



# BANK FINANCIAL MANAGEMENT



INDIAN INSTITUTE OF BANKING & FINANCE



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# **BANK FINANCIAL MANAGEMENT**



## **INDIAN INSTITUTE OF BANKING & FINANCE**

(ISO 9001:2015 Certified)

Kohinoor City, Commercial-II, Tower-1, 2nd & 3rd Floor,  
Kiroh Road, Off-L.B.S. Marg, Kurla-West,  
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**Established on 30th April 1928**

### **MISSION**

- To develop professionally qualified and competent bankers and finance professionals primarily through a process of education, training, examination, consultancy/counselling and continuing professional development programs.

### **VISION**

- To be the premier Institute for developing and nurturing competent professionals in banking and finance field.

### **OBJECTIVES**

- To facilitate study of theory and practice of banking and finance.
- To test and certify attainment of competence in the profession of banking and finance.
- To collect, analyse and provide information needed by the professionals in banking and finance.
- To promote continuous professional development.
- To promote and undertake research relating to Operations, Products, Instruments, Processes, etc., in banking and finance and to encourage innovation and creativity among finance professionals so that they could face competition and succeed.

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# BANK FINANCIAL MANAGEMENT



Indian Institute of Banking & Finance





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### **BANK FINANCIAL MANAGEMENT**

#### **First Edition 2023**

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# FOREWORD

*Formal education will make you a living; self-education will make you a fortune.*

*–Jim Rohn*

The banking sector, currently, is experiencing a transformation catalysed by digitalization and information explosion with the customer as the focal point. Besides, competition from NBFCs, FinTechs, changing business models, growing importance of risk and compliance, along with disruptive technologies, have contributed to this radical shift. Such an ever-evolving ecosystem requires strategic agility and constant upgradation of skill levels on the part of the Banking & Finance professionals to chart a clear pathway for their professional development.

The mission of the Indian Institute of Banking & Finance is to develop professionally qualified and competent bankers and finance executives primarily through a process of education, training, examination, counseling and continuing professional development programs. In line with the Mission, the Institute has been offering a bouquet of courses and certifications for capacity building of the banking personnel.

The flagship courses/examinations offered by the Institute are the JAIIB, CAIIB and the Diploma in Banking & Finance (DB&F) which have gained wide recognition among banks and financial institutions. With banking witnessing tectonic shifts, there was an imperative need to revisit the existing syllabi for the flagship courses.

The pivotal point for revising the syllabi was to ensure that, in addition to acquiring basic knowledge, the candidates develop concept-based skills in line with the developments happening in the financial ecosystem and to ensure greater value addition to the flagship courses and to make them more practical and contemporary. This will culminate in creating a rich pool of knowledgeable and competent banking & finance professionals who are capable of contributing to the sustainable growth of their organizations.

Keeping in view the above objectives, the Institute had constituted a high-level Syllabi Revision Committee comprising of members from public sector banks, private sector banks, co-operative banks and academicians. On the basis of the feedback received from various banks and changes suggested by the Committee, the syllabi of JAIIB & CAIIB have since been finalized.

The revised CAIIB syllabi will now have four compulsory subjects and one elective subject to be chosen from the five elective subjects. The subjects under the revised CAIIB Syllabi are:

## Compulsory

1. Advanced Bank Management
2. Bank Financial Management
3. Advanced Business & Financial Management
4. Banking Regulations and Business Laws

Elective

1. Risk Management
2. Information Technology & Digital Banking
3. Central Banking
4. Human Resources Management
5. Rural Banking

A new module on Compliance has been introduced in Advanced Bank Management with Compliance, Corporate Governance and Audit becoming the focal point for a resilient banking system. New units covering Risks in Foreign Trade, GIFT-city etc have been added in Bank Financial Management.

The new subject on Advanced Business & Financial Management will cover the management principles, the advanced concepts of Financial Management and emerging business solutions including Green Finance and Sustainable Financing.

The subject Banking Regulations & Business Laws (BRBL) is designed to familiarise the professionals with various laws concerning banking and finance with increased focus on case laws, court judgements covering different areas of banking and finance.

The elective subjects on Risk Management, Information Technology & Digital Banking and Rural Banking have also been thoroughly revised and will include new units to make the courses more contemporary. Insofar as the electives on Central Banking and Human Resources Management are concerned, new modules on NBFCs and Emerging Scenarios in HRM have been introduced respectively.

As is the practice followed by the Institute, a dedicated courseware for every paper/subject is published. The present courseware on Bank Financial Management has now been authored in line with the revised syllabus for the subject. The book follows the same modular approach adopted by the Institute in the earlier editions/publications.

While the Institute is committed to revise and update the courseware from time to time, the book should, however, not be considered as the only source of information / reading material while preparing for the examinations due to rapid changes being witnessed in all the areas concerning banking & finance. The students have to keep themselves abreast with the current developments by referring to economic newspapers/journals, articles, books and Government / Regulators' publications / websites etc. Questions will be based on the recent developments related to the syllabus.

Considering that the courseware cannot be published frequently, the Institute will continue the practice of keeping candidates informed about the latest developments by placing important updates/Master Circulars/ Master Directions on its website and through publications like IIBF Vision, Bank Quest, etc.

The courseware has been updated with the help of Subject Matter Experts (SMEs) drawn from respective fields and vetted by practitioners to ensure accuracy and correctness. The Institute acknowledges with gratitude the valuable contributions rendered by the SMEs in updating/vetting the courseware.

We welcome suggestions for improvement of the courseware.

Mumbai  
2023

**Biswa Ketan Das**  
Chief Executive Officer

### **RECOMMENDED READING**

The Institute has prepared comprehensive courseware in the form of study kits to facilitate preparation for the examination without intervention of the teacher. An attempt has been made to cover fully the syllabus prescribed for each module/subject and the presentation of topics may not always be in the same sequence as given in the syllabus.

Candidates are also expected to take a note of all the latest developments amendments in Acts relating to the subject covered in the syllabus by referring to Financial Papers, Economic Journals, RBI Circular/Master Directions, RBI Notification, Websites of NHB, Credit Information Companies, CERSAI, Latest Books, Publications in the subjects concerned etc.





# BANK FINANCIAL MANAGEMENT

## SYLLABUS

### **MODULE A: INTERNATIONAL BANKING**

#### **Exchange Rates and Forex Business**

Foreign Exchange – Definition and Markets; Factors Determining Exchange Rates; Exchange Rate Mechanism; Foreign Exchange Dealing Room Operations; Derivative Products; RBI / FEDAI Guidelines; Foreign Exchange Arithmetic – Concepts and Examples

#### **Liberalised Remittance Scheme (LRS) and other Remittance Facilities for Residents**

Capital Account Transactions and Current Account Transactions; Key Sections under FEMA vis-à-vis Liberalized Remittance Scheme; Permissible/Non-permissible Remittances under LRS; Operational Guidelines; Remittances under LRS for Current Account Transactions; Tax Collected at Source (TCS); LRS vis-à-vis Capital Account Transactions; Reporting Requirements under LRS

#### **Correspondent Banking and NRI Accounts**

Correspondent Banking – Accounts and Other Services; Nostro, Vostro and Loro Accounts; Electronic Modes of Transmission/Payment Gateways – SWIFT, CHIPS, CHAPS, RTGS, etc.; NRI Banking; NRI Accounts – Rupee and Foreign Currency Accounts; Facilities to NRIs; Advances to Non-Residents against Non-Resident Deposits; Housing Loans to Non-Resident Indians

#### **Documentary Letters of Credit**

Definition of Letter of Credit; Types of Letters of Credit; Operations of Letter of Credit; Uniform Customs and Practices for Documentary Credits (UCPDC); Liabilities, Responsibilities and Rights of the Parties; Documents under LC – Scrutiny, Crystallization, Follow-up for Bills under LC and Safeguards for Banks; Risks Relating to Letter of Credit Transactions; Standby Letter of Credit (Similar to Guarantees); Uniform Rules for Bank-to-Bank Reimbursements (URR-725); International Standard Banking Practice – 745 (ISBP 745); International Commercial Terms – INCOTERMS 2020; Case Studies

#### **Facilities for Exporters and Importers**

Exchange and Trade Control Guidelines for Exporters; Facilities for Exporters – Facilities/Remittances Connected with Exports; Export Finance; Gold Card Scheme for Exporters; Export Data Processing and Monitoring System (EDPMS); Factoring and Forfaiting; Exchange and Trade Control Guidelines for Importers; Import Finance; Import Data Processing and Monitoring System (IDPMS); Trade Credit – Supplier's Credit and Buyer's Credit; Case Study on Export Finance

#### **External Commercial Borrowings and Foreign Investments in India**

External Commercial Borrowings – Concepts; ECBs – Other Operational Concepts; Reporting Requirements; Conversion of ECB into Equity; Foreign Investments; Key Concepts; Eligible Foreign

Investors; Eligible Investee Entities; Eligible Investment Instruments; Prohibited Sectors; Rules Governing Pledge of Shares; Operational Guidelines; Snap Shot of Non-Debt Instruments (NDI) Rules; List of Documents for Obtention of Foreign Investments; List of Documents for Refund of Foreign Investments

### **Risks in Foreign Trade – Role of ECGC**

Definition of Risk and Various Types of Risks in International Trade; Country Risk; Export Credit Insurance in International Trade; EECGC Ltd. – Role and Products; ECGC Policies; ECGC's Products for Banks; Other Aspects Relating to ECGC Policies and Guarantees; Some of the Common “To Do Points” under ECGC Policies; Claims

