Exchange Rates & Forex

Conversion of currencies from the currency of invoice to the home currency of the exporters will be generally required for all cross-border trades. This is Foreign Exchange.

For the Indian exporter or the importer, the US dollars or Euro is foreign exchange, while for the American (buyer of Indian goods) or the German (seller of capital goods), Indian rupee is foreign exchange.

FOREIGN EXCHANGE - DEFINITION AND MARKETS

Foreign Exchange Management Act (FEMA), 1999, (Section 2) defines foreign exchange as:

"Foreign Exchange" means foreign currency, and includes:

(i) All deposits, credits and balances payable in foreign currency, and any drafts, traveler's cheques, letters of credit and bills of exchange, expressed or drawn in Indian currency and payable in any foreign currency.

(ii) drafts, traveler's cheques, letters of credit and bills of exchange, expressed or drawn by banks, institutions or persons outside India but payable in any Indian currency.

- In other sense, a foreign exchange transaction is a **contract to exchange funds in one currency for funds in another currency** at an agreed rate and arranged basis.

- **Exchange rates** thus denote the price or the ratio or the value at which one currency is exchanged for another currency.
- For example, 1 US dollar is equal to Rs 76.10, or 1 Euro is equal to 1.19 US dollar.
- The **exchange rate is a dynamic rate**, which varies from day-to-day, minute-to-minute and second to second, and in practice a few times per second, depending upon a variety of factors.

Foreign Exchange Markets

It is a large spectrum of market participants, which include individuals, business entities, commercial and investment banks, central banks, cross border investors, arbitrageurs and speculators across the globe, who buy or sell currencies for their needs.

It is a **communication system-based market**, with no boundaries, and operates round the clock, within a country or between countries

The markets are in different time zones. The Indian and Middle East markets are ready to start the day, before close of Singapore and Hong Kong markets.

Major participants of forex markets are:

1. Central Banks
2. Commercial Banks
3. Investment Funds/ Banks
4. Forex Brokers
5. Corporations
6. Individual

FACTORS DETERMINING EXCHANGE RATES

The spot rates, being the base quotes in the forex markets are more dynamic and are affected by varied reasons. The main factors, which influence movement of exchange rates, can be summarized as under:

(a) Fundamental Reasons

These include all those causes or events, which affect the basic economic and monetary policies of the concerned government.

Balance of payment - generally a surplus lead to a stronger currency, while a deficit weakens a currency.

> **Balance of Payment (BOP)** is a statement which records all the monetary transactions made between residents of a country and the rest of the world during any given period. This statement includes all the transactions made by/to individuals, corporates and the government and helps in monitoring the flow of funds to develop the economy

Economic growth rate - a high growth leads to a rise in imports and a fall in the value of currency, and vice versa.

Fiscal policy - an expansionary policy, e.g., lower taxes can lead to a higher economic growth.

Monetary policy - the way, a central bank attempts to influence and control interest and money supply can impact the value of currency of their country.

Interest rates - high domestic interest rates tend to attract overseas capital; thus, the currency appreciates in the short term. In the longer term, however, high interest rates slow the economy down, thus weakening the currency.

Political issues - political stability is likely to lead the economic stability, and hence a steady currency, while political instability would have the opposite effect.

(b) Technical Reasons

Government controls can lead to an unrealistic value of a currency, resulting in violent exchange rates.

Freedom or restriction on capital movement can affect exchange rates to a larger extent.

- For example, as seen in Indonesia, Korea, etc. Huge surpluses generated in the petroleum exporting countries, (due to the sudden spurt in petroleum prices), which could not be utilised in these countries, had to be invested overseas. This creates huge movement of capital overseas and resultant appreciation of the relative currency.
- Capital tends to move from lower yielding to higher yielding currencies, and results, is movement in exchange rates.

Speculation - speculative forces can have a major effect on exchange rates. In an expectation, that a currency will be devalued, the speculator will short sell the currency for buying it back cheaper at a later date. This very act can lead to vast movements in the market, as the expectation for devaluation grows and extends to other market participants.

