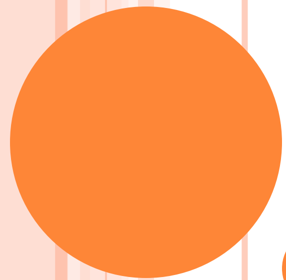
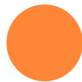
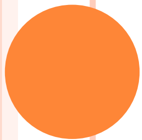




UNIT 4

UNIT 4 B – Foreign Exchange Market

MAJOR FOREIGN EXCHANGE MARKETS ARE:

(a) Spot markets

(b) Forward markets

(c) Futures markets

(d) Options markets, and

(e) Swaps markets

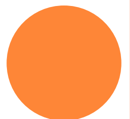
The transactions in the interbank market may place for settlement

(a) on the same day; or

(b) two days later; or

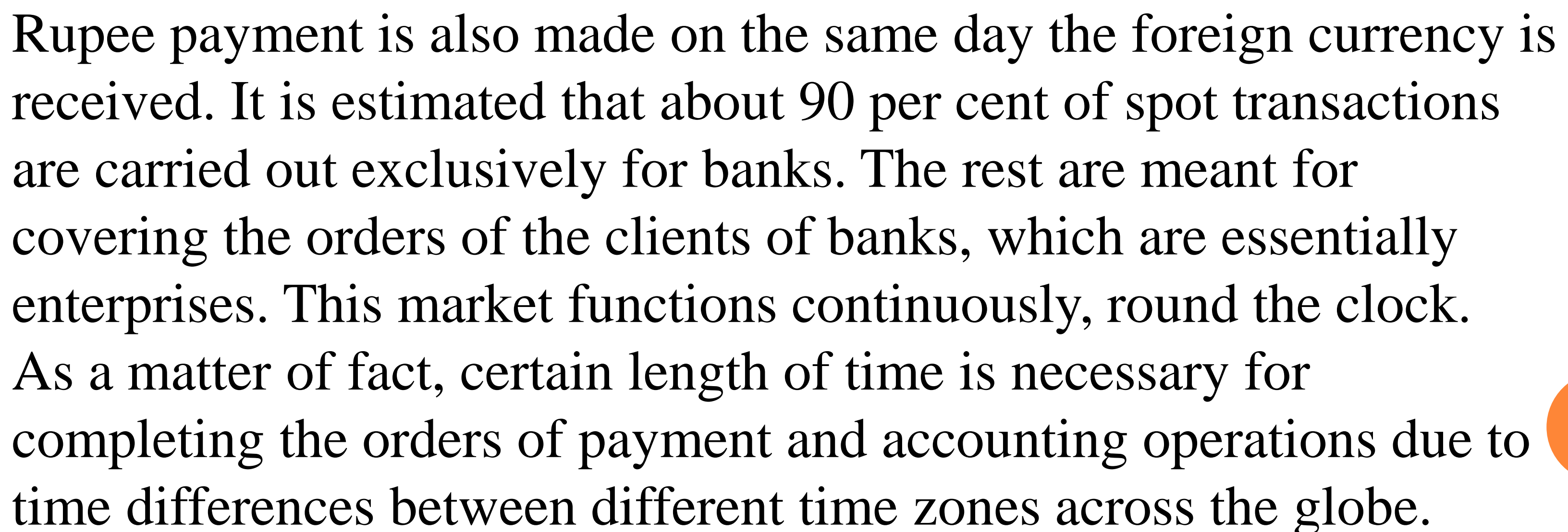
(c) some day late; say after a month

Where the agreement to buy and sell is agreed upon and executed on the same date, the transaction is known as ***cash or ready transaction. It is also known as value today***.



Transactions where the exchange of currencies takes place two days after the date of the contact are known as the ***Spot transactions***. The rate of exchange effective for the spot transaction is known as the spot rate and the market for such transactions is known as the spot market.

