EXCHANGE RATES AND FOREX BUSINESS

CH – 1 MODULE A BFM By Ashish Jain

FOREIGN EXCHANGE – DEFINITION AND MARKETS

1. Definition of Foreign Exchange According to the Foreign Exchange Management Act (FEMA), 1999 (Section 2):

"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. INR → FC

(ii) Any instrument payable at the option of the drawee or holder thereof, or any other party thereto, either in Indian currency or in foreign currency, or partly in one and partly in the other."

Broadly, **foreign exchange** includes all claims payable abroad, such as funds held in foreign currency with banks abroad or bills/cheques payable abroad.

Key Points	Details
Foreign Exchange	All types of claims payable abroad (e.g., deposits in foreign currency, bills, cheques).
FEMA, 1999	Defines what constitutes foreign exchange in legal terms (Section 2).

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2. What Is a Foreign Exchange Transaction?

1 USD = 82.95 INR

A **foreign exchange transaction** is essentially a contract to exchange funds in one currency for funds in another currency at an agreed rate, on a predetermined basis.

- **Exchange Rates** represent the price or ratio at which one currency is exchanged for another.
- **Example**: 1 US dollar (💵) = ₹82.4200 (Indian rupees), or 1 Euro (💶) = 1.05 US dollars.

These rates are **highly dynamic** and can change day to day, minute to minute, or even second to second, influenced by various economic and market factors.

🔎 **Real-Time Example: Scenario**: You are an Indian importer (🏭) needing to pay a supplier in the USA (🇺🇸). When you lock in an exchange rate of 1 USD = ₹82.4200, you agree to provide rupees and receive US dollars in return. If the rate shifts by even a small fraction before you finalize the transaction, the amount of rupees needed could increase or decrease.

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3. Foreign Exchange Markets 🌍

Foreign exchange (FOREX) markets bring together a wide range of participants:

1. **Individuals**
2. **Businesses**
3. **Commercial & Investment Banks**

4. **Central Banks**
5. **Cross-border Investors**
6. **Arbitrageurs & Hedge Funds**
7. **Pension Funds**
8. **Speculators**

These entities buy or sell currencies based on commercial needs, hedging strategies, or speculative positions. The market operates via a **communication system**, with no fixed, centralized trading floor.

It functions **24 hours a day**, moving across global time zones from Tokyo (🇯🇵) and Sydney (🇦🇺) in the east through Hong Kong (🇭🇰), Singapore (🇸🇬), India (🇮🇳), Bahrain (🇧🇭), Frankfurt (🇩🇪), London (🇬🇧), Paris (🇫🇷), and finally New York (🇺🇸) in the west.

🌐 Key Features of the Global FOREX Market	⏰ Explanation
24-hour operation #1	Markets move across time zones, ensuring continuous trading.
No geographic boundaries #2	Primarily communication/system-based, not tied to physical "walls."
High liquidity #3	Large volumes, quick trades, and narrow spreads.
Potential for profit & losses #4	High volatility can yield gains, but also poses risks.

When the **London/ European** markets start their day, it's nearly lunchtime in **India**. As **India** closes, **New York** begins. Meanwhile, as

New York runs, the eastern hubs in **Tokyo**, **Hong Kong**, and **Singapore** gear up to open.

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4. Market Participants and Their Roles

🏦 Participant	🎯 Primary Purpose
Central Banks #1	Manage forex reserves, intervene to stabilize home currency, reduce volatility.
Commercial Banks #2	Offer exchange services to clients, hedge assets and liabilities, speculate on rate movements.
Investment Funds/ Banks #3	Move funds globally for investments, hedge positions across countries/currencies.
FOREX Brokers	Act as intermediaries, matching buyers and sellers.
Corporations #5	Transfer funds across borders for trade, investment, or speculative activities.
Individuals #6	Engage in personal/travel transactions, remittances, investments, or speculation.

These participants create vast transaction volumes for trade, travel, hedging, investments, and speculation.

🔎 **Real-Time Example: Scenario**: A multinational company (🌍🏢) wants to purchase raw materials from an overseas supplier. They use commercial banks and sometimes FOREX brokers to convert their funds into the supplier's currency. Meanwhile, the central bank may intervene if sudden market fluctuations threaten local currency stability.

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5. Dynamism of the FOREX Market ⚡

Major currency pairs (e.g., GBP/USD) can fluctuate **every three to four seconds**, totaling about **21,600** rate changes a day (15×60×24). Such rapid changes mean that **even brief distractions** can lead to different rates than those initially observed.

Market Timings

- Generally open **Monday to Friday** worldwide.
- Middle Eastern markets like Dubai, previously open on Saturdays/Sundays with restrictions (and closed on Fridays), now align with Monday–Friday operations.
- Most trades are **OTC (Over the Counter)**, concluded via telephone or digital/electronic platforms (e.g., dealing systems from banks or brokers, and internet-based services).

Large Global Banks & Time Zones

- Banks in **London** may deal with counterparts in **Paris**, **Frankfurt**, **Mumbai**, **New York**, **Tokyo**, or **Singapore**—all in different time zones.
- **Global dealing rooms** can operate around the clock. Some traders even have home-based dealing systems or use smartphone apps to trade from anywhere, at any time.

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6. Market Makers & Two-Way Quotes 🤝

Major banks often act as **market makers**, offering **two-way quotes** (buy and sell). The caller can choose to buy or sell as needed, contributing to market depth and liquidity.

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7. Characteristics of the Foreign Exchange Market

✅ Characteristic	💡 Description
1 24-hour market #1	Trades occur round the clock across global time zones.
2 OTC & Exchange-driven #2	Predominantly over-the-counter, but exchange-based segments also exist.
3 Global reach #3	No physical boundaries or centralized trading floor.
4 Supports large capital & trade flows #4	Accommodates significant liquidity for business, investment, and speculation.
5 Highly liquid #5	High volume ensures easy entry/exit for traders and investors.
6 Frequent fluctuations #6	Rates can change every few seconds, reflecting continuous market inputs.
7 Time zone factor in settlements #7	Settlements and confirmations can be affected by regional business hours.
8 Influenced by government policies & controls #8	Central banks and regulations can shape currency values and market dynamics.

📊 Summary Table

Topic	Key Takeaways
Definition (FEMA, 1999) #1	Foreign exchange covers foreign currency, deposits, credits, balances, drafts, traveler's cheques, and instruments payable in foreign currency.

Exchange Rate #2	The price/value/ratio at which one currency is exchanged for another (e.g., 1 USD = ₹82.4200).
Market Participants #3	Central & Commercial Banks, Investment Funds/Banks, FOREX Brokers, Corporations, Individuals, and others.
Global Turnover #4	Approx. USD 6.60 trillion/day (2020); FX swaps are ~49% of turnover, spot ~30%.
Indian Market #5	Daily OTC turnover rose to ~USD 34 billion (2019–20); exchange-traded derivatives at ~USD 12.2 billion (2019–20).
Market Operation #6	24/5 (Monday to Friday), across global time zones. No single centralized location; mostly OTC.
Characteristics of FOREX Market	24-hour nature, high liquidity, frequent rate changes, influenced by policies, large capital flows, and a global communication system.

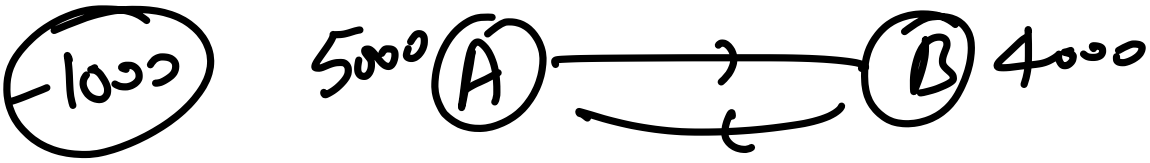
FACTORS DETERMINING EXCHANGE RATES ⚖️

The quotations in the FOREX markets depend on the **type of delivery** of the currencies (i.e., the exchange of two currency streams).

Spot rates—which are the base quotes in FOREX—are particularly dynamic and influenced by several factors, both **fundamental** and **technical**, as well as **speculative** forces.

(a) Fundamental Reasons 📊

These involve causes or events that affect the **basic economic and monetary policies** of a government. They typically influence long-term exchange rates, though they may have less effect in the short run. Over the long run, exchange rates are linked to fundamental indicators such as:



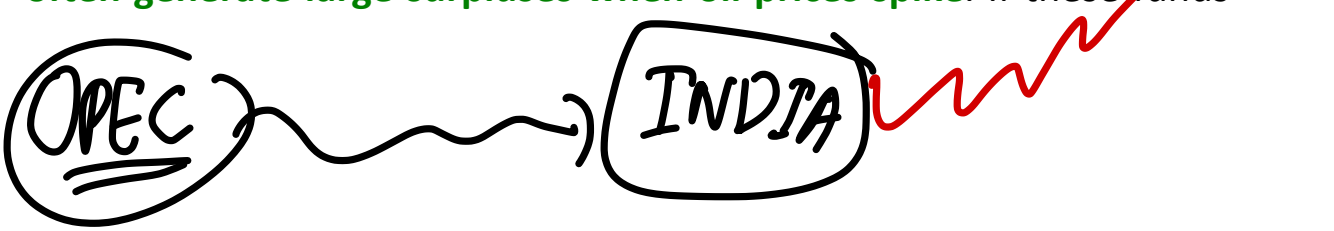
🔑 Fundamental Factor	📈 Effect on Exchange Rates
Balance of Payment (BOP)	A surplus in BOP often leads to a stronger home currency, while a deficit can weaken it.
Economic Growth Rate	High growth increases production and exports, raising the home currency's value (and vice versa).
Fiscal Policy #3	An expansionary policy (e.g., lower taxes) can boost economic growth, potentially affecting exchange rates.
Monetary Policy #4	Central bank actions on interest rates and money supply can strengthen or weaken the home currency.
Interest Rates #5	Higher domestic interest rates may attract overseas capital, causing short-term appreciation. Over time, however, high rates can slow the economy and weaken the currency.
Political Issues #6	Political stability often fosters economic stability, strengthening the currency. Instability can have the opposite effect.

(b) Technical Reasons ⚙️

Certain **government controls** may fix a currency at an unrealistic value, leading to **sudden and volatile** exchange rate movements. Restrictions or freedoms on **capital movement** can also heavily impact rates.

> **Example**: During the **1997 South East Asian Currency Crisis**, countries like Indonesia, Thailand, the Philippines, and South Korea experienced dramatic exchange-rate shifts when capital surged out of or into their economies.

OPEC Surpluses: Petroleum-exporting nations (e.g., OPEC countries) **often generate large surpluses when oil prices spike**. If these funds



are then invested overseas, it can lead to significant **inflows** for recipient countries—strengthening their currencies.

Capital generally **moves from lower-yielding to higher-yielding currencies**, affecting exchange rates accordingly.

(c) Speculation 💹

Speculative forces can exert substantial influence on exchange rates:

Example: If speculators expect the home currency to depreciate, they might buy USD at Rs. 80.00 and later sell those USD at Rs. 80.20 when the rupee actually weakens, profiting from the 0.20 difference.

Such speculative activity:

- **Provides depth and liquidity** to the market.
- Can act as a **cushion** if opposing views prevent one-sided, contagious market moves.

EXCHANGE RATE MECHANISM 🔄

Types and Calculation

Cash/Ready → T to days

Because the FOREX market spans multiple time zones, most deals occur on a **Spot** basis:

Spot → T to 2 days

- **Spot value date**: The second working day after the transaction date.
- The rate used in these trades is called the **Spot rate**.

When the currencies actually exchange on the value (settlement) date, it is referred to as the **delivery** of funds. Delivery can be one of the following:

#1 **1. Ready or Cash** 🏦

- **Settlement**: Same day as the deal date.
- **Example**:
  - **Deal Date**: 1st Nov 2021
  - **Transaction**: Bank A buys USD 1,000,000 from Bank B @ 74.9500 (Value Cash)
  - **Settlement**: Both USD 1,000,000 and INR 74,950,000 are exchanged on 1st Nov 2021.

This is called a **Ready/Cash deal**.

2. Tom ⏳ Tomorrow

- **Settlement**: Next working day after the deal date.

Example:

- **Deal Date**: 1st Nov 2021 → 2nd Nov
- **Transaction**: Bank A buys USD 1,000,000 from Bank B @ 74.9600 (Value Tom)
- **Settlement**: Both USD 1,000,000 and INR 74,960,000 are exchanged on 2nd Nov 2021 (the next working day).

If 2nd Nov 2021 is not a working day, settlement moves to the following working day.

3. Spot 🎯 T+2 days

- **Settlement**: Second working day following the deal date.
- **Example**:
  - **Deal Date**: 1st Nov 2021
  - **Transaction**: Bank A (Mumbai) buys USD 1,155,000 against EUR from Bank B (Frankfurt) @ EUR/USD 1.1550 (Value Spot)
  - **Settlement**: Delivery of USD 1,155,000 and EUR 1,000,000 occurs on 3rd Nov 2021.

1st 2nd
1 2 3
Ready ↑ TOM Spot Rate

If either market (e.g., Mumbai or Frankfurt) is closed on those days, settlement shifts to the **next mutual working day**.

