# 3) Foreign Exchange Market (Forex Market)

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**Introduction :**

When trade takes place **between the residents of two countries**, the two countries being a sovereign (not controlled by any other country) state have their own set of regulations and currency. Due to the different currency the problem arises in the conduct of international trade and settlement of the transactions. While the exporter would like to get the payment in the currency of his country, the importer can pay only in the currency of the importers country. This creates a need for the conversion of the currency of importer‘s into that of the exporter‘s country. Foreign exchange is the mechanism by which the currency of one country is converted into the currency of another country. The conversion is done by the banks who deal in foreign exchange.

**Meaning :**

**A market for the purchase and sale of foreign currencies is called a 'foreign exchange market'.** The purpose of such a market is to **facilitate international trade and investments**. The need for a foreign exchange market arises because of the presence of the different international currencies such as **US-dollar, UK-pound sterling, Europe-Euro, Japanese-Yen** etc. and the need for trading in such currencies.

**Characteristics / Features of Foreign Exchange Market :**

Some of the important features of a foreign exchange market are as follows –

1) **Electronic Market :** Foreign Exchange market is described as **OTC (Over the Counter)** market as there is no physical place where the participants meet to execute the deals. It means, foreign exchange market **does not have a physical place**. It is a market whereby trading in foreign currencies takes place through the electronically linked network of banks, foreign exchange brokers and dealers whose function is to bring together buyers and sellers of foreign exchange.

2) **Geographical spreading :** A feature of the foreign exchange market is that it is not to be found in one place. The market is vastly dispersed throughout the leading financial center of the world such as London, New York, Amsterdam, Tokyo, Hong Kong Toronto and other cities.

3) **Transfer of purchasing power :** Foreign exchange market aims at permitting the transfer of purchasing power denominated in one currency to another whereby one currency is traded for another currency. For example – an India exporter sells software to a U.S. firm for dollars and a U.S. firms sells super computers to an Indian Company for rupees. In these transactions, firms of respective countries would like to have their payment settled in their currencies i.e. Indian firm in rupees and U.S. firm in U.S. dollars.

It is the foreign exchange market, which facilitates such a settlement between countries in their respective currency units.

4) **Intermediary :** Foreign exchange markets provide a convenient way of converting the currencies earned into currencies wanted of their respective countries. For this purpose, the market acts as an intermediary between buyers and sellers of foreign exchange.

5) **Volume :** A special feature of the foreign exchange market is that out of the trading transactions that take place in the foreign exchange market, around 95% takes the firm of cross-border purchase and sale of assets, that is, international capital flows. Only around 5% relates to the export and import activities.

6) **Provision of credit :** A foreign exchange market provides credit through specialized instruments such as bankers' acceptance and letters of credit. The credit thus provided is of much help to the traders and businessmen in the international market.

7) **Minimizing risks :** The foreign exchange market helps the importer and exporter in the foreign trade to minimize their risks of trade. This is being done through the provision of 'Hedging' facilities. This enables traders to transact business in the international market with a view to earning a normal business profit without exposure to an expected change in anticipated profit. This is because exchange rates suddenly change.

8) **24 Hours Market :** The markets are situated throughout the different time zones of the globe in such a way that when one market is closing the other is beginning its operations. Thus at any point of time one market or the other is open. Therefore, it is stated that foreign exchange market is functioning throughout 24 hours of the day.

9) **Currencies Traded :** In most markets, **US dollar is the vehicle currency** i.e. this currency is used to denominate international transactions.

**Meaning of Hedging :**

**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.** It involves using financial instruments to increase protection against unexpected fluctuations, thus making cash flows more stable and predictable. As a result, companies can estimate income, taxes and revenues more reliably.

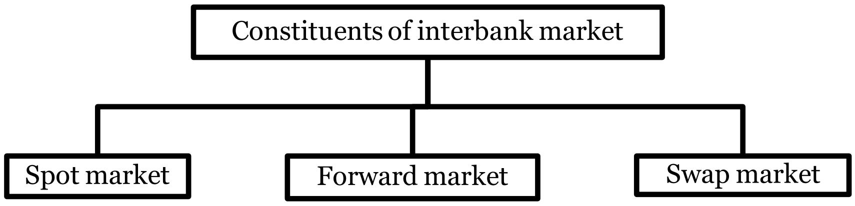
Hedging is not a way of making more money. It is rather a series of methods for minimizing risks. Hedging reduces not only your potential loses, but it also reduces potential sudden earnings. For investors, **hedging is like buying insurance on their assets** or portfolios. Foreign exchange hedging is common among investors and companies involved in international operations. It allows them to manage their exposure to currency exchange movements and minimize the impact of adverse fluctuations. Some companies might choose to hedge 100% of the portfolio, while others might not hedge at all. Most of them are likely to hedge a percentage, so they partially protect themselves but also accept some risks and leave the door open to additional earnings. It depends on their particular tolerance to risk.