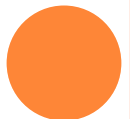
This requires the immediate delivery or exchange of currencies on the spot i.e. within 48 hours. For instance, if the contract is made on Monday, the delivery should take place on Wednesday. If Wednesday is a holiday, the delivery will take place on the next day, i.e., Thursday.



Rupee payment is also made on the same day the foreign currency is received. It is estimated that about 90 per cent of spot transactions are carried out exclusively for banks. The rest are meant for covering the orders of the clients of banks, which are essentially enterprises. This market functions continuously, round the clock. As a matter of fact, certain length of time is necessary for completing the orders of payment and accounting operations due to time differences between different time zones across the globe.

According to a Bank of International Settlements (BIS) estimate, the daily volume of spot exchange transactions is about 50 per cent of the total transactions of exchange markets. London market is the first market of the world not only in terms of the volume but also in terms of diversity of currencies traded. The New York market trades, by and large, US Dollar (75 per cent of the total), Euro, Yen, British Pound, Swiss Franc, Canadian Dollar, Australian and New Zealand Dollar only.

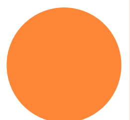
Currency forward market involves transactions in which the exchange of currencies takes places at a *specified future date, subsequent to the spot date known as* ***a forward transaction***. The forward transaction can be for delivery *at a pre-agreed future point in time at a specified price*.



So we can say it is an agreement between two parties, requiring the delivery at some specified future date of a specified amount of foreign currency by one of the parties, against payment in domestic currency to the other party, at the price agreed upon in the contract. The rate of exchange applicable to the forward contract is called the ***forward exchange rate*** and the market for forward transactions is known as the ***forward market***.

Forward market transactions are ***meant to be settled on a future date as specified in the contract. Though forward rates are quoted just like spot rates, but actual delivery of currencies takes place much later***, on a date in future.

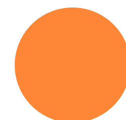
Forward exchange facilities, obviously, are of immense help to exporters and importers as they can cover the risks arising out of exchange rate fluctuations by entering into an appropriate forward exchange contract.



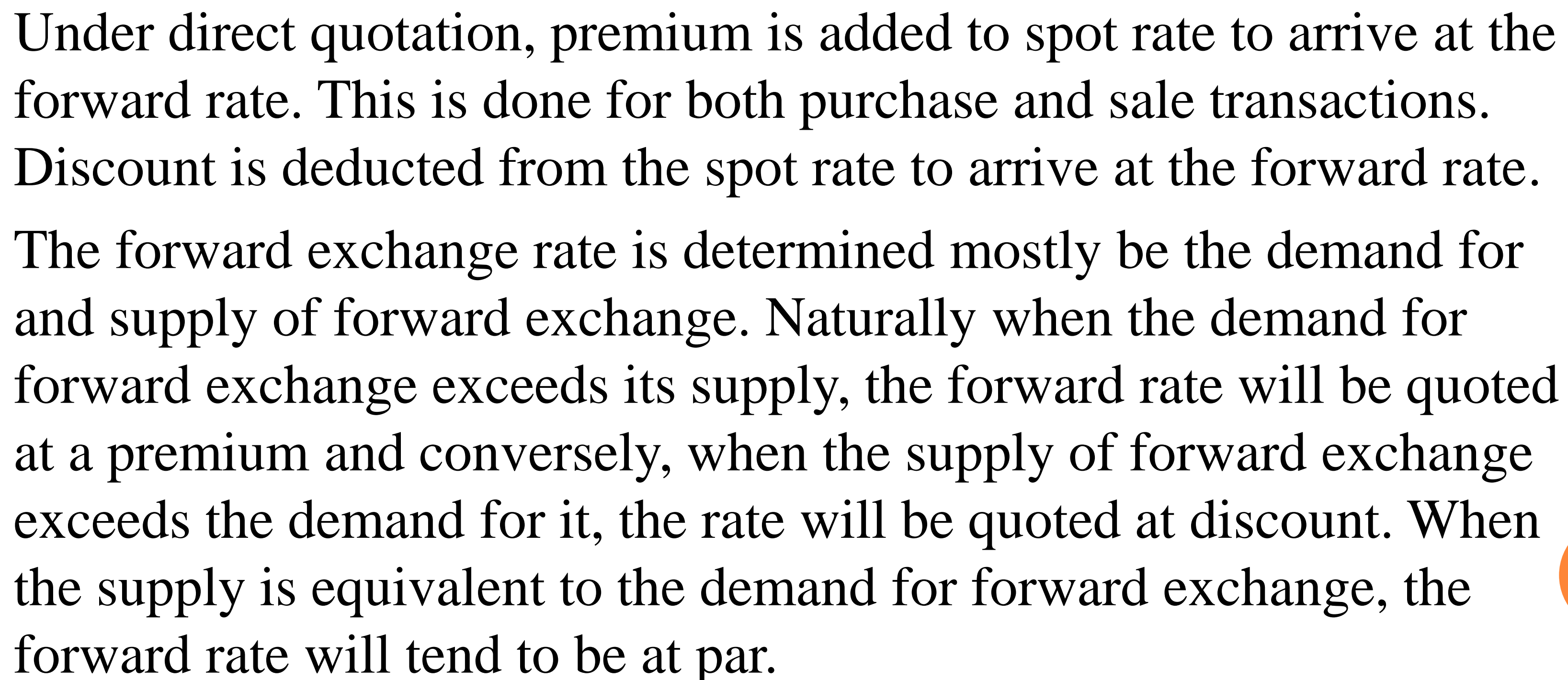
Forward Margin/Swap points: With reference to its relationship with spot rate, the forward rate may be at par, discount or premium.

