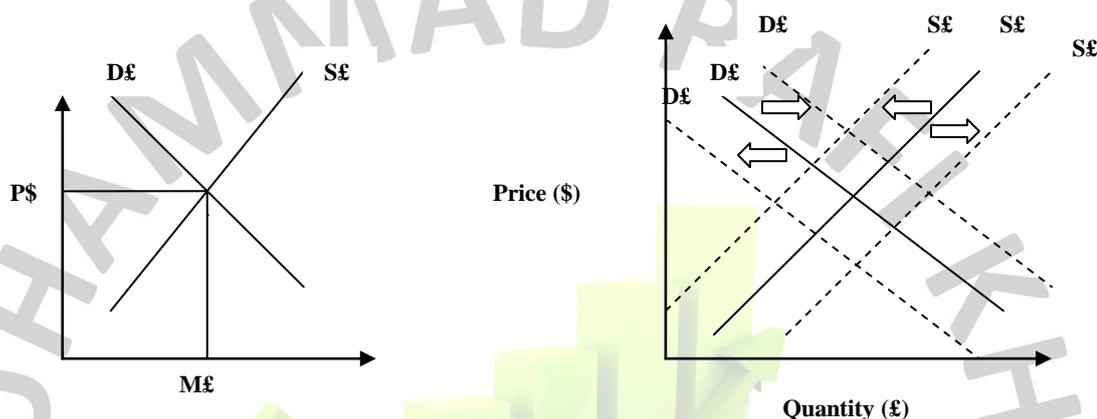


## Exchange rate

The price at which one currency can exchange with another currency is called exchange rate, or the rate at which one currency can be exchanged with another currency. For instance, if an American imports a machine which is worth of \$160 in America and 100 pounds in England, exchange rate will be £1 = \$1.60.

### Free, flexible and floating exchange rate

Exchange rates that are allowed to fluctuate in the open market in response to changes in supply and demand forces.



It is quite clear from the above diagram, if there is any change occurs in demand and supply, exchange rate changes. In the figure we can see demand for pound is downwards sloping from left to right. It shows as price of pound increases British goods become expensive for Americans. They have to pay lots of dollars to buy British goods. As a result, there is a fall in the demand for British goods as well as pounds. As the price of pound falls Americans buy more of the British goods as well as an increase in the demand for pounds.

Curve of supply of pound slopes upwards from left to right. It shows as price of pound increases against dollar American goods become cheaper for British, they buy more of American goods hence supply of pound increases. On the other hands if price of pound falls against dollar American goods become dearer. Therefore there will be a fall in the demand for American goods hence supply of pound will be contracted.

There are few other factors which can shift demand and supply curve of pounds rightwards or leftwards.

Firstly, if there is an increase for the demand of UK goods demand for pound shifts rightwards and vice versa. On the other hand if in UK demand for foreign goods rises, supply curve shifts rightwards and vice versa.

Secondly, if interest rate in UK is higher as compare to other countries, investors prefer to invest in UK, therefore demand for pound will rise and demand curve shifts rightwards. If interest rate is comparatively lower not only demand for pounds fall but also UK investors prefer to invest abroad and supply of pound rises.

Thirdly, relative changes in income of different countries do matter in the determination of exchange rate. For example, if increase in income in UK is more than the increase in income in USA, British will prefer to buy American goods, hence demand for dollar rises and supply of pounds.

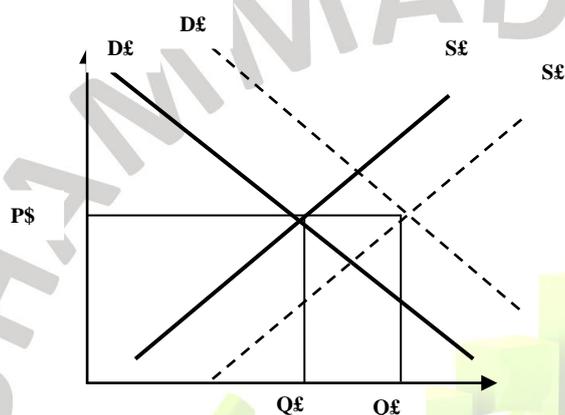
Fourthly, if inflation rate in UK is comparatively higher than in USA, American goods become cheaper for British and an increase in the demand for dollar and fall in the demand for pound.