**Constituents of Foreign Exchange Market :**

The activities of the foreign exchange market are carried out mainly through the worldwide interbank market. The trading is generally done by telephone, telex or the **SWIFT (Society for**

**Worldwide Interbank Financial Telecommunication)** system. In addition, there are a number of players who assist in trading of foreign currencies. The constituents of the foreign exchange market are –

**1)** **Interbank Market :** It is an important segment of the foreign exchange market. It is the wholesale market through which most currency transactions are channeled. It is used for trading amongst bankers. It is a typical foreign exchange market through which around 95% of the foreign exchange transactions are carried out. About 20 major banks dominate the market.




There are **three constituents of interbank market**. They are spot market, forward market and swap market. In the spot market, currencies are traded for immediate delivery extending for a period not exceeding **two business days** after the completion of the transaction. Spot transactions account for a share of 60% of the foreign exchange market. In the case of forward market, delivery of currencies takes place at a future date and the contracts for buying and selling takes place at the current dates. Its transactions account for 10% of the foreign exchange market. Swap market comprises around 30% for the transactions of the foreign exchange market.

**2.** **The SWIFT :** The SWIFT is an important mode of trading in a foreign exchange market. It is an international bank communication network that links electronically all brokers and traders in foreign exchange.

**Concept of Bid rate, Ask rate and Spread :**

**a)** **Bid Rate** : The bid rate is the rate at which the dealer is willing to buy the base currency. Bid rate is always lesser than the ask rate.

**b)** **Ask Rate** : The ask rate is the rate at which the dealer is willing to sell the base currency. Ask rate is always greater than the bid rate.

**c)** **Bid-Ask Spread :** The difference between the ask rate and the bid rate is called the bid-ask spread and is the profit of the dealer.

**Meaning of Arbitrage :**

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

**Meaning of Speculation :**

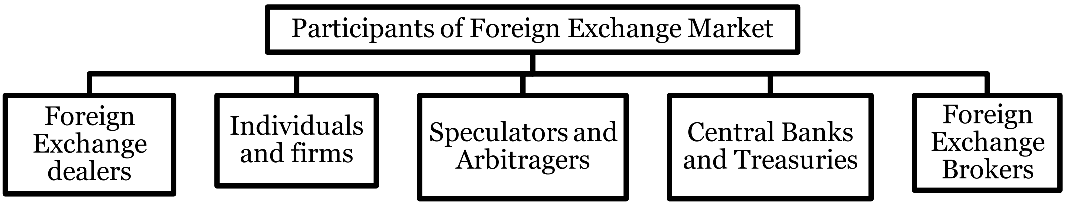
Speculation in Foreign Exchange is an act of buying and selling the foreign currency under the conditions of uncertainty with a view to earning huge gains. **The speculators regularly buy the currency when it is weak and sells when it is strong**.

**Meaning of Foreign Exchange Rate :**

**A foreign exchange rate is the price of the domestic currency stated in terms of another currency**. In other words, a foreign exchange rate compares one currency with another to show their relative values. Since standardized currencies around the world float in value with demand, supply and consumer confidence, their values change relative to each over time.

**Participants of Foreign Exchange Market :**

Five categories of participants take part in the operations of the foreign exchange market. They are bank and non-bank foreign exchange dealers, individuals and firms conducting commercial and investment transactions, speculators and arbitragers, central banks, and treasuries and foreign exchange brokers.




**1) Foreign Exchange dealers :**

Banks and non-bank agencies take part in the activities of the foreign exchange dealers. Their role comprise, in actual market making. They are the **actual market makers** in the foreign exchange market. They actively deal in foreign exchange for their own accounts. These banks buy and sell major foreign currencies on a continuous basis. They trade with other banks in their own monetary centers and in other centers of the world in order to maintain the inventory of foreign currencies within the trading limits. **Their profit comes from buying foreign exchange at a bid price and reselling it at a slightly higher offer / ask price**. Competition among dealers worldwide makes the foreign exchange market efficient and vibrant.

**2) Individuals and firms :**

These are the exporters and importers, international portfolio investors, MNCs, tourists and others who use foreign exchange market **to facilitate the execution of commercial or investment transactions**. Firms that operate internationally must pay suppliers and workers in the local currency of each country in which they operate and may receive payments from customers in many different countries. They will eventually convert their foreign currency earnings into their home currency. In fact, for supporting international trade and travel has been the main aim of currency trading. It is interesting to note that some of these participants use the foreign exchange market for hedging foreign exchange risks.

