

UNIT II

FOREIGN EXCHANGE

Foreign Exchange rate or exchange rate is the rate at which one currency is exchanged for another. It is the price of one currency in terms of another currency.

DEFINITION OF FOREIGN EXCHANGE

It is customary to define the exchange rate as the price of one unit of the foreign currency in terms of the domestic currency.

DETERMINATION OF EXCHANGE

The exchange rate in a free market is determined by demand for and supply of foreign exchange. The equilibrium exchange rate is the rate at which the demand for foreign exchange equals to the supply of foreign exchange.

According to Ragner Nurkse defined the equilibrium exchange rate as, “that rate which over a certain period of time, keeps the BOP in equilibrium”.

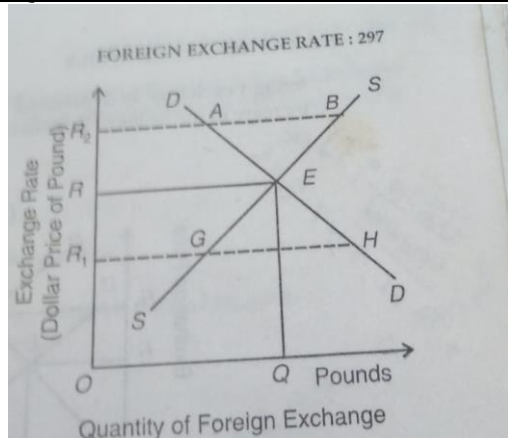
DEMAND FOR FOREIGN EXCHANGE

The demand curve is sloping downward from left to right. It implies the lower the exchange rate, the larger will be the quantity demanded in the foreign exchange market, and vice versa.

SUPPLY OF FOREIGN EXCHANGE

The supply curve is an upward sloping curve. It is positive function of exchange rate. As the exchange rate increases, the greater is the quantity supplied in the foreign exchange markets.

EQUILIBRIUM RATE OF FOREIGN EXCHANGE



X axis represents quantity of foreign exchange, Y axis represents exchange rates. DD demand curve, SS is supply curve. E Equilibrium exchange rate where DD=SS. The equilibrium rate is OR and OQ of foreign exchange is demanded and supplied. If exchange rate is increased to OR2, the supply of pounds (R2B greater than R2A) the demand for pounds. With the fall in price of pounds, the equilibrium exchange rate OR2 is again established at point E.

On the other hand, at an exchange rate lower than this, say OR_1 , the demand for pounds R_1H is greater than the supply of pounds R_1g . The price of pounds will rise which, the equilibrium exchange rate OR is re – established at point E where the $DD=SS$.

THEORIES OF FOREIGN EXCHANGE RATE

- Mint Parity Theory.
- PPP Theory -- Purchasing Power Parity Theory.
- BOP Theory – Balance of Payments Theory.

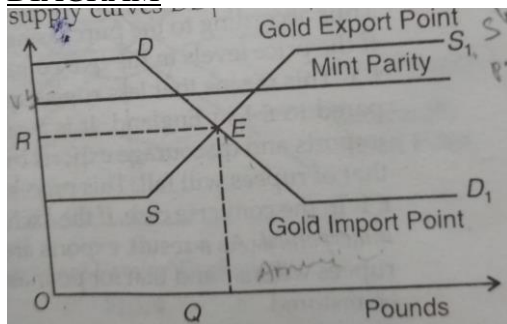
MINT PARITY THEORY

According to this theory, the currency in use was made of gold. The rate at which the standard of money of the country was convertible into gold was called mini price of gold.

ASSUMPTIONS

- Gold price is fixed by a country in terms of its currency.
- It buy and sells gold in any amount at that price.
- The supply of money consists of gold.
- The price level varies directly with its money supply.
- There is a movement of gold between two countries.
- Capital is mobile within countries.
- The adjustment mechanism is automatic.

DIAGRAM



X axis quantity of foreign exchange, Y axis exchange rate. DD_1 demand curve, SS_1 supply curve. E equilibrium point $DD=SS$, the exchange rate is OR . The US supply curve become perfectly elastic or horizontal at US gold export point. (S_1). Similarly the US demand curve become perfectly elastic at the US gold import point. (D_1).

CRITICISMS

- Gold standard does not exist now.
- It is based on free buying and selling of gold.
- It fails to explain the determination of exchange rates.
- Flexibility of internal prices.