## Fixed exchange rate

A system of exchange rates that requires government intervention to fix the value of each nation currency in terms of every other nation's currency. Under this regime the rates are fixed against at some par value.

Under the truly fixed exchange rate system, each country's currency had a fixed value set by the amount of gold into which it could be converted, called the currency's gold content. The exchange rate between two currencies was then set by their relative gold contents.

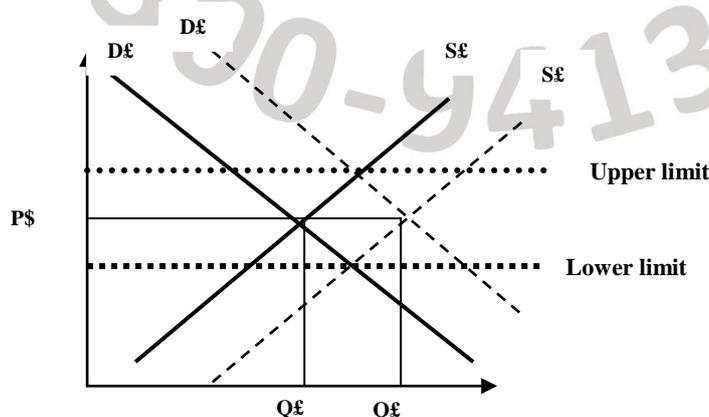
To maintain the certain value government has to keep large amount of foreign reserves. For instance if pound is depreciated due to an increase in the supply, government has to buy its currency from the open market to sustain its value.



The second form of a fixed exchange rate is called as an adjustable-peg regime. In it, the central bank fixes the exchange rate within a publicly announced, narrow band by buying and selling foreign exchange whenever the free-market threatens to go outside of this band. It accepts, however, that in the face of a persistent disequilibrium, it will alter the rate that it is maintaining. The currency is said to be **devalued**, when its external value is lowered, and **revalued** when its external value is raised.

## Managed floating exchange rates

A freely floating exchange rates system that involves governments stepping in to stabilise the value of their currencies. To be contrasted with a clean float, where there is no government in the intervention foreign exchange market.



In the above diagram if exchange rate fluctuates but remains within the given limits there is no intervention of the state. But as it exceeds the limit government intervene and take appropriate steps to bring exchange rate within the given limits.

### **Devaluation and depreciation**

A currency is said to be depreciated when its external value falls due to change in demand and supply forces (under floating exchange rate). Whereas in devaluation, monetary authority of a country deliberately reduces external value of the currency (under fixed exchange rate).

### **Revaluation and appreciation**

A currency is said to be appreciated when its external value rises due to change in demand and supply forces (under floating exchange rate), whereas in revaluation, monetary authority of a country deliberately increases its external value of the currency (under fixed exchange rate).

## **Fixed exchange rates vs. Floating exchange rate system**

### **Case for floating exchange rate system**

Firstly, floating exchange rate system is very simple in its operational mechanism. Secondly, it acts as an automatic stabilizer i.e. it improves the situation of balance of payment automatically. For instance, if balance of payments is in deficit, exchange rate falls, exports become cheaper and imports become dearer. Hence imports fall and exports rise and balance of payments will be improved. In case of surplus balance of payments mechanism will be the opposite. It is a continual process which allows government to preserve domestic economic policies.

Thirdly, floating exchange rate there is no need to keep foreign reserves to maintain certain value of currency. Another important advantage is that, under floating exchange rate it does not require to make complicated policies to correct balance of payments.

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### **Case against floating exchange rate system**

Firstly there is no existence of free floating exchange rate system. There are government interventions directly or indirectly.

Secondly, this system also brings uncertainty in international trade. Traders are unable to take long term decisions due to the fluctuation of external value of their currencies.

Thirdly, this system also encourages speculation, which further deters the exchange rate of the country.

Floating exchange rate automatically adjusts balance of payments deficits and surpluses, but the depreciation of the currency in the foreign exchange market will make imports dearer and this could well lead to cost push inflation.