The activities of FDI require the investor to obtain the currency of the foreign country. Large sums of money are committed to international portfolio investments, the purchase of bonds, shares or other securities denominated in foreign currency. For this purpose, the investor needs to enter the foreign exchange markets to obtain the currency to make a purchase, to convert the earnings from its foreign investments into home currency and to repatriate (send back) the capital when the investment is terminated.

**3) Speculators and Arbitragers :**

**Speculators buy and sell currencies solely to profit from anticipated changes in exchange rates,** without engaging in other sorts of business dealings for which foreign exchange is essential. Currency speculation is often combined with speculation in short-term financial instruments, such as treasury bills. The biggest speculators include leading banks and investment banks. Speculators and arbitragers trade in the foreign exchange market in their own way trying to make profit through normal and speculative operations. Main source of profit for dealers is the spread between the bid price and offer price whereas speculators **profit from exchange rate changes**. It is interesting to note that a large portion of the speculation and arbitrage takes place on behalf of major banks.

**4) Central Banks and Treasuries :**

National treasuries or **central banks may trade currencies for the purpose of affecting exchange rates.** A government's deliberate attempt to alter the exchange rate between two currencies by buying one and selling the other is called **'intervention'**. The amount of currency intervention varies greatly from country to country and time to time and depends mainly on how the government has decided to manage its foreign exchange arrangements.

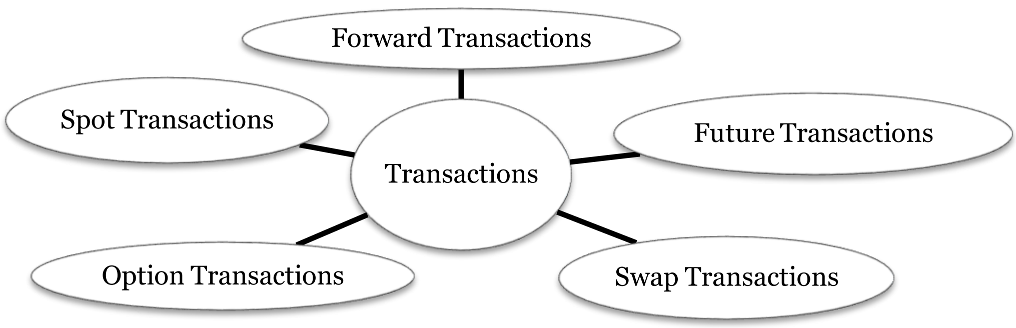
Central banks and treasuries use the foreign exchange market for the purposes of buying and selling country's **foreign exchange reserves**. They also aim at influencing the **value of their own currencies** in accordance with the priorities of the national economic planning. They also use the foreign exchange market to work in unison (harmony) with the commitment entered into with the **international trade agreements** such as European Monetary System, etc. This is often done by the central bank in order to ensure stability and orderliness in the matters of foreign currency transactions.

**5) Foreign Exchange Brokers :**

**These are the commission agents who bring together suppliers and buyers of foreign currency**. They specialize in certain currency although they deal in all major foreign currencies such as American dollar, British Pound Sterling and Deutsche Mark, etc. Some of the services rendered by the brokers include provision of information on the prevailing and future rates of exchange, maintaining confidentiality of participants in the foreign exchange market and helping banks to keep at minimum the contracts with other traders.

**Types of Foreign Exchange Transactions:**

Several types of transactions are carried out in a foreign exchange market among the various participants. Important types of foreign exchange market includes - spot transactions, forward transactions and swap transactions. The discussions in the following pages highlight the nature and significance of such transactions.




**1) Spot Transactions :**

An inter-bank transaction whereby the purchase of foreign exchange and delivery and payment for the same take place between banks usually on the following **second business day** is referred to as **'spot transactions'**. The rate quoted in such transactions is called **'spot rate'**. The date of settlement is known as **'value date'**. On this value date the dollar settlements in the world take place through the mechanism of 'CHIPS' in New York. The CHIP provides for the calculation of net balances payable, between banks by 6 p.m. that day in Federal Reserve Bank of New York funds.

**CHIPS (Clearing House Interbank Payments) :** The Clearing House Interbank Payments System (CHIPS) is an electronic payments system that transfers funds and settles transactions in U.S. dollars. CHIPS enable banks to transfer and settle international payments more quickly by replacing official bank checks with electronic bookkeeping entries.

**Factors Determining Spot Exchange Rates**

**i) 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. Export from the country creates demand for the currency of the country in the foreign exchange market. The exporters would offer to the market the foreign currencies they have acquired and demand in exchange the local currency. Imports into the country will increase the supply of the currency of the country in the foreign exchange market.