PPP THEORY OR PURCHASING POWER PARITY THEORY

It was developed by Gustav Cassel in 1920 to determine the exchange rate between countries on inconvertible paper currency. The rate of exchange between two countries is determined by their relative prices.

TWO VERSIONS

- Absolute Version
- Relative Version

The absolute version states that the exchange rate between two currencies should equal to the ratio of the price indexes in the two countries.

The Formula is $R_{AB} = P_A / P_B$. Where R_{AB} is the exchange rate between two countries A and B and P refers to the price index.

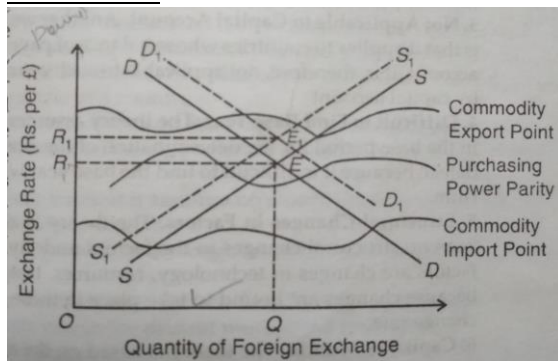
Relative version – Two country India and England. India spend Rs.60 for bundle. England spend \$1 for bundle. The rate of exchange will be $60 = \$1$. If the price level of two countries remains the same the exchange rate moves to $\text{Rs.}50 = \$1$. It means that less rupee required to buy the same bundle of goods in India as compared to \$1 in England. It is case of overvaluation of exchange rate. It encourages imports and discourage exports in India.

According to PPP, the exchange rate between two countries is determined at a point which expresses the equality between the respective purchasing powers of the two countries. PPP is a moving par and not fixed bar. Change in price level, the exchange rate also changes.

$R = \text{Domestic price of foreign currency} \times \text{Domestic price index}$

Foreign price index.

DIAGRAM



X axis quantity of foreign exchange, Y axis exchange rate. DD and SS demand and supply curve of currency. E Equilibrium (DD=SS), the exchange rate is OR, the foreign exchange is OQ. If price level rises in India and England remain constant. This makes India export costly in England and imports from England relatively cheaper in India. It results demand increases and supply decreases. So DD shift upward to the right D1D1 and supply curve to left S1S1. The new equilibrium point is E1 it represents new PPP.

CRITICISMS

- a. Defect in calculating price level.
- b. Difficult in comparison of general price level.
- c. Not applicable to capital account.
- d. Difficult to find Base year.
- e. Capital is mobile.
- f. Change in exchange rate affects price level.
- g. No free trade.
- h. On sided.
- i. Static theory.
- j. Long run theory.

BOP (OR) BALANCE OF PAYMENTS THEORY

According to this theory, under free exchange rates, the exchange rate of the currency of a country depends upon its BOP.

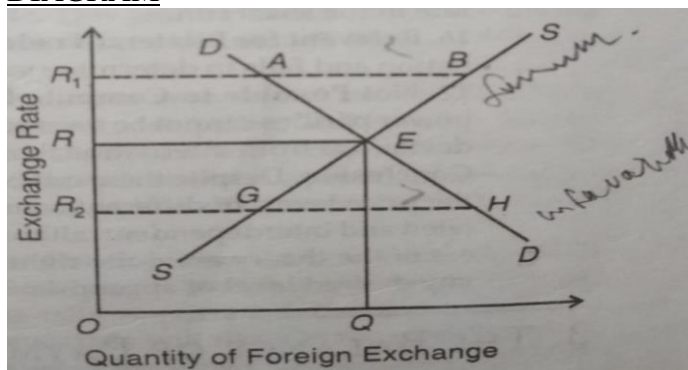
Favourable BOP raises the exchange rate.

Unfavourable BOP reduces the exchange rate. It implies that the exchange rate is determined by the demand for and supply of foreign exchange.

The demand for foreign exchange arises from the debt side of BOP.
The supply of foreign exchange arises from the credit side of BOP.

- If balances in BOP means Debit = credit
- If debit exceeds credit means Unfavourable BOP. Demand for currency is more than supply.
- If credit exceeds debit favourable BOP. Demand for currency is less than supply.

