



Forex

Foreign exchange rate is price of one country's currency in terms of another country's currency. It tells you how much of one currency you need to exchange to get another currency. For Example: $1\$ = \text{Rs } 83$ which means one Dollar can be purchased for Rs 83

In foreign exchange rate, 2 currencies are involved. One is Base currency and Second is other currency. Currency for which rate is given is known as base currency. In our example, Rate is given for \$, therefore \$ is our base currency and Rs is our other currency

Exchange rate are presented differently for Example
Note: Interpretation of both the presentation is same

$1\$ = \text{₹}83$	$\text{₹}/\$ = 83$
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Very Important point: If presentation in question is given like $\$/\text{₹} = 83$, then we will treat it as $1\$ = \text{₹}83$, since practically dollar is bigger than Rs

In practical life and for solving questions note this summary:

- £ (Pound Sterling) has the highest value.
- \$ (US Dollar) is lower in value than the Pound.
- ₹ (Indian Rupee) is lower in value than the Dollar.
- ¥ (Japanese Yen) has the lowest value among them.

Direct quote shows price of one unit of foreign currency in terms of local (domestic) currency.

Example (for an Indian living in India): If $1 \text{ USD} = 83 \text{ INR}$, this is a direct quote because it tells how many Indian Rupees (INR) are needed to buy 1 US Dollar (USD).

Indirect quote shows price of one unit of local (domestic) currency in terms of a foreign currency.

If $1 \text{ INR} = 0.012 \text{ USD}$, this is an indirect quote because it tells how many US Dollars (USD) are needed to buy 1 Indian Rupee (INR)

Bid Rate: Price at which forex dealer is willing to buy base currency. It will always be lower rate, since forex dealer will want to buy currency at low price

Offer or Ask Rate: Price at which forex dealer is willing to sell base currency. It will always be higher rate, since forex dealer will want to sell currency at high price

For Example: $1\$ = \text{₹}83/85$ (Bid Rate is 83, and Offer rate is 85)

Bid-Ask Spread: Difference between bid rate and offer rate is called spread; Spread is $(85 - 83 = 2)$

Important Note: Sometimes Bid and Ask rate are presented like $1\$ = 83.1111/33$, Then it means Bid Rate is $1\$ = 83.1111$ and Offer Rate is $1\$ = 83.1133$

Spot Rate: Current exchange rate at which one currency can be immediately exchanged for another. Example: If the USD/INR spot rate is ₹83 per \$1, it means you can buy \$1 for ₹83 right now.

Forward Rate: Agreed-upon exchange rate for a currency transaction that will take place at a future date. Example: If the 3-month forward rate for USD/INR is ₹84 per \$1, it means you can agree today to exchange \$1 for ₹84 after 3 months.

Note: Difference between Forward rate and Spot rate is called as **Premium or Discount**
Therefore, Forward Rate = (Spot Rate + Premium) OR (Spot Rate - Discount)

For Example: Spot Rate 1\$= ₹83/85 and Forward Rate 1\$= ₹86/89

Then Bid rate premium= 86 - 83 = 3 And Offer rate premium= 89 - 85= 4

So in above example Premium points are = ₹3/₹4 (**Lower to Higher is PREMIUM**)

Very Imp Point: When in Question, These points are given like ₹4/₹3, then these are Discount Points. (**Higher to Lower is DISCOUNT**)

Sometimes premium or discount is given in swap points in questions. Swap points affect only the decimal places (not the whole number part).

Premium → Add swap points to the last decimal places.

Discount → Subtract swap points from the last decimal places.

For Example: Suppose the spot rate for 1\$= ₹84/₹85 and 1 month Premium= 25/75

Then Forward rates will be:

Bid Rate: 84.00 + 00.25 = 84.25

Offer Rate: 85 + 00.75 = 84.75

Merchant Rate: Exchange rate offered by forex dealers to their customers for currency exchanges. It includes a margin.