When the balance of payments of a country is **continuously at deficit**, it implies that the **demand for the currency of the country is lesser than its supply**. Therefore, its value in the market declines. If the balance of payments is surplus continuously it shows that the demand for the currency in the exchange market is higher than its supply therefore the currency gains in value.

**ii) Inflation:**

Inflation in the country would increase the domestic prices of the commodities. With increase in prices exports may decrease 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 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.

Empirical studies have shown that inflation has a definite influence on the exchange rates in the long run. The trend of exchange rates between two currencies has tended to stay loses around the basic rate discounted for the inflation factor. The actual rates have varied from the trend only by a small margin which is acceptable. However, this is true only where no drastic change in the economy of the country.

**iii) Interest rate:**

The interest rate has a great influence on the short – term movement of capital. When the interest rate at a centre rises, it attracts short term funds from other centers. This would increase the demand for the currency at the centre and hence its value rises. 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.

**iv) Money Supply :**

An increase in money supply in the country will affect the exchange rate through causing inflation in the country. It can also affect the exchange rate directly. An increase in money supply in the country relative to its demand will lead to large scale spending on foreign goods and purchase of foreign investments. Thus the supply of the currency in the foreign exchange markets is increased and its value declines. The downward pressure on the external value of the currency then increases the cost of imports and so adds to inflation.

The effect of money supply on exchange rate directly is more immediate than its effect through inflation. While in the long run inflation seems to correlate exchange rate variations in a better way, in the short run exchange rates move more in sympathy with changes in money supply.

Total money supply in the country represents the value of total commodities and services in the country. Based on this the outside world determines the external value of the currency. If the money supply is doubles, the currency will be valued at half the previous value. To keep the external value of the total money stock of the country constant.

Another explanation offered is that the excess money supply flows out of the country and directly exerts a pressure on the exchange rate. The excess money created, the extent they are in excess of the domestic demand for money, will flow out of the country. This will increase the supply of the currency and pull down its exchange rate.

**v) National Income:**

An increase in national income reflects increase in the income of the residents of the country. This increase in the income increases the demand for goods in the country. If there is underutilized production capacity in the country, this will lead to increase in production. There is a chance for growth in exports too. But more often it takes time for the production to adjust to the increased income. Where the production does not increase in sympathy with income rise, it leads to increased imports and increased supply of the currency of the country in the foreign exchange market. The result is similar to that of inflation, viz., and decline in the value of the currency. Thus an increase in national income will lead to an increase in investment or in consumption, and accordingly, its effect on the exchange rate will change. Here again it is the relative increase in national incomes of the countries concerned that is to be considered and not the absolute increase.

**vi) Resource Discoveries :**

When the country is able to discover key resources, its currency gains the value. A good example can be played by oil in exchange rates. When the supply of oil from major suppliers, such as Middles East, became insecure, the demand from the currencies of countries self sufficient in oil arose. Previous oil crisis favoured USA, Canada, UK and Norway and adversely affected the currencies of oil importing countries like Japan and Germany. Similarly, discovery oil by some countries helped their currencies to gain in value. The discovery of North Sea oil by Britain helped pound sterling to rise to over USD 2.40 from USD 1.60 in a couple of years. Canadian dollar also benefited from discoveries of oil and gas off the Canadian East Coast and the Arctic.

**vii) Capital Movements :**

There are many factors that influence movement of capital from one country to another. Short term movement of capital may be influenced by the offer of higher interest in a country. If interest rate in a country rises due to increase in bank rate or otherwise, there will be a flow of short term funds into the country and the exchange rate of the currency will rise. Reverse will happen in case of fall in interest rates.

Bright investment climate and political stability may encourage portfolio investments in the country. This leads to higher demand for the currency and upward trend in its rate. Poor economic outlook may mean repatriation of the investments leading to decreased demand and lower exchange value for the currency of the country.

Movement of capital is also caused by external borrowing and assistance. Large scale external borrowing will increase the supply of foreign exchange in the market. This will have a favorable effect on the exchange rate of the currency of the country. When repatriation of principal and interest starts the rate may be adversely affected.

**viii) Political factors :**

Political stability induced confidence in the investors and encourages capital inflow into the country. This has the effect of strengthening the currency of the country. On the other hand, where the political situation in the country is unstable, it makes the investors withdraw their investments. The outflow of capital from the country would weaken the currency. Any news about change in the government or political leadership or about the policies of the government would also have the effect of temporarily throwing out of gear the smooth functioning of exchange rate mechanism.

**2) Forward Transactions :**

The forward transactions 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 be 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.

The foreign exchange regulations of various countries generally regulate the forward exchange transactions with a view to shortening speculation in the foreign exchanges market. In India commercial banks are permitted to offer forward cover only with respect to genuine export and import transactions.