Forward rate may be the same as the spot rate for the currency. Then it is said to be ‘at par‘ with the spot rate. But this rarely happens. More often the forward rate for a currency may be costlier or cheaper than its spot rate. The difference between the forward rate and the spot rate is known as the forward margin or swap points.

If the forward margin is at premium, the foreign currency will be costlier under forward rate than under the spot rate. **The forward rate for a currency, say the dollar, is said to be at premium with respect to the spot rate when one dollar buys more units of another currency, say rupee, in the forward than in the spot rate on a per annum basis**.



If the forward margin is at discount, the foreign currency will be cheaper for forward delivery than for spot delivery. **The forward rate for a currency, say the dollar, is said to be at discount with respect to the spot rate when one dollar buys fewer rupees in the forward than in the spot market.** The discount is also usually expressed as a percentage deviation from the spot rate on a per annum basis.

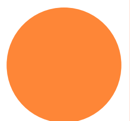


Under direct quotation, premium is added to spot rate to arrive at the forward rate. This is done for both purchase and sale transactions. Discount is deducted from the spot rate to arrive at the forward rate.

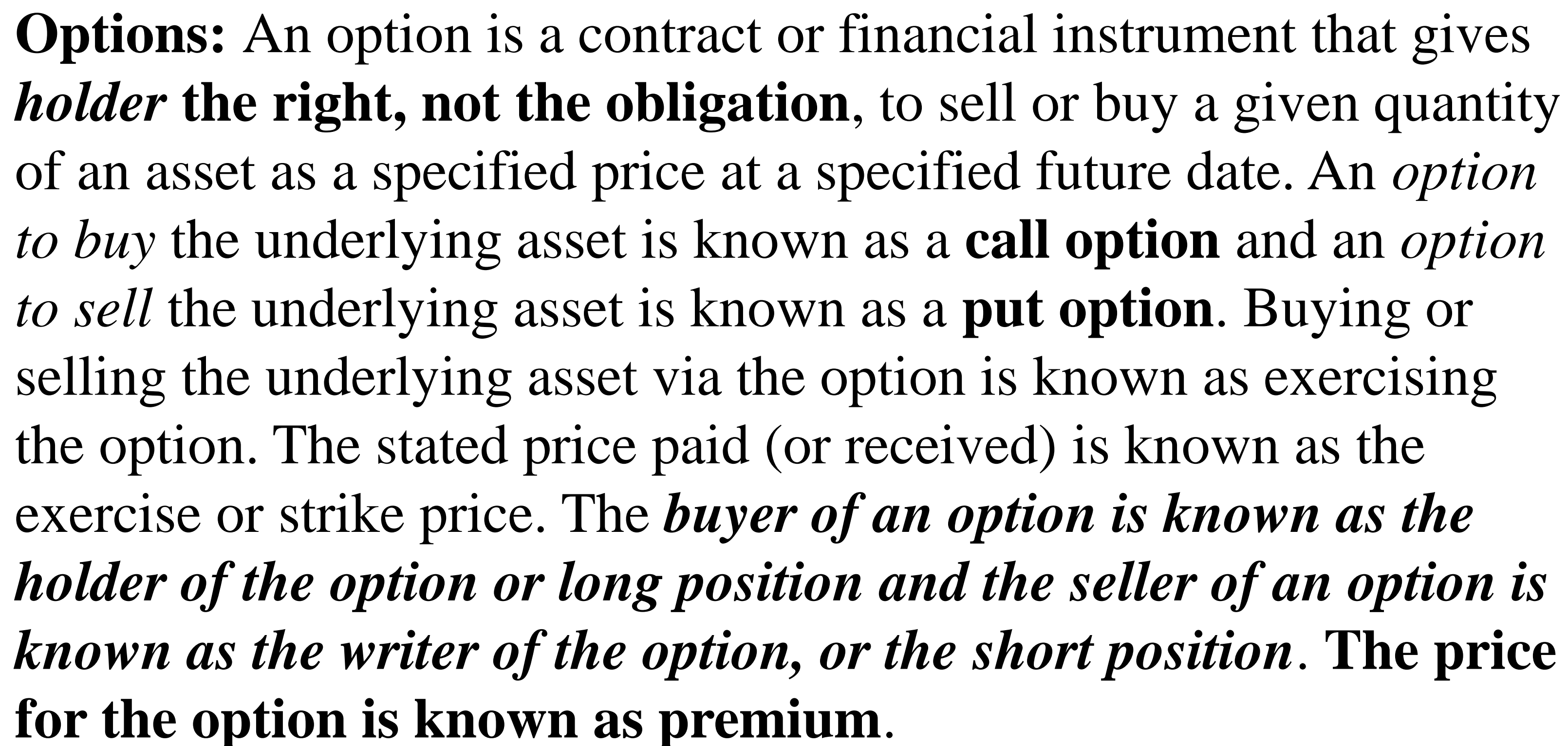
The forward exchange rate is determined mostly be the demand for and supply of forward exchange. Naturally when the demand for forward exchange exceeds its supply, the forward rate will be quoted at a premium and conversely, when the supply of forward exchange exceeds the demand for it, the rate will be quoted at discount. When the supply is equivalent to the demand for forward exchange, the forward rate will tend to be at par.

Futures, Options and Swaps are called derivatives because they derive their value from the underlying exchange rates.

Futures market is a standardised version of a forward contract that is publicly traded on a futures exchange. Like a forward contract it includes price and the time in the future to buy or sell an asset. In terms of **currency market** it is a contract to deliver or take delivery of a given amount of currency on a *specific future date at a price fixed on the date of the contract* or A transaction involving the exchange of two currencies at a rate agreed on the date of the contract for value or delivery (cash settlement) at some time in the future (more than two business days later). Like a forward contract a future contract is executed at a later date but a future contract is different from forward contract in many respects. The major distinguishing features are: Standardisation, Organised exchanges, Minimum variation, Clearinghouse, Margins, and Marking to market.