- When selling currency to customer: Margin is added to offer Rate
- When purchasing currency from customer: Margin is deducted from Bid Rate

Important Point: If question mentions Contracted Rate or Rate Booked with Customer, it means that this is final exchange rate that has already been agreed upon. This rate is determined after considering exchange margin. No further adjustments are required

Interbank Rate: Exchange rate at which banks and financial institutions trade currencies with each other in the foreign exchange market. (Margin is not involved)

If question mentions Transit Period, then exchange rate should be taken from either Lower Month or Upper Month, whichever is more beneficial to dealer. This means the dealer has the flexibility to choose between two possible rates to maximize their gain.

Example: Suppose spot rate for USD/INR is ₹83.20.

The forward rates are:

1-month forward rate: ₹83.50

2-month forward rate: ₹83.80

If transit period falls between 1 and 2 months, the dealer will pick the rate that is more favourable to them (either ₹83.50 or ₹83.80 depending on whether they are buying or selling).

Calculation of Annual premium or Discount in %

$$\text{USING EXCHANGE RATE DIFFERENTIAL} = \frac{\text{Forward Rate} - \text{Spot Rate}}{\text{Spot Rate}} \times 100 \times \frac{365/12}{\text{Number of days/months}}$$

$$\text{USING INTEREST RATE DIFFERENTIAL} = \frac{\text{Interest Rate (Other currency)} - \text{Interest Rate (Base Currency)}}{1 + \text{Interest Rate (Base Currency)}}$$

$$\text{USING INFLATION RATE DIFFERENTIAL} = \frac{\text{Inflation Rate (Other currency)} - \text{Inflation Rate (Base Currency)}}{1 + \text{Inflation Rate (Base Currency)}}$$

Note: Interest rate and Inflation rate used in above formula should be in decimals

In above 3 formulas, if answer is:

Positive = Then it is premium for Base currency

Negative = Then it is discount for Base currency

Appreciation and Depreciation of Currency

Currency Appreciation (Gain): This means currency can buy more of other currency than before

Example: If 1 USD = 80 INR today and later it changes to 1 USD = 85 INR, USD has appreciated and INR is depreciated

Currency Depreciation (Decline): This means the currency can buy less of other currency than before

Example: If 1 USD = 80 INR today and later it changes to 1 USD = 75 INR, USD has depreciated and INR is appreciated

Interest Rate Parity Theory: states that difference in interest rates between two countries is equal to difference between forward exchange rate and spot exchange rate of their currencies.

It ensures that investors cannot make risk-free profits (arbitrage) by borrowing in one currency with lower interest rate and investing in another with a higher interest rate.

Formula to calculate forward rate is:

$$\text{Forward Rate}(F) = \text{Spot Rate}(S) \times \left(\frac{1 + \text{Interest Rate (Other currency)}}{1 + \text{Interest Rate (Base currency)}} \right)$$

OR

$$\frac{\text{Forward Rate}}{\text{Spot Rate}} = \left(\frac{1 + \text{Interest Rate (Other currency)}}{1 + \text{Interest Rate (Base currency)}} \right)$$

Assume the following data:

Spot exchange rate (S) 1 USD = 80 INR

1-year interest rate in India is 6% and in U.S. is 4%

We calculate 1 year forward exchange rate (F) using the formula:

$$\text{Forward Rate} = 80 \times \left(\frac{1 + 0.06}{1 + 0.04} \right) = 81.54$$

Purchasing Power Parity (PPP) Theory

This theory states that in long run, exchange rate between 2 countries should adjust so that a basket of goods and services costs same in both countries when measured in a common currency

Formula to calculate forward rate is:

$$\text{Forward Rate} = \text{Spot Rate} \times \left(\frac{1 + \text{Inflation Rate (Other currency)}}{1 + \text{Inflation Rate (Base currency)}} \right)$$

Suppose inflation rate in the U.S. is 3% and in India, it is 6%.

If current exchange rate is 1 USD = 80 INR, then expected future exchange rate using PPP is:

$$\text{Forward Rate} = 80 \times \left(\frac{1 + 0.06}{1 + 0.03} \right) = 82.33$$

For Eg: A Pen in India costs today at Rs 80 and In USA this same pen costs 1\$

Suppose inflation rate in the U.S. is 3% and in India, it is 6%.