EXCHANGE RATE MECHANISM

The delivery of FX deals can be settled in one or more of the following ways:

Ready or Cash

Settlement of funds takes place on the same day (date of deal), e.g., if the date of Ready/Cash deal is 15 October 2019 (Monday), settlement date will also be 5 October 2009.

Tom

- Settlement of funds takes place on the next working day of the date of deal,
- E.g., if the date of TOM deal 5 October 2009 (Monday), settlement date would be 6 October 2009 (Tuesday, provided it is a working day for the markets dealing as well as where currency is to be settled). If Tuesday is a holiday, in any of the 2 countries, the settlement date will be next working day in both the countries.

Spot

- Settlement of funds takes place on the second working day after/ following the date of contract/deal,
- e.g., if the date of Spot deal is 5 October, 2009 (Monday), settlement date will be 7 October, 2009.
- (Presuming all markets are working on 5, 6 and 7 October 2009). If not, it will the next working day in both the countries.
- The volume, depth and volatility of the spot market is higher due to large participation of market players in the spot trades.

Forward

Delivery of funds takes place on any day after Spot date, e.g., if the date of forward deal is 5 October 2009 (Monday), for value settlement date 30 October 2009 or 30 November 2009, it is a forward deal.

Forward Margins - Premium and Discounts

Forward rates are derived from spot rates

Forward rate = Spot rate + Premium (or - Discount)

- **If the value of the currency is more than that being quoted for Spot**, then it is said to be at a Premium, or if the forward value of the currency is higher than (costlier) the spot (present) value, then the currency is said to be at a Premium.
- For example, if the spot GBP against USD is being quoted at 1.6000, and 1 month forward as 1.6050, then GBP is dearer, value one month forward
- **if the currency is cheaper at a later date than spot**, then it is called at a Discount. If the forward value of a currency is cheaper than the present value (spot), the currency is said to be at a Discount.
- In the above example, where the spot GBP is quoted as 1.6000, against USD, and 3 months forward as 1.5900, while the GBP is at a premium, the USD, the other currency is at a discount against the GBP.

Ex. Indian rupee spot being quoted as 48.10/11, against USD i.e., 1 USD is being bought at 48.10 and sold at Rs 48.11.

Now if the six-month premium being quoted is 68/69 paise, it means that the USD is being quoted dearer in forward, and is being quoted as 48.78/80

Here the USD is at a premium, while the INR at a discount, thereby meaning that the USD is costlier for future value, while the Indian Rupee is cheaper for future value.

- The forward premium and discount are generally based on the interest rate differentials of the two currencies involved, as also on the demand and supply of forwards in the market.
- The demand and supply depend upon various factors
- **In a perfect market**, with no restrictions on finance and trade, the interest factor is the basic factor in arriving at the forward rate.

If the rate of interest, say in the US, for three months prime bank bills is 2% p.a, while similar paper in London can be purchased at a rate of interest of 4% p.a., there will be a flow of funds from USA to London to take advantage of higher yield shown by the CUK bills. (Assuming there are no exchange controls and free movement of capital is allowed.)

The US investor will have to buy GBP by surrendering his USD (owned or borrowed) in the spot market and the GBP so obtained by him would be invested in the UK bills, this will lead to a demand for GBP in the spot market. At the maturity of pound bills, the pounds received would be reconverted to US dollars. This will lead to a demand for USD in the forward.

Therefore, the forward price of a currency against another can be worked out with the following factors:

(i) Spot price of the currencies involved.

(ii) The interest rate differentials for the currencies.

(i) The term, i.e., the future period for which the price is worked out.

Ex: Calculate the forward points or the swap cost: Euro 1 = USD 1.60. Interest rate differential is 6%. Forward period = 90 days (No of days to be taken in a year 360)

Direct and Indirect Quotes

Direct Quote: In this quote, the home currency is variable and foreign currency is having a fixed unit. With a view to make profit, the rule followed is "**Buy low, Sell high**"

USD 1 = INR 76.10

Indirect Quote: In this quote, the home currency is fixed and foreign currency is having a variable unit. With a view to make profit, the rule followed is "**Buy high, Sell low**"

INR 100 = USD 1.31

Cross Rates

Where rates for a particular currency pair are not directly available, the price for the said currency pair is then obtained indirectly with the help of cross rate mechanism. This can be explained with the following example:

Ex: B wants to remit Euro. USD 1 = INR 76.10/25 and USD 1 = EUR 1.06. Find EUR/ INR.