### **Role of EXIM Bank, Reserve Bank of India, Exchange Control in India – FEMA, FEDAI and Others**

EXIM Bank – Role, Functions and Facilities; Reserve Bank of India – Its Role and Exchange Control Regulations in India; Foreign Exchange Management Act (FEMA) 1999; Role of FEDAI and FEDAI Rules; Short Notes on Other Topics: ECB and ADR/GDRs and FCCB

### **International Financial Service Centres (IFSC), GIFT City**

Scope of IFSC in India; Opportunities at Gift City; Guidelines for Setting Up of IFSC Banking Units (IBU) by Indian Banks; Role of IFSCA ; Regulatory Framework; Permissible Activities at IBUs; Relaxations for the FPI (Foreign Portfolio Investors) Entities at GIFT City

### **Technology in International Banking**

Introduction to Digitization in International Banking – An Overview, Evolution of Technology in International Banking; Benefits and Limitations of Technology in International Banking; Digital Platforms in International Banking; FINTECH and evolution of FINTECH in International Banking; Delivery channels under FINTECH in International Banking; Sample Flow Process of International Trade Transaction Using Blockchain Technology; Challenges in FINTECH

## **MODULE B: RISK MANAGEMENT**

### **Risk and Basic Risk Management Framework**

What is Risk?, Linkages among Risk, Capital and Return; Why Risk needs to be Managed?; Basic Risk Management Framework

### **Risks in Banking Business**

Risk Identification in Banking Business; The Banking Book; The Trading Book; Off-Balance Sheet Exposures; Banking Risks – Definitions

### **Risk Regulations in Banking Industry**

Regulation of Banking Industries – Necessities and Goals; The Need for Risk-based Regulation in a Changed World Environment; Basel I: The Basel Capital Accord; 1996 Amendment to Include Market Risk; Basel II Accord – Need and Goals; Basel II Accord; Towards Basel III; Capital Charge for Credit Risk; Credit Risk Mitigation; Capital Charge for Market Risk; Capital Charge for Operational Risk;

Pillar 2 – Supervisory Review Process; Pillar 3 – Market Discipline; Capital Conservation Buffer; Leverage Ratio; Countercyclical Capital Buffer; Systemically Important Financial Institutions (SIFIs); Risk Based Supervision (RBS)

### **Market Risk**

Market Risk – Concept; Market Risk in Banks; Market Risk Management Framework; Organisation Structure; Risk Identification; Risk Measurement; Risk Monitoring and Control; Risk Reporting; Managing Trading Liquidity; Risk Mitigation

### **Credit Risk**

General; Credit Risk Management Framework; Organisation Structure; Risk Identification; Risk Measurement; Credit Risk Control and Monitoring; Credit Risk Policies and Guidelines at Transaction Level; Credit Control and Monitoring at Portfolio Level; Active Credit Portfolio Management; Controlling Credit Risk through Loan Review Mechanism (LRM); Credit Risk Mitigation; Securitisation; Credit Derivatives (CDs)

### **Operational Risk and Integrated Risk Management**

Operational Risk – General; Operational Risk – Classification; Operational Risk Classification by Event Type – Definitions; Operational Risk Management Practices; Management Overview and Organisational Structure; Processes and Framework; Risk Monitoring and Control Practices; Operational Risk Qualification; Operational Risk Mitigation; Factors/Parameters Required to Implement AMA; Integrated Risk Management; The Necessity of Integrated Risk Management; Integrated Risk Management – Challenges; Integrated Risk Management – Approach

### **Liquidity Risk Management**

Liquidity Risk Management – Need & Importance; Potential Liquidity Risk Drivers; Types of Liquidity Risk; Principles for Sound Liquidity Risk Management; Governance of Liquidity Risk Management; Liquidity Risk Management Policy, Strategies and Practices; Management of Liquidity Risk; Ratios in Respect of Liquidity Risk Management; Stress Testing; Contingency Funding Plan; Overseas Operations of the Indian Banks' Branches and Subsidiaries and Branches of Foreign Banks in India; Broad Norms in Respect Of Liquidity Management; Liquidity Across Currencies; Management Information System (MIS); Reporting to the Reserve Bank of India; Internal Controls

### **Basel-III Framework on Liquidity Standards**

Liquidity Coverage Ratio (LCR); Liquidity Risk Monitoring Tools; Net Stable Funding Ratio (NSFR)

## **MODULE C: TREASURY MANAGEMENT**

### **Introduction to Treasury Management**

The Concept; Functions of Integrated Treasury; The Process of Globalisation; Evolving Role of Treasury as Profit Centre; Organisation of Treasury

### **Treasury Products**

Products of Foreign Exchange Markets; Money Market Products; Securities Market Products; Domestic and Global Markets

### **International Equity and Debt Products**

Regulatory Environment; Global Depository Receipts (GRDs); Indian Depository Receipts (IDRs); External Commercial Borrowings; Trade Credits; Rupee Denominated Bonds

### **Funding and Regulatory Aspects**

Reserve Assets: CRR and SLR; The Liquidity Adjustment Facility (LAF); Payment and Settlement Systems

### **Treasury Risk Management**

Supervision and Control of Treasury; Market Risk; Risk Measures: VaR and Duration; Use of Derivatives in Risk Management

### **Derivative Products**

Derivatives and the Treasury; OTC and Exchange Traded Products; Forwards, Options, Futures and Swaps; Interest Rate and Currency Swaps; Developments in Indian Markets and RBI Guidelines on Risk Exposure

### **Treasury and Asset-Liability Management**

Meaning of Asset-Liability Management (ALM), Liquidity Risk and Interest Rate Risk, Role of treasury in ALM, Use of derivatives in ALM, Credit risks and Credit Derivatives, Transfer pricing, Policy Environment

## **MODULE D: BALANCE SHEET MANAGEMENT**

### **Components of Assets and Liabilities in Bank's Balance Sheet and Their Management**

Components of a Bank's Balance Sheet; What is Asset Liability Management?; Significance of Asset Liability Management; Purpose and Objectives of Asset Liability Management; ALM as Co-ordinated Balance Sheet Management

### **Capital Adequacy – Basel Norms**

Scope of Application; Pillar-1 – Minimum Capital Requirements; Pillar 2- Supervisory Review Process; Pillar 3 – Market Discipline

### **Asset Classification and Provisioning Norms**

Asset Classification; Provisioning Norms

### **Liquidity Management**

Definition; Dimensions and Role of Liquidity Risk Management; Measuring and Managing Liquidity Risk

**Interest Rate Risk Management**

Essentials of Interest Rate Risk; Sources of Interest Rate Risk; Effects of Interest Rate Risk; Measurement of Interest Rate Risk; Interest Rate Risk Measurement Techniques; Strategies for Controlling Interest Rate Risk; Controls and Supervision of Interest Rate Risk Management; Sound Interest Rate Risk Management Practices; RBI's Draft Guidelines on Interest Rate Risk in Banking Book

**RAROC and Profit Planning**

Profit Planning; Risk Aggregation and Capital Allocation; Economic Capital and RAROC



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# MODULE A



## INTERNATIONAL BANKING

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- Unit 2: Liberalised Remittance Scheme (LRS) and other Remittance Facilities for Residents**
- Unit 3: Correspondent Banking and NRI Accounts**
- Unit 4: Documentary Letters of Credit**
- Unit 5: Facilities for Exporters and Importers**
- Unit 6: External Commercial Borrowings and Foreign Investments in India**
- Unit 7: Risks in Foreign Trade – Role of ECGC**
- Unit 8: Role of EXIM Bank, Reserve Bank of India, Exchange Control in India – FEMA and FEDAI and Others**
- Unit 9: International Financial Service Centres (IFSC), GIFT City**
- Unit 10: Technology in International Banking**



# UNIT 1

## Exchange Rates and Forex Business

### STRUCTURE

- 1.0 Objectives
- 1.1 Introduction
- 1.2 Foreign Exchange – Definition and Markets
  - Check Your Progress (A)
- 1.3 Factors Determining Exchange Rates
- 1.4 Exchange Rate Mechanism
  - Check Your Progress (B)
- 1.5 Foreign Exchange Dealing Room Operations
- 1.6 Derivative Products
- 1.7 RBI / FEDAI Guidelines
  - Check Your Progress (C)
- 1.8 Foreign Exchange Arithmetic – Concepts and Examples

*Let Us Sum Up*

*Keywords*

*Answers to Check Your Progress*

*Terminal Questions*

*References for Further Reading*

### 1.0 OBJECTIVES

The objective of this unit is to understand:

- The definition and types of exchange rates
- The mechanism and the markets
- The factors affecting rates
- The related guidelines
- How a dealing room operates
- FOREX operations in India – Various guidelines

### 1.1 INTRODUCTION

World trade, export and import of commodities, cross-border movement of manpower and capital, travel and tourism and export of software and services, all necessitate the need for exchange of the currency of one country into the currency of another country. The export of goods manufactured in India or export of software to USA, are paid in **US Dollars**, where the exporter needs to convert the USD proceeds of the bill into Indian Rupees. Similarly, import of capital goods from Germany into India, invoiced in Euros, has to be paid in Euro, by converting Indian Rupees into Euros. **Thus, conversion of currencies from the currency of invoice to the home currency of the exporters will be generally required for all cross-border trades.** *This is Foreign Exchange.* For the Indian Exporter or the Importer, the US dollars or Euros is foreign exchange, while for the American (buyer of Indian goods) or the German (seller of capital goods), Indian Rupee is foreign exchange. Thus, in today's world, when nations push for greater inflow or outflow of goods, capital or services, foreign exchange has become an integral part of the world financial system. The term Foreign Exchange is more broadly used to denote foreign currency, i.e. currency of **any** country, as well as the exchange of currency of one country into that of another.