DIAGRAM



X axis quantity of foreign exchange, Y axis exchange rate. DD and SS is demand for and supply of foreign currency. E is equilibrium point in BOP (DD=SS) at OR exchange rate, the quantity of foreign exchange demanded and supplied equals OQ. If exchange rate rises to OR1 DD is less than SS. It means favourable BOP. If exchange rate falls below equilibrium rate to OR2, DD is greater than SS. It means unfavourable BOP.

CRITICISMS

- BOP independent of Exchange rate.
- Neglects the role of price level.
- No free trade.
- Demand for imported material not inelastic.

CAUSES OF CHANGES IN THE EXCHANGE RATE

- Changes in prices.
- Changes in interest rates.
- Changes in exports and imports.
- Capital movements.
- Influence of Banks.
- Changes in bank rate.
- Influences of Speculation.
- Stock exchange influences.
- Structural influences.
- Political conditions.
- Policies of exchange control and protection.
- Type of economy.

FOREIGN EXCHANGE RATE POLICY

There are two types of foreign exchange rate policies are:

FIXED EXCHANGE RATE

Under this method all exchange transactions takes place at an exchange rate that it is determined by the monetary authority. It may fix the exchange rate by legislation or intervention in currency markets. It may buy or sell currency according to the needs of the country. The central bank holds the foreign currency reserves in order to intervene in the foreign exchange market.

CASE FOR FIXED EXCHANGE RATE

- a. Based on common currency.
- b. Encourages long term capital flow.
- c. No fear of currency fluctuations.
- d. No adverse effect on speculation.
- e. Disciplinary.
- f. Best of small countries.
- g. Less inflationary.
- h. Certainty.
- i. Promotes money and capital markets.
- j. International monetary co-operation.

CASE AGAINST FIXED EXCHANGE RATE

- a. Sacrifice of objectives.
- b. Unexpected disturbances.
- c. Heavy burden.
- d. Mal allocation of resources.
- e. Complex system.
- f. Fixed exchange rate not always possible.
- g. Disequilibrium in BOP.
- h. Problems of international liquidity.

FLEXIBLE OR FLOATING OR FLUCTUATING EXCHANGE RATE

These rates are determined by market forces. The monetary authority does not intervene for the purpose of influencing the exchange rate. If there is excess supply of currency, the value of currency in the foreign exchange market will fall. It will lead to depreciation of the exchange rate. On the other hand, shortage of currency will lead to appreciation of exchange rate thereby leading to restoring of equilibrium in the exchange market.

CASE FOR FLEXIBLE EXCHANGE RATE

- a. Simple operation.
- b. Smoother adjustments.
- c. Autonomy of economic policy.
- d. Dis equilibrium in BOP is automatically adjusted.
- e. Removes problem of international liquidity.
- f. No need of borrowing and lending short term funds.
- g. Effective monetary policy.
- h. Mistakes avoided.
- i. Economical.

- j. Promotes international trade.
- k. Comparative advantage.

CASE FOR AGAINST FLEXIBLE EXCHANGE RATE

- a. Mal allocation of resources.
- b. Official intervention.
- c. No justification.
- d. Exchange risks and uncertainty.
- e. Adverse effect of speculation.
- f. Encouragement of inflation.
- g. Breaks the world market.
- h. Failure to solve BOP deficit in UDC's.

FOREIGN EXCHANGE MARKETS

Foreign exchange markets is the market in which different currencies are bought and sold for one another.

The foreign exchange market is a global online network where traders and investors buy and sell currencies. It has no physical location and operates 24 hours a day for 5-1/2 days a week.

Foreign exchange markets are one of the most important financial markets in the world. Their role is of utmost importance in the system of international payments.

FUNCTIONS OF FOREIGN EXCHANGE MARKETS

The foreign exchange market performs the following important functions:

1. Transfer Function:

The basic function of the foreign exchange market is to transfer purchasing power between countries, i.e., to facilitate the conversion of one currency into another. The transfer function is performed through the credit instruments like, foreign bills of exchange, bank draft and telephonic transfers.

2. Credit Function:

Another function of foreign exchange market is to provide credit, both national and international, to promote foreign trade. Bills of exchange used in the international payments normally have a maturity period of three months.

Thus, credit is required for that period to enable the importer to take possession of goods, sell them and obtain money to pay off the bill.