Unlike forward contracts which are custom made, a future contract has a standardized contract size and maturity date/s. Futures can traded only on an organized exchange and they are traded competitively. Margins are not required in respect of a forward contract but *margins are required from all participants in the futures market and an initial margin must be deposited into a collateral account to establish a future position.*



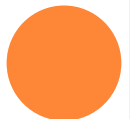
Options: An option is a contract or financial instrument that gives ***holder*** **the right, not the obligation**, to sell or buy a given quantity of an asset as a specified price at a specified future date. An *option to buy* the underlying asset is known as a **call option** and an *option to sell* the underlying asset is known as a **put option**. Buying or selling the underlying asset via the option is known as exercising the option. The stated price paid (or received) is known as the exercise or strike price. The ***buyer of an option is known as the holder of the option or long position and the seller of an option is known as the writer of the option, or the short position***. **The price for the option is known as premium**.

Types of options: With reference to their exercise characteristics, there are two types of options, American and European.

An *European option can is exercised only at the maturity* or *expiration date* of the contract, whereas an *American option can be exercised at any time during the contract*.

Currency Options are derivative instruments that give a choice to a foreign exchange market operator to buy or sell a foreign currency on or up to a date (maturity date) at a specified rate (strike price).

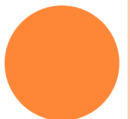
Swaps, as the term suggests, are simply the instruments that permit exchange of two streams of cashflows in two different currencies. The term swap in currency market terms can be understood as simultaneous *sale of spot currency for the forward purchase of the same currency* or the purchase of spot for the forward sale of the same currency. **The spot is swapped against forward.**



Operations consisting of a simultaneous sale or purchase of spot currency accompanied by a purchase or sale, respectively of the same currency for forward delivery are technically known as swaps or double deals as the spot currency is swapped against forward. Commercial banks who conduct forward exchange business may resort to a swap operation to adjust their fund position.

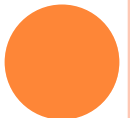
Arbitrage

Arbitrage is the simultaneous buying and selling of foreign currencies with intention of making profits from the difference between the exchange rate prevailing at the same time in different markets



PARTICIPANTS OF FOREIGN EXCHANGE MARKET

1. Dealers/Brokers/Arbitrageurs and Speculators
2. Central Banks
3. Commercial Banks

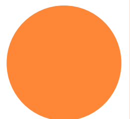


Dealers are basically involved in *buying currencies when they are low and selling them when they are high*.

Dealers operations are **wholesale** and majority of their transactions are interbank in nature although, once in a while, they may deal with corporates and central banks. They have low transaction costs as well as thin spreads which reflect their long experience in exchange risk management as well as the intense competition among banks.

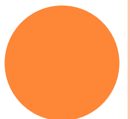
Dealers at the **retail** level cater to needs of customers willing to buy or sell foreign exchange for education, travel and tourism purposes. The spread is wide in these transactions and this constitutes a very small portion of total trade.

Exchange brokers/ Brokers: Are not authorized to take a position on the market. Their job is to find a buyer and a seller for the same amount for the given currencies. Their remuneration is in the form of brokerage. They are constantly in liaison with banks and in search of counterparties.



A large portion of foreign exchange transactions is conducted through brokers. While they tend to specialize in certain currencies, they virtually handle all major currencies. Brokers exist because they lower the dealers' costs, reduce their risks and provide anonymity. In interbank trade, brokers charge a small commission of around 0.01 per cent of the transaction amount. In illiquid currency dealings, they charge higher commissions. Payment of commission is split between trading parties. Banks are able to avoid undesirable positions with the help of brokers.

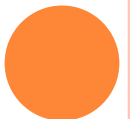
In India, banks may deal directly or through recognized exchange brokers. Accredited exchange brokers are permitted to contract exchange business on behalf of authorized dealers in foreign exchange only upon the understanding that they will conform to the rates, rules and conditions laid down by the Foreign Exchanges Dealers 'Association of India' (FEDAI). All contracts must bear the clause subject to the Rules and Regulations of the FEDAI.