After one year, in India cost of this pen will be $80(1 + 0.06) = 84.8$

After one year, in USA cost of this pen will be $1\$(1 + 0.03) = 1.03$

Rate after one year should be $\frac{84.8}{1.03} = 82.33$ i.e. (1\$= Rs 82.33) so that cost of pen remains same in both countries

INTERNATIONAL FISHER EFFECT

Exchange Rate differential = Interest Rate differential = Inflation Rate differential

$$\frac{F - S}{S} = \frac{\text{Interest(Other currency)} - \text{Interest (Base currency)}}{1 + \text{Interest (Base currency)}} = \frac{\text{Inflation(Other currency)} - \text{Inflation (Base currency)}}{1 + \text{Interest (Base currency)}}$$

Conceptual Note:

Lower Interest Rate/ Lower Inflation currency will always be at premium in future

Higher Interest Rate/ Higher Inflation currency will always be at discount in future

Fate of Forward Contract:

Fate of Forward Contract (Settlement)	Conditions
Delivery	- Due Date
	- Early
	- Late (Within 3 days of Maturity)
Cancellation	- Due Date
	- Early
	- Late (Within 3 days of Maturity)
	- Automatic (On 3 rd day end if customer does not come)
Extension	- Due Date
	- Early
	- Late (Within 3 days of Maturity)

Exact Execution → If contract is executed as planned on due date, delivery of foreign currency occurs on due date.

Default by Customer → Any situation other than delivery on due date is considered default by customer. This includes early delivery, late delivery, cancellation, or extension.

Financial Implications of Default →

- If default results in profit, profit is given to customer.
- If default results in loss, customer will bear financial loss and be charged accordingly.

Note 1: But in case of Automatic cancellation, loss arising due to default by customer is charged from customer but profit is not given to him

Note 2: If customer comes to dealer for delivery or extension after the contract is automatically cancelled, then new contract will entered with customer on such date

In case of default by customer, Profit and loss will be the aggregate of 4 calculations done below

1. SWAP GAIN/LOSS:

This arises when dealer makes two opposite transactions (one buy and one sell) in the Interbank Market on same day but for different time frames. The difference between these transactions results in either a gain or loss.

2. **Exchange Difference (Cancellation Gain/Loss):** This occurs when a customer requests cancellation of the contract.

It is the difference between:

- The initial transaction made between the customer and dealer.
- The new transaction the dealer makes in the Interbank Market to offset the cancellation.

As per FEDAI rules, an exchange margin will be applied to the dealer's transaction.

3. **Interest:** Applicable only in early settlement (early delivery) or late settlement (late delivery, late cancellation, automatic cancellation, late extension).

For early settlements: Calculate cash inflows & outflows on the early date.

Charge interest on the net inflow or outflow from the early date to the due date.

For late settlements: Calculate cash inflows & outflows on the due date.

Charge interest on the net inflow or outflow from the due date to the late date.

4. **Flat Charges:** A fixed amount charged by the dealer due to customer default.

This is considered only if given in the question

Calculation Process in each case:

Process	Due Date	Early Date	Late Date	Automatic Cancellation
Delivery	Delivery at agreed rate to customer No other profit/loss for default	Delivery at agreed rate to customer Profit and Loss: Swap Gain/Loss Interest Flat Charge (if any)	First late cancellation Then, delivery at new rate on late date to customer	NA
Cancellation	No delivery to customer Profit/Loss: • Exchange Diff • Flat Charge (if any)	No delivery to customer Profit/Loss: • Exchange Diff • Swap Gain/Loss • Interest • Flat Charge (if any)		
Extension	First due date cancellation Then, new contract entered with customer	First early date cancellation Then, new contract entered with customer	First late date cancellation Then, new contract entered with customer	NA

Foreign Currency Risk Hedging Techniques

Method 1: Enter into forward contract and decided accordingly whether proceeds in forward contract is favourable to you or not

Method 2: Leading and Lagging Payment Decisions

Leading (Early) Payment: A buyer makes an early payment before the actual due date. Steps involved: 1. Invoice Amount Calculation: Total amount to be paid, considering any discount given by supplier. 2. Currency Conversion: Amount is converted into home currency at Leading Payment Date Exchange Rate. 3. Converted amount is borrowed from bank assuming we don't have any money and then this amount is paid to bank along with interest. Interest is charged from Leading payment date to Lagging payment date	Lagging (Late) Payment: A buyer delays payment beyond the original due date. Steps involved: 1. Invoice Amount Calculation: Total amount is adjusted with any interest charged by supplier for late payment. 2. Currency Conversion: Amount is converted into home currency at Lagging Payment Date Exchange Rate.
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We can compare the outflow in leading and lagging payment and can choose which is beneficial to us

Example Scenario: An Indian importer purchasing machinery from a U.S. supplier.