4. Forward 📅 Rate ⇒ Spot Rate ± Premium/discount

>T+2

S>B

S<B

- **Settlement**: Any day **after** the Spot date.
- **Example**:
  - **Deal Date**: 1st Nov 2021
  - **Value (Settlement) Date**: 30th Nov 2021
  - **Transaction**: Bank A buys USD 1,000,000 @ 75.3600
  - **Settlement**: USD 1,000,000 and INR 75,360,000 are exchanged on 30th Nov 2021.

Banks must ensure the forward settlement date is a **working day**, not falling on a weekend.

Spot and Forward Rates

Spot rates are generally quoted for two working days after the transaction date. For instance:

- **USD/INR**: 1 USD = 74.9500 / 74.9600
- **GBP/USD**: 1 GBP = 1.3670 / 1.3680
- **EUR/USD**: 1 EUR = 1.1150 / 1.1560

Spot markets typically have **high volume, depth, and volatility**, attracting a wide array of market participants.

*When delivery occurs beyond the Spot date (i.e., **more than two working days later**), it is termed a **forward transaction**,* and the rate applied is the **forward rate**.

Forward Margins – Premium and Discounts 📈📉

Forward rates are derived from spot rates, adjusted by a **forward premium** or **discount**:

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

- A currency at a **forward premium** is costlier in the future than at present.
- A currency at a **forward discount** is cheaper in the future than at present.

Example 1

- **GBP/USD (Spot)**: 1.3670
- **GBP/USD (1 Month Forward)**: 1.3690 →

- This shows a **premium** of 0.0020 (or 20 pips) for GBP.

Example 2

- **USD/INR (Spot)**: 74.9500 / 74.9600
- **6-month premium**: 1.06 / 1.07 →
  - **USD Forward Rate**: 76.0100 / 76.0300
  - USD is at a **premium**, while INR is at a **discount** for the future.

Since exchange rates always represent a currency pair (e.g., GBP/USD, USD/INR), if one currency is at a premium, the other is at a discount, and vice versa.

Determinants of Forward Premium/Discount

1. **Interest Rate Differentials** between the two currencies.
2. **Demand and Supply** of the currencies in the future (including capital movement, import/export levels, balance of payments, political stability, etc.).
3. **Market Expectations** based on possible inflows or outflows of capital, investment freedoms, and speculative sentiment.

In a **perfect market** (no restrictions on finance or trade), **interest rate differentials** are the primary driver of forward rate calculations.

Mechanism: If interest rates are higher in one country (e.g., the UK at 4% vs. the US at 2%), funds flow from the lower-yield currency to the higher-yield one to earn more interest. This flow affects spot and forward demand, thus shaping the forward premium or discount.

Remember, **the forward rate** reflects **expectations** based on these factors; it **does not guarantee** the actual future trend of currency values.

📋 SUMMARY TABLE

Section	Key Points
Factors Determining Exchange Rates	1. **Fundamental Reasons** (BOP, growth, fiscal & monetary policy, interest rates, politics) 2. **Technical Reasons** (government controls, capital movement) 3. **Speculation** (market participants' expectations)
Exchange Rate Mechanism	**Types**: Ready/Cash, Tom, Spot, Forward **Spot**: Delivery on second working day **Forward**: Delivery beyond Spot date
Spot & Forward Rates	**Spot Rate**: Base rate for currency exchange on second working day **Forward Rate**: Spot rate ± premium/discount
Forward Margins	Determined mainly by **interest rate differentials** and **market demand/supply**. Premium → currency costlier forward; Discount → currency cheaper forward.

T+0 T+1 T+2 >T+2

Imp

DIRECT AND INDIRECT QUOTES 💱

1 USD = 86.95 INR
100 INR = 1.20 USD

When quoting currency prices, you can do it in **two ways**:

1. **Direct Quotes**

100 JPY = 1.04 USD

- The **local (home) currency** is **variable**, while **one unit** of the **foreign currency** is the base.
- **Example (India 🇮🇳)**: 1 USD = Rs. 74.9500 / 74.9600
- These are called **direct quotes** (also known as **Home Currency** or **Price Quotations**) because it directly shows how

JPY
Kenyan Schilly
Indonesian Rupiah

Buy low and Sell high

much local currency you need to buy one unit of the foreign currency.

2. **Indirect Quotes**
   - The **home currency** is **fixed**, and the **foreign currency** amount varies.
   - **Example**: Rs. 100 = USD 1.3342 / 1.3340

In global markets, **most currencies** (except a few) are quoted in **direct terms** against the USD, i.e., **1 USD = X units** of another currency.

However, for **GBP (British Pound)**, **Euro (EUR)**, **AUD (Australian Dollar)**, and **NZD (New Zealand Dollar)**, the quotes are often **indirect** against the USD (i.e., **1 GBP, 1 EUR, 1 AUD, or 1 NZD = X USD**).

Commonly Observed Currency Quotes

Pair	Market Quote
USD/INR	74.9500 / 74.9600
USD/JPY	114.20 / 114.30
EUR/USD	1.1150 / 1.1160
USD/CHF	0.9150 / 0.9160
GBP/USD	1.3670 / 1.3680
USD/CAD	1.2372 / 1.2382
AUD/USD	0.7503 / 0.7513
USD/HKD	7.7824 / 7.7834

CROSS RATES 🔄

Sometimes, **direct quotes** for a particular currency pair aren't readily available. In such cases, you **calculate** the rate using a **third currency**—often the USD. This method is known as the **cross rate mechanism**.

> **Illustration**: If you need **EUR/INR**, but no direct EUR/INR quote exists, you can use **EUR/USD** and **USD/INR**. By "crossing out" USD in both quotes, you arrive at **EUR/INR**.

⚙️ How It Works

- **Example**: To get **GBP/INR** in India 🇮🇳:
  1. **USD/INR** = 74.9500 / 74.9600
  2. **GBP/USD** = 1.3670 / 1.3680
     - **Cross Multiply** to derive **GBP/INR** ≈ Rs. 102.4567 / 102.5453.
- **Another Example**:
  - **USD/JPY** = 114.20 / 114.30
  - Convert to **INR/JPY** by using USD/INR and crossing out the USD. If, for instance, 1 USD ≈ Rs. 74.95, then for 100 JPY, you might get **INR 65.5731 / 65.6392**.

FIXED VS. FLOATING RATES ⚖️

1. Fixed Exchange Rate

- Official rate set by monetary authorities.
- Often **pegged** to one or more currencies.

- May allow limited fluctuations within defined **upper** and **lower** bands.

2. **Floating Exchange Rate**

- Determined by **market forces**: supply, demand, and **inflation differentials**.
- Most economies shifted to floating rates after **1973**.
- **India** 🇮🇳 adopted a **floating rate** in **1993**, linking the rupee's external value primarily to the USD (previously it was to a **basket of currencies**).

BID AND OFFER RATES 💰

- **Bid Rate**: The rate at which the quoting bank **buys** a currency.
- **Offer (Ask) Rate**: The rate at which the quoting bank **sells** a currency.

For instance, with **USD/INR** = **74.9500 / 74.9600**:

- **Bid** = 74.9500 (Bank buys USD at this rate)
- **Offer** = 74.9600 (Bank sells USD at this rate)

Similarly, for **GBP/USD** = **1.3670 / 1.3680**:

- **Bid** = 1.3670 (Bank buys GBP here)
- **Offer** = 1.3680 (Bank sells GBP here)

EXCHANGE ARITHMETIC 📐

Foreign exchange calculations require **extreme precision**. A small error in decimals can lead to significant losses because margins in the FX market are often thin.

CHAIN RULE 🔗 / Cross Rate

When fixing a rate between two currencies via a **third currency**, the **Chain Rule** is used to get a **cross rate**. In **India** 🇮🇳, this is common for currencies like **EUR/INR** or **GBP/INR**, because typically only **USD/INR** is quoted directly, and other pairs are calculated via **chain** or **cross** logic.

PER CENT (%) AND PER MILLE (‰)

- **Per cent (%)** = "per hundred." Example: 1% = 1 in every 100.
- **Per mille (‰)** = "per thousand." Example: 1‰ = 1 in every 1,000.

These concepts help in **quick checks** of interest or exchange calculations.

VALUE DATE 📅

The **value date** is the date on which a **funds payment** or an account entry is deemed **effective** (and potentially interest-bearing). In **telegraphic transfers (TT)**, the **same-day** value date in both locations ensures neither party loses interest due to timing differences (often called "valuer compensee" or "here and there").

- **If there's a delay** or differing bank holidays, compensation (usually interest) is typically arranged, or the **value date** is adjusted to ensure fairness.

> 🏦 **Example in an Indian Context:** A bank in Mumbai receives USD funds on Monday, while sending out INR on Tuesday (due to a local bank holiday on Monday). The receiving party might charge interest for the **one-day delay** if the USD was credited before the INR was debited, unless both sides agree to shift the **value date** to the same day.

SUMMARY TABLE 📊

Section	Key Points
Direct & Indirect Quotes 💱	- **Direct**: 1 unit foreign currency = X local currency (e.g., 1 USD = ₹74.95) - **Indirect**: 1 unit local currency = X foreign currency (e.g., ₹100 = USD 1.3342)
Cross Rates 🔄	- Calculated using a third currency (usually USD). - Example: GBP/INR derived from GBP/USD and USD/INR.
Fixed vs. Floating ⚖️	- **Fixed**: Officially set, possibly within a band - **Floating**: Driven by demand & supply, inflation, and market forces
Bid & Offer 💰	- **Bid** = Bank buys - **Offer (Ask)** = Bank sells
Exchange Arithmetic 📐	- High precision required - Small decimal errors can cause large financial impact
Chain Rule 🔗	- Used for cross rates when direct quotes aren't available in local markets

8360944207 → Saved 4 Caiib

Per Cent & Per Mille ?	- % (per hundred) - ‰ (per thousand)
Value Date	- Effective date for the actual exchange - “Valuer compensee” avoids unfair interest loss

Part 3

ARBITRAGE IN FOREIGN EXCHANGE

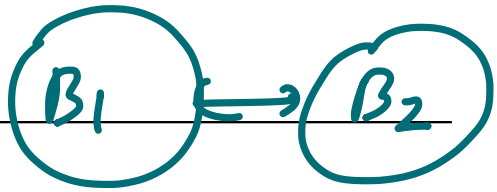
Arbitrage involves the **simultaneous buying and selling** of a commodity or currency in two or more markets, aiming to profit from **temporary price discrepancies**. In the context of foreign exchange:

1. **Basic Idea**
   - **Buy** one currency in a certain market (or center).
   - **Immediately sell** the same currency in a **different market** (or multiple markets).
   - Exploit any **price differentials** that exist at that moment.
2. **Types of Arbitrage**

- **Simple (Direct) Arbitrage:**
  - Conducted **between two centers** only.
  - Example: Buying USD in **Mumbai** and simultaneously selling USD in **Delhi** if there is a momentary price difference.
- **Compound (Three or More Point) Arbitrage:**
  - Involves **three or more centers** or **several currencies**.
  - Example: Purchasing USD in Mumbai, converting it to EUR in London, and selling the EUR in New York—if prices across these centers/currencies are favorable.

3. **Key Considerations**

- **Speed** ⚡: Any profit opportunity can disappear quickly as markets adjust to price imbalances.
- **Technical Skill** 🎯: Executing arbitrage deals with minimal delay requires **rapid decision-making** and **precise communication** among different centers.



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RETAIL AND MERCHANT RATES 💱

When dealing with merchants or retail customers, **transaction-specific rates** often apply. For instance:

2 way Quotation

1USD = 83.75 / 95
B S

Interbank market rate

- **TT (Telegraphic Transfer) Rates**
- **Bill Transaction Rates**
- **Foreign Currency Note Rates**
- **Travelers Cheques (TC) Rates**
- **Personal Checks Buying Rates**

Golden Rule

Different **margins** are added over the **interbank rate** depending on the **transaction type**—whether it's a **buying** or **selling** operation and the nature of the underlying deal. [-] ↑ E.M [+]

🔎 Key Point	⚙️ Explanation
Nature of Transaction #1	TT, bills, currency notes, TCs, checks, etc. Each form can incur different service costs or risks.
Buy/ Sell Rates	Banks quote **buy** and **sell** rates differently, adding **margins** for transaction costs or risks.
Interbank Rate	Baseline market rate used among banks. **Retail** or **merchant** quotes include extra spreads or margins.

B - B
S - S

Bank Customer

Merchant → B → Selling
S → Buy

FOREIGN EXCHANGE DEALING ROOM OPERATIONS 💱

The **FOREX dealing room** in a bank functions like a **service branch**, handling:

1. **Customer Requirements**: Buying or selling foreign currencies for branches or business divisions.
2. **Managing Foreign Currency Assets/Liabilities**: Ensuring balances remain within set limits.
3. **Funding and Managing NOSTRO Accounts**: Maintaining adequate balances in overseas accounts to avoid overdrafts or idle surpluses.
4. **Proprietary Trading**: Engaging in currency trades to generate profit.

Key Point: A **Dealing Room** often operates as a **profit center** for the bank or institution.

Regulatory Compliance ⚖️

While conducting **treasury management** for foreign exchange, the **treasurer** must ensure adherence to:

1. **Internal Control Guidelines** from the Reserve Bank of India (RBI)
2. **FEDAI** (Foreign Exchange Dealers' Association of India) regulations
3. **Bank's Internal Guidelines**

Functional Segregation 🏦

front | Mid | Back

A **cardinal principle** in **Dealing Room operations** is clear segregation of **Front Office**, **Mid Office**, and **Back Office** functions. In an **integrated treasury**, these are:

1. **Front Office (Dealing Room)**
   - Carries out **active buying** and **selling** of currencies, money market instruments, etc.
2. **Mid Office (Risk Management Department)**
   - Monitors **risks**, sets limits, and ensures compliance.
3. **Back Office (Settlements, Accounting & Reconciliation)**
   - Handles **record-keeping**, **confirmations**, settlement of deals, and **account reconciliation**.