Exercise:

Date of Contract	Delivery Date	Rate to be used
29/09/2020	29/09/2020	1: Ready/ cash T + 0
29/09/2020	30/09/2020	2: TOM T + 1
29/09/2020	01/10/2020	3: SPOT T + 2
29/09/2020	15/10/2020	4: Forward > T + 2

(Assuming all days are working days in both the countries)

Fixed vs. Floating Rates

The **fixed exchange rate** is the official rate set by the monetary authorities for one or more currencies.

Under **floating exchange rate**, the value of the currency is decided by supply and demand factors for a particular currency.

In some cases, even fixed exchange rates are allowed to fluctuate between definite upper and lower bands, as fixed by the monetary authority of the country.

Bid and Offered Rates

- The buying rates and selling rates are also referred to as **bid (Bank is ready to buy)** and **offered rates (bank is ready to sell).**
- In a **USD/INR quote, of 76.10/11**, the quoting bank is bidding for USD at 76.10 and is offering to sell the USD at 76.11.
- On the other hand**, in a GBP/USD rate 1.6000/10,** the quoting bank is willing to buy GBP at 1.6000 and willing to sell at 1.6010.

Per Cent and Per Mille

A percentage (%) is a proportion per hundred, e.g., 1% is one part in every hundred parts such as Rupee 1 per Rupees 100, while per mille means per thousand, e.g., 1 per mille is one part in every thousand, such as Rupee 1 per Rupees 1,000.

Value Date

This is the date on which a payment of funds or an entry to an account becomes actually effective and/or subjected to interest, if any.

In the case of payments on **Telegraphic Transfers** (TT) the value date is usually the same in both centres, i.e., payment of the respective currency in each centre takes place on the same day, **so that no gain or loss of interest accrues to either party**.

Arbitrage in Exchange

Arbitrages means **simultaneous buying and selling of a commodity in two or more markets to take Advantages of temporary discrepancies in prices**.

Arbitrage in forex consists of the purchase of one currency for another in one centre, accompanied by an almost immediate resale against the same currency in another centre, or in operations conducted through three or more centres and involving several currencies.

A transaction conducted between two centres only is known as simple or direct arbitrage. Where additional centres are involved, the operation is known as compound or three (or more) point arbitrage.

FOREIGN EXCHANGE DEALING ROOM OPERATIONS

The Forex dealing room operations comprise functions of a service branch to meet the requirements of customers of other branches/ divisions **to buy or sell foreign currency**, **manage foreign currency assets and liabilities**, fund management and **manage nostro accounts** as also undertake proprietary trading in currencies.

It acts as a separate profit centre for the bank/institution.

There are 3 types of offices: 1.) Front Office 2.) Back Office and 3.) Mid Office

1.) Front office: A dealer has to maintain two positions - funds position and currency position.

The **funds position** reflects the inflow and outflow of funds, i.e. receivables and payables.

- Any mismatches in the receivables and payables will throw open interest rate risks, in the form of a possible overdraft interest in nostro accounts, loss of interest income on surplus credit balances.
- It is very important for a dealer to properly maintain the funds position and manage the funds.

The **currency position** deals with the overbought or oversold positions, arrived after taking various merchant or interbank transactions, and the dealer will be concerned with the overall net position, which exposes the dealer to exchange risks from market movements.

- The dealer has to operate within the permitted limits prescribed for the exchange position by the management.
- The ***funds position comprises*** of items that are Ready in nature, effecting funds position immediately, as also those in the nature of forwards, which effect funds position at a later date, thus the dealer also needs to manage gap positions in different currencies.

2.) Back Office, which takes care of processing of deals, accounts, reconciliation, etc.

- This function is of the equal importance, any laxity in this area would also land the institution into unforeseen trouble.
- Either, it may negate the efforts of the dealers to generate profits, or
- it could be so lax that the dealers indulge in misreporting or wrong doings, without the notice of the back office it has both a supportive as well as a checking role over the dealers.