Arbitrageurs make gains by discovering price discrepancies that allow them to buy cheap and sell dear. Their operations are risk-free, in a free and open market, the scope for currency arbitrage tends to be low and it is, by and large, accessible only to dealer banks. Unlike arbitrageurs, speculators expose themselves to risk. **Speculation** gives rise to financial transactions that develop when an individual's expectations differ from the expectations of the market. *Speculators transact in foreign exchange primarily because of an anticipated but uncertain gain as a result of an exchange rate change.* An open position denominated in foreign currency constitutes speculation. Banks or corporates, when they accept either a net asset or a net liability in foreign currency, are indulging in speculation.

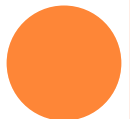
Speculators are classified as bulls and bears. A *bull expects a currency to become more expensive in the future.* He buys the currency either Spot or Forward today in the belief that he can sell it at a higher price in the future. *Bulls take a long position in the particular currency.* A *bear expects a particular currency to become cheaper in the future*. He sells either Spot or Forward today in the hope of buying it back at a cheaper rate in the future. *Bears take a short position on a particular currency*.

Central Banks participate to control their money supply, interest rate and inflation in order to stabilize the home money market. Central banks intervene in the market to reduce fluctuations of the domestic currency and to ensure an exchange rate compatible with the requirements of the national economy. Their objective is not to make profit out of these interventions but to influence the value of national currency in the interest of country's economic well being. *For example, if rupee shows signs of depreciating, central bank may release (sell) a certain amount of foreign currency. This increased supply of foreign currency will halt the depreciation of rupee. The reverse operation may be done to stop rupee from appreciation.*



Commercial banks are intermediaries between seekers and suppliers of currency. The role of banks is to enable their clients to change one currency into another. Also, they operate on these markets to make a profit through speculation and the process of arbitrage. Big commercial banks serve as market-makers. They simultaneously quote, bid and ask prices, indicating their willingness to buy and sell foreign currencies at quoted rates.

The purchases and sales by large commercial banks seldom match, leading to large variation in their holdings of foreign currencies exposing them to exchange risk. When they assume the risk deliberately, they act as speculators. However, banks prefer to keep their exposure low and not get into unduly large speculations. Banks communicate between themselves through a network of telephones, faxes and the means of communications supplied by Reuters, Telerate, Bloomberg etc. Commercial banks also participate on behalf of corporates who trade with other corporates based out of different countries.



SETTLEMENT OF TRANSACTIONS

Foreign exchange markets make extensive use of the latest developments in telecommunications for transmitting as well settling foreign exchange transaction. Banks use the exclusive network SWIFT to communicate messages and settle the transactions at electronic clearing houses such as CHIPS at New York.

SWIFT: SWIFT is a acronym for **Society for Worldwide Interbank Financial Telecommunications**, a co-operative society owned by about 250 banks in Europe and North America and registered as a co-operative society in Brussels, Belgium. It is a communications network for international financial market transactions linking effectively more than 25,000 financial institutions throughout the world who have been allotted *bank identified codes*. The messages are transmitted from country to country via central interconnected operating centers located in Amsterdam and Virginia. The member countries are connected to the centre through regional processors in each country. The local banks in each country reach the regional processors through the national networks.

The SWIFT System enables the member banks to transact among themselves quickly (i) international payments (ii) Statements (iii) other messages connected with international banking. Transmission of messages takes place within seconds, and therefore this method is economical as well as time saving. Selected banks in India have become members of SWIFT like Bank of India, Allahabad Bank, Andhra Bank, Bank of Baroda, Bank of Maharashtra, Canara Bank, Central Bank of India, Dena Bank, Indian Bank, HDFC Bank Limited, Export Import Bank of India, ICICI Bank Limited, Reserve Bank of India, State Bank of India, Syndicate Bank, UCO Band, Yes Bank Limited etc.. The regional processing centre is situated at Mumbai.