### **Case for fixed exchange rate**

Fixed value of currency facilitates trade, increases production and lead to faster growth of the economy.

There is no uncertainty and risk under this mechanism therefore it encourages long term capital flows in an orderly and smooth manner. On the other hand there is no fear of any adverse effect of speculation on the exchange rate. It serves as an 'anchor' and imposes a discipline on monetary authorities to follow responsible financial policies within countries.

### **Case against fixed exchange rate**

Under this regime large reserves of foreign currencies are required to be maintained.

Secondly, it requires a complicated exchange control measures which lead to misallocation of the economy's resources. Thirdly, government will have to form expensive and complicated

policies to improve balance of payments. If balance of payments remains deficit over a longer period of time than foreign reserves may be exhausted.

## Types of exchange rates

### Nominal exchange rate

It is also called as bilateral exchange rate. It is simply the price of one currency in terms of another currency. For example, price of a pound can be quoted in terms of frank or the price in terms of US dollar. Changes in nominal exchange rate only affect the transaction price of goods and services bought and sold between these two countries.

### Trade weighted exchange rates

It is also called as multilateral exchange rate. In the modern world, most countries trade with lots of other countries, therefore, the external value of the given currency say that, pound may be expressed in terms of dollar, frank, yen, mark, and so on. Trade weighted exchange rates are a way of measuring a currency's external value in terms of another currencies, in much the same way as a price index measures its internal value.

A trade weighted, exchange rate is a weighted average of the individual exchange rates. The weight given to each country's currency reflects the importance of that country both as a trade partner and as a trading competitor.

Illustration: Country X trades with only two countries, USA and Japan. 90 % of the country's trade in goods and services is with the USA and 10 % is with Japan.

The original value of the trade-weighted exchange rate index is 100.

The change in the value of country X's currency against the US\$ is +10 %. The change in the value of country X's currency against the Japanese yen is +50 %.

What will be the value of country X's new trade-weighted exchange rate index?

Countries	Trade weights	Exchange rate Index	Trade weight × index
X	90%	110	9900
Y	10%	150	1500
	100%		11400

Now the grand sum (11400) is divided on the sum of the weights (100), which are 114. It shows 14% appreciation in the currency's exchange rates against all given currencies.

### Real effective exchange rate (REER)

International competitiveness is measured by the real effective exchange rate. The real effective exchange rate measures the relative price of goods from different countries when measured in a common currency.

Transaction prices are not only affected by changes in the exchange rate; they are also affected by difference in inflation rates between trading countries.

$$\text{Real effective exchange rate} = \text{nominal exchange rate} \times \frac{\text{domestic price index}}{\text{foreign price index}}$$

REER may rise if there is any increase in nominal exchange rate or increase in domestic inflation and vice versa.

### Purchasing power parity

PPP determines price of same basket of goods in two different economies in common currency. For example if price of the given basket in UK is \$10 and in US it is \$12, then purchasing power in UK is better than the purchasing power in US. It

helps economist when a comparison of living standard is made between two or more economies.

**PPP** can also be used to determine exchange rate between economies. For example, price of a basket of goods in US is \$100, but the price of the same basket in UK is £80, then each £ is equal to \$1.25

### **Exchange rate and balance of payments**

If exchange rate depreciates and demand for imports and exports are elastic, as well as there is no bottleneck on the supply side, imports fall, exports rise and balance of payments will be improved (Marshall-Lerner condition).

On the other hand if demand for imports and exports are inelastic, expenditures on imports rises and on exports fall, as a result there is further deterioration in balance of payments.

### **Exchange rates and inflation**

If exchange rate depreciates and demands for imports and exports are elastic, there is an increase in demand for exports which leads to increase in aggregate demand, it causes demand pull inflation. On the other hand if demand for imports and exports are inelastic, cost of imports will rise which causes cost push inflation.

If exchange rate appreciates and demand for imports is elastic, it reduces demand pull as well as cost push inflation.

### **Exchange rates and unemployment**

If exchange rate depreciates continuously, investors lose their confidence, therefore foreign investors will reluctant to make investment on one side and on the other hand it also causes flight of capital. As a result level of unemployment falls.