3.) Mid-Office deals with the risk management, and parameterization of risks for forex dealing operations.

- It acts as a check over the risk taken by the dealers as also supplements them by giving market information.

- Mid office is also supposed to look after the compliance of various guidelines/ instructions and is an independent function.

Management and Control of a Dealing Room

Reserve Bank of India, has advised the Board of Directors of banks should frame an appropriate policy and fix suitable limits for its Forex dealing functions.

The **management of dealing room operations should focus on risk associated with foreign exchange dealing room operations**, which arise due to complex nature of foreign exchange markets and the volatile nature of exchange rate movements.

Problem on TT Buying Rate

Que: Bank XYZ received a money transfer of USD 10,000 already credited to the NOSTRO account. What amount will be paid to the customer if SPOT Rate is 76.30/45
1-month forward differential is 25/35. Exchange Margin is 0.10%

Problem on Bills Buying Rate

Que: On 26th March 2020 your customer has presented to you their bill for USD 50,000 drawn on party in USA and request you to purchase the same.
SPOT RATE → USD/ INR = 72.30/40
1-month forward rate is 0.40/ 0.50
Transit period is 20 days and exchange margin is 0.15% (Transit period to be rounded off to the higher month)

Problem on TT Selling Rate

Que: An importer has requested you to issue a demand draft on USA for USD 50,000. Spot rate USD/INR → 76.32/48 and Exchange Margin is 0.15%. How much amount is required to be paid by the importer?

Problem on Bills Selling Rate

Que: On 26th March 2020 importer has received an import bill for USD 50,000. He asks for retirement of the Bill
SPOT RATE → USD/ INR = 72.30/40
1-month forward rate is 0.40/ 0.50
Exchange Margin on TT Selling rate is 0.15% and exchange margin on bills selling rate is 0.20%

RBI/FEDAI GUIDELINES

- Under FEMA 1999, Reserve Bank of India has issued 'Authorised Dealers' (AD) licenses to banks and all-India financial institutions to undertake foreign exchange transactions in India.
- The RBI has also issued licenses to a large number of established firms, companies, hotels, shops, etc., to deal in foreign currency called as **Money Changer.**
- Entities authorised to buy and sell foreign currency notes, coins and traveler's cheques are called Full Fledged Money Changers (FFMCS) while those authorised only to buy are called Restricted Money Changers (RMCS).

Categorization of Authorized Dealers as per RBI's guidelines issues in 2005:

Authorised Person – Category I: Authorised Dealer Banks, Financial Institutions, and other entities allowed to handle all types of foreign exchange transactions. (Earlier known as Authorised dealers).

Authorised Person - Category II: Money changers, allowed to undertake sale/purchase of foreign currency notes, traveler's cheques, as also handle foreign exchange transactions relating to facilities allowed to residents, like Travel abroad, studies abroad, medical needs, gifts, donations, etc. (Earlier known as Full-fledged Money Changers-FFMCS).

Authorised Person - Category III: Entities allowed to undertake only purchase of foreign currency notes and traveler's cheques, (Earlier these entities known as Restricted Money Changers-RMCS).

Full Fledged money Changer (FFMCs): It can be any entities who are related with the finance sector including NBFCs, Department of Post etc.,

Foreign Exchange Dealers Association of India, FEDAI

- FEDAI is a **non-profit making body**, formed in 1958 with the approval of Reserve Bank of India, consisting of Authorised dealers as members.
- FEDAI prescribes guidelines and rules for market operations, merchant rates, quotations, delivery dates, holidays, interest on defaults, etc.

- In terms of RBI directives, all authorized dealers are members of FEDAI and it is mandatory for them to follow the guidelines/directives issued by FEDAI.
- FEDAI guidelines also prescribe rules-related to handling of export-import bills, transit period, crystallization of bills and other related issues.
- It also advises RBI on market-related issues and supplements the efforts of RBI to strengthen the foreign exchange market in the country.

A few of the major FEDAI guidelines/rules can be summarized as under:

1. All export bills to be allowed standard transit period, as prescribed, for the purpose of allowing concessional interest rates and calculation of notional due dates.