Role of Dealers 👨‍💼👩‍💼

awareness

Dealers are **critical** to dealing room profitability:

- **Market Awareness**: Must understand changing market conditions and **currency trends**.
- **Quick Decision-Making**: A single second's delay can **wipe out** potential profits.
- **Psychological Traits**: Work under **stress**, accept **responsibility**, be **aggressive** yet ready to **admit mistakes**.

Indian Context Example: A dealer at an Indian bank (e.g., in **Mumbai**) might need to **buy USD** quickly if an exporter client in **Chennai** expects a better dollar rate. The dealer's swift action can

yield immediate profits, but any misjudgment could cause a **loss** instead.

Funds Position vs. Currency Position 💰

1. Funds Position

Inflow / outflow

#1 inflow

#2 outflow

- Reflects **inflows (receivables)** and **outflows (payables)** of actual money.

  Mismatches in timing or amount can lead to:

  - **Overdraft interest** in NOSTRO accounts if short on funds.
  - **Loss of interest** on surplus balances if funds remain idle without investment.

Tip: Proper **calculation of funds position** helps avoid unnecessary interest costs or missed opportunities.

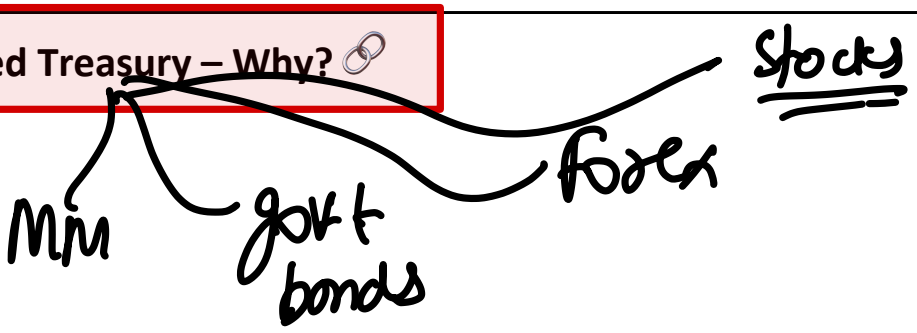
2. Currency Position

long Short

- Reflects being **overbought** or **oversold** in various currencies.
- Any net position exposes the bank to **exchange rate risk**.
- The dealer must remain within **permissible limits** set by management (or regulators).

Example: Suppose the bank's net position is **+ USD 2 million**. If the **USD/INR** rate falls significantly, the bank can incur an **exchange loss** on that USD surplus unless it's hedged or brought back into balance.

Integrated Treasury – Why? 🔗



Traditionally, **FX markets** and **domestic currency markets** were managed separately. However, the following developments led to the concept of an **Integrated Treasury**:

1. **Interest Rate Deregulation** #1
2. **Liberalization of Exchange Control** #2
3. **Growth and Sophistication of Forex Markets** #3
4. **Advances in Settlement Systems** #4
5. **Evolving Dealing Environments** #5

Together, these changes allow banks to **optimize** currency and money market activities under a **unified strategy**, improving **risk management** and **profit opportunities**.

SUMMARY TABLE 📊

Section	Key Points
Dealing Room Operations 💱	- Service branch for currency buys/sells- Maintains NOSTRO a/cs - Handles proprietary trading
Regulatory Compliance ⚖️	- Follow RBI Internal Guidelines - Adhere to FEDAI norms - Observe Bank's internal policies
Functional Segregation 🏦	- **Front Office**: Trading - **Mid Office**: Risk Management - **Back Office**: Settlements & Accounts
Dealers 👩‍💼👩‍💼	- Critical for profit generation - Stressful environment, rapid decisions, willingness to be wrong
Funds vs. Currency Positions 💰	- **Funds**: Cash inflows/outflows - **Currency**: Overbought/oversold in FX, risk from rate movements

#imp

If clf

over bought

over sold

Integrated Treasury 🔗	- Needed due to deregulation, market evolution, advanced settlements, and modern dealing practices

Imp.

FUNCTIONS OF INTEGRATED TREASURY 🏦

An **Integrated Treasury** performs several critical tasks within a bank.

Key functions include:

#1

1. **Statutory Requirements** ⚖️
   - **CRR (Cash Reserve Ratio)** and **SLR (Statutory Liquidity Ratio)** compliance.
   - Maintaining an **optimal investment portfolio mix** to meet these requirements.

Sec 24 BR Act → SLR
Sec 42(1) RBI → CRR

#2

2. **Liquidity & Funds Management** 💰
   - Analyzing **major cash flows**, determining **funding mix**, and managing **yields** in credit and investments.
   - Ensuring liquidity without incurring excessive costs.

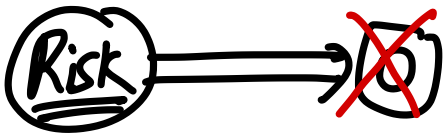
Time Horizon
1d | 2-7 | 8-14 | 15-28

ALM

3. **Asset-Liability Management (ALM)** ⚖️
   - Managing the **growth rate** of the balance sheet.
   - Pricing assets and liabilities in line with **regulatory guidelines**.
   - Controlling mismatches in maturities to maintain **financial stability**.

Asset Liability

4. **Risk Management** ⚠️
   - Monitoring **market risk** associated with assets and liabilities.



Reduce

opposite

Derivatives — CDS, forward, options

- Handling **credit risk** in treasury products.
- Managing **operational risk** in payments and settlements.

5. **Transfer Pricing** 🔄
   - Establishing **benchmark rates** (e.g., internal cost of funds) for various business groups.
   - Ensuring **optimal deployment** of funds across different units in the bank.

Arm's length pricing

6. **Derivatives & Hedging** 🔀
   - Developing **Interest Rate Swaps (IRS)** and other **derivative products** to hedge the bank's exposures.
   - Offering such products to customers for **risk mitigation**.
7. **Arbitrage** ♻️
   - Engaging in simultaneous **buying and selling** of identical assets in different markets to **earn risk-free profits**.
   - Capitalizing on **price discrepancies** across locations.
8. **Capital Adequacy** 🏦
   - Focusing on **asset quality** and **return on investments**.
   - Evaluating how effectively the bank deploys funds to **sustain capital requirements**.
9. **Minimizing Provisions for NPAs** ⚙️
   - Keeping **Non-Performing Assets (NPAs)** in check.
   - Reducing the **level of provisioning** needed by **improving asset quality**.

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🌐 Indian Context Note

For a bank in Mumbai, ensuring CRR/SLR compliance with RBI while also finding profitable investments (e.g., G-Secs, T-bills) is a core aspect of Integrated Treasury.

ICG

Front Mid Back

INTERNAL CONTROL GUIDELINES OF RBI ⚖️

The **Reserve Bank of India (RBI)** prescribes **internal control guidelines** for banks to ensure **safe and compliant** dealing room operations. Some important guidelines include:

1. **Appropriate Data Processing Systems** 💻

- Systems must match the **nature and volume** of activities.
- Helps maintain clear **functional separation** among front, mid, and back offices.

Imp.

2. **Defined Access Rules** ✅

- Detailed protocols for **who** can perform **which functions**.
- Prevent unauthorized individuals from accessing **dealing activities**.

3. **Confidentiality in Outsourcing** 🔒

- Ensure **secure handling** of data if IT services are outsourced.
- Safeguard sensitive **deal and customer information**.

4. **Global Limits for Inter-Bank Deals** 🌍

- Align global dealing limits with the **bank's overall risk management** framework.

- Covers both domestic and international transactions.

5. **Capital Adequacy for Dealing Activities** 🏦

- The bank's **capital and earnings** should support **aggressive dealing** if undertaken.
- **Avoid overextending positions** without **adequate capital** backing.

6. **Value-at-Risk (VaR) Models** 📉

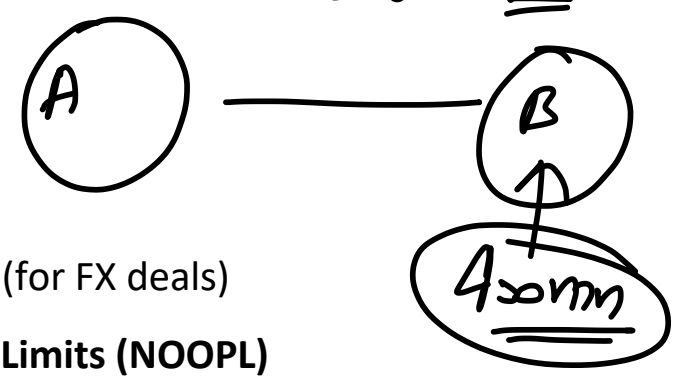
- Use **appropriate VaR** methods to quantify **market risk** with a certain **confidence level**.
- Regularly **review and validate** these models to ensure reliability.

7. **Limits for Each Dealer** ⛔

- Communicate **stop-loss limits** and other **exposure limits** to every dealer.
- Strictly monitor **compliance** within these boundaries.

8. **Adherence to Counterparty & Exposure Limits** 🚧

- Deals must stay within:
  - **Counterparty exposure** limits
  - **Stop-loss** thresholds
  - **Country-wise exposure** limits (for FX deals)
  - **Net Overnight Open Position Limits (NOOPL)**
  - **Individual GAP Limits (IGL)** and **Aggregate GAP Limits (AGL)**



- All these limits are approved by the **Bank's Board**.

9. **Monthly Profit/Loss Evaluation** 🗒️

- Foreign exchange P&L must be calculated at **closing rates** each month, as per **FEDAI announcements**.
- Ensures **accurate reflection** of market positions on **financial statements**.

SUMMARY TABLE 📊

Section	Key Points
Integrated Treasury Functions 🏦	- CRR/ SLR & Investment Mix- Liquidity & Funds Mgmt- ALM & Pricing- Risk Mgmt (Market/Credit/Operational)- Transfer Pricing- Derivatives & Hedging- Arbitrage- Capital Adequacy & NPA Provisions
RBI Internal Controls ⚖️	- Data Processing Systems - Access & Confidentiality - Global Exposure Limits - VaR Models & Ongoing Validation - Dealer & Counterparty Limits - Monthly FX P&L at FEDAI Rates

OTHER PARTS OF THE DEALING ROOM ⚙️

Back Office 🏦

The **Back Office** oversees **deal processing**, **accounting**, **reconciliation**, and related functions. While often working behind the scenes, its role is **equally critical**:

- **Support Function**: Ensures that dealers' trades are accurately recorded, confirmed, and settled.
- **Checking Role**: Detects misreporting or potential wrongdoing. Any laxity here can **negate dealer profits** or enable **unnoticed errors**.

Key Point: A **strong Back Office** prevents **operational risks**, ensuring the bank's integrity and compliance with regulations.

Mid Office 🔍

The **Mid Office** is responsible for **risk management** and the **parameterization of risks** affecting the dealing room operations, including **FOREX transactions**:

- **Risk Monitoring**: Tracks **market**, **liquidity**, and **credit** risks.
- **Risk Control**: Ensures dealers abide by **limits** (e.g., stop-loss, overnight exposure).
- **Market Information**: Provides up-to-date intelligence, supporting informed trading decisions.
- **Compliance**: Verifies adherence to **treasury guidelines** and maintains **independence** from front-office activities.

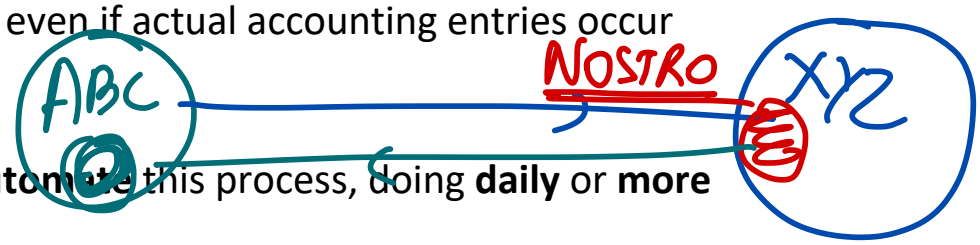
MANAGEMENT CONTROL & PROFIT/ LOSS VALUATION ⚖️

With growing **international trade**, **cross-border cash flows**, and **FX trading** by authorized dealers, **managing** and **controlling** foreign exchange operations is essential.

1. FEDAI & RBI Guidelines

- The **Foreign Exchange Dealers' Association of India (FEDAI)**, with **RBI** approval, issues guidelines for **uniform accounting** of foreign exchange profits/losses.

- Banks must **value** their FOREX positions at **month-end** (minimum) using **FEDAI's** rates, even if actual accounting entries occur quarterly.
- Many banks now **automate** this process, doing **daily** or **more frequent** valuations.



2. **Revaluation Scope**

- **All foreign currency positions** must be revalued, including:
  - **Mirror accounts** of each currency
  - **Foreign currency notes** on hand
  - **Import suspense accounts**
  - **Spot & forward positions** (e.g., export bills, sight/usance bills)
  - **Overdue contracts** (if any)
  - **Merchant & inter-bank** contracts
  - **Other FX assets and liabilities**
- **FEDAI** prescribes the **valuation rates** based on market quotes at **month-end**, enabling authorized dealers to revalue positions accurately.