Can we think of not exporting our surplus produces or not importing the new technology, machineries or consumables into India? Can we do without import of capital, to fund our country's growth related investments? Or can we think of an economy bereft of international travel, tourism, exports, imports of goods and services, repatriation of savings by expatriates? These all depend on foreign exchange.

### 1.2 FOREIGN EXCHANGE – DEFINITION AND MARKETS

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

“Foreign Exchange means foreign currency, and includes:

- (i) All deposits, credits and balances payable in foreign currency, and any drafts, traveller's cheques, letters of credit and bills of exchange, expressed or drawn in Indian currency and payable in any foreign currency,
- (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.” Thus, broadly speaking, foreign exchange is all claims payable abroad, whether consisting of funds held in foreign currency with banks abroad or bills and cheques payable abroad.

**In other words**, a foreign exchange transaction is a contract to exchange funds in one currency for funds in another currency at an agreed rate and on an arranged basis. Exchange rates thus denote the price or the ratio or the value at which one currency is exchanged for another currency. The number of units of one currency, which are exchanged for a given number of units of another currency, is called the exchange rate of the currency. For example, 1 US dollar is equal to Rs. 82.4200 or 1 Euro is equal to 1.05 US dollars.

The exchange rate is a dynamic rate, which varies from day-to-day, minute-to-minute and **second to second, depending upon a variety of factors**. We shall learn more about the FOREX markets and other aspects as we go ahead.

## Foreign exchange Markets

Foreign exchange markets comprise of a large spectrum of market participants, which include individuals, Business entities, Commercial and Investment Banks, Central Banks, cross border investors, arbitrageurs, Hedge funds, Pension funds and speculators across the globe, who buy or sell currencies according to their needs. It is a communication system-based market, with no boundaries, and operates round the clock, between countries in different time zones in which various countries are located. Geographically, FOREX markets extend from Tokyo and Sydney in the east, and operate through Hong Kong, Singapore, India, Bahrain, Frankfurt, London Paris and New York in the west. It is not bound by any walls or brick and mortar marketplace, which is a common feature for commodity markets. It is a profit centre activity with a simultaneous potential for losses also.

If we view the markets as in terms of Greenwich Mean Time (GMT), when the London and other European markets start their day, it is almost lunch time for the Indian markets, and when the Indian markets are about to close, the New York market is about to begin its day. Further, while the New York market operates for some time alongside the London and European markets, the markets in the east: Tokyo, Hong Kong and Singapore are ready to start, before New York closes. The Indian and Middle East markets are ready to start the day, before close of Singapore and Hong Kong markets.

The world currency market is a very large market, with a large number of participants. Major participants of FOREX markets are:

- *Central Banks* – managing their forex reserves and using the foreign currency markets to reduce the volatility and, thereby, smoothen out the value of their home currency.
- *Commercial Banks* – offering exchange of currencies to their big and retail clients and hedging and investing their own assets and liabilities, as also on behalf of their clients, and also speculating and taking views on the exchange rate movements in the markets.
- *Investment Funds/Banks* – moving funds from one country to another using exchange markets as a vehicle for investments as also hedging their investments in various countries/currencies.
- *FOREX Brokers* – acting as middlemen between the other participants.
- *Corporations* – moving funds between different countries and currencies for investment or trade transactions or even speculation in the foreign currency markets.
- *Individuals* – ordinary and high net worth individuals using forex markets for their investment, trade, personal, and travel and tourism needs.

As given here, the participants not only use the FOREX markets for trade or travel purposes, but also for investments, hedging and speculative activities, thus generating large volumes for the market.

*It may be surprising to note that the global forex market daily turnover has hit approx. USD 6.60 trillion in 2020 which is a 40 % increase in daily forex volumes over the last decade.*

*Between 2016 and 2019, daily forex volumes jumped 30 % and grew by USD 1.50 trillion over the period, primarily due to surge in FX Swaps for liquidity management and hedging of foreign currency portfolios.*

*In 2019, FX Swaps comprised 49 % of the total FX market turnover and spot transactions grew by 30 % of the global forex turnover.*

*In the Indian forex markets too, the average daily Over the Counter (OTC) turnover has increased from about USD 5 Billion in 2004 to USD 34 billion in 2019-20. and the exchange traded derivatives have also shown exponential growth with the daily average turnover at about USD 12.2 Billion in 2019-20.*

The FOREX markets are highly dynamic. On an average, the exchange rates of major currencies (say GBP/USD) fluctuate every three to four seconds, which effectively means it registers about 21,600 changes in a day ( $15 \times 60 \times 24$ ). **That means that if you look aside even for a moment and turn back for the rate, the rate could have moved either way ie., up or down.**

FOREX markets usually operate globally from ‘Monday to Friday’. Even the Middle Eastern markets, like Dubai which used to function on Saturday and Sunday with restrictions, to cater to the local needs, and were closed on Friday, now function from Monday to Friday like other parts of the world. The bulk of the FOREX markets are OTC (over the counter), meaning that the trades are concluded through telephone or other electronic systems (dealing systems of various news agencies, banks, brokers or Internet-based platforms).

Banks in London quite commonly deal with banks in Paris, Frankfurt, Mumbai and New York and even in Tokyo or Singapore, which are in totally different time zones. Large dealing rooms of global banks or Corporates, operate round the clock, to be synchronised with all major markets across the globe. A few traders are provided dealing platforms in their homes, in order to enable them to trade in any time zone. **Now with internet accessibility on the mobile phones, and downloading the app of the market players, forex markets can easily be accessed at any time and from any place.**

Major Banks, which act as market makers, offer two-way quotes, (buy and sell), and leave it upon the caller to either buy or sell as per his needs. This generates greater market depth and volumes.

Thus, the characteristics of foreign exchange market can be listed as under:

- a 24-hour market
- an over-the-counter market as well exchange driven market
- a global market with no barriers/no specific location
- a market that supports large capital and trade flows
- highly liquid market
- high fluctuations in currency rates (every few seconds)

- settlements affected by time zone factor
- markets affected by governmental policies and controls

### Check Your Progress (A)

#### Fill in the blanks:

1. The term Foreign Exchange is used to denote \_\_\_\_\_ as well as the \_\_\_\_\_ of one currency into another.
2. The exchange rates of major currencies fluctuate every \_\_\_\_\_ seconds.

#### State True or False:

1. The FOREX markets are dynamic and round the clock markets. True/False
2. FOREX markets are not affected by government policies. True/False
3. A large part of the total global FOREX turnover results from global commodities trade. True/False

## 1.3 FACTORS DETERMINING EXCHANGE RATES

The quotations in the FOREX markets depend on the type of delivery of the foreign currencies, i.e., exchange of streams of the two currencies being dealt with. The spot rates, being the base quotes in the FOREX markets, are more dynamic and are affected by varied reasons, a few of which are fundamental and whereas the others are technical.

The main factors, which influence movement of exchange rates, can be summarized as under:

### (a) Fundamental reasons

These include all those causes or events, which affect the basic economic and monetary policies of the concerned government. The causes normally affect the long-term exchange rates, while in the short-run, many of these have less effect.

In a long run, exchange rates of all currencies are linked to fundamentals, as given under:

- *Balance of payment (BOP)* – generally a surplus in BOP leads to a stronger home currency, while a deficit weakens the same.
- *Economic growth rate* – a high growth leads to a rise in production and exports and a rise in the value of home currency, and vice versa.
- *Fiscal policy* – an expansionary policy, e.g., lower taxes can lead to a higher economic growth.
- *Monetary policy* – the way a central bank attempts to influence and control interest and money supply can impact the value of currency of their country.
- *Interest rates* – high domestic interest rates tend to attract overseas capital, and thus the currency appreciates in the short term. In the longer term, however, high interest rates slow the economy down, thereby weakening the home currency.
- *Political issues* – political stability is likely to lead the economic stability, and hence a strong home currency, while political instability would have the opposite effect.



**(b) Technical reasons**

Government controls can lead to unrealistic value of a currency, resulting in violent movements in exchange rates. Freedom or restriction on capital movement can affect exchange rates to a larger extent. This is a phenomenon, which was seen in Indonesia, Thailand, Philippines, South Korea, etc. during the South East Asian Currency Crisis of 1997. Huge surpluses generated in the petroleum exporting countries, such as OPEC countries (due to the sudden spurt in petroleum prices), which could not be utilized in these countries and, therefore, had to be invested overseas. This created huge movement of capital overseas and the resultant appreciation of the currency for the country, which received the inflows of forex.

Capital normally tends to move from lower yielding to higher yielding currencies, and results in movement in exchange rates.

**(c) Speculation**

Speculative forces can have a major effect on exchange rates. In an expectation of depreciation of the home currency or devaluation of the home currency, the speculator will buy the base currency say \$ at Rs. 80/- today and sell the \$ @ say Rs. 80.20 when the rupee actually depreciates against \$. This very act can lead to movements in the market, as the expectation for devaluation grows and extends to other market participants as well.

Speculative deals provide depth and liquidity to the market and at times, act as a cushion too, if the views do not lead to a contagious effect.