Forward exchange facilities are of immense help to exporters and importers as they can cover the risks arising out of exchange rate fluctuations be entering into an appropriate forward exchange contract. The forward rate may be at **par, discount or premium.**

a) **At Par :** If the forward exchange rate quoted is exact equivalent to the spot rate at the time of making the contract the forward exchange rate is said to be **at par.**

b) **At Premium :** Where the payment made for forward delivery is more than the payment for spot delivery of a foreign currency, the forward contract is said to be at a premium.

c) **At Discount :** Where the payment made for forward delivery is less than the payment for the spot delivery of a foreign currency, the forward contract is said to be at a discount.

**Features of the Forward Contract :**

1. It is a private agreement between two parties in the contract.
2. They are bilateral contracts and hence lead to counter party risk.
3. It does not trade on a public exchange like future or options contract.
4. Forward contract is tailor made contract.
5. Each parties involved in the contract agrees on a set exchange rate.
6. It implies that parties cannot take advantage of favourable shifts in market rate.
7. There is no margin requirement in a forward contract.

**3) Swap Transactions :**

The Swap Transactions involve a **simultaneous borrowing and lending** of two different currencies between two investors. In this transaction one investor borrows the currency and lends another currency to the second investor. **The simultaneous purchase and sale of a given amount of foreign exchange for different value dates is referred to as 'swap transactions'**. Both the purchase and sale are with the same counter party. **The important characteristic of these transactions is that the settlements take place only in U.S. dollars.**

**4) Future Transactions :**

Future transaction is a futures contract to exchange one currency for another at a specified date in the future at a price (exchange rate) that is fixed on the purchase date. Currency future contracts to exchange a currency for another at a fixed exchange rate on a specific date in the future. These contracts are standardized and traded on centralized exchanges. Currency futures can be used for **hedging or speculative purposes**. To enter into a futures contract, an initial margin is required. Margins are required of all participants in the futures market an **initial margin** must be deposited into a collateral account to establish a futures position. Futures can trade only in organized exchange and they are traded competitively.

**Features of Future Contract :**

1. Futures contracts are traded on an exchange.
2. Futures contracts are highly standardized because they are traded on exchange.
3. The exchange is the buyer for every seller and seller for every buyer. This eliminates the risk of default.
4. Futures contracts require a margin to be posted at the contract initiation, which fluctuates as the futures prices fluctuate.
5. The exchange market regulates futures market.

**Difference between forward and future transaction**

| Basis | Forward Transaction | Futures Transaction |
|---|---|---|
| Meaning | Forward Contract is an agreement between parties to buy and sell the underlying asset at a specified date | A contract in which the parties agree to exchange the asset for cash at a fixed price and at a future specified |

| | | |
|---|---|---|
| | and agreed rate in future. | date, is known as future contract. |
| Type of contract | It is a tailor made contract. | It is a standardized contract. |
| Traded on | Over the counter, i.e. there is no secondary market. | Organized stock exchange. |
| Default | As they are private agreement, the chances of default are relatively high. | No such probability. |
| Size of contract | Depends on the contract terms. | Size of contract is fixed |
| Collateral | Not required | Initial margin required. |
| Regulation | Self regulated | By foreign exchange market. |
| Risk | High risk because it is counterparty agreement. | Low risk because it is regulated by exchange market. |

**5) Option Transactions :**

While the forward or futures contract protects the purchaser of the contract from the adverse exchange rate movements, it eliminates the possibility of gaining a windfall profit from favorable exchange rate movement.

An option is a contract or financial instrument that gives holder the right, but 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 **striking price**. The buyer of an option is known as the long and the seller of an option is known as the writer of the option, or the short. The price for the option is known as premium.

**Methods of options on the basis of style:**

With reference to their exercise characteristics, there are two methods of options i.e. American option and European option.

**a) American options :** An American option can be exercised at any time during the contract.

**b) European options :** A European option can be exercised only at the maturity or expiration date of the contract.

**Foreign Exchange Risk :**

Fluctuations and consequent appreciation or depreciation in the value of assets, liabilities, income or expenditure due to unanticipated changes in exchange rates are known as foreign exchange risk. Risk is said to be present in an uncovered foreign exchange claim or a liability. Uncovered claim in foreign currency is called ‘long’ and an uncovered liability in foreign currency is called ‘short’.

The globalization of business has made it necessary to undertake international transactions such as purchasing-selling, import-export of machinery and equipments, import of technology and knowhow, payment of royalties and other charges, settlement of balance payments and import-export transactions, etc. These transactions obviously involve problems of payment and pricing. The price payable to a foreign supplier or the payment to be received by a domestic business concern may either be in seller's currency or in buyer's currency or in a currency which is internationally accepted like the U.S. dollar.