COMBINED ROLES: FRONT, MID, AND BACK OFFICE 🏦

#1

Front Office 🚀	Mid Office 🔍	Back Office 🏦
Fund Management (NOSTRO Account)	**Market Risk** Assessment Risk management	**Confirmation** of Deals

Foreign Exchange Advisory & Management	**Liquidity Risk** Control	**Settlement** of Deals
ALM & Maturity Mismatches	**Country Risk** Monitoring	**Accounting** of Deals
Dealing in Inter-Bank Market	**ALCO Committee** Participation	**Reconciliation** of Transactions
Trading in Inter-Bank Market	**Reporting** to Top Management	**Audit** Facilitation & Reporting
Compliance with Limits	**Compliance** (Guidelines)	**Compliance** (Documentation)

MANAGEMENT & CONTROL OF A DEALING ROOM 🏦✅

The **Reserve Bank of India (RBI)** advises that a bank's **Board of Directors** should frame suitable **policies** and set **limits** for FOREX dealing operations. Effective **management** of dealing room operations must consider the **risks** arising from:

- **Complex FX Markets**: Rapidly changing rates and global interconnections.
- **Volatile Exchange Movements**: Major currency fluctuations can impact positions quickly.

Key Point: Policies must **mitigate** these risks, focusing on compliance, real-time monitoring, and robust **Front–Mid–Back Office** coordination.

SUMMARY TABLE

Section	Key Points
Back Office #1	- Processes and settles deals - Maintains accounts and reconciliation - Acts as a check against fraud
Mid Office #2	- Manages and monitors risks - Ensures compliance with treasury limits - Provides market intelligence
Management & P/L Valuation #3	- FEDAI & RBI guidelines for monthly (or more frequent) revaluation - All currency positions are included
Front–Mid–Back Office Table	- Outlines respective roles in fund mgmt, market risk, settlements, accounting, compliance, etc.
RBI Advice on Dealing Room Management	- Board sets policies and exposure limits - Focuses on complexity and volatility of FX markets

RISKS IN FOREIGN EXCHANGE DEALING

1. Operational Risk

Definition: The risk of loss due to **human errors**, **technical faults**, **infrastructure breakdowns**, **faulty systems/procedures**, or **lack of internal controls**.

In Short: **"Risk of loss resulting from inadequate or failed internal processes, people, systems, or external events."**

2. Exchange Risk (Currency Risk)

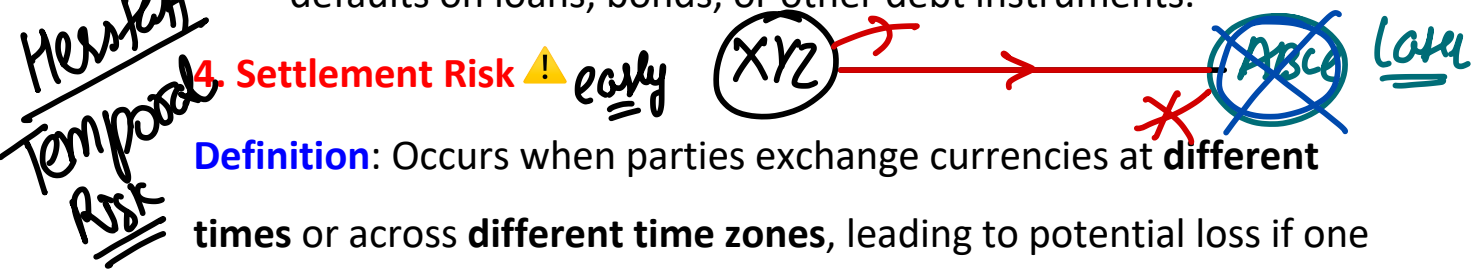
Definition: The possibility of losses due to **fluctuations in exchange rates** or **mismatches** in currency assets/liabilities or receivables/payables.

3. Credit Risk 🤝

Definition: The risk of loss when a **counterparty** fails to meet its payment obligations (principal/interest).

- **Pre-Settlement Risk**: Counterparty fails **before maturity** of the contract.
- **Settlement Risk**: Counterparty fails **on the settlement date** itself (see more below).
- **Lending/Borrowing Context**: Could arise if a **borrower** or **issuer** defaults on loans, bonds, or other debt instruments.

4. Settlement Risk ⚠️



Definition: Occurs when parties exchange currencies at **different times** or across **different time zones**, leading to potential loss if one party pays out but the other **fails** before reciprocating.

- **Classic Case**: **Herstatt Risk** (1974) in Germany, where Bankhaus Herstatt's failure during the day led to losses for counterparties expecting USD payments after delivering Deutsche Marks.

Example:

- **Bank A (Frankfurt)** buys EUR 1,000,000 from **Bank B (New York)** for USD 1,550,000, value spot (e.g., 5th Nov).
- Due to time zone differences, **Bank B** might send EUR first, but if **Bank A** fails before sending USD, **Bank B** loses out on the USD and has already parted with EUR.

5. Liquidity Risk 💧

Definition: The risk that a bank **cannot meet** its obligations as they become due because it **lacks sufficient cash** or **easily salable assets**, despite being well-capitalized on paper.

- **Arises** when there are significant **maturity mismatches** in assets/liabilities.
- **Positive Liquidity Gap**: More cash inflows than outflows (less risk, but limited investment scope).
- **Negative Liquidity Gap**: Outflows exceed inflows (greater risk, potential shortfall).

6. Gap Risk / Interest Rate Risk 📉

Definition: A **gap** occurs if a bank's **forward purchases** and **sales** of currency are for different value dates, causing mismatches in **assets vs. liabilities** at future points.

- **Forward Differentials** depend on **interest rate** movements.
- If **interest rates** move adversely, **forward differentials** can also move adversely, affecting the **cash flows** on any open gap.

Part-5 1A BFM

7. Market Risk 📊

Definition: Potential losses due to adverse movements in **market variables** (exchange rates, interest rates, equity prices). Inability to exit positions quickly can amplify losses.

7.1 Interest Rate Risk

- Changes in **market interest rates** can erode the value of rate-sensitive assets or liabilities (e.g., bonds).

7.2 Equity Price Risk 📈

- **Volatility** in stock indices or individual share prices can reduce the fair value of equities held.

7.3 Currency Risk (Exchange Rate Risk)

- Also mentioned above. A decline in currency value reduces returns on foreign-currency assets.

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8. Legal Risk ⚖️

Definition: Risk arising from **non-enforceability** of a contract against a counterparty, **documentation errors**, ambiguous clauses, or **international legal variations**.

> **Example**: A contract with a foreign entity might become unenforceable in their local court, or certain **onerous clauses** may be invalid under that jurisdiction's laws.

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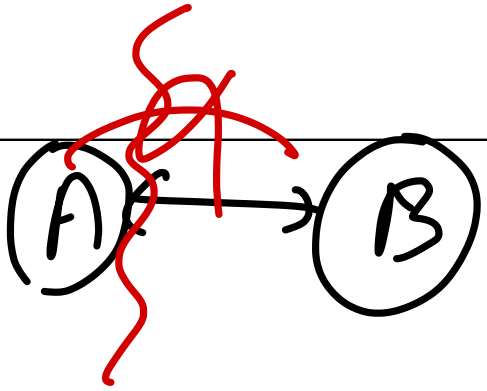
9. Systemic Risk 🌐

Definition: The **contagion** possibility where the **failure of a major bank** cascades into broader **financial crises**, affecting multiple institutions.



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10. Country Risk 🌍

Definition: The counterparty's inability to perform contractual obligations due to **local government regulations**, **political unrest**, or **economic instability** in its country.

Example: If **sanctions** or sudden policy changes prevent a foreign company from remitting funds to Indian banks, country risk materializes.

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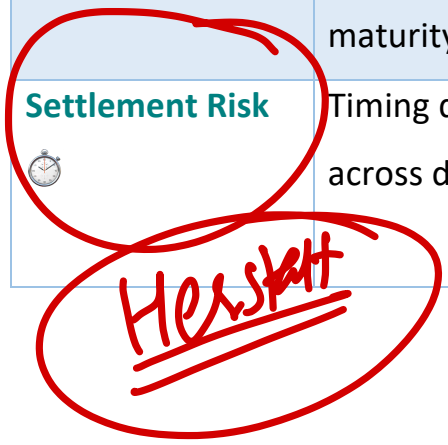
11. Sovereign Risk 🏳️

Definition: A **subset** of country risk, where **state-owned entities** claim **sovereign immunity** from legal recourse or debt repayment. Some nations' laws uphold their sovereign status in a way that renders them effectively **immune to lawsuits**.

SUMMARY TABLE 📊

Risk Type	Key Aspect	Possible Impact
Operational Risk ⚙️	Human/system errors, poor controls	Losses from internal failures
Exchange Risk 💱	Currency fluctuations, mismatches in FX assets/liabilities	Loss in returns due to adverse exchange movements
Credit Risk 🤝	Counterparty default before/at maturity	Loss if payment is not received as per agreement
Settlement Risk ⏱️	Timing differences in FX settlements across different time zones	One party delivers currency, but the other fails, leading to partial settlement



Liquidity Risk 💧	Inability to meet short-term funding needs	Forced borrowing at high rates or asset firesales
Gap/Interest Rate Risk 📉	Mismatched forward positions, changes in interest rate differentials	Negative impact on forward differentials, cash flows
Market Risk 📊	Adverse movements in exchange rates, interest rates, equities	Losses in trading or investment portfolios
Legal Risk ⚖️	Contract enforcement issues, documentation errors	Inability to recover claims due to legal complications
Systemic Risk 🌐	Contagion effect if a major institution fails	Potential wide-scale financial crisis
Country Risk 🌍	Political/economic instability, regulatory barriers	Counterparty prevented from honoring obligations
Sovereign Risk 🏳️	Sovereign entities claim legal immunity	No legal recourse for recoveries if a state entity defaults

MANAGEMENT CONTROL IN DEALING ROOM OPERATIONS ⚖️

A **comprehensive management control** over dealing room operations involves:

1. **Assessing risk exposures** (outlined previously)
2. **Implementing strategies** to manage these risks

Since most banks regard **foreign exchange (FX) dealing rooms** as **profit centers**, having a **robust risk management policy** helps them operate within **permitted loss limits**. Attaining profits requires:

- **Adequate risk appetite**
- A proper **risk–reward trade-off**

Note: The **details on these risks** and their **management** are covered in the **Risk Management** unit.

SPECIALIZED NATURE OF FOREX DEALING OPERATIONS 💱

- FX dealing is a **highly specialized function**, requiring **well-trained personnel**.
- Typically, a dealing room has:
  - **Dealers** (Front Office)
  - **Back-Office Staff** (settlements, confirmations, and account entries)

The **Back Office** follows up on deals executed by dealers, ensuring **proper settlement**.

Effective controls are critical since opportunities for **manipulation** (e.g., exchange rates, mismatches, "washing names") can exist.

Clear Functional Separation

A key principle in dealing room operations is to **separate**:

1. **Dealing/Trading** (Front Office)
2. **Back-Office Accounting** (Processing & Control)
3. **Reconciliation** (Ensuring correct account balances)

IMPORTANCE FOR BANKS 🏦

- **Exchange profits** (from both **merchant transactions** and **trading** operations) contribute significantly to a bank's **bottom line**.
- Large banks (especially in major markets) invest heavily in:

- **Multiple dealers**
- **Sophisticated communication** & **IT systems**
- **Specialized desks** (e.g., derivatives, currency futures, etc.) to **maximize profits**.

In **India**, many banks also maintain **large dealing rooms** catering to **various products** permitted by the **RBI** (Reserve Bank of India).

RISK CONTAINMENT MEASURES 🔒

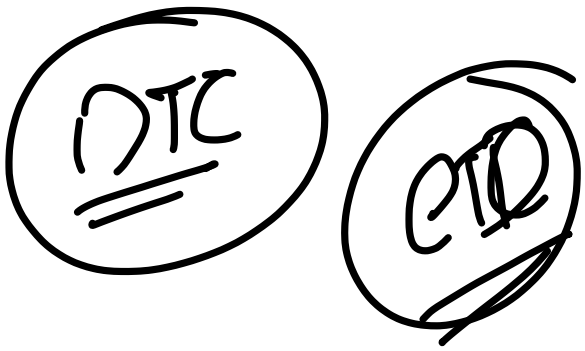
Measure	Explanation
1. Dealer Limits 👨‍💼🔒	Each dealer must know their **assigned limits** (exposure, stop-loss, etc.) and **operate strictly** within them.
2. Counterparty Limits 🤝🔍	All deals with **counterparties** should stay within pre-approved **credit and exposure** limits.
3. Overall Position Control 🚦	By **day-end**, the bank's total position must be **within** NOOPL1, AGL2, IGL3, etc.
4. Mismatch Monitoring ⚖️	Keep a close watch on maturity **mismatches** (e.g., forward vs. spot dates) and open **currency positions**.
5. Profit/Loss Evaluation 📈📉	**Foreign exchange P&L** must be regularly evaluated (periodically or more frequently).
6. Account Reconciliation 📝🔧	- **RBI accounts**, **Nostro** and **Vostro** balances should be reconciled **at least monthly**. - Adjust discrepancies promptly.
7. Mirror Account Checks 🪞✅	Regularly review **mirror accounts**—confirm with Nostro correspondents and provide **Vostro** confirmations to banks maintaining INR accounts.