Invoice Amount: \$100,000. Payment Due Date: 3 months from today.

Current Exchange Rate: 1 USD = ₹80 and Expected Future Exchange Rate: 1 USD = ₹85

Bank Loan Interest Rate: 10% per annum

Supplier's Late Payment Interest Rate: 8% per annum

Supplier's Discount for Early Payment: 2%

Case 1: Leading (Early Payment) Importer decides to pay immediately rather than after 3 months. Invoice Discount: The supplier offers a 2% discount, so the importer pays: $\\$100,000 - 2\% = \\$98,000$ Currency Conversion at Today's Rate (1 USD = ₹80): $₹98,000 \times 80 = ₹7,840,000$ Opportunity Cost: If the importer borrows this amount from a bank, it incurs 10% annual interest. Interest cost for 3 months = $₹7,840,000 \times (10\% \div 4) = ₹196,000.$ Final Cost to Importer: $₹7,840,000 + ₹196,000 = ₹8,036,000.$	Case 2: Lagging Payment (Late Payment): The importer decides to delay payment by 3 months. Interest Charged by Supplier (8% per annum): Late payment interest for 3 months = $\\$100,000 \times (8\% \div 4) = \\$2,000.$ New payment amount = $\\$100,000 + \\$2,000 = \\$102,000.$ Currency Conversion at Future Rate (1 USD = ₹85): $₹102,000 \times 85 = ₹8,670,000.$
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Method 3 : Money Market Hedging

Case 1: If we have Foreign currency asset: Then we will create foreign currency liability

Case 2: If we have Foreign currency liability: Then we will create foreign currency asset

How to create Foreign currency liability in Case 1

Step 1: Borrow Foreign currency today of such an amount which together with interest on maturity become equals to Foreign currency asset. Convert the borrowed currency amount today into home currency and invest it into home country

Step 2: On Maturity receive your foreign currency asset and repay your foreign currency liability. Also withdraw Investment made in home currency along with interest

Example:

An Indian exporter has to receive \$100,000 from a US supplier one year from today. The exportee wants to avoid exchange rate risk by creating a foreign currency liability today.

Given Data: Invoice Amount (Foreign Currency Asset) = \$100,000

USD Loan Interest Rate = 5% per annum and INR Investment Interest Rate = 8% per annum

Exchange Rate Today = 1 USD = ₹80 and Payment Due in = 1 Year

Step 1: Borrow Foreign Currency Today

Exporter borrows amount X in USD that will grow to \$100,000 after 1 year at 5% interest.

$$x \left(1 + \frac{5}{100} \right) = 100,000$$

Therefore x= 95238.10

Convert \$95,238.10 into INR at today's exchange rate (₹80/USD): $95,238.10 \times 80 = ₹7,619,048$

Invest INR Amount in India: ₹7,619,048 is invested in FD at 8% annual interest.

Step 2: On Maturity (After 1 Year)

Use \$100,000 foreign currency asset to repay the foreign currency liability.

Withdraw Home Currency Investment:

The INR investment grows with 8% interest: $7,619,048 \times (1.08) = ₹8,228,571$

The importer withdraws ₹8,228,571, which can be used for other business needs.

How to create Foreign currency Asset in Case 2

Step 1: Borrow money from home currency then convert into Foreign currency and Invest in foreign currency today (Note: Investment in foreign currency today will be of such an amount which after interest on maturity becomes equal to foreign currency liability)

Step 2: At maturity withdraw foreign currency investment and repay the foreign currency liability. Also repay the amount borrowed in home currency along with Interest

Example:

An Indian importer has to pay \$100,000 to a US supplier one year from today. The importer wants to avoid exchange rate risk by creating a foreign currency asset today.