**1.4 EXCHANGE RATE MECHANISM****Types and calculation**

Due to the vastness of the market operating in different time zones, most of the Forex deals are done on SPOT basis, meaning thereby that the delivery of the funds takes place on the second working day following the date of deal/contract/transaction. The rate at which such deals are done is known as SPOT rates. Spot rates are the base rates for other FX rates for that currency. The date of delivery of funds on which the exchange of currencies actually takes place, is also referred to as 'value date' or 'settlement date'.

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

**Ready or Cash**

Settlement of funds takes place on the same day (date of deal, say 1st Nov 2021), e.g., Bank A bought USD 1,000,000 against INR from Bank B @ 74.9500 Value cash, i.e. 1st Nov 2021.

This means that the delivery of USD 1,000,000 by Bank B and the settlement of INR 7,49,50,000 by Bank A takes place on the date of the transaction i.e. 1st Nov 2021. This is known as Ready / Cash deal.

## Tom

Settlement of funds takes place on the next working day of the date of deal, e.g., say 1st Nov 2021), e.g., Bank A bought USD 1,000,000 against INR from Bank B @ 74.9600 Value Tom i.e. 2nd Nov 2021.

This means that the delivery of USD 1,000,000 by Bank B and the settlement of INR 7,49,60,000 by Bank A takes place on the next working day, i.e. 2nd Nov 2021. This is known as a Tom deal. If the settlement date of TOM deal, i.e. 2nd Nov 2021 is not a working day, settlement date would be 3rd November 2021 provided it is a working day for the markets where currency is to be settled). Intervening Saturdays and Sundays will also postpone the settlement date to next working day.

## Spot

Settlement of funds takes place on the second working day following the date of contract/deal, e.g., say 1st Nov 2021, e.g., Bank A, Mumbai bought USD 1,155,000 against EUR from Bank B, Frankfurt @ EUR/USD 1.1550 Value Spot i.e. 3rd Nov 2021.

This means that the delivery of USD 1,155,000 by Bank B, Frankfurt and the settlement of EUR 1,000,000 by Bank A takes place on the spot date i.e. on the second working day following the date of the deal i.e. 3rd Nov 2021. This is known as a Spot deal. If the date of Spot deal is 1st November 2021, settlement date will be 3rd November 2021, presuming both markets in Mumbai and Frankfurt are working on 1st, 2nd and 3rd November 2021. If not, it will be the next working day in both the countries. Intervening Saturdays and Sundays will also postpone the settlement date to next working day.

## Forward

Delivery of funds takes place on any day after the Spot date, e.g., if the date of forward deal is 1st November 2021 for value settlement date 30 November 2021, it is a forward deal.

Settlement of funds takes place on 30<sup>th</sup> November 2021.

E.g., Bank A bought USD 1,000,000 against INR from Bank B @ 75.3600 Value 30<sup>th</sup> November 2021

This means that the delivery of USD 1,000,000 by Bank B and the settlement of INR 7,53,60,000 by Bank A takes place on 30<sup>th</sup> November 2021. This is known as a forward deal. While entering into forward deals (whether with clients or with banks in the Inter-bank markets), banks need to ensure that the settlement date of the forward deal is a working day and not a Saturday or a Sunday.

## Spot and Forward Rates

As explained earlier, in the Forex market all rates quoted are generally 'Spot Rates'. The spot rates are for delivery of currency or exchange of the streams of currencies dealt in, on the second **working** day from the date of deal or transaction.

Say USD/INR quoted as 1 USD = 74.9500/74.9600, or GBP/USD quoted as 1 GBP = 1.3670/3680 USD or EURO/ USD as 1 EURO = 1.1150/1.1560

The volume, depth and volatility of the spot market is higher due to large participation of market players in the spot trades and all Inter-Bank dealings generally takes place on Spot basis.

On the other hand, when the delivery of the currencies is to take place at a date beyond the Spot date, i.e., beyond two working days, then it is a forward transaction, and the rate applied is called forward rate, which is generally different from the spot rate.

Let us now see, why and how this is so.

### Forward Margins – Premium and Discounts

Forward rates are derived from spot rates, and are a function of the spot rates and the forward premium or discount of the currency being quoted.

$$\text{Forward rate} = \text{Spot rate} + \text{Premium (or – Discount)}.$$

If the forward value of the home currency is more than that being quoted for Spot, then it is said to be at a Premium, while if the home currency is cheaper on a forward date than spot, then it is called at a Discount.

To simplify, if the forward value of the currency is higher than (costlier) the spot (present) value, then the currency is said to be at a premium, say, if the spot GBP against USD is being quoted at 1.3670 and 1 month forward as 1.3690, then GBP is dearer, value one month forward, and a premium of 20 pips (0.0020) is being paid for the same.

Similarly, if the forward value of a currency is cheaper than the present value (spot), the currency is said to be at a *Discount*. In the above example, where the spot GBP is quoted as 1.3670, against USD, and 1 month forward as 1.3640 (30 pips), while the GBP is at a discount, the USD, the other currency is at a premium against the GBP.

Let us take another example. Indian rupee spot being quoted as 74.9500/74.9600, against USD, i.e., 1 USD is being bought at 74.9500 and sold at Rs. 74.9600. Now if the six-month premium being quoted is Rs. 1.06/1.07, it means that the USD is being quoted dearer in forward, and is being quoted as 76.0100/76.0300. Here the USD is at a premium, while the INR at a discount, thereby meaning that the USD is costlier for future value, while the Indian Rupee is cheaper for future value.

Thus, a correlation is clearly established as the quotes are for a pair of currencies, where one is exchanged for another (GBP/USD, USD/INR, USD/SGD, EUR/USD, USD/JPY, etc.).

The forward premium and discount are generally determined by the interest rate differentials of the two currencies involved, as also on the demand and supply of the currencies in future. The demand and supply can depend upon various factors, which include, movement of capital in normal times as well as out of fright/fear (flight of capital), status of exports and imports, trade balance as also balance of payment, other financial and fiscal status of the countries, freedom to invest and move in and out, infrastructure and labour position, political stability and speculative activities, etc.

In a perfect market with no restrictions on finance and trade, the interest factor is the main factor in arriving at the forward rate. If the rate of interest, say in the US, for three months prime bank bills is 2% p.a. while a similar paper in London can be purchased at a rate of interest of 4% p.a., there will be a

flow of funds from USA to London to take advantage of higher yield shown by the UK bills. (Assuming there are no exchange controls and free movement of capital is allowed.) The US investor will have to buy GBP by selling his USD (owned or borrowed) in the spot market and the GBP so obtained by him would be invested in the UK bills. This will lead to a demand for GBP in the spot market. At the maturity of pound bills, the pounds received would be reconverted to US dollars. This will lead to a demand for USD in the forward.

This gain or sacrifice will be adjusted in the forward rate of currencies (as forward margin – premium or discount), dealt in the foreign exchange market, in order to ensure a no-profit, no-loss situation.

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

- (i) Spot price of the currencies involved.
- (ii) The interest rate differentials for the two currencies.
- (iii) The term, i.e., the future period for which the price is worked out.

It would be relevant to emphasize here that the forward rate so worked out is not a guarantee of the future trend of the currency values – but is only an expectation.

### Direct and Indirect Quotes

As mentioned elsewhere, the price of the currency can be expressed either as one unit of home currency, equal to so many units of foreign currency, or as one unit of foreign currency equal to so many units of home currency.

Under direct quotes, the local currency is variable, say as in India, 1 USD = Rs. 74.9500/74.9600. The rates are called direct, as the rupee cost of foreign currency is known directly. These quotes are also called Home Currency or Price quotations.

On the other hand, under indirect method, the local currency remains fixed, while the number of units of foreign currency varies. For example, Rs. 100 = USD 1.3342/1.3340.

It would be worthwhile to mention that globally the practice being followed is where all currencies, (except a few) are quoted as direct quotes, in terms of USD (i.e. 1 USD = so many units of the other currency).

Only in case of GBP (Great Britain Pound/British Pound), Euro, AUD (Australian Dollars), and NZD (New Zealand Dollars), the currencies are quoted as indirect rates, i.e. one GBP, EUR, AUD, or NZD = so many units of USD.

Therefore, the currency rates, as generally quoted on a given day, can be as under:

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

When we deal in a market where rates for a particular currency pair are not directly available, the price for the said currency pair is obtained indirectly with the help of *cross rate mechanism*. This can be explained with the following example:

Suppose, we intend to get a quote for Euro/INR and no one is prepared to quote Euro/INR directly in the market. We can work out a Euro/INR quote using the Euro/USD and USD/INR quotes.

Euro/USD quote would be available in the international markets and USD/INR would be available in the Indian domestic market. By crossing out USD in both the quotes, we can arrive at an effective Euro/INR quote.

This is the basis for working out *cross rates*. Cross rate mechanism is a possible solution for calculation of rates for currency pairs which are not actively traded in the market.

For example, we need to quote GBP against INR. However, since in India usually GBP is not quoted directly, we need to take rates for USD/INR and GBP/USD to compute GBP/INR rate.

**If, USD/INR is 74.9500/9600, and GBP/USD is 1.3670/80, then to obtain the GBP/INR rate, we need to cross (multiply) both the given rates, which would give us GBP/INR rate as Rs. 102.4567/102.5453.**

Or say if USD/JPY is 114.20/30, the rate for INR/JPY would be INR 65.5731/65.6392 per 100 JPY (JPY being quoted per 100 units, due to their small denomination values).