DERIVATIVE PRODUCTS

What is a Derivative?

A **derivative** is a **financial instrument** whose **value** is derived from an **underlying asset** (e.g., commodity, equity, bond, or foreign currency position). Common derivatives include:

- **Futures**
- **Forward Contracts**
- **Options**
- **Swaps**



These instruments serve **two distinct objectives**:

1. **Speculation** – taking a position **expecting a profit**.
2. **Hedging** – **reducing risks** associated with corporate cash flows or future exposures.

FOREIGN CURRENCY FUTURES 🌐

A **Foreign Currency Futures Contract** is an **exchange-traded** alternative to a forward contract.

It requires **future delivery** of a **standard amount** of foreign exchange at a fixed time, place, and price. Like other **futures contracts** (on commodities, metals, interest-bearing deposits, etc.), currency futures:

- Trade on **organized exchanges** (e.g., **Chicago Mercantile Exchange – CME**).

- Have prices linked to the **current spot/cash market** plus **forward volatility**.

Futures can be settled by **physical delivery** or **net settlement**. Common practices include **open interest** and **offsetting** positions to manage exposure.

Futures Contracts – Key Characteristics 🔑

1. **Standardized Contract**
   - Traded only **on the exchange** with **fixed specifications** (quantity, maturity, lot size, etc.).
2. **Price Discovery**
   - Based on **open outcry** or **electronic trading platforms**, driven by **demand and supply**.
3. **Underlying Assets**
   - Sellers must identify the **quality** if it's a commodity.
4. **Exchange-Traded**
   - Details of each element (USD, gold, equity index, etc.) are clearly defined.
5. **Settlement Price**
   - Established via **pit trading** or **electronic** systems.
6. **Clearing House Guarantee**
   - The **clearing house** becomes the **buyer to every seller** and **seller to every buyer**, ensuring performance.

7. Margin Requirements

- **Clearing houses** manage credit risk by **collecting margins** (initial and mark-to-market).

FORWARD CONTRACTS ↔️

A **forward contract** is a **negotiated agreement** between **two parties** to **fix an exchange rate** for foreign currency **in advance**. Unlike standardized futures, **forward contracts** are:

- **Tailor-made** for specific needs.
- **Over-the-counter (OTC)**, not exchange-traded.

They're typically used by **exporters** or **importers** to **hedge** future receivables/payables.

Example: An Exporter in India signs a **supply contract** on **1st November** with **90-day credit terms**, shipping goods on **5th November**. Payment of **USD 1,000,000** is due by **3rd February**. To avoid the **exchange fluctuation risk** on USD/INR, the exporter can enter a **forward contract** with their bank to lock in a **forward rate** for the USD receivable.

Forward Contracts – Key Characteristics ⚙️

1. Agreement with a Bank

- Fixes **price** for a specified amount, **deliverable** on a future date.

2. **Delivery Options**
    - Either **fixed date** or **option-based** (within a range of dates).
3. **Tenure**
    - Typically up to **one year** (can be longer for **LTFX** if underlying exposure extends).
4. **Underlying Verification**
    - Requires **documentary evidence**.
    - Maturity of the hedge **must not exceed** the underlying.
5. **Credit Limits & Due Diligence**
    - Parties must have **credit lines** and pass **KYC/risk checks**.
6. **Utilization & Maturity**
    - Contracts must be **utilized** or **canceled** on/before **maturity**.
    - If **canceled**, **profit/loss** is settled accordingly.
7. **After-Maturity Cancellations**
    - If canceled **after** maturity, the **bank recovers losses** but **no profit** is passed to the customer.

FORWARD vs. FUTURES CONTRACTS 🤔

Factor	Forward Contracts (OTC)	Futures Contracts (Exchange-Traded)
Contract Size	**Flexible** (any amount)	**Standardized** (set lot sizes)
Tenor (Maturity)	Up to **1 year** (can extend)	Typically **up to 1 year**
Contract Parties	**Customer & Bank** directly	**Customer & Exchange** through a clearing house

Price Discovery	**Bid/Ask quotes** between parties	**Open outcry** or **electronic** trading
Collateral/Margins	**No explicit** margin (credit line used)	**Initial & Mark-to-market** margins required
Settlement Process	Delivered/utilized/canceled on due date	Mostly **offsetting** or occasionally physical delivery
Market Hours	Flexible, **24 hours** (as per parties' convenience)	Restricted to **exchange operating hours**
Counterparty	**Direct contact** (bank-customer)	**Anonymous** (through exchange intermediary)
Commission	**No explicit** commission, bank earns from **spreads**	Typically a **single commission** concept

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SUMMARY TABLE 📊

Topic	Key Points
Derivatives Definition	Value derived from **underlying assets** (currency, commodity, equity, etc.). Covers **Futures, Forwards, Options, Swaps**.
Futures Contracts 💱	- **Exchange-traded**, standardized - Settlement by **physical delivery** or **net offset** - **Clearing house** ensures performance - **Margin** required to manage risk
Forward Contracts ↔️	- **OTC** (bank-client) - Flexible **size**, tailor-made - Used by **exporters/importers** for hedging future inflows/outflows - No formal **margin**, credit lines apply
Forwards vs. Futures 🤔	- **Forwards**: customized terms, no standard lot, direct bank-client - **Futures**: standardized lots, exchange-based, margin requirements

Indian Context Example 🇮🇳	- Small exporter in **Surat** uses **forward** - Large IT firm in **Bengaluru** might choose **futures** on NSE

OPTIONS

An **option** is a contract granting the **purchaser** the right, but **not the obligation**, to **buy or sell** a specified amount of a **security/stock/currency** at a **fixed price** per unit for a **designated time** period.

Two Basic Options

1. **Call Option** ☎️
   - Gives the **buyer** the right to **purchase** the underlying asset/currency.
   - Often used by **importers** wanting to lock in a maximum purchase price.
2. **Put Option** 🔽
   - Gives the **buyer** the right to **sell** the underlying asset/currency.
   - Often used by **exporters** aiming to lock in a minimum sale price.

Buyer (Holder): The party who purchases the option.

Seller (Writer/Grantor): The party who grants the option to the buyer. Unlimited Risk

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Key Price Elements of an Option

1. **Strike (Exercise) Price**: The **exchange rate** at which the currency (or asset) can be bought or sold.
2. **Premium**: The **cost** of the option, paid **upfront** when the option is purchased.
3. **Spot Rate**: The **market rate** in effect at the time the option is purchased.

Option Pricing – 5 Main Inputs

1. **Present Spot Rate**
2. **Time to Maturity**
3. **Forward Rate** for the underlying, matching the maturity
4. **Interest Rates** for the intervening currency/stock/security
5. **Volatility** (standard deviation between spot and forward rates)

Types of Options

- **American Option**
  - Can be exercised **any time** from the **date of writing** until the **expiration** (maturity) date.
- **European Option**
  - Can be exercised **only on** the **expiration date**, **not before**.

The **premium (option price)** is the cost paid by the buyer to the writer for the option's rights.

Option Terminology

1. **At the Money (ATM)**

- The **exercise price** equals the **spot price** of the underlying currency.

2. **In the Money (ITM)**
   - The option would yield a **profit** (excluding premium cost) if exercised **immediately**.
3. **Out of the Money (OTM)**
   - The option would **not** yield a profit (excluding premium cost) if exercised immediately.

SUMMARY TABLE

Concept	Definition
Call Option ☎️ #1	Right to **buy** an asset/currency at a set strike price. Commonly used by **importers**.
Put Option 🔽 #2	Right to **sell** an asset/currency at a set strike price. Commonly used by **exporters**.
Strike Price #3	The agreed-upon **exchange rate** or **price** at which the option can be exercised.
Premium #4	The **cost** paid by the buyer at purchase, granting them the option right.
Option Types #5	**American** (exercise any time before expiration) / **European** (exercise only on expiration).
ATM / ITM / OTM NPNL ✓ ✓ #6	- **ATM**: Spot price = Strike - **ITM**: Profitable if exercised now - **OTM**: Not profitable if exercised now
Pricing Factors #7	Present **spot**, **time** to maturity, **forward** rate, **interest rates**, and **volatility**.

836094207

SWAPS

Definition: A **swap** is a **derivative instrument** representing an **agreement** between **two parties** to **exchange a series of cash flows** over a set period. These **cash flow exchanges** can be structured flexibly, giving rise to numerous **swap variations**, each suited to specific needs.

Factors Influencing Swaps

1. **Changing Objectives** **Investment** or **repayment** goals may have evolved over time.
2. **Financial Benefit** New or alternative cash flow streams might **offer improved returns**.
3. **Risk Hedging** A need to **manage or mitigate** risks associated with **floating rate** exposures.

TYPES OF SWAPS

1. Interest Rate Swap (IRS) ⚖️

An **Interest Rate Swap** is a **contractual agreement** to exchange **fixed-rate** cash flows for **floating-rate** cash flows over a specified period.

- **No principal exchange**: Only **interest amounts** are swapped, calculated on a **notional amount**.
- **One Leg** = **Fixed** interest rate.
- **Other Leg** = **Floating** interest rate (e.g., **SOFR**, **LIBOR**—where applicable, etc.).

---

2. Currency Swap 💱

A **Currency Swap** is akin to an IRS but **involves two currencies**. Cash flows in one currency are exchanged for cash flows in another.

- **Efficient Hedge**: Manages both **FX risk** and **interest rate risk** in one go.
- **High Volume**: Currency markets typically have **very large** transaction values.

---

3. Zero-Coupon Swap

Similar to an IRS, a **Zero-Coupon Swap** allows one party to **defer** its fixed payments until the **end** of the swap's maturity.

- **Fixed-to-Floating Zero Coupon Swap**:
  - **Fixed rate payer** makes **no interim payments**.
  - **Floating rate payer** continues **periodic payments** as usual.
- **Fixed-Fixed Zero Coupon Swap**:
  - One party pays **no interim amounts**.
  - The other party pays **fixed** payments on schedule.

🔍 Example: Zero Coupon Swap

Consider two companies:

- **Company A** wants a fixed interest rate, payable only at maturity (no periodic payments).

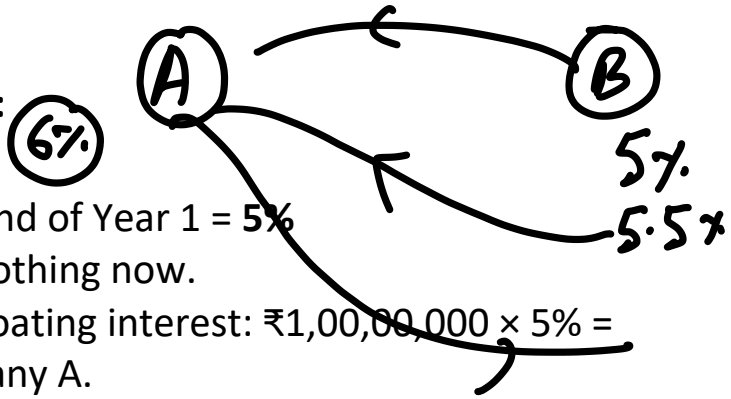
- **Company B** prefers periodic floating payments tied to market rates (e.g., LIBOR).

They enter a 2-year zero coupon swap with these terms:

📌 Party	📄 Payment Structure
🏢 **Company A**	Pays a fixed rate of 6% annually, accrued over 2 years, **but pays only at maturity** (no periodic payments).
🏛️ **Company B**	Pays a floating rate (e.g., 1-year LIBOR) annually at the end of each year.

Notional Principal: ₹1,00,00,000 (₹1 Crore)

Fixed Rate: 6% per annum compounded annually (paid once at maturity)



📅 Cash Flow Illustration:

🔹 *End of Year 1:*

- Suppose **LIBOR** at end of Year 1 = **5%**
- **Company A:** Pays nothing now.
- **Company B:** Pays floating interest: ₹1,00,00,000 × 5% = **₹5,00,000** to Company A.

🔹 *End of Year 2 (Maturity):*

- Suppose **LIBOR** at end of Year 2 = **5.5%**
- **Company B** pays floating interest: ₹1,00,00,000 × 5.5% = **₹5,50,000** to Company A.
- **Company A** pays lump-sum accrued fixed interest for 2 years:
  ₹1,00,00,000 × [(1.06²) - 1]
  = ₹1,00,00,000 × (1.1236 - 1)
  = **₹12,36,000** to Company B.

📊 Summary Table of Cash Flows:

Year	Company A Pays (Fixed)	Company B Pays (Floating)
1	₹0	₹5,00,000
2	₹12,36,000 (at maturity)	₹5,50,000

4. Equity Swap 📈

An **Equity Swap** involves swapping **future cash flows** to gain or share **equity-based returns** without transferring ownership of the underlying equity.

- **Reference Equity**: Stock or equity index.
- One party's payments might be tied to an **equity return**, the other to a **fixed or floating interest**.

5. Basis Swap 🔄

In a **Basis Swap**, **both legs** reference **different floating rates**.

- **Example**: Exchanging **SOFR**-based payments for **EURIBOR**-based payments.
- Both legs are **floating** rates rather than fixed vs. floating.