CHIPS: CHIPS stands for ***Clearing House Interbank Payment System.*** It is an electronic payment system owned by 12 private commercial banks constituting the New York Clearing House Association. A CHIP began its operations in 1971 and has grown to be the world‘s largest payment system. Foreign exchange and Euro dollar transactions are settled through CHIPS. It provides the mechanism for settlement every day of payment and receipts of numerous dollar transactions among member banks at New York, without the need for physical exchange of cheques/funds for each such transaction.

EXCHANGE QUOTATIONS

We have seen that exchange rates can be quoted in either of the two ways;

(a) Direct quotation

(b) Indirect quotation.

The quotation in which **exchange rate is expressed as the price per unit of foreign currency in terms of the home currency** is known as Home currency quotation or **Direct quotation**. It may be noted that under direct quotation the number of units of foreign currency is kept constant and any change in the exchange rate will be made by changing the value in term of Rupees. For instance, direct quote for India is INR 68 = 1 USD. US dollar quoted at INR 68 may be quoted at INR 66 or INR 69 as the case may be.

The quotation in which the **unit of home currency is kept constant and the exchange rate is expressed as so many unit of foreign currency** is known as Foreign Currency quotation' or **Indirect quotation** i.e. INR 1 = 0.015 USD. Under indirect quotation, any change in exchange rate will be effected by changing the number of units of foreign currency.

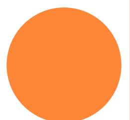
Two Way Quotations

Typically, the quotation in the interbank market is a two way quotation. It means the rate quoted by the market maker will indicate two prices. One at which it is willing to buy the foreign currency, and the other at which it is willing to sell the foreign currency. For example, a Mumbai bank may quote its rate for US dollar as under

USD 1 = INR 68.1525/1650

More often, the rate would be quoted as 1525/1650 since the players in the market are expected to know the big number i.e. INR 68. In the given quotation, one rate is INR 68.1525 per dollar and the other rate is INR 68.1650 per dollar.

It will be obvious that the quoting bank will be willing to buy dollars at INR 68.1525 and sell dollars at INR 68.1650. If one dollar bought and sold, the bank makes a gross profit of INR 0.0125. The buying rate is also known as the bid rate and selling rate as the offer rate. The difference between these rates is the gross profit for the bank and is known as the Spread.



Interpretation of Interbank quotations

The market quotation for a currency consists of the spot rate and the forward margin. The outright forward rate has to be calculated by loading the forward margin into the spot rate. For instance, US dollar is quoted as under in the interbank market on 25th March as under:

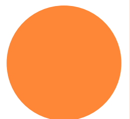
Spot USD 1 = INR 68.4000/4200

Spot/April	2000/2100
Spot/May	3500/3600

The following points should be noted in interpreting the above quotation;

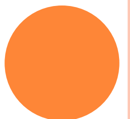
1. The first statement is the spot rate for dollars. The quoting bank buying rate is INR 68.4000 and selling rate is INR 68.4200

2. The second and third statements are forward margins for forward delivery during the months of April and May respectively. Spot/April rate is valid for delivery end April. Spot/May rate is valid for delivery end May.



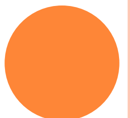
3. The first rate in the spot quotation is for buying and second for selling the foreign currency. Correspondingly, in the forward margin, the first rate relates to buying and the second to selling. Taking Spot/April as an example, the margin of 20 paise is for purchase and 21 paise is for sale of foreign currency.

4. Where the forward margin for a month is given in ascending order as in the quotation above, it indicates that the forward currency is at premium. The outright forward rates arrived at by adding the forward margin to the spot rates.