### Fixed vs. Floating Rates

The fixed exchange rate is the official rate set by the monetary authorities for currencies. It is usually pegged to one or more currencies. Under floating exchange rate methodology, the value of the currency is decided by the inflation differential between the home currency and the foreign currency and the supply and demand factors for that particular foreign currency.

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

Since 1973, the world economies have adopted floating exchange rate system. India switched to a floating exchange rate regime in 1993 linking external value of our rupee to US \$, from a basket of currencies, where currency fluctuations depended upon fluctuations on a basket of currencies – **The composition of the currencies in the basket was decided upon on a trade weight basis, i.e. on the trade relationships between the countries whose currencies formed the basket.**

### Bid and Offer Rates

The buying rates and selling rates are also referred to as bid and offer rates, respectively. In a USD/INR quote of 74.9500/9600, *the quoting bank* is bidding for USD at 74.9500 and is offering to sell the USD at 74.9600. On the other hand, in a GBP/USD rate 1.3670/80, the quoting bank is willing to buy GBP at 1.3670 and willing to sell at 1.3680.

## Exchange Arithmetic – Theoretical Overview

All foreign exchange calculations have to be worked out with extreme care and accuracy and the decimal point has also to be correctly placed. Constant check is also required to minimize the risk of mistakes, as the markets work on very thin margins. An error in one quote may erode earnings from several trades/transactions.

### *Chain Rule*

The fixing of rate of exchange between one currency and another through the medium of some other currency is done by a method known as ‘Chain Rule’. The rate thus obtained is the Cross rate between these currencies. The chain rule is frequently applied while calculating the rate for non-US Dollar currencies against the INR, e.g., EUR/INR, GBP/INR because in the Indian market, straight rates are available only for USD/INR and the rates of all other foreign currencies have to be available as cross rates, using the chain rule.

### *Per Cent and Per Mille*

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

Percent or per mille can also be used to one’s advantage in roughly checking any calculations, such as interest when allowed in a rate of exchange.

### *Value Date*

This is the term used to define the date on which a payment of funds or an entry to an account becomes actually effective and/or subjected to interest, if any. In the case of payments on Telegraphic Transfers (TT) basis, the value date is usually the same in both centres, i.e. payment of the respective currency in both centres takes place on the same day, so that no gain or loss of interest accrues to either party. Such payments are said to be *valuer compensee*, or simply, here and there. If there is a time lag between receipt of funds at one centre and payment of funds at another centre, compensation should be paid to the party which is out of funds. Normal mode of compensation is interest, which should be recovered/paid separately. This may be done by adjusting the value date if acceptable to both the parties. Thus, the date of settlement of funds is known as value date.

### *Arbitrage in Foreign Exchange*

Arbitrages consist of the simultaneous buying and selling of a commodity or currency in two or more markets to take advantage of temporary discrepancies in prices. As applied to foreign exchange, arbitrage consists of the purchase of one currency for another in one centre, accompanied by an immediate sale against the same currency in another centre, or in operations conducted through three or more centres and involving several currencies. A transaction conducted between two centres only is known as simple or direct arbitrage. Where additional centres are involved, the operation is known as compound or three

(or more) point arbitrage. Such operations must be carried out with the minimum time delay if advantage is to be taken of temporary price differences, and they require a high degree of technical skill. Speed in handling the deals would be the foremost aspect in such deals, as markets usually tend to move in such deals and the differences in prices can get wiped out in no time.

Rates quoted to merchants, or for retail transactions, are specified by the nature of transactions. By this, different rates could be applied for TT, Bill transactions, Foreign Currency Note transactions, Travellers Cheques transactions, or even personal checks buying. The rates would be different for buying or selling transactions, levying different margins over the interbank rates depending upon the nature of transaction.

## Check Your Progress (B)

### Fill in the blanks:

1. Main factors affecting exchange rates are technical, \_\_\_\_\_ and speculation.
2. In a spot contract, settlement of funds takes place on the \_\_\_\_\_ working day following the date of contract.
3. If the currency is costlier in forward, it is said to be at a \_\_\_\_\_.
4. If the forward value of the currency is cheaper, it is said to be at a \_\_\_\_\_.
5. The date of settlement of funds is known as \_\_\_\_\_ date.
6. The rate at which the quoting party is ready to buy the currency is called \_\_\_\_\_ rate.

## 1.5 FOREIGN EXCHANGE DEALING ROOM OPERATIONS

The FOREX dealing room operations comprise of functions of a service branch for meeting the requirements of customers of other branches/divisions to buy or sell foreign currencies, manage foreign currency assets and/or liabilities, fund and manage NOSTRO accounts – as also to undertake proprietary trading in foreign currencies. A Dealing Room acts as a separate profit centre for the bank/institution.

While conducting treasury management operations, relating to foreign exchange operations of the Bank, the treasurer has to ensure that the operations are in compliance with the:

- (a) Internal Control Guidelines of the Reserve Bank of India
- (b) FEDAI regulations
- (c) Internal guidelines of the Bank.

The cardinal principle of Operational procedure in the area of dealing room operations trading is the clear functional segregation of the Dealing Room activities (Front Office) the Mid Office functions and the Back Office Operations.

In view of the above, Bank's Integrated treasury activities are segregated as,

- (a) Front office, i.e. the dealing room
- (b) Mid office, i.e. the Risk management department
- (c) Back office, i.e. the settlements, accounting and reconciliation department.

Dealers, who are actually involved in the buying and selling of currencies, or undertaking market activities, are the most critical manpower as their understanding of the job, risk taking capacity and speed in decision-making, all may lead to generating profits for the dealing operations. On the other hand, a minor mistake or mis-judgment may wipe off the entire day's profit in a second. A good dealer needs to have a good understanding of the changing nature of things. Certain psychological qualities are prerequisites. The ability to work under stress, willingness to accept responsibilities, the ability to make decisions quickly, a good measure of aggressiveness and above all, a willingness to recognize that one can be wrong. There must exist an atmosphere of complete trust within the dealing room.

A dealer has to maintain two positions – funds position and currency position. The funds position reflects the inflow and outflow of funds, i.e. receivables and payables. Any mismatches in the receivables and payables will subject the Bank to interest rate risks, in the form of a possible overdraft interest in NOSTRO accounts or loss of interest income on surplus credit balances. It is very important for a dealer to properly calculate the funds position and manage the funds.

The currency position, on the other hand, deals with the overbought or oversold positions arrived at after taking various merchant or interbank transactions, and the dealer will be concerned with the overall net position which exposes the dealer to exchange risks from market movements. The dealer has to operate within the permitted limits prescribed by the management for the exchange position. The funds position comprises of items that are ready in nature and affecting funds position immediately, as also those in the nature of forwards, which affect the funds position at a later date. Thus, the dealer also needs to manage gap positions in different currencies.

Compared to the conventional treasury and dealing room operations, where transactions in foreign exchange and domestic currency markets are kept separate, the need for an Integrated Treasury has evolved because of the following reasons :

- (i) Interest rate de-regulations,
- (ii) Liberalization of exchange control,
- (iii) Development of forex markets,
- (iv) Advancement in the settlements system, and
- (v) Dealing environment.

### Functions of Integrated Treasury

The broad functions of an Integrated Treasury are as follows:

- (i) Meeting CRR and SLR requirements and having an optimum mix of investment portfolio.
- (ii) Liquidity and funds management – analysis of major cash flows, funding mix and yields expected in credit and investments.
- (iii) Asset liability management, growth rate of the balance sheet, pricing of assets and liabilities in accordance with the prescribed guidelines.
- (iv) Risk management – market risk associated with bank's assets & liabilities, credit risk on treasury products, operation risk on payments and settlements.
- (v) Transfer pricing – bench mark rates to various business groups, ensuring that the funds are deployed optimally.



- (vi) Derivative products – developing of IRS and other derivative products to hedge bank's exposure and also selling such products to customers.
- (vii) Arbitrage – simultaneous buying and selling of same type of assets in two different markets in order to make risk less profits.
- (viii) Capital adequacy – focussing on quality of assets and return on investments and evaluating the efficiency of deployed funds.
- (ix) Minimizing the level of provision requirements due to build up of NPA.

### Internal Control Guidelines of RBI

It is very important that the dealing room adheres to the internal control guidelines of RBI in the regular conduct of the dealing room operations of the Bank. The following are some of the important Internal Control Guidelines of RBI which needs to be put in place by Banks:

- (i) The data processing systems used must be appropriated to the nature and volume of activities in order to ensure functional separation.
- (ii) Access rules for performing distinct functions should be defined in detail and drawn up for persons unconnected with the dealing activities.
- (iii) Confidentiality of data in the systems may be ensured in case of outsourcing of IT services to the external agencies.
- (iv) Global limits for Inter-Bank deals (both domestic & overseas) to be put in place consistent with the overall risk management processes.
- (v) Adequacy of capital to undertake aggressive dealing activities bearing in mind the Bank's capital and earnings performance.
- (vi) Appropriate VAR models for quantifying the extent of market risk for a given level of confidence.
- (vii) Periodic review and validation of existing models to test the robustness of such models.
- (viii) Every dealer should be advised of the limits (including the stop loss limits) allocated and work within the limits.
- (ix) All deals done have to be within the corresponding limits fixed viz., the counter-party exposure limits, stop loss limits, country-wise exposure limits (in respect of foreign exchange dealings) and within the Net Overnight Open Position Limits (NOOPL), Individual GAP Limits (IGL), Aggregate GAP Limits (AGL), etc., as approved by the Bank's Board.
- (x) Evaluation of foreign exchange profits & losses at the closing rates of every month as announced by FEDAI.