SWAP EXAMPLE

Scenario: ECB Loan to ABC Ltd (India)

ABC Ltd (a large corporate) receives a **USD 100 Mn** ECB (External Commercial Borrowing) from **IFC, Washington**:

- **Repayment** over **5 years** in **yearly installments** (USD 20 Mn/year) on **31st Dec** starting **2021**.
- **Interest Rate** = **SOFR + 400 bps**, with **SOFR reset** each repayment date.
- Company draws the entire amount immediately for **INR expenditure** in India.

They face:

1. **Principal Risk**

- Risk on the principal (USD 100 Mn). Repaid in yearly installments of USD 20 Mn.
- **Mitigation**: **Principal Only Swaps (POS)**, essentially **long-term forward contracts** for each repayment date.

2. **Coupon Risk**

- Risk on **yearly interest** (SOFR + 4%).
- **Mitigation**: **Coupon Only Swap (COS)**, i.e., booking **long-term forwards** for each interest payment date.

3. **Interest Rate Risk**

- **Floating SOFR** can fluctuate over 5 years.
- **Mitigation**: **Interest Rate Swap (IRS)**, receiving floating (SOFR) and paying a **fixed** rate.

4. **Currency Coupon Swaps (CCS)**

All 3 risks (principal, coupon, interest rate) can be hedged simultaneously via a **Currency Coupon Swap**.

SUMMARY TABLE: TYPES OF SWAPS

Swap Type	Description	Key Benefit
Interest Rate Swap ⚖️ #1	Exchange **fixed** interest payments for **floating** interest payments on the same notional. No principal is exchanged.	Hedge **interest rate** exposure

Currency Swap #2	Exchange **cash flows** in one currency for **cash flows** in another. Principal may also be exchanged initially and at maturity.	Hedge **foreign exchange** & **rate risk**
Zero-Coupon Swap #3	One party makes **no interim** fixed payments; settlement occurs **only** at maturity. Other party may continue standard periodic payments.	**Flexibility** in payment schedules
Equity Swap #4	Exchange **equity-based** returns for **fixed/floating** returns, enabling diversification without changing the underlying holdings.	Gain equity exposure or hedge equity risk
Basis Swap #5	**Both legs** pay floating rates but referenced to **different** indices (e.g., SOFR vs. EURIBOR).	Fine-tune **floating** rate exposures
Principal Only Swap #6	Hedge **principal** repayments in foreign currency (e.g., scheduling forward contracts for each due date).	Manage **principal** FX risk
Coupon Only Swap	Hedge **coupon** (interest) payments in foreign currency with forward-like agreements for each interest due date.	Manage **interest payment** FX risk
Currency Coupon Swap	Combine **principal**, **coupon**, and **interest rate** hedges in a single structure.	All-in-one **comprehensive** hedge

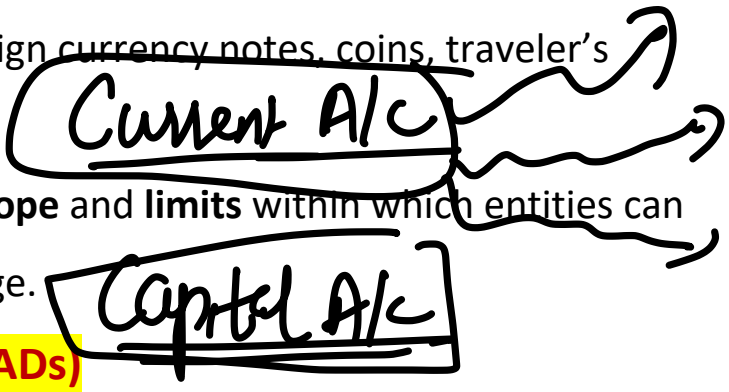
RBI/ FEDAI GUIDELINES

The **Reserve Bank of India (RBI)**, as the **central bank** and **custodian** of India's foreign exchange reserves, has laid down guidelines for **authorized dealers** to conduct **foreign exchange** business and handle **foreign currency transactions**. The **Foreign Exchange Management Act (FEMA), 1999**, and subsequent **FEMA Regulations, 2000**, also

prescribe rules for individuals and corporates dealing in foreign currencies.

RBI issues licenses to: • **Authorized Dealers (ADs)**

• **Money Changers** (for foreign currency notes, coins, traveler's cheques/cards)



These licenses define the **scope** and **limits** within which entities can buy and sell foreign exchange.

AUTHORISED DEALERS (ADs)

RBI grants **AD licenses** primarily to **scheduled banks** and certain **all-India financial institutions**, permitting them to handle various foreign exchange transactions. Currently, there are **95+ Authorized Dealers**, including: • **Public sector banks**

• **Foreign banks**

• **Private banks**

• Select **financial institutions**

• A few **scheduled cooperative banks**

MONEY CHANGERS

RBI also issues **Money Changer licenses** to hotels, shops, and established firms. These are: • **Full Fledged Money Changers (FFMCs)**: Authorized to **buy** and **sell** foreign currency.

• **Restricted Money Changers (RMCs)**: Authorized **only to buy** foreign currency.

CATEGORIZATION OF AUTHORIZED DEALERS (POST-2006)

RBI reclassified entities authorized to deal in forex as **Authorized Persons**, grouped into **four categories** based on the **breadth** of transactions they can handle:

Useful

1. **Authorized Dealer – Category I**
   - **Scope**: All **current** and **capital** account transactions, subject to RBI directions.
   - **Examples**: Commercial banks, state/urban cooperative banks.
2. **Authorized Dealer – Category II**
   - **Scope**: **Non-trade** foreign exchange transactions.
   - **Examples**: Upgraded FFMCs, other cooperative banks, regional rural banks.
3. **Authorized Dealer – Category III**
   - **Scope**: Forex transactions **incidental** to financing **international trade-related** activities.
   - **Examples**: Exim Bank, SIDBI.
4. **Full Fledged Money Changer (FFMC)**
   - **Scope**: Purchase of foreign exchange and sale for private/business visits abroad.
   - **Examples**: Other FFMCs, Department of Post.

RATIONALE FOR GUIDELINES

Unrestricted foreign exchange operations can disrupt **exchange rates** and **currency values**, as well as affect the **profitability** of entities acting without discipline. Hence, RBI's **broad guidelines** ensure a **regulated** and **stable** forex market. These include:

- **Open Position Limits**
- **Gap Limits**
- **Foreign currency borrowing/lending norms**
- **Interbank dealings** (domestic and overseas)
- **Hedging** of exposures (bank's own, resident and non-resident clients)

SUMMARY TABLE

Aspect	Key Details
Governing Acts/ Regulations	FEMA 1999, FEMA Regulations 2000
Primary Regulator	Reserve Bank of India (RBI)
Authorized Dealers (AD)	Over 95+ ADs (public, private, foreign banks, selected FIs, co-ops)
Money Changers	FFMCs (buy/sell) & RMCs (buy only)
AD Categorization	**Cat-I**: All current & capital a/c transactions **Cat-II**: Non-trade **Cat-III**: Trade-related finance **FFMC**: Individual travellers/currency needs
RBI Guidelines	Covers open positions, gap/limits, borrowing & lending, interbank deals, hedging

BFM CH-1A Part-7

FOREIGN EXCHANGE DEALERS ASSOCIATION OF INDIA (FEDAI) ⚖️

SRO

Establishment and Purpose

Founded in **1958** with the approval of the **RBI**, **FEDAI** (Foreign Exchange Dealers Association of India) is a **Self-Regulatory Organization (SRO)** that took over functions from the Exchange Banks Association. Its role is to **regulate** and **further the interests** of:

1. **Authorized Dealers** in Foreign Exchange
2. The **public** dealing in foreign exchange
3. **Forex Brokers**
4. **RBI, FIMMDA, IBA**, and other associated organizations/associations

AD-I
AD-II
AD-III
FEMC

Key Characteristics

- **Non-profit** body prescribing guidelines on **market operations**, **merchant rates**, **quotations**, **delivery dates**, **holidays**, **interest on defaults**, etc.
- **Mandatory** for all **Authorized Dealers** (ADs) to be **FEDAI members** and **follow** its guidelines.

Main Objectives

1. Collaborate with **RBI** to **promote** India's **external sector**.
2. Coordinate with **Export Promotion Councils**, **Chambers of Commerce**, etc., to **boost** India's **international trade**.
3. **Develop** the **foreign exchange markets**.

4. **Promote best practices** in forex business.
5. Formulate **uniform rules and guidelines** for ADs, ensuring a **level playing field**.

Role of FEDAI

1. **Facilitates** between ADs and the RBI in **forex transactions**.
2. **Issues guidelines** on various forex aspects.
3. Represents **India's viewpoint** in international rule revisions (UCP, URC, URR, e-UCP, URDG, etc.).
4. **Trains** member banks on forex matters.
5. **Accredits** intermediaries (brokers, electronic service providers).
6. **Monitors** broking activities in the inter-bank forex market.
7. **Administers benchmark rates** (monthly revaluation rates, daily USD/INR closing rates, weekly average rates, etc.).

MAJOR FEDAI GUIDELINES/ RULES RELATING TO DEALING ROOM OPERATIONS

#1

RULE 1 – HOURS OF BUSINESS ⏰

1. **FCY/INR Transactions**
   - **Normal market hours**: 9:00 a.m. to 5:00 p.m. on all working days.
   - Customer transactions and **inter-bank** (I/B) transactions beyond normal hours: Permissible for **cross-currency** deals.

Cash value

2. **Overseas Transactions**: Transactions with persons outside India (via foreign branches) can be done **beyond 5:00 p.m.**, but **cash value transactions** only up to 5:00 p.m.
3. **Individuals & Bank Policy**: Transactions for **individuals** (on Saturdays, Sundays, holidays) may be allowed per **internal bank policy**, if the deals remain **within NOOP** limits.
4. **Saturday**: Not considered a **working day** except per point above.
5. **Holidays**
   - A **known holiday** is one known **at least 3 working days** in advance.
   - A **suddenly declared** holiday is any holiday not known within that time frame.

TT < B / S

#2

RULE 2 – EXPORT TRANSACTIONS

Bills < B / S

1. **Post-Shipment Finance**

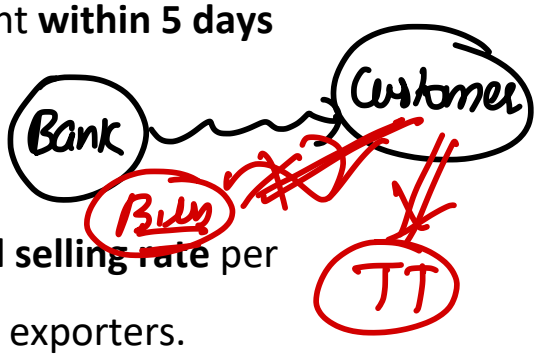
   Bill Buying Rate for purchase/discount/negotiation of export bills.

   usance demand DLC

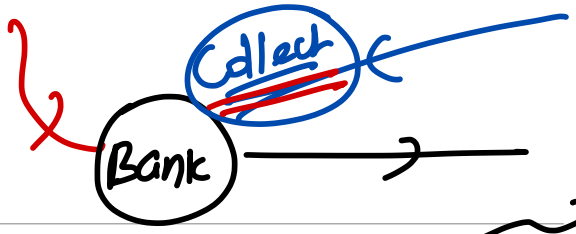
2. **Normal Transit Period (NTP)**
   - **Sight bills**: 25 days.
   - **Sight bills in INR**: 20 days.
3. **Interest Application**
   - As per **RBI** directives on post-shipment finance.
4. **Early Realization**

- If bills are realized early, **refund** interest for the **unexpired** period to the exporter.

5. **TT Reimbursement**
   - For bills under LC, claim TT reimbursement **within 5 days** from the date of handling the export bill.



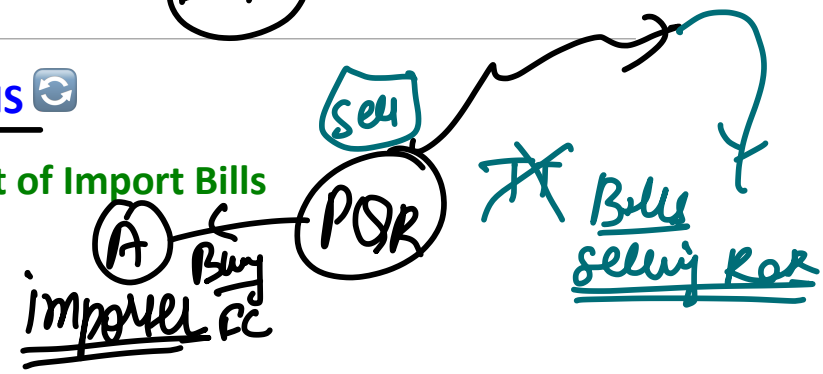
6. **Non-Payment on Due Date**
   - **Crystallize** foreign currency liability at **bill selling rate** per bank's policy; policy must be disclosed to exporters.
7. **Subsequent Realization** after Crystallization
   - **TT buying rate** applies.
8. **Dishonor of Bills**
   - Charge **TT selling rate** + interest until date of dishonor.
9. **Export Bills on Collection Basis**
   - **TT buying rate**.



#3

RULE 3 – IMPORT TRANSACTIONS 🔄

1. **Exchange Rate for Retirement of Import Bills**
   - **Bill selling rate** applies.



2. **Interest Application**
   - For bills under **negotiation** (LCs), apply the bank's **commercial** lending interest rate.
3. **Crystallization of Import Bills**
   - **Unpaid** bills drawn under LCs are **crystallized** per the bank's policy.