Normal transit period for different categories of export business are laid down as below.

a) Fixed Due Date

In the case of export usance bills, where due dates are fixed or are reckoned from date of shipment or date of bill of exchange etc, the actual due date is known. Therefore, in such cases, normal transit period is not applicable.

b) Bill drawn on DP/At Sight Basis and not under Letter of Credit (LC)

(i) Bill in Foreign Currencies – 25 days

(ii) Bills in Rupees not under Letter of Credit – 20 days

Normal Transit period (NTP) term is used for the average period normally involved from the date of negotiation/ purchase/ discount of a bill, till the credit of that bill proceeds in the Nostro account of the financing bank.

In case of extending finance beyond above prescribed NTP, maximum period is restricted up to 90 days from the date of shipment.

2. **Export bills drawn in foreign currency**, purchased/ discounted/ negotiated, must be crystallized into rupee liability, in case of delay in realization of export bills.

- The same would be done at TT selling rate.
- The prescription of crystallisation of export bills on the 30th day from the due date/ notional due date, has since been relaxed for banks to decide on the days for crystallisation on their own, based on nature of commodity, country of export etc.

3. Sight Bills drawn under Import letters of credit would be crystallized on the tenth day after the date of receipt if not yet paid.

4. All forward contracts must be for a definite amount with specific delivery dates.

5. Option period can be specified by the customer, in case of option contracts, but in any case, the delivery period under the option contract shall not exceed beyond one month. All such contracts must state the start and end dates.

- If the fixed date of delivery or the last date of delivery option is a known holiday; the last date for delivery shall be the preceding working day.

- In case of suddenly declared holidays, the contract shall be deliverable on the next working day.

6. Cancellation of forward contracts - All contracts, which have matured and have not been picked up, shall be cancelled by the bank **within 3 working day, after the maturity date**.

7. All cancellations shall be at bank's opposite TT rates, TT selling rate for purchase contracts and TT buying rate for sale contracts.

8. In the event of delay in payment of interbank foreign currency funds (beyond 15 days), interest at 2% above the benchmark rate of the currency of the specified banks shall be paid by the seller bank.

9. In the event of delay in payment of rupee settlement funds, interest for delayed period at 2% above the FBIL MIBOR ruling on each day.

10. All currencies to be quoted as - per unit of foreign currency = INR, while JPY, Indonesian Rupaih & Kenyan Schilling are to be quoted as 100 units of foreign currency = INR.

RBI guidelines, applicable to authorized persons, with regard to their operations and risk management of their own asset /liabilities and products that can be offered to clients:

(a) **AD Cat I- Banks are allowed to open/ close rupee accounts** (non-interest bearing) in the names of their overseas branches or correspondents (except Pakistani banks operating outside Pakistan) without prior reference to RBI.

(b**) Opening of Rupee accounts in the name of Exchange Houses** for facilitating private remittances through exchange houses requires prior approval of RBI.

(c) **AD Cat I - Banks are allowed to open/close foreign currency accounts abroad** to route foreign exchange transactions handled by them. Banks are also allowed to maintain balances in these accounts, as approved by their Board.

(d) **AD Cat-I Banks are free to undertake investments in overseas markets** in money market instruments and/or debt instruments, issued by foreign state with a residual maturity of less than one year and rated as per guidelines.

(e) **Surplus funds in Nostro accounts can be utilized for granting loans** to resident constituents for meeting their foreign exchange or rupee working capital or capital expenditure needs, extending credit facilities to Wholly Owned Subsidiaries/Joint Ventures of Indian companies abroad, subject to conditions.

(f) **Loans/overdrafts**: All borrowings of banks, including ECB, and temporary overdrafts in nostro accounts not adjusted within five days,

shall not exceed **100% of their unimpaired Tier 1 capital** or **USD 10 million,** whichever is higher.

(if on higher side then a report is to be prepared and sent to Financial Markets Regulation Deptt, RBI within 15 days from the close of the month in which limit was exceeded.)

(g) **Banks can allow residents to book forward exchange contracts** to hedge their exchange risk exposure in respect of a transaction for which sale or purchase of foreign exchange is permissible under the FEMA 1999.