**Foreign Exchange Exposure :**

Foreign Exchange Exposure refers to the risk associated with the foreign exchange rates that change frequently and can have an **adverse effect on the financial transactions denominated in some foreign currency** rather than the domestic currency of the company.

**Types of Risks :**

There are three types of exchange risks, which are –

**1) Transaction Exposure :**

It is also known as cash flow exposure. The Transaction Exposure is a kind of foreign exchange risk involved in the international trade wherein the cross-currency transactions (multiple currencies) are involved. In other words, a risk faced by the company that while dealing in the international trade, the currency exchange rates may change before making the final settlement, is termed as a transaction exposure.

Transaction exposure generates in the case of (a) Cross boarder transaction (b) Invoice is made in foreign currency and (c) Date of transaction and date of settlement is different.

**2) Translation Exposure :**

The Translation Exposure is also known as Accounting Exposure. It is the risk of loss suffered when stock, revenue, assets or liabilities denominated in foreign currency changes with the movement of the foreign exchange rates.

This kind of risk arises due the changes in the book value of the parent's investment in the subsidiary, resulting in loss to the parent company. Significant translation losses might force a company to hedge its translation exposure.

**3) Economic Exposure :**

Economic Exposure is also known as operating exposure. The risks that associated with the changes in the present value of a firm, an asset or a liability on account of the exchange rate change is called 'economic exposure'. Since the present value depends on the expected outcomes of commitments that have not yet been made, economic exposure is much more comprehensive than transaction exposure. It differs from translation exposure in that economic exposure depends on the future while translation exposure reflects the events that occurred in the past. Economic exposure also differs from transaction and translation exposure because a firm may be exposed to exchange rate changes even if it has neither assets nor liabilities denominated in foreign currency.

**Payment Methods :**

There are different methods of receiving payment on transactions taking place in international trade. They are –

**a) Payment in domestic currency :**

Here, seller will receive payment in his own currency. There is a clear advantage for a seller-firm where the payment is made in seller's own currency. This would help him know the amount of currency that is likely to be received by him and its present value. That would in turn help him make a correct estimate of his cash flows.

**b) Payment in any currency :**

The seller in exceptional circumstances, choose to accept payment in any currency other than his own currency because of the following reasons –

i) Rapid depreciation of own currency.

ii) Preference shown by the government to rely on currency other than the sellers' own currency.

iii) Seller's wish to make payment abroad where another currency may be accepted.

**Foreign Exchange Risk Management Techniques :**

The value of a currency changes frequently due to various factors in the market such as inflation, interest rates, current account deficits, trade terms, political and economic performance etc. That ultimately affects firms and individuals engaged in international transactions. Foreign exchange risk is a form of financial risk that arises from the change in the price of one currency against another. Whenever investors or companies have assets or business operations across national borders, they face foreign exchange risk. Such risk must be managed in order to ensure better cash flows, manage unsystematic risks, avoid external financing, avoid financial distress, enhance shareholders wealth, and increases investor confidence.

**1)** **Risk Sharing:** The seller and buyer agree to share the currency risk in order to keep the long-term relationship based on the product quality and supplier reliability.

**2)** **Diversification:** It can be done by firms by using funds in more than one capital market and in more than one currency.

**3)** **Natural hedging:** A natural hedge is the reduction in risk that can arise from an institution's normal operating procedures. A company with significant sales in one country holds a natural hedge on its currency risk if it also generates expenses in that currency.

**4)** **Payments netting:** This is the method of reducing credit, settlement and other risks of financial contracts by aggregating (combining) two or more obligations to achieve a reduced net obligation. This method can be used if the companies having exposed in the multiple currencies. This method gives an easy control to the company at the time of conversion, because all the payments are netted to one single transaction and allow the company follows a consistent policy and this also allows reducing transaction cost also.

**5)** **Leading and Lagging:** It refers to the adjustment of the times of payments that are made in foreign currencies. Leading is the payment of an obligation before due date while lagging is delaying the payment of an obligation past due date. The purpose of these techniques is for the company to take advantage of expected devaluation or revaluation of the appropriate currencies. Lead and lag payments are particularly useful when forward contracts are not possible.

**6)** **Cross Hedging:** If a conversion consists of more than one currency then cross hedging is used. For example, if an importer receiving payment in Chinese Yuan, it cannot be directly converted into INR so it is first converted into USD and then INR so in these type of transaction Cross Hedging is used.

**7)** **Overseas Loans/ Foreign currency denominated debt:** A trade can avail the loan in two different currencies. Credit in home currency which have exchange rate risk and other is in foreign currency which is free from exchange rate risk. Usually, this method is used if your payments or receivables are in foreign currency.