- **Bill selling rate** is used at crystallization.

#4

RULE 4 – CLEAN INSTRUMENTS

1. Inward Remittances

- Beneficiary must **surrender** foreign exchange to the bank within **7 calendar days**.

2. Internal Policy on Conversion

Banks may convert to INR **up to a certain amount** automatically if details (name/address of overseas remitter) are in **MT103**.

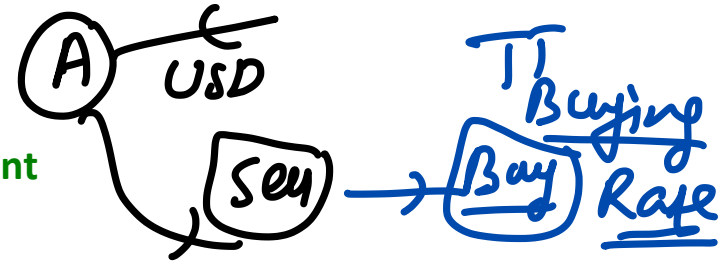
What exactly is MT103?

- It's a standardized, secure, and globally recognized format used by banks within the SWIFT network to instruct payments.
- Primarily used for **cross-border payments** and **international wire transfers**.

- **MT103:** Most common for cross-border customer payments.
- **MT202:** Used primarily for bank-to-bank transfers.
- **MT940/MT941/MT942:** Used for account statement reporting and reconciliation.
- **MT700/MT760:** Essential for international trade and guarantees.

3. Applicable Exchange Rate

- **TT buying rate**.



4. Compensation for Delayed Payment

If funds credited to **Nostro** but not to customer within 2 days, interest at **2% above SB rate** for delayed period.

5. **Exchange Rate Movement Compensation**

Bank may pay compensation for **adverse** exchange rate movement as per its **compensation policy**.

6. **Beneficiary Inaction**

If no response **within 5 working days** from date of credit to Nostro, bank should **crystallize** the remittance if not returned to remitter.

7. **Transfer Between Vostro Accounts**

- **Remitting bank** must submit **Form A3** to beneficiary bank with full details **within 5 days** from the credit date.
- Delay beyond 5 days → **penalty** of Rs. 1,000/day (capped at Rs. 10,000).

8. **Encashment of Travelers Cheques (TCs) / Currency Notes (CNs)**

TC buying rate / **currency buying rate** applies.

#5

RULE 5 – FOREIGN EXCHANGE CONTRACTS 📜

1. **Definite Amounts & Periods**

Forward contracts must specify **clear amounts** and **delivery periods**.

2. **Option Period**: Not to exceed **1 month**.

3. **Holiday Handling**

- If a **fixed date** is a holiday, last delivery date is the **preceding** working day.

- For **suddenly declared** holiday, delivery is next working day.

4. **Delivery Date**

- Purchased/ discounted/ negotiated bills: The **date of purchase** or negotiation is the **delivery date**.
- Collection documents: **Date of payment** in INR.
- Retirement/crystallization: **Date** of retirement/crystallization.

5. **Delivery Option**
    - The **buyer/seller** of the contract has the **option** of delivery.
6. **Rounding Off**
    - Rates can be rounded to **rupee** or **paise** as per **bank's internal** policy.

#6

RULE 6 – EARLY DELIVERY, EXTENSION & CANCELLATION ⏳

1. **Bank's Discretion**
    - Early delivery or extension is subject to **bank's approval**.
2. **Customer Requests**
    - Must **request** extension/cancellation **before maturity**.
3. **Extension**
    - **Cancel & rebook** simultaneously. Profit/loss settled with the customer.
4. **Cancellation**
    - **Recover/pay** difference in rates.
    - Bank may allow **installment payments** if there's a loss.

5. **Cancellation Rates**
    - **Purchase contracts** cancelled at **TT selling rate**; **sale contracts** at **TT buying rate**.
    - If cancelled **before maturity**, use forward TT buying/selling rate.
6. **Automatic Cancellation**
    - If not cancelled by **maturity**, bank cancels on **3rd day** after maturity; losses recovered but **profits not passed** to customer.
    - In extenuating circumstances beyond client's control, bank *may* pass on profits after maturity if internal policy permits.

#7

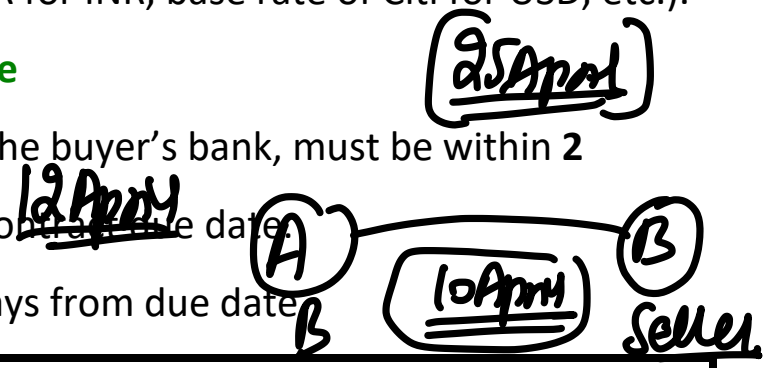
RULE 7 – BUSINESS INTERMEDIARIES 👥

1. **Accredited Intermediaries**
    - **Exchange brokers**, **multi-bank portals (MBPs)**, **electronic order matching systems (EOMs)** must be **accredited** by FEDAI.
    - **MBPs/EOMs** also need **RBI** authorization.
2. **Code of Conduct**
    - These entities must follow **FEDAI's** code of conduct.
    - Violations must be reported to FEDAI.
3. **Contract Clauses**
    - Include "Subject to Rules and Regulations of FEDAI" in confirmations.

#8

RULE 8 – INTER-BANK PAYMENTS & SETTLEMENTS 🏦

1. **Delivery Tracking & Discrepancies**
   - Banks monitor **funds delivery**; note errors and correct them with counterparties.
2. **Delayed Delivery Interest**
   - Interest for delay = **2% above** the **benchmark** rate of the currency (e.g., MIBOR for INR, base rate of Citi for USD, etc.).
3. **Back Valuation Acceptance**
   - At the **discretion** of the buyer's bank, must be within **2 working days** from contractual due date.
   - **Claim window**: 15 days from due date.



📌 **Example:** Suppose a payment was due on **April 10**.

- Due to some delay, payment actually happens on **April 12**.
- If the buyer's bank agrees to back valuation:
  - They can adjust (back-value) the payment to the original due date (April 10), provided it's done within **2 working days** from the original date.
  - The seller's bank must request this adjustment within **15 days** from the original due date (by April 25 in this case).

4. **Undue Enrichment**

If a party has unearned funds, it must **return** them with **interest**.

5. **CCIL Registration**

All banks must be **registered** with **Clearing Corporation of India (CCIL)**.

6. Holiday Handling (Inter-Bank)

- If the due date is a **known holiday**, settle on the **preceding** working day.
- If it's a **suddenly declared** holiday, settle on the **next** working day.

SUMMARY TABLE: KEY FEDAI RULES

Rule	Focus	Key Points
Rule 1	**Hours of Business** ⏰ #1	9 a.m.–5 p.m. weekdays, extension for cross-currency, overseas transactions, handling known vs. sudden holidays
Rule 2	**Export Transactions** 🌐	Bill buying rates, NTP, early realization interest refunds, crystallization, TT reimbursements, etc.
Rule 3	**Import Transactions** 🔄	Retirement of bills at bill selling rate, interest on LCs, crystallization of unpaid bills
Rule 4	**Clean Instruments** 🧾	Inward remittances, TTs, compensation for delays, conversion rules, travelers cheques, currency notes
Rule 5	**Forex Contracts** 📜	Fixed amounts & periods, option deliveries, holiday handling, rounding off
Rule 6	**Early Delivery/ Extension/ Cancellation** ⏳	Bank discretion, cancellation rates, forward TT rates, automatic cancellation after maturity
Rule 7	**Business Intermediaries** 👥	Accreditation by FEDAI, adherence to code of conduct, mandatory RBI approval for MBPs/EOMs

Rule 8	**Inter-Bank Payments & Settlements** 🏦	Delayed delivery interest, back valuation, undue enrichment rules, CCIL registration, holiday settlement procedures

Part-8

FX GLOBAL CODE 🌐

The **FX Global Committee**, in a global meeting in **London**, endorsed the publication of the **FX Global Code**—a **uniform code** for **wholesale foreign exchange markets** worldwide. Its aims include:

1. **Principles of Good Practices**
2. **Active Engagement** of local participants
3. **Promoting Healthy & Disciplined** dealing room trading

Key financial authorities—**HKMA (Hong Kong)**, **MAS (Singapore)**, **RBA (Australia)**, **Bank of Korea**, **RBI (India)**, and the **Federal Reserve Bank (USA)**—have already endorsed this code.

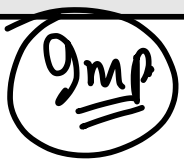
In **India**, the **revised FEDAI Code of Conduct** for the Indian FX market became effective from **1 September 2021**.

AD-I, II, III FFMC

RBI GUIDELINES FOR AUTHORIZED PERSONS ⚖️

1. AD Category I – Banks

- **Open/ Close Rupee Accounts**: Non–interest-bearing accounts in the name of overseas branches/correspondents (except for Pakistani banks outside Pakistan) without prior RBI approval.
- **Rupee Accounts for Exchange Houses**: Require **RBI** approval.



- **Foreign Currency Accounts**: May be opened abroad in the bank's own name for routing FX transactions; balances may be maintained as per the Board's guidelines.
- **Investments Overseas**: Allowed in money market or debt instruments (under one-year residual maturity) if rated as per guidelines.
- **Use of Surplus in NOSTRO Accounts**: Can grant loans to resident constituents for FX or INR needs, extend credit to Indian company subsidiaries/joint ventures abroad, subject to conditions.

2. **Borrowings/ Overdrafts**: **All borrowings** (incl. ECBs, short overdrafts not settled in 5 days) must not exceed **50% of unimpaired Tier 1 capital** or **USD 10 million**, whichever is higher. Certain exceptions apply (e.g., overseas borrowings for export credit, Tier II capital from foreign HQ, etc.).
3. **Forward Exchange Contracts**

- **Banks** can allow residents to book forwards if the underlying FX transaction is **permissible** under FEMA 1999.
- Must verify **underlying documentary evidence**; ensure **maturity** does not exceed underlying's tenor.
- May allow forward booking on **past performance basis** for importers/exporters up to certain turnover limits.
- **SMEs** can book forwards up to credit facility limits.
- **Resident individuals** can book forwards up to **USD 100,000** (deliverable basis; one-year max tenor).

4. Other Derivatives

- **AD Category I – Banks** may offer **Interest Rate Swaps (IRS), Coupon Swaps, FX Options, FRA, Caps/Collars** to hedge foreign currency borrowings (FEMA-compliant).
- **FX-Rupee Swap** allowed for residents with FX or rupee liability to hedge long-term exposure.
- **Cross-currency options** on a back-to-back basis (or, subject to RBI permission, run an options book).

FOREIGN EXCHANGE ARITHMETIC – CONCEPTS & EXAMPLES ÷

1 USD = ₹82.10/30
B S

Foreign exchange (FX) is treated like a **commodity**, but with a unique twist:

1M → 20/30 (S > B)
B S

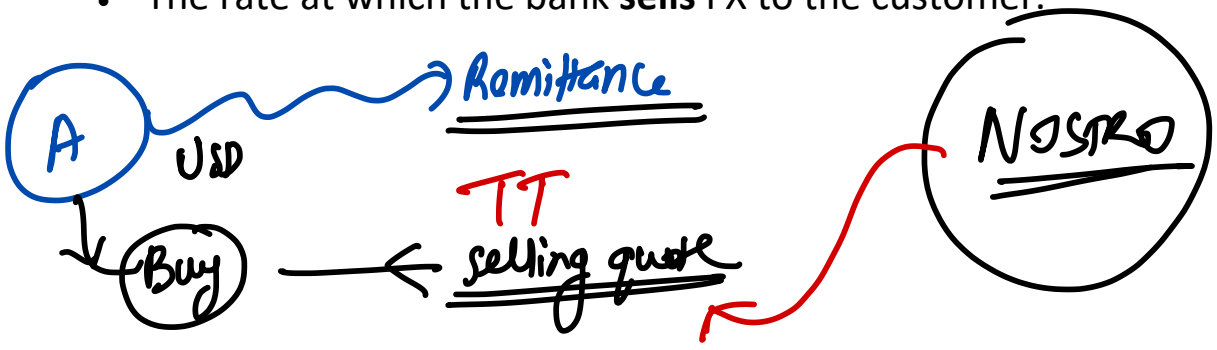
- **Purchase** (Bank's viewpoint): The bank **buys** foreign currency from a customer (inflow to the country).
- **Sale** (Bank's viewpoint): The bank **sells** foreign currency to a customer (outflow from the country).

Purchase Rate (BID)

- The rate at which the bank **purchases** FX from the customer.

Sale Rate (ASK)

- The rate at which the bank **sells** FX to the customer.



Inward Remittances (Purchase Transactions) ⬅️

- **Bank receives** foreign currency (via **Nostro** or as **FC notes / TCs**).
- Customer's account is credited in **INR** at the **applicable purchase rate** (e.g., TT Buying Rate, Currency Buying Rate, or TC Buying Rate).