Given Data: Invoice Amount = \$100,000

USD Loan Interest Rate = 5% per annum and INR Investment Interest Rate = 8% per annum

Exchange Rate Today = 1 USD = ₹80 and Payment Due in = 1 Year

Step 1: Create a foreign currency asset of such an amount which along with interest on maturity becomes \$100,000

Exporter invests amount X in USD that will grow to \$100,000 after 1 year at 5% interest.

$$x \left(1 + \frac{5}{100}\right) = 100,000$$

Therefore x = \$95,238.10

Convert \$95,238.10 into INR at today's exchange rate (₹80/USD): $95,238.10 \times 80 = ₹7,619,048$

Borrow INR Amount in India: ₹7,619,048 is borrowed at 8% annual interest.

Step 2: On Maturity (After 1 Year)

Use \$100,000 foreign currency asset to repay the foreign currency liability.

Repay the home currency loan along with interest

INR loan grows with 8% interest: $7,619,048 \times (1.08) = ₹8,228,571$

Method 4: Hedging using Currency Futures

Let us say an Importer needs to be pay \$200,000 after one year. Spot rate is 1\$ = Rs 80

Step 1: Decide whether currency Futures is to be bought or sold. It depends upon Currency in which future contract is given:

- If it is given in \$, then importer will Buy Futures contract
- If it is given in ₹, then importer will sell Futures contract

Step 2: Future contract will be bought or sold at the rate on SPOT Date of currency Futures

Step 3: Number of Contracts to be bought/ sold = $\frac{\text{Invoice Amount}}{\text{Lot Size}}$, any fraction part is to be ignored

If exposure amount currency is different from lot size currency, then convert exposure amount into lot size currency using SPOT Date of currency Futures

Step 4: We then need to deposit initial margin (security deposit), which will be refunded on maturity of future contract. [In Question margin will always be given of per lot]

Step 5: Net Amount received/ paid at maturity will be aggregate of =

1. Actual buying and selling of exposure amount at Spot rate on maturity
2. Interest cost on Initial margin for the future contract period
3. Profit/ Loss on currency Future contract

Note: Profit/ Loss on currency Future contract :

(Number of Contracts x Lot size x Difference between Initial contract rate and Rate of Futures at Maturity)

Method 5: Hedging using Currency Options

Meaning of Call Option and Put Options = Explained in detail in Derivatives Chapter

- Call Option: Right to buy currency at Strike price
- Put Option: Right to sell currency at Strike price

Option Buyer pays Premium to option seller as discussed in Derivatives chapter in detail.

Let us discuss, how to hedge using currency Options

Let us say an Importer needs to be pay \$200,000 after one year. Spot rate is 1\$ = Rs 80

Step 1: Decide whether Call option is to be purchased or Put option. It depends upon currency in which option contract is given

- If it is given in \$, then importer will Buy Call option
- If it is given in ₹, then importer will Buy Put option

Step 2: Number of Contracts to be entered = $\frac{\text{Invoice Amount}}{\text{Lot Size}}$, any fraction part is to be ignored

For Fraction part, forward contract will be taken

If exposure amount currency is different from lot size currency, then convert exposure amount into lot size currency using Strike rate of Option

Step 3: At options maturity following calculation will be done

1. Premium on Option contract paid (Always paid at beginning of Option contract)
2. Interest on Option Premium for options contract period
3. Payment of Amount covered through options as per strike rate of option if option is exercised
If option is not exercised, payment as per SPOT rate on maturity of contract
4. Payment of balance part as per forward contract rate

Note: Option will be deemed to be exercised if Spot rate of maturity date is not given in question

ARBITRAGE PROCESS: It is basically a process of making risk less profits.

Geographical arbitrage: It is basically purchasing a currency at low rate from one currency and selling it at a higher rate in another country

Two Point Arbitrage: In this strategy, arbitrageur buys in a market where the rate is low and sells in a market where the rate is high.