8) **Money market Hedge:** It is a costly and unused strategy. In this method, the companies borrow in foreign currency and lends in same currency which will lead to losing on their spread. Instead of this strategy there can use forward hedging.

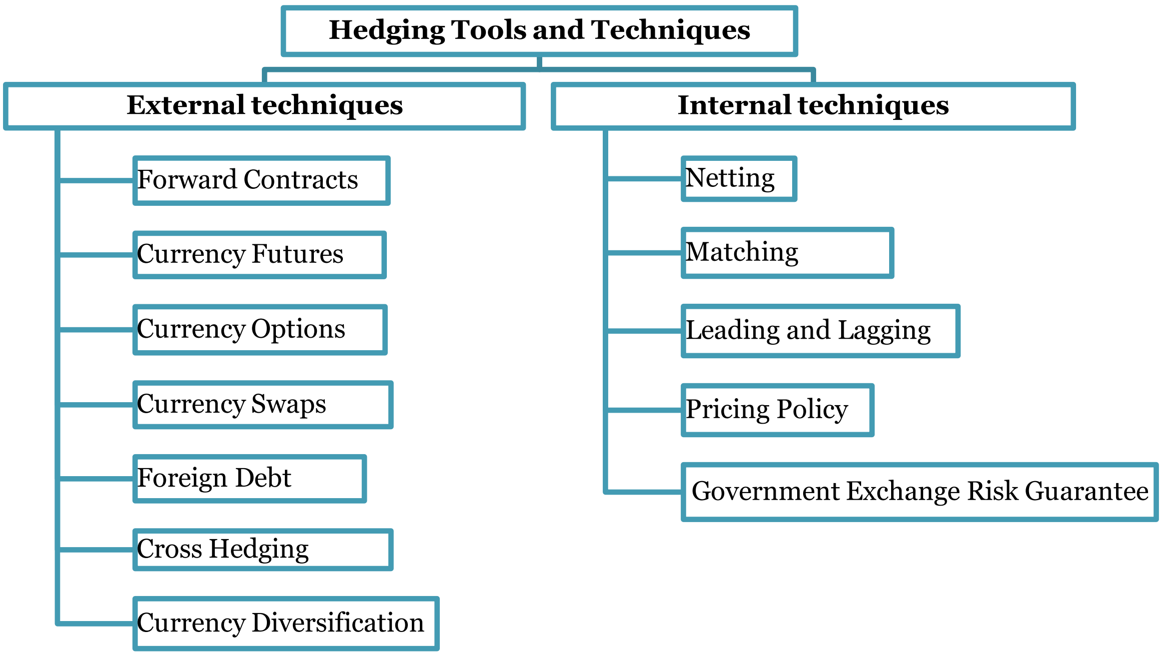
9) **Borrowing Policy:** Every company needs to have a strong borrowing policy. It needs to know whether to go for long-term loans or working capital loans.

**Risk Management Tools :**

It is the fact that there always arises a risk of loss for those indulging in the process of exchange of one currency with another currency. It is incumbent that the users are conversant with the different tools of managing the exchange risk. Hedging technique is used for securing against loss from various risks. Hedging is used as a potential tool to offset the deleterious effects impending exchange risks. Hedgers avoid exchange risk by matching their assets and liabilities in foreign currencies.

**Hedging Tools and Techniques :**

The method of securing oneself against loss from various risks is called 'hedging'. The hedging technique is divided into two parts i.e. external techniques and internal techniques.




1. **External techniques :**

a) **Forward Contracts :** Forward contracts involve an agreement between two parties to buy/sell a specific quantity of an underlying asset at a fixed price on a specified date in the future. In other words, Forward contracts are those where counterparty agrees to exchange a specified quantity of an asset at a future date for a price agreed today. These are the most commonly used foreign exchange risk management tools. The corporations can enter into forward contracts for the foreign currencies which it need for payment or which it will receive in future. Since the rate of exchange is already fixed for the future transaction, there will be no variability in the cash flows. Hence, changes that take place between the contract date and the actual transaction date does not make any impact. This will eliminate the foreign exchange exposure. The future settlement date can be an exact date or any time between two agreed dates.

**b) Currency Futures :** Currency futures contract involves a standardized contract between two parties to buy/sell an amount of currency at a fixed price on a specified date in the future and are traded on organized exchanges. Futures contracts are more liquid than forward contracts as they are traded in an organized exchange. A depreciation of currency can be hedged by selling futures and currency appreciations can be hedged by buying futures. Thus, inflow and outflow of different currencies with respect to each other can be fixed by selling and buying currency futures, eliminating the Foreign Exchange Exposure.