Outward Remittances (Sale Transactions) ➡️

- **Bank pays out** foreign currency on the customer's behalf (e.g., to overseas suppliers or for travel).
- Bank **debits** the customer's **INR** account and converts INR into FX at the **applicable selling rate** (TT Selling Rate, Currency Notes Selling Rate, or TC Selling Rate).

COMMON PURPOSES FOR FX TRANSACTIONS

Inward Remittances – Examples

1. Family maintenance, education, medical, or gifts from overseas relatives.
2. **Donations** under **FCRA** guidelines.
3. NRIs/ PIOs/ OCIs **remitting savings** to Indian accounts.
4. Export proceeds (goods, software, services).
5. FDI/FPI/FVCI, equity investments by overseas investors.
6. ECB/FCCB disbursements to Indian companies.

Outward Remittances – Examples

1. Family maintenance, education, medical, or gifts to overseas relatives (under **LRS**). Liberalised Remittance Scheme
2. Repatriation of NRE/FCNR(B) balances.
3. Import bills (sight/usance), advance remittances for imports.
4. Overseas Direct Investment (ODI) into JVs/WOS abroad.
5. ECB loan repayments (principal/interest).
6. Misc. commercial or licensing fees (patents, trademarks, etc.).

SELECT EXAMPLES OF FX ARITHMETIC

Example 1

Inter-Bank Spot Rate: USD/INR = 75.0050 / 75.0075

Margin: 10 paise

1. **Inward Remittance** Rate
   - **Bank** buys USD at the lower inter-bank rate **minus** margin.
   - 75.0050 – 0.1000 = **74.9050** (Customer TT Buying Rate)
2. **Outward Remittance** Rate
   - **Bank** sells USD at the higher inter-bank rate **plus** margin.
   - 75.0075 + 0.1000 = **75.1075** (Customer TT Selling Rate)

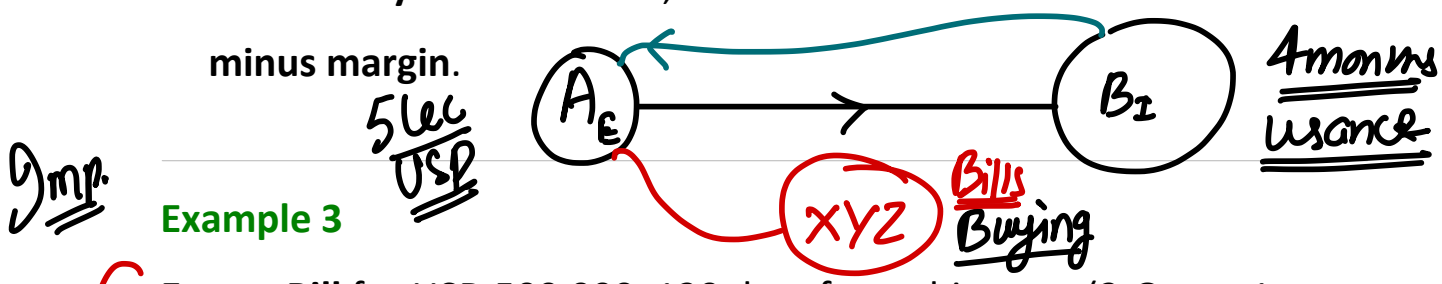
Example 2

USD/INR (Market Quote): 76.09 / 76.11

Customer has **Inflow** of USD 100,000 (via TT for exports).

- Bank sees it as a **purchase** of USD from the customer.

- Market **buys** USD at **76.09**, so the bank's **customer rate** = 76.09 **minus margin**.



Example 3

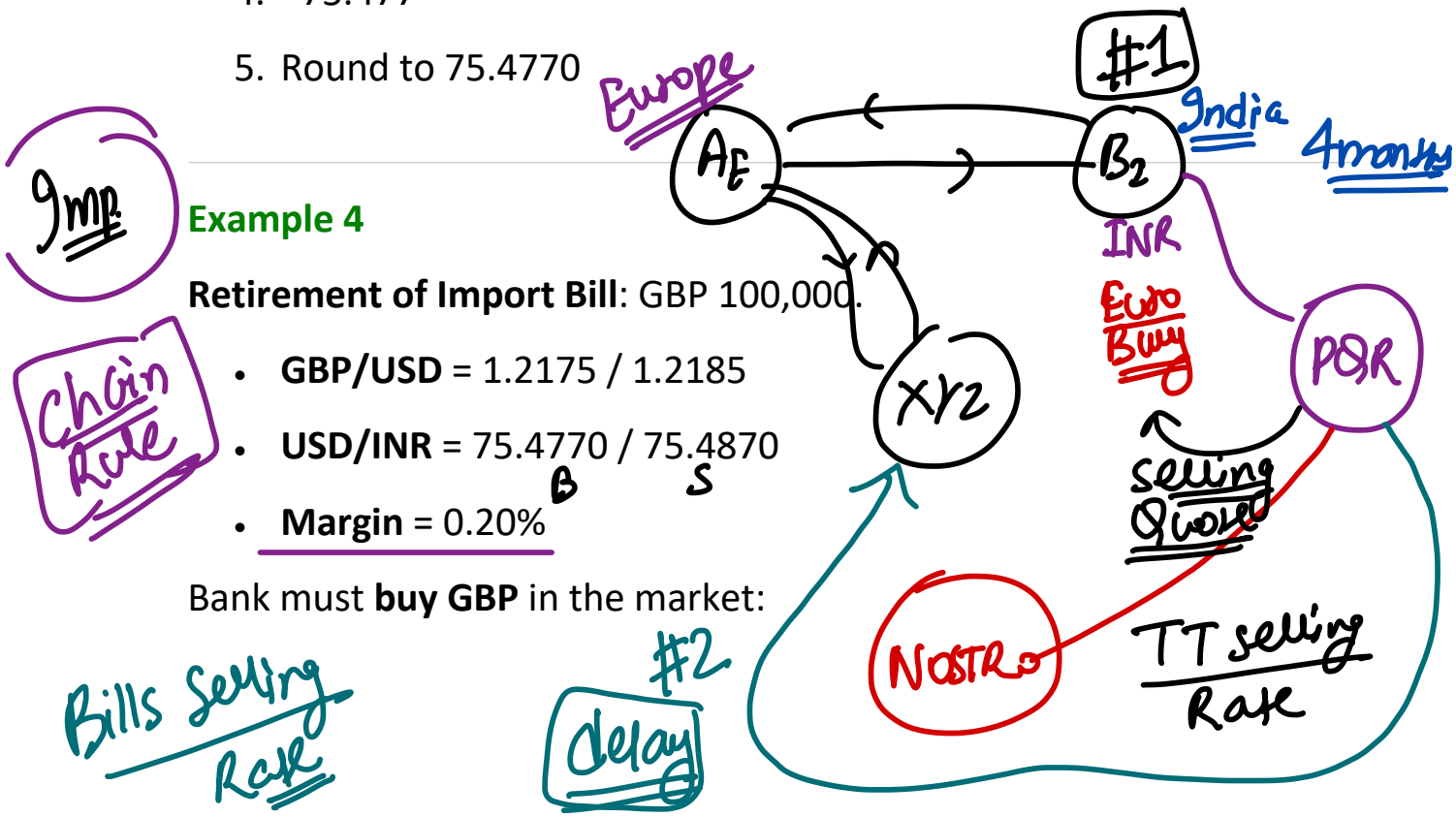
Export Bill for USD 500,000, 120 days from shipment (3-Oct to 1-Feb).

Bills buying Rate → Spot Rate ± P/D − E.M

- **Spot** = 75.14 / 75.15
- **Forward Premium** (Spot–Jan) = 0.45 / 0.46 — S > B 'Bemium' |+|
- **Margin** = 0.15%
- **Interest** = 8.50% for 120 days
- **Commission** = 0.0625%

Bill Buying Rate Calculation Steps:

1. Spot Rate = 75.14
2. Add Premium → 75.14 + 0.45 → 75.59 — forward Rate after 120 days
3. Less margin (0.15%): 75.59 – (0.15% of 75.59) → 75.4766
4. ~75.477
5. Round to 75.4770



Example 4

Retirement of Import Bill: GBP 100,000.

- **GBP/USD** = 1.2175 / 1.2185
- **USD/INR** = 75.4770 / 75.4870
- **Margin** = 0.20%

Bank must **buy GBP** in the market:

Is forward Rate applicable? "No"

Bills selling Rate = [Spot Rate + EM. TT Selling + EM. B Selling]

1. Market buys GBP at 1.2185 USD/GBP.
2. Market sells USD to the bank at 75.4870 INR/USD.
3. Implied GBP/INR = 1.2185 × 75.4870 = 91.9809.
4. Add margin 0.20% → ~92.1648 (rounded to 92.1650).

Spot GBP INR

91.9809 + 0.20%

Example 5

1.5126

Forward Contract for **export** of USD 150,000 in **December**.

B S

- **Spot** = 75.45 / 75.50
- **Forward Premium (Nov)** = 0.30 paise
- **Margin** = 0.05 paise

sell ← Buying Quote

Rate = (75.45 + 0.30) – 0.05 = **75.70** (Forward TT Buying Rate)

Example 6

Selling Quote

Forward Contract for **import**: USD 100,000 due **15 Sept**.

B S

- **Spot** = 75.27 / 75.29
- **Forward Premium (Aug)** = 0.32 / 0.34
- **Margin** = 0.20% on spot

75.29
+ .34
75.63 + 0.20%

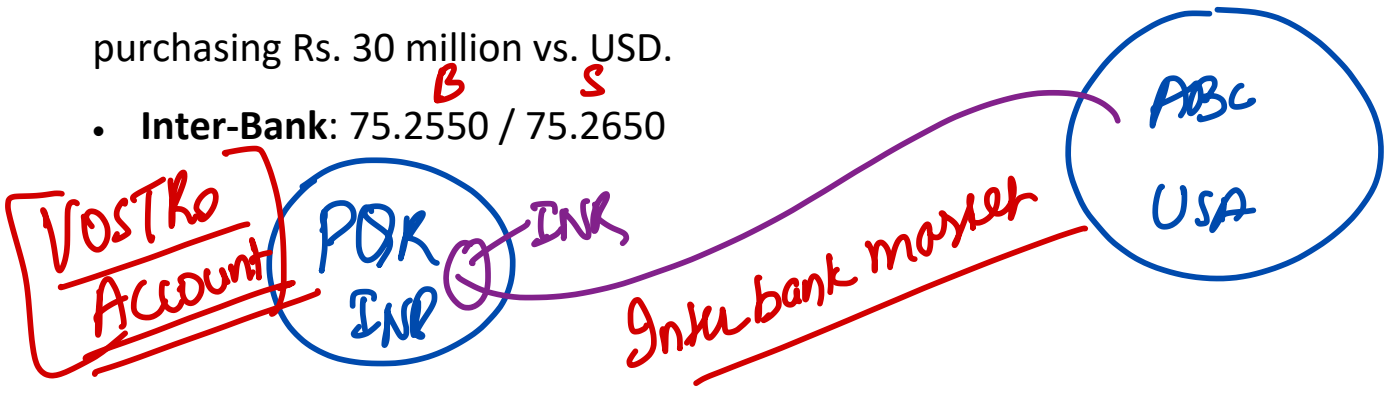
Bank sells USD forward, so the rate might be calculated by adding the **full premium** to the higher spot side, plus margin. 75.78126

Example 7

Foreign Correspondent wants to **fund** their INR account by purchasing Rs. 30 million vs. USD.

B S

- **Inter-Bank**: 75.2550 / 75.2650



75.2550

- Transaction is **inward** from India's perspective, bank uses **lower rate** (75.2550)
- USD received in **NOSTRO** = 30,000,000 ÷ 75.2550 ~ USD 398,644.60

Example 8

Remit JPY 100 million by TT for import payment.

- **USD/INR** = 75.2500 / 75.2600
- **USD/JPY** = 116.50 / 116.60
- **Margin** = 0.15%

Cross Rate Logic → JPY/INR = (USD/INR SELL) ÷ (USD/JPY BUY). Then add margin.

1 USD = 75.2600 INR

1 USD = 116.50 JPY

JPY/ INR = (75.2600/116.50) x 100 = 64.60

ADD Margin → 64.60 + 0.15% = 64.6977

Example 9

Forward Purchase Contract: USD 500,000 at 75.2500, due in 2 days.

- Payment delayed by 1 month; contract must be **cancelled** and **rebooked**.
- **Cancellation**: Done at TT selling rate (opposite side), adding margin.

- **Re-booking**: Subtract margin from the lower side, adjust for forward premium, etc.

SUMMARY TABLE: KEY POINTS

Section	Highlights
FX Global Code	Common global code endorsed by multiple central banks, including RBI, for uniform best practices in wholesale FX markets.
RBI Guidelines	Scope of AD Cat I banks, NOSTRO account usage, borrowings limit, permissible derivative offerings (for hedging, etc.).
FX Arithmetic	- **Inward** = Bank **buys** FX → Use **TT buying** or relevant buying rate. - **Outward** = Bank **sells** FX → Use **TT selling** or relevant selling rate.
Margin Application	- **Deduct** margin from **buying** side. - **Add** margin to **selling** side.
Forward Contracts	- Must align with underlying exposures. - Maturity ≤ exposure tenor. - Profit/Loss upon cancellations or early deliveries.