3. Hedging Function:

In a situation of exchange risks, the foreign exchange market performs the hedging function. Hedging is the act of equating one's assets and liabilities in foreign currency to avoid the risk resulting from future changes in the value of foreign currency.

In a free exchange market, when the value of foreign currency varies, there may be a gain or loss to the traders concerned. To avoid or reduce this exchange risk, the exchange market provides facilities for hedging anticipated actual claims or liabilities through forward contracts in exchange.

Forward contract is a contract of buying or selling foreign currency at some fixed date in future at a price agreed upon now. Thus, without transferring any currency, the forward contract makes it possible to ignore the likely change in the exchange rate and avoid the possible losses from such change.

MAJOR FOREIGN EXCHANGE MARKETS

The four major foreign exchange markets are as follows:

A. SPOT MARKET

In this market, the delivery of foreign exchange has to be made on the spot usually within two days of the transaction. The exchange rate at which the transaction takes place is called spot rate.

These are the quickest transactions involving currency in the foreign exchange market. This market provides immediate payment to the buyers and sellers as per the current exchange rate. The spot market account for almost one-third of all currency exchange, and trades usually take one or two days to settle transactions. This allows the traders open to the volatility of the currency market, which can raise or lower the price, between the agreement and the trade.

There is an increase in volume of spot transactions in the foreign exchange market. These transactions are primarily in forms of buying and selling of currency notes, cash-in of traveler's cheque and transfers through banking systems. The last category accounts for almost 90 percent of all spot transactions are carried out exclusively for banks.

As per the Bank of International Settlements (BIS) estimate, the daily volume of spot transaction is about 50 percent of all transactions in foreign exchange markets. London is the hub of foreign exchange market. It generates the highest volume and is diverse with the currencies traded.

MAJOR PARTICIPANTS ON THE SPOT EXCHANGE MARKET

A. Commercial banks

These banks are the major players in the market. Commercial and investment banks are the main players of the foreign exchange market; they not only trade on their own behalf but also for their customers. A major chunk of the trade comes by trading in currencies indulged by the bank to gain from exchange movements. Interbank transaction is done in case the transaction volume is huge. For small volume intermediation of foreign exchange, a broker may be sought.

B. Central banks

Central banks like RBI in India (RBI) intervene in the market to reduce currency fluctuations of the country currency (like INR, in India) and to ensure an exchange rate compatible with the requirements of the national economy. For example, if rupee shows signs of depreciation, RBI (central bank) may release (sell) a certain amount of foreign currency (like dollar). This increased supply of foreign currency will halt the depreciation of rupee. The reverse operation may be done to halt rupee from appreciating too much.

C. Dealers, brokers, arbitrageurs and speculators

Dealers are involved in buying low and selling high. The operations of these dealers are focused towards wholesale and a majority of their transactions are interbank in nature. At times, the dealers may have to deal with corporates and central banks. They have low transaction costs as well as very thin spread. Wholesale transactions account for 90 percent of the overall value of the foreign exchange deals.

B. FORWARD MARKET

The foreign exchange is bought and sold for delivery at future date at an agreed rate today. The rate at which the forward exchange contract is agreed upon is called forward rate. The usual forward exchange contract and rate are for 1 month, 3 months, 6 months, 9 months and 1 year.

C. FUTURE MARKET

The future markets help with solutions to a number of problems encountered in forward markets. Future markets work on similar lines as the forward markets in terms of basic philosophy. However, contracts are standardized and trading is centralized (on a stock exchange like NSE, BSE, KOSPI). There is no counterparty risk involved as exchanges have clearing corporation, which becomes counterparty to both sides of each transaction and guarantees the trade. Future market is highly liquid as compared to forward markets as unlimited persons can enter into the same trade (like, buy FEB NIFTY Future).

D.OPTION MARKET

An option is a contract, which gives the buyer of the options the right but not the obligation to buy or sell the underlying at a future fixed date (and time) and at a fixed price. A call option gives the right to buy and a put option gives the right to sell. As currencies are traded in pair, one currency is bought and another sold.

For example, an option to buy US Dollar (\$) for Indian Rupees (INR, base currency) is a USD call and an INR put. The symbol for this will be USDINR or USD/INR. Conversely, an option to sell USD for INR is a USD put and an INR call. The symbol for this trade will be like INRUSD or INR/USD.