**c) Currency Options :** Currency options are contracts which provides the holder the right to buy or sell a specified amount of currency for a specified price over a given time period. Currency options give the owner of the agreement the right to buy or sell but not an obligation. The owner of the agreement has a choice whether to use or not to use the option based on the exchange rates. He/she can choose to sell or buy the currency or let the option lapse. The writer of the option gets a price for granting this option. The price payable is known as premium. The fixed price at which the owner can sell or buy the currency is called as strike price or the exercise price. Options giving the holder a right to buy are called call options and options giving the holder a right to sell is called put options. It is possible to take advantage of the potential gains through currency options. For example, If an Indian business firm has to purchase capital goods from the USA in US$ after three months, the company should buy a currency call option. There are two possibilities. First, if the dollar depreciates, then the exchange rates will be favorable as spot rate will be less than the strike price and the company can buy the US$ at the prevailing spot rate, as it will cost less. Second, if the dollar appreciates, then the exchange rates will be unfavorable as spot rate will be more than the strike price and the company can opt to use its right and buy the US$ at the strike price. Hence, in both the cases the company will be paying the less to buy the dollar to pay for the goods.

**d) Currency Swaps :** A currency swap involves an agreement between two parties to exchange a series of cash flows in one currency for a series of cash flows in another currency, at agreed intervals over an agreed period. This is done to convert a liability in one currency to some other currency. Its purpose is to raise funds denominated in other currency. One party holding one currency swaps it for another currency held by other party. Each party would pay the interest for the exchanged currency at regular interval of time during the term of the loan. At maturity or at the termination of the loan period each party would re-exchange the principal amount in two currencies.

**e) Foreign Debt :** Foreign debts are an effective way to hedge the foreign exchange exposure. This is supported by the International Fischer Effect relationship. For example, a company is expected to receive a fixed amount of Euros at a future date. There is a possibility that the company can experience loss if the domestic currency appreciates against the Euros. To hedge this, company can take a loan in Euros for the same time period and convert the foreign currency into domestic currency at the spot exchange rate. And when the company receives Euros, it can pay off its loan in Euros. Hence the company can completely eliminate its foreign exchange exposure.

**f) Cross Hedging :** Cross Hedging means taking opposing position in two positively correlated currencies. It can be used when hedging of a particular foreign currency is not possible. Even though hedging is done in a different currency, the effects would remain the same and hence cross hedging is an important technique that can be used by companies.

**g) Currency Diversification :** Currency Diversification means investing in securities denominated in different currencies. Diversification reduces the risk even if currencies are non-correlated. It will give the company global exposure, minimize foreign exchange exposure and capitalize on exchange rate disparities.

**2. Internal Techniques :**

**a) Netting :** Netting implies offsetting exposures in one currency with exposure in the same or another currency, where exchange rates are expected to move high in such a way that losses or gains on the first exposed position should be offset by gains or losses on the second currency exposure. It is of two types of bilateral netting and multilateral netting. In bilateral netting, each pair of subsidiaries nets out their own positions with each other. Flows are reduced by the lower of each company's purchases from or sales to its netting partner.

**b) Matching :** Matching refers to the process in which a company matches its currency inflows with its currency outflows with respect to amount and timing. When a company has receipts and payments in same foreign currency due at same time, it can simply match them against each other. Hedging is required for unmatched portion of foreign currency cash flows. This kind of operation is referred to as natural matching. Parallel matching is another possibility. When gains in one foreign currency are expected to be offset by losses in another, if the movements in two currencies are parallel is called parallel matching.

**c) Leading and Lagging :** These involve adjusting the timing of the payment or receivables. Leading is accelerating payment of strengthening currencies and speeding up the receipt of weakening currencies. Lagging is delaying payment of weakening currencies and postponing receipt of strengthening currencies. In these the payable or receivable of the foreign currency is postponed in order to benefit from the movements in exchange rates.

**d) Pricing Policy :** There can be two types of pricing tactics : price variation and currency of invoicing policy. Price variation can be done as increasing selling prices to offset the adverse effects of exchange rate fluctuations. However, it may affect the sales volume. So proper analysis should be done regarding customer loyalty, market position, competitive position before increasing price. Secondly, foreign customers can be insisted to pay in home currency and paying all imports in home currency.

**e) Government Exchange Risk Guarantee :** Government agencies in many countries provide insurance against export credit risk and introduce special export financing schemes for exporters in order to promote exports. In recent years a few of these agencies have begun to provide exchange risk insurance to their exporters and the usual export credit guarantees. The exporter pays a small premium on his export sales and for this premium the government agency absorbs all exchange losses and gains beyond a certain level.

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**Theory questions :**

1. What is meant by ‘Foreign Exchange Market’? What are its Characteristics?
2. What are the constituents of a ‘Foreign Exchange market’?
3. What is ‘Inter-bank Market’?
4. Write a note on ‘SWIFT’.
5.