Example: Exchange rates in two different markets:

First Market: 1 USD = ₹40 / ₹41

Second Market: 1 USD = ₹42 / ₹43

Solution: The arbitrageur buys 1 USD in the First Market at ₹41

The arbitrageur sells 1 USD in the Second Market at ₹42

Profit Calculation: Profit per 1 USD = ₹42 - ₹41 = ₹1

Three Point Arbitrage: It involves three different markets.

Example: Suppose an arbitrageur initially has 1 Lakh USD and the exchange rates in three markets are as follows:

1 USD = ₹85 in Mumbai

1 £ = ₹90 in London

1 £ = 1.40 USD in New York

The arbitrageur can follow either of the two conversion paths:

Path 1: Convert USD → GBP → INR → USD

Path 2: Convert USD → INR → GBP → USD

If there is a profit in one cycle, there will be a loss in another cycle.

If loss occurs in one selection, then to get profit solve it by other side

Covered Interest Arbitrage: This arbitrage is possible due to Exchange rate difference and Interest rate difference between 2 currencies. In this arbitrage has to borrow in one currency and invest in another currency

Example: Spot Rate 1\$ = Rs 40

1 Year Forward Rate 1\$ = 45

Interest rate in India is 12% pa

Interest rate in USA is 4% pa

Assume arbitrage can borrow Rs 400,000 in India or \$100,000 in USA

Step 1:

Identification of currency in which arbitrage will borrow

First calculate Interest rate differential (i.e. Difference between Interest rate of both currencies)

$12\% - 4\% = 8\%$

Then calculate Exchange rate differential (i.e. Annual premium or discount) = $\frac{45-40}{40} \times 100 = 12.5\%$

Step 2:

If $IRD > ERD$, Borrow in currency having low interest rate

If $IRD < ERD$, Borrow in currency having high interest rate

In our Example, $12.5\% > 8\%$, therefore we will borrow in Rs.

Step 3:

Convert Rs 400,000 borrowed into USD today at spot rate, which will be \$100,000 and deposit it in USA @ 4% for 1 year.

Step 4:

Enter into forward contract to convert deposited money along with interest into Rs after one year

Step 5:

At maturity, our investment in \$ will become $100,000(1 + 0.04) = \$1,04,000$

We will convert this \$104,000 into Rs using Forward rate of 45 = Rs 46,80,000

We will repay our Rs 400,000 loan along with interest today which will be 44,80,000

Step 6: Gain due to Arbitrage = $46,80,000 - 44,80,000 = 2,00,000$

International Cash Management by MNC:

MNC having various subsidiaries has to take decision

- Whether to invest surplus cash of its subsidiaries in their respective countries or
- Whether to convert surplus cash of each of its subsidiaries into home currency today and invest in home country

Decision will be taken depending on amount received on maturity in both the approaches discussed above

From where to Borrow Decision:

Where company has to borrow funds, it has to decide whether to borrow in Home currency or foreign currency depending upon outflow on maturity. Currency in which outflow will be least will be opted by company

For Eg: If company want today \$100,000. Spot rate is 1\$ = Rs 80, One year Forward Rate is 1\$ = Rs 90

OPTION 1:

Either it can borrow \$100,000 directly from US and Pay along with Interest on maturity. Let us say after one year company has to pay \$110,000 (Principal \$100,000 and Interest \$10,000)
 Today company will do a forward contract to purchase \$110,000 after one year at 1\$= Rs 90
 Company will therefore has to pay (\$110,000 x Rs 90 = 99,00,000)

OPTION 2:

Borrow in home currency an amount which after conversion at today's spot rate becomes equal to \$100,000 and pay along with interest amount borrowed in home currency at maturity
 Therefore company will borrow Rs. 80,00,000 and convert it at today's spot rate into dollar which amounts to \$100,000
 Let us say, After one year company has to pay 100,00,000 (Principal 80L and Interest 20L)

So Outflow in OPTION 1: 99 Lakh AND OPTION 2: 100 Lakh

Company will therefore choose Option 1

From where to Borrow Decision:

When only Interest rates of 2 countries are given, exchange rates are not given

Step 1: Calculate Net Interest cost % under Home currency loan

Interest Rate	xx
Add: Any other additional charges	xx

Step 2: Calculate Net Interest cost % under Foreign currency loan

Interest Rate	xx
Add: Premium/(Discount) on Foreign currency loan [Using Interest Rate Differential]	xx

Note: If under foreign currency loan withholding tax is given then Interest rate will be:

$$\frac{\text{Interest rate}}{1 - \text{Withholding tax}}$$

Nostro Account: Account that domestic bank holds a foreign bank in foreign currency.