The other part of the dealing room is *Back Office*, which takes care of processing of deals, accounts, reconciliation, etc. This function is of the equal importance since any laxity in this area could land the institution into unforeseen trouble. It may, either, negate the efforts of the dealers to generate profits, or it could be so lax that the dealers exploit the situation and indulge in misreporting or wrong doings, without the notice of the back office. Hence, back office has both a supportive as well as a checking role over the dealers/dealing room.

The third part is *Mid-Office*, which deals with the risk management, and parameterization of risks for the dealing room operations, including forex transactions. It acts as a check over the risk taken by the

dealers as and also supplements them by giving market information. Mid office is also required to ensure compliance of various guidelines/instructions connected with treasury operations and is an independent function.

With the increasing volume of foreign exchange transactions arising out of expanding international trade, both in goods and services, cross border flow of money, and also because of the authorized dealers undertaking foreign exchange trading, the necessity for exercising management control over profit/loss valuation and adhering to the prescribed guidelines/limits needs no emphasis.

Reserve Bank of India has approved the guidelines on Uniform Standard Accounting Procedure for evaluation of foreign exchange profits and losses by authorized dealers as issued by Foreign Exchange Dealers' Association of India (FEDAI), which require banks to undertake profit/loss valuation of forex positions at the end of each month notwithstanding the practice of passing accounting entries at quarterly intervals. However, the automation of dealing operations facilitates profit evaluation exercise at shorter frequencies as well, and in some organizations is carried out on a daily basis.

As per extant guidelines, each foreign currency position covering all components of foreign currency (exchange) position, viz., mirror accounts of the currency, foreign currency notes held, import suspense account, all spot and forward positions, including export bills (both sight and usance) transactions which are reported to the position desk but not adjusted in the accounts, i.e., actual vouchers not put through, overdue contracts – inter-bank, if any and merchant contracts, and other foreign currency assets and liabilities – should be revalued separately.

FEDAI advises the valuation rates based on ongoing market rates on month-end dates, to enable the authorized dealers to revalue their foreign currency positions.

The following table summarizes the role of the Front Office, the Mid Office and the Back Office of a Bank's Foreign Exchange Operations:

<i>Front Office</i>	<i>Mid Office</i>	<i>Back Office</i>
Fund Management Nostro Accounts	Market Risk	Confirmation of deals
Foreign Exchange Advisory Management	Liquidity Risk	Settlement of deals
ALM & Maturity Mismatches	Country Risk	Accounting of deals
Dealing in the Inter-Bank Market	ALCO Committee	Reconciliation
Trading in the Inter-Bank Market	Reporting to the Top Management	Audit facilitation & reporting
Compliance	Compliance	Compliance

### Management and control of a Dealing room

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

The management of dealing room operations should focus on the risks associated with foreign exchange dealing room operations, which in turn arise from the complex nature of foreign exchange markets and the volatile nature of exchange rate movements.

The major risks associated with foreign exchange dealing operations, where the management needs to frame policies and keep a constant vigil, can be summarized as under:

**Operational Risk:** It is the risk arising on account of human errors, technical faults, infrastructure breakdowns, faulty systems and procedures or lack of internal controls. In other words, it is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.

**Exchange Risk:** It is the most common and obvious risk in foreign exchange dealing operations and arise mainly on account of fluctuations in exchange rates and/or when mismatches occur in assets/liabilities and receivables/payables. It refers to the possibility of a decline in the value of the return accruing to an investor owing to depreciation in the value of the asset currency. Eg., the risk is usually more pronounced when international investments are being made or under foreign currency borrowings. The rupee depreciation trend against US \$ had crossed the level of Rs. 83 per \$ in November, 2022.

**Credit Risk:** It is a risk of loss which arises due to inability or unwillingness of the counter party to meet the obligations at maturity of the underlying transaction. *Credit risk* is further classified into pre- settlement risk and settlement risk. Pre-settlement risk is the risk of failure of the counter party before maturity of the contract thereby exposing the other party to cover the transaction at the ongoing market rates with new counter party. In the context of lending & borrowing, credit risk also arises from the possibility of a loss resulting from a borrower's failure to repay a loan or meet contractual obligations. It also arises from an Issuer's failure in paying the coupon amount or repaying the principal amount on maturity in respect of bonds, debentures, commercial papers, inter-corporate deposits, issued by a Company. The default may arise due to non-performance of the borrower's business, non-performance of the industry, overall economy, etc.

**Settlement risk:** It is the risk of failure of the counter party during the course of settlement, due to the time zone differences, between the two currencies to be exchanged. That is, where one party performs its part of the contract by delivering the currency to be delivered by it but the counter party fails before delivering the currency to be delivered by it, in a different time zone. The best example for this risk is the Herstatt Risk, which arose due to the failure of a German Bank 'Bankhaus Herstatt' in Frankfurt in the year 1974 due to different time zones.

Let us look into an example where the settlement risk may arise in respect of default by the counterparty in respect of inter-bank dealings.

Say, today, 3<sup>rd</sup> Nov, Bank A in Frankfurt, Germany bought EUR 1,000,000 @ 1.1550 from Bank B in New York, USA, value spot (i.e. 5<sup>th</sup> Nov), presuming both the centres are open on 5<sup>th</sup> Nov. This means Bank A in Frankfurt will receive EUR 1,000,000 from Bank B value 5<sup>th</sup> Nov and in consideration has to remit USD 1,550,000 to Bank B, NY, USA. By virtue of time zone differences, Bank B will remit EUR 1,000,000 to Bank A first and will expect receipt of the counter-value USD 1,550,000 when USA opens. In the meantime, if there are any adverse happenings and like if Bank A fails before it can remit USD 1,550,000 to Bank B, Bank B would lose the amount of EUR 1,000,000 it has already remitted and would not get \$ 1,550,000 also. This gives rise to Settlement risk or the Counterparty risk.

**Liquidity Risk:** Liquidity risk is the potential for liabilities to drain for a bank at a faster rate than assets. The mismatches in the maturity patterns of assets and liabilities give rise to liquidity risk. Thus, it is a risk, which may arise due to a party to foreign exchange transaction unable to meet its funding requirements or execute a transaction at a reasonable price on the maturity/due date.

Liquidity represents the availability of cash or assets that may quickly be sold for cash to pay for liabilities as they come due. The risk of failing to settle liabilities because of insufficient cash or liquid assets on hand is defined as liquidity risk, in spite of having a well-capitalized Balance Sheet. i.e. Bank's inability to fund its balance sheet in a sustainable way.

Liquidity may lead to a Positive liquidity gap – no liquidity risk but opportunities to invest and increase income is less., or a Negative liquidity gap – risk to the Bank and future fund raising required. Mismatches on short term maturities poses high liquidity risk for the Bank.

**Gap Risk/Interest Rate Risk:** In the course of its business, a bank buys and sells currencies for spot and forward value. It may not be always possible for the bank to match its forward purchase and sales. Thus, if the purchase and sale take place for different value date, while the bank may completely stand hedged on exchange front, it creates a mismatch at a future date between its assets and liabilities which is referred to as GAP.

These gaps are to be plugged by the bank by paying/receiving appropriate forward differentials. These forward differentials are in turn a function of interest rates and any adverse movement in interest rates would result in adverse movement of forward differentials thus affecting the cash flows on the underlying open gaps or mismatches.

Therefore, it is the risk arising out of adverse movements in implied interest rates or actual interest rate differentials.

**Market Risk:** The risk that arises due to adverse movement of market variables, e.g., exchange rates and interest rates, when the players are unable to exit the positions quickly. Market risk takes the form of:

**Interest rate risk:** It is the risk where changes in the market interest rates might adversely affect Bank's risk sensitive assets and risk sensitive liabilities. It is the probability of a decline in the value of an asset resulting from an unexpected changes in interest rates.

**Equity Price risk:** It is the risk that arises from price volatility of equity shares held. In other words, the fair value of equity decreases as a result of changes in the level of equity indices and the value of individual stocks. Eg., volatility in the stock index resulting in volatility in the portfolio of individual stocks.

**Currency risk:** Also known as exchange rate risks, it refers to the possibility of a decline in the value of the return accruing to an investor owing to adverse changes in the value of the currency in which the position is held.

**Legal Risk:** It is the risk arising on account of non-enforceability of contract against a counter party. This includes legal risk due to aberrations in documentation, onerous clauses in the documents which results in interpretation risk., etc. Legal risk can also manifest itself in the way customs and procedures are followed in different countries.

*Systemic Risk:* This risk is the possibility of a major bank failing and the resultant losses to counter parties snowballing into a banking and/or financial crisis due to contagion effect.

*Country Risk:* It is the risk of counter party situated in a different country unable to perform its part of the contractual obligations despite its willingness to do so, due to prevention by local government regulations or political or economic instability in that country.

*Sovereign Risk:* It is a sub-risk in the overall country risk in that certain state-owned entities themselves quoting their sovereign status claim immunity from any recovery proceedings for non-fulfilment of any obligations they had originally agreed to, as in these countries, the sovereign status cannot be questioned even in a Court of Law.