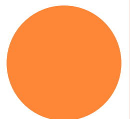
Factors Determining Spot Exchange Rates

- Balance of Payments: Balance of Payments represents the demand for and supply of foreign exchange which ultimately determine the value of the currency. Exports, both visible and invisible, represent the supply side for foreign exchange. Imports, visible and invisible, create demand for foreign exchange. Put differently, **export from the country creates demand for the currency of the country in the foreign exchange market.** Conversely, **imports into the country will increase the supply of the currency of the country in the foreign exchange market.**
- Inflation: Inflation in the country would increase the domestic prices of the commodities. With increase in prices exports may dwindle because the price may not be competitive. *With the decrease in exports the demand for the currency would also decline;* this in turn would result in the decline of external value of the currency. It may be noted that unit is the relative rate of inflation in the two countries that cause changes in exchange rates.



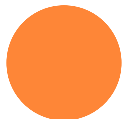
If, for instance, both India and the USA experience 10% inflation, the exchange rate between rupee and dollar will remain the same. If inflation in India is 15% and in the USA it is 10%, the increase in prices would be higher in India than it is in the USA. Therefore, the rupee will depreciate in value relative to US dollar.

- Interest rate: The interest rate has a great influence on the short – term movement of capital. When the interest rate of a country rises, it attracts short term funds from other countries. This would increase the demand for the currency of the home country and hence its value. Rising of interest rate may be adopted by a country due to tight money conditions or as a deliberate attempt to attract foreign investment. **The effect of an increase in interest rate is to strengthen the currency** of the country through larger inflow of investment and reduction in the outflow of investments by the residents of the country.

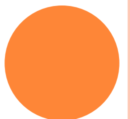


Functions of foreign Exchange Market

- Transfer of Purchasing Power: The primary function of a foreign exchange market is the transfer of purchasing power from one country to another and from one currency to another. The international clearing function performed by foreign exchange markets plays a very important role in facilitating international trade and capital movement.
- Provision of credit: The credit function performed by foreign exchange markets also plays a very important role in the growth of foreign trade, for international trade depends to a great extent on credit facilities. Exporters may get pre shipment and post shipment credit. Credit facilities are available also for importers. The Euro dollar market has emerged as a major international credit market.



- Provision of Hedging Facilities: The other important function of the foreign exchange market is to provide hedging facilities. Hedging refers to covering of foreign trade risks, and it provides a mechanism to exporters and importers to guard themselves against losses arising from fluctuations in exchange rates.

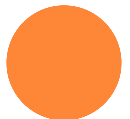


Role of FEDAI in Foreign Exchange

Authorized Dealers in Foreign Exchange (ADs) have formed an association called foreign Exchange Dealers Association of India (FEDAI) in order to lay down certain terms and conditions for transactions in Foreign Exchange Business. AD has to give an undertaking to Reserve Bank of India to abide by the exchange control and other terms and conditions introduced by the association for transactions in foreign exchange business.

Accordingly FEDAI has evolved various rules for various transactions in order to protect the interest of the exporters, importers general public and also the authorized in dealers.

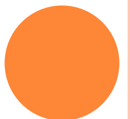
1. 1st Rule of FEDAI deals with hours of business of banks which is the normal banking hours of ADs. On Saturdays no commercial transaction in foreign exchange will be conducted except purchase/sale of traveller's cheques and currency notes and transactions where exchange rates have been already fixed.
2. 2nd Rule deals with export transactions export bills purchased/discounted negotiation, export bills for collection export letters of credit, etc.



FIXED VS FLEXIBLE EXCHANGE RATE

Fixed exchange rate is the rate which is officially fixed by the government or monetary authority and not determined by market forces. Only a very small deviation from this value is permissible.

Flexible exchange rate is a rate which is determined by forces of demand and supply of foreign exchange market. Here the value is allowed to fluctuate freely according to the change in demand and supply of foreign exchange.



BASIS	STOCK MARKET	FOREX MARKET
Commodity Of Trade	Securities (Shares, Debentures etc.)	Currencies
Trading Hours	Most stock market operates for 8 hours.	No downtime in forex trading. Forex market operates 24 hours a day.
Trading Market Place	Stock Market are centralized.	Not geographically tied down. It is an over the counter market.
Size of the market	Smaller as compared to forex market.	Largest market of the world in comparison to any other market.