It is "our account in your bank."

Example: Bank A (in India) holds an account in Bank B (in the USA) in USD.

For Bank A (India), this is a Nostro account (its account in a foreign bank).

The account is used for transactions in USD. If an Indian company imports goods from the U.S., it can pay in USD through this Nostro account.

So Nostro account is just like Your bank account with foreign bank in foreign currency. It is credited when we make spot purchase of foreign currency and debited when we make spot sale of foreign currency

Format to solve question:

Particulars	Credit	Debit
Opening Balance	xxx	
Spot Purchase	xxx	
Spot Sale or Remittance by TT		xxx
	xxx	xxx
Closing balance B/F	-	-
TOTAL	xxx	xxx

Vostro Account: Vostro account is opposite of Nostro account. It is account that foreign bank holds in a domestic bank, in domestic currency. It is "your account in our bank."

Example: Bank B (in the USA) maintains an account in INR with Bank A (India).
For Bank A (India), this is a Vostro account (Bank B's account in its system).

Bank B can use this account for transactions in INR. If a U.S. company exports goods to India, it can receive INR payments through this Vostro account.

Loro Account: When bank refers to third-party bank's account held with another bank. It is "their account with your bank."

Example: Bank C (in the UK) refers to Bank A's (India) account in Bank B (USA) as a Loro account.
If Bank C needs to send money to the U.S., it may do so through Bank A's Nostro account in Bank B.
This simplifies transactions when banks have indirect relationships.

Concept of Exchange Position:

- Exchange Position refers to a statement prepared by a bank.
- This statement records all spot and forward foreign currency transactions.
- It includes purchases (inflows) and sales (outflows) of foreign currencies.

Format to solve question:

Particulars	Purchase of Foreign Currency (Inflows)	Sale of Foreign Currency (Outflows)
Opening Balance Overbought	XXX	
Opening Balance Oversold		XXX
Spot Purchase Forward Purchase DD Purchased Draft Purchased Bill Purchased	XXX	
Spot Sale Remittance by TT Forward Sale DD Issued Draft Issued		XXX
Forward Purchase Cancel		XXX
Forward Sale Cancel	XXX	
DD / Draft Cancelled	XXX	
	XXX	XXX
Closing Balance B/F	-	-
Total	XXX	XXX

Foreign Currency exposures:

Translation Exposure (Accounting Exposure): Arises when a company with foreign operations translates its financial statements from one currency to another. It affects multinational companies when they consolidate financial statements.

Example:

- A U.S.-based company has a subsidiary in Japan.
- The subsidiary reports profits in Japanese Yen (JPY).
- When converting JPY profits to USD, exchange rate fluctuations can affect the parent company's financials.
- Even if no cash transactions occur, the value of assets/liabilities changes on paper.

Transaction Exposure: Occurs when company has outstanding financial obligations in foreign currency.

Example:

- An Indian company imports machinery from Germany and has to pay €1 million in 3 months.
- If the exchange rate today is 1 EUR = 90 INR, the cost is ₹90 million.
- If the exchange rate changes to 1 EUR = 95 INR, the cost increases to ₹95 million.
- The company faces transaction exposure as currency fluctuations affect payment costs.

Operating (Economic exposure): Profit or Loss arising due to change in demand of product because of change in exchange rate.

A U.S. car manufacturer exports vehicles to Europe, pricing them in Euros (EUR).

Initial Exchange Rate: 1 USD = 1 EUR

Car Price: €30,000 (equivalent to \$30,000 revenue per unit)

If EUR depreciates to 1 USD = 1.2 EUR, the same car now costs €36,000 in Europe.

Impact: European customers find the car more expensive, reducing sales. Therefore there will be loss to company due to reduced sales