A comprehensive and accurate management control of dealing room operations would cover assessment of the above risk exposures and their management. It is to be noted that foreign exchange dealing room operations are considered to be profit centres in most of the banks and a comprehensive risk management policy will only help the management to work with within the permitted loss limits. To generate profits, it is essential to have an adequate risk appetite in order to optimize profit, through a proper risk-reward trade off.

Details about these risks and their management and control would be covered under the unit on Risk Management.

Foreign exchange dealing operation is a highly specialized function and has to be performed by well-trained personnel. Typically, a dealing room should consist of dealing and back-office staff. The back-office staff are responsible for the follow-up and settlement of deals put through by the dealers. The need for effective control over dealing room operations is of great importance as possibilities exist for manipulation of exchange rates, dealing positions, washing names, mismatches, etc. A supreme principle of operational procedures and the area of dealing room activities is a clear functional separation of dealing, back office accounting (processing and control) and reconciliation operations.

The above details on the dealing room and its operations make it clear that the operations are crucial to any bank or institution. The contribution of exchange profit (from merchant transactions as well as trading operations) has its own place in the bottom line of the bank, and, as such, large banks in major markets, have deployed a large number of dealers and other staff, supported by sophisticated communication and IT systems with huge investments, for handling forex dealing operations.

These large dealing rooms have separate desks for traders, as also for derivatives, each of which specializes in its own product, and are constantly in the market to make profits for the bank.

In India too, most banks have large dealing rooms, and have grown to cater to various products, as permitted by Reserve Bank of India.

The following are some of the risk containment measures which need to be adhered to during the course of dealing room operations:

- Every dealer should be advised of the limits allocated to him/her and work within the limits.
- All deals done with counter-parties are to be within the corresponding limits.

- Overall position to be arrived at the end of the day and well within the NOOPL, AGL, IGL, as approved by the Bank's Board.
- Adequate monitoring of the mismatches in maturities, positions, etc. should be ensured.
- Evaluation of foreign exchange profits & losses should be carried out periodically.
- Reconciliation of balances in the RBI accounts, Nostro and Vostro accounts should be done periodically, say, atleast once in a month.
- Debits/Credits in Mirror accounts, confirmation of balances should be obtained periodically from the Nostro correspondents and confirmation should be provided to the Banks maintaining Vostro (INR) accounts.

## 1.6 DERIVATIVE PRODUCTS

Financial Management of the Multinational Enterprises (MNEs) and Multinational Corporations (MNCs) in the 21<sup>st</sup> Century has resulted in International trade volumes across the globe and prevalence of risk in all aspects of trade became prevalent. The development and growth of Financial Derivatives products has been one of the extraordinary and important features of the financial markets. Derivatives came into existence because of the prevalence of risk in every business and became an important tool in hedging such risks.

A derivative is a financial product whose value is derived from the value of another underlying asset or exposure viz., Commodity, Equity, Bond, Foreign Currency Position, etc., and includes Futures, Forward contracts, Option contracts, Swaps, etc.

These instruments can be used for two very distinct objectives:

- (a) Speculation – use of derivative instruments to take a position with the expectation of a profit,
- (b) Hedging – use of derivative instruments to reduce the risks associated with the everyday management of corporate cash flows.

### Foreign Currency Futures

A Foreign Currency Futures Contract which is traded in an exchange is an alternative to a forward contract that calls for future delivery of a standard amount of foreign exchange at a fixed time, place and price. It is similar to Futures Contracts that exist for other products/commodities such as Cattle, Rubber, Metals, Pulses, Interest-bearing deposits, Gold, etc. The most important market for foreign currency futures is the International Monetary Market (IMM), a division of the Chicago Mercantile Exchange (CME).

Foreign Currency Futures Contract is a derivative contract to buy or sell a particular instrument at a future date for a price agreed today. This is one of the major derivative products across the globe traded on organized Futures Exchanges. It is a standardized contract traded in an Exchange and known as Exchange traded contracts. Futures price is closely related to the underlying asset price and linked to the current market price (cash/spot).

Example: 100 tons of rice @ USD 200 dollars per ton where the per ton price is closely related to the price of rice in the cash/spot market plus the forward volatility.

Another example: 100 contracts of USD futures @ 1 USD = 75.50 where the price of 1 USD is closely related to the price of 1 USD in the cash/spot market plus the forward premium.

The instruments traded in the Futures markets are bonds, stocks, currency, Indexes, Interest rates, commodities, etc. Settlement can be either through physical delivery or by net settlement. Open interest and Offsetting are the common practices followed in a futures market.

### Futures Contracts – Characteristics

- (i) It's a standardized contract and is dealt on the exchange only.
- (ii) Prices are determined based on the open outcry or mostly presently on electronic trading platform based on demand and supply.
- (iii) Underlying assets are to be declared by the sellers with regard to asset quality (in respect of commodities).
- (iv) The terms and conditions are standardized viz., the quantity, maturity, lot size, price limits, quality, grading, etc., in respect of commodities, so on and so forth.
- (v) As these are Exchange Traded Contracts, the contract should stipulate the details of each and every element of the unit that is traded. Example - USD, Gold, Pepper, S&P 500, stock, Interest rates, etc.
- (vi) Settlement price is generated either through an out-cry (face to face on the floor of the Exchange) or Electronic Trading Platform.
- (vii) The clearing house conducts the trade and guarantees the buyer and the seller the commitment on behalf of the related parties.
- (viii) Managing credit risk by the Clearing house is through maintenance of margins.

### Forward Contracts

Forward contract is a negotiated agreement between two parties to fix the exchange rate for a foreign currency, in advance. They are tailor made contracts that are not traded on an organized Exchange but they are Over the Counter products (OTC) which are useful to hedge future receivables (Exporter hedging the Export realizations/Export credits) or future payables (Importer hedging the import settlements or Import credits).

Example: An Exporter enters into a supply contract dated 1<sup>st</sup> November on credit terms, say 90 days from the date of shipment, with the Overseas buyer, for an Export Consignment, of USD 1,000,000. Presuming the date of shipment as 5<sup>th</sup> November, the export bill is due for payment by the Overseas buyer, 90 days hence i.e. 3<sup>rd</sup> February. In other words, the Exporter is exposed to an exchange fluctuation risk as the value of USD vis-à-vis the value of INR is prone to price risk. To mitigate this, the Exporter may enter into a contract with the Bank (through whom the USD receivables is intended).

### Forward Contracts – Characteristics

- (i) Agreement between the Bank and the customer agreeing on a price for a particular amount specified for delivery at a future date.

- (ii) Delivery either under Option basis or on a fixed date.
- (iii) Generally for periods upto one year and can extend beyond one year depending on the maturity of the underlying (LTFX contracts – Long-term forward contracts).
- (iv) Documentary evidence and genuineness of the underlying. Verification of the underlying and marking on the original documents.
- (v) Maturity of the hedge should not exceed maturity of the underlying.
- (vi) Contracts should be in alignment with credit limits and due diligence is to be carried out.
- (vii) Contracts are to be utilized either prior to maturity or on maturity date. If not utilized on the maturity and it is cancelled, profits or losses are settled, as the case may be.
- (viii) If cancelled after maturity date, losses are recovered but profits will not be passed on.

### Forward Contracts v/s Futures Contracts

- (i) Forwards are of any size while Futures are standardized.
- (ii) Forwards are generally for maturities up to one year and beyond while futures are generally up to one year.
- (iii) Forwards are between Clients and Banks while futures are between clients and the Exchange.
- (iv) Prices in a forward contract are determined by bid/ask quotes while prices in futures determined through an outcry on the floor of the exchange or through Electronic trading platform.
- (v) In forward contracts, there are no explicit collaterals while initial margins and on mark to market basis additional margins are needed in a futures contract.
- (vi) Forward contracts are delivered/utilized or cancelled on due dates while settlement under futures take place through off-setting of positions or through physical delivery some times.
- (vii) Forward markets are open 24 hours as per the conveniences of the parties while futures markets function during traditional exchange hours.
- (viii) While in forward contracts, parties are in direct contact, the parties in future contracts are not known to each other, but deal through the exchange.
- (ix) There is no explicit commission earned under forward contracts and Bank earns through the bid/ask spreads while under futures, a single commission concept is prevalent.

### OPTIONS

**Option** is a contract giving the purchaser the right but not the obligation to buy or sell a given amount of the security/stock/currency at a fixed price per unit for a specified time period.

The two basic options are Call and Put options.

Under **CALL Option**, the Buyer has the right to purchase the currency (generally Imports) and under the **PUT Option**, Buyer has the right to sell the currency (generally Exports).

The Buyer of the Option is called the holder while the Seller of the option is referred to as the writer or the grantor of the Option.



**Every option has 3 different price elements:**

- (i) the strike or exercise price, which is the exchange rate at which the option can be purchased or sold.
- (ii) the premium, which is the cost of the option paid at the time the option is purchased.
- (iii) the actual spot rate in the market at the time the option contract is purchased.

**Pricing of an option combines the following 5 elements:**

- (i) present spot rate
- (ii) time to maturity
- (iii) forward rate for the underlying matching maturity
- (iv) interest rates for the intervening currency/stock/security
- (v) volatility, i.e. (standard deviation from spot to forward rates)

**Types of Option** - An American Option gives the buyer the right to exercise the option at any time between the date of writing and the expiration or maturity date. A European Option can be exercised only on its expiration date, not before. The premium, or option price, is the cost of the option.

**At the Money, In the Money and Out of Money Options**

An option whose exercise price is the same as the spot price of the underlying currency is said to be **At the Money (ATM)**.