(h) Banks should satisfy about the **genuineness of the underlying documentary evidence and exposure**, irrespective of the transaction being **current or capital account** in nature.

Capital Account Transaction – Section 2(e)

One that alters the assets or liabilities including **contingent liabilities**, outside India of a person resident in India or asset or liability in India, of a person's resident outside India.

Current Account Transaction

Other than a capital account transaction and include payments due in connection with foreign trade, other current business services and short-term banking and credit facilities in ordinary course of business.

(i) **Small and Medium Enterprises (SME)** can book forward contracts to hedge their direct or indirect exposures, without production of the underlying documents to manage their exposures effectively.

(j) **Banks can also allow resident individuals**, who are banking with them, to book forward contracts up to a limit of USD 100,000.00, with the condition that contracts booked under this facility will normally be on deliverable basis, the notional value should not exceed USD 100,000.00, and the forward contract may be booked for tenors up to one year only.

(k) **Banks can enter into cross currency options** with their customers on back-to-back basis, subject to certain conditions.

Q1: when the exchange rate is fixed by the market demand and supply position, it is called:

A.) direct rate
B.) floating rate
C.) indirect rate
D.) fixed rate

Q2: If spot exchange rate = 2.0, interest rate differential = 4% p.a, forward period = 60 days, calculate the forward points by taking a year = 360 days

A.) 0.011111
B.) 0.012222
C.) 0.013333
D.) 0.014444

Q3: The delivery of funds takes place on Aug. 12,2013 for a contract dated July 10, 2013. Which of the following rate of exchange will be used?

A.) ready or cash rate
B.) tom rate
C.) spot rate
D.) forward rate

Q4: which of the following rate is used by the bank for purchase of a FC demand draft from its customer:

A.) bills buying rate
B.) TT buying rate
C.) bills selling rate
D.) TT selling rate

Q5: 1 per mille represents which of the following:

A.) 1 part in every ten
B.) 1 part in every hundred
C.) 1 part in every thousand
D.) 1 part in every lakh

Q6: spot Euro = USD 1.3200 / 10, one month forward 40-35, 2 months forward 75-70, 3 months forward 105-100, 1-month USD can be sold at:

A.) Euro 1 = Usd 1.3160
B.) Euro 1 = Usd 1.3165
C.) Euro 1 = Usd 1.3175
D.) Euro 1 = Usd 1.3240

Q7: The selling rate for foreign currency offered by a bank is called:

A.) offer rate
B.) bid rate
C.) floating rate
D.) fixed rate

Q8: A binding contract for purchase or sale of foreign currency at a future date is called:

A.) swap
B.) forward contract
C.) spot contract
D.) arbitrage

Q9: If a bank is requested to transfer amount from NRE-RA account to FCNR-B account of a customer, which of the following rates shall be used:

A.) bills buying rate
B.) TT buying rate
C.) bills selling rate
D.) TT selling rate

Q10: which department of the dealing room takes care of processing of dealing, accounts, reconciliation etc.

A.) front office
B.) mid office
C.) back office
D.) virtual office

Q11: spot euro = Usd 1.3200 / 10.one month forward 40-35,2 month forward 75-70,3 month forward 105-100, 1-month USD can be purchased at:

A.) Euro 1 = Usd 1.3235
B.) Euro 1 = Usd 1.3175
C.) Euro 1 = Usd 1.3160
D.) Euro 1 = Usd 1.3240

Q12: A FC dealer maintains two types of positions, which are as under:

A.) currency position, risk position
B.) risk position, funds position
C.) funds position, currency position
D.) funds position, liquidity position

Q13: If FC cover has already been received in NOTSRO account payment is to be made in Indian rupees later which of the following rate will be used?

A.) bills buying rate
B.) TT buying rate
C.) bills selling rate
D.) TT selling rate

Q14: USD is available in Delhi at 1 USD = 76.10 Usd rate in London is 1 USD = 1.10 Euro. What will be the Euro/Re rate?

A.) Rs.61.47
B.) Rs.64.17
C.) Rs.35.48
D.) None of the above