An option that would be profitable (excluding the cost of the premium), if exercised immediately is said to be **In the Money (ITM)**.

An option that would not be profitable (excluding the cost of the premium), if exercised immediately is referred to as **Out of the Money (OTM)**.

**SWAPS**

Swaps are derivative instruments that represent an agreement between two parties to exchange a series of cash flows over a specific period of time. Swaps offer great flexibility in designing and structuring contracts based on mutual agreement. This flexibility generates many swap variations, with each serving a specific purpose.

**Factors influencing SWAPS**

- (i) Investment objectives or repayment scenarios may have changed.
- (ii) Increased financial benefit in switching to newly available or alternative cash flow streams.
- (iii) The need may arise to hedge or mitigate risk associated with a floating rate loan repayment.

## Types of SWAPS

### *Interest Rate Swap*

An interest rate swap is a contractual agreement to exchange a series of cash flows where cash flows at a fixed rate of interest are exchanged for those referenced to a floating rate. While one leg of cash flow is based on a fixed interest rate, the other leg is based on a floating interest rate over a period of time. There is no exchange of the principal amounts. The size of the swap is referred to as the notional amount and is the basis for calculating the cash flows.

### *Currency Swap*

A currency swap is contractually similar to an interest rate swap where cash flows in one currency are exchanged for cash flows in another currency. The transactional value of capital that changes hands in currency markets surpasses that of all other markets. Currency swaps offer efficient ways to hedge forex risk as well interest rate risk at one go.

### *Zero Coupon Swaps*

Similar to the interest rate swap, the zero coupon swap offers flexibility to one of the parties in the swap transaction. In a fixed-to-floating zero coupon swap, the fixed rate cash flows are not paid periodically, but just once at the end of the maturity of the swap contract. The other party who pays floating rate keeps making regular periodic payments following the standard swap payment schedule.

A fixed-fixed zero coupon swap is also available, wherein one party does not make any interim payments, but the other party keeps paying fixed payments as per the schedule.

### *Equity Swap*

An equity swap is an exchange of future cash flows between two parties that allows each party to diversify its income for a specified period of time while still holding its original assets. The two sets of nominally equal cash flows are exchanged as per the terms of the swap, which may involve an equity-based cash flow (such as from a stock asset, called the reference equity) that is traded for fixed-income cash flow (such as a benchmark interest rate).

### *Basis Swap*

Where cash flows on both the legs of the swap are referenced to different floating rates. A Basis swap could be an Interest Rate Swap or a currency swap where both legs are based on a floating rate. A basis swap involves a regular exchange of cash flows, both of which are based on floating interest rates. Most swaps are based on payment of a fixed rate against a floating rate, say, SOFR (Secured Overnight Financing Rate). In the basis swap both legs are calculated on floating rates.

**Example**

ABC Ltd, a Large Corporate has been sanctioned ECB of USD 100 Mn by IFC, Washington repayable over a period of 5 years in yearly installments due on 31<sup>st</sup> Dec each year starting from 2021. The rate of interest is SOFR + 400 BPs with SOFR reset every year on the due date of repayment.

The company intends to draw down the entire amount immediately for their rupee expenditure in India and seeks the guidance from their Financial Risk Manager in understanding:

- (a) the risks involved
- (b) hedging options available to mitigate the risks.

**Principal risk:**

- on the principal amount of USD 100 Mn, i.e. at the rate of USD 20 Mn per year. Principal risk can be mitigated by going in for the Principal Only Swaps (POS). This is nothing but long term forward contracts booked for the next 5 years starting 31<sup>st</sup> Dec each year from 2014.

**Coupon risk:**

- of yearly payment of the coupon (interest amount) at the rate of SOFR + 4%. Coupon risk can be mitigated by going in for a Coupon Only Swap (COS). This is hedging the interest amounts through booking long term forward contracts for the next 5 years starting 31<sup>st</sup> Dec each year from 2014.

**Interest rate risk:**

- i.e. fluctuations in the SOFR rates for the next 5 years as the ECB is availed on floating rate concept. Interest Rate risk can be mitigated by going in for the Interest Rate Swap (IRS) wherein the Corporate can receive the floating rate by paying fixed rate to the Bank.

**Currency Coupon Swaps**

All above the 3 risks can be simultaneously hedged by going in for Currency Coupon Swaps (CCS) wherein the corporate can hedge the principal risk, the coupon risk and the interest rate risk.

**1.7 RBI/FEDAI GUIDELINES**

Reserve Bank of India (RBI), being the central bank of the country and the custodian of nation's foreign exchange reserves, has prescribed guidelines for authorized dealers, permitted by it, to deal in foreign exchange and handle foreign currency transactions. FEMA 1999, & FEMA Regulations, 2000, also prescribes rules for persons, corporates, etc., in handling foreign currencies, as also transactions denominated therein.

Reserve Bank of India issues 'Authorized Dealers' (AD) licenses to scheduled banks and all-India financial institutions to undertake foreign exchange transactions in India. At present there are over 95 ADs, which include all public sector banks, foreign and a large number of private banks, a few all-India financial institutions and a few Scheduled cooperative banks.

The RBI also issues Money Changer licenses to a large number of established firms, companies, hotels, shops, etc., to deal in foreign currency notes, coins and traveller's cheques / travel cards, to facilitate

encashment of foreign currency by foreign tourists. Entities authorized to buy and sell foreign currency notes, coins and traveller's cheques are called Full Fledged Money Changers (FFMCs) while those authorized only to buy are called Restricted Money Changers (RMCs).

**Categorization of Authorized Dealers:** In the year 2006, the categorization of dealers authorized to deal in foreign exchange has been changed by the Reserve Bank of India. The entities so authorized are called as Authorized Persons, with category, denoting their level of authority to undertake variety of transactions, as under:

**Authorized Dealer – Category I:** They can handle all current and capital account transactions according to RBI directions issued from time-to-time. Eg., Commercial banks, State and Urban Cooperative Banks

**Authorized Dealer – Category II:** Entities that can deal in transaction of foreign exchange which are of non-trade nature. Eg., Upgraded FFMCs, Other cooperative banks, Regional Rural Banks.

**Authorized Dealer – Category III:** Institutions that can deal with forex transactions which are incidental to financing of international trade related activities undertaken by these institutions, eg., Exim Bank, SIDBI.

**Full Fledged Money Changer:** Purchase of foreign exchange and sale for private and business visits abroad. Eg., Other FFMCs, Dept of Post.

**Foreign Exchange Operations,** undertaken without any boundaries or controls, can adversely affect the movement of exchange rates and the value of currency, besides profitability of the entity dealing in an undisciplined manner. Hence, RBI has prescribed broad guidelines with regard to foreign exchange operations in order to have regulated and disciplined market operations.

RBI guidelines include those related to open positions, gaps, borrowing and lending in foreign currencies, interbank dealings in India and Overseas Markets, hedging of bank's own exposures as well as that of its resident and non-resident clients.

### *Foreign Exchange Dealers Association of India, (FEDAI)*

FEDAI is a Self-Regulatory Organization (SRO) formed in 1958 with the approval of the RBI to take over the functions then undertaken by the Exchange Banks Association, on behalf of Foreign Banks operating in India in order to further the interests and regulate the dealings of and between:

- (a) Authorized Dealers in Foreign Exchange.,
- (b) Public dealing in foreign exchange,
- (c) Forex Brokers,
- (d) RBI, FIMMDA, IBA and various other organizations / associations connected with foreign exchange.

FEDAI is a non-profit making body and prescribes guidelines and rules for market operations, merchant rates, quotations, delivery dates, holidays, interest on defaults, etc. In terms of RBI directives, all authorized dealers are members of FEDAI and it is mandatory for them to follow the guidelines/directives issued by FEDAI.

FEDAI guidelines also prescribe rules related to handling of export and import bills, transit period, crystallization of bills and other related issues. It also advises RBI on market-related issues and supplements the efforts of RBI to strengthen the foreign exchange market in the country.

The following are some of the important objectives of FEDAI:

- (i) associating with the RBI in promoting growth of India's external sector.
- (ii) associating with Export promotion councils, Chambers of Commerce & Industry, in order to administer a fillip to India's International Trade,
- (iii) contribute to the development of Foreign Exchange Markets,
- (iv) promote best practices in conducting Foreign Exchange Business,
- (v) formulating the uniform rules and guidelines for the Authorized Dealers ensuring a level playing field for the participants & harmonizing the interests of ADs.

Role of FEDAI

- (i) acting as a facilitator between the Authorized Dealers and the RBI in handling of foreign exchange transactions by the ADs.
- (ii) issuing guidelines on various aspects relating to Foreign Exchange.
- (iii) articulating effectively India's view point in various revisions in the ground rules UCP, URC, URR, e-UCP, URDG, etc., in ICC deliberations.
- (iv) providing training to member banks on Foreign Exchange matters.
- (v) granting accreditation to Intermediaries viz., Brokers, electronic service providers, etc.
- (vi) monitoring the broking activities in the Inter-Bank Forex market
- (vii) administration of benchmark rates viz., Month end revaluation rates for foreign exchange positions, daily USD/INR closing rates for calculation of NOOP, VAR figures for 1 M, 3 M, 6 M for calculation of the VAR., Weekly average rates for 9 currencies to comply with the AS 11 guidelines, etc.

A few of the major FEDAI guidelines/rules relating to dealing room operations are summarized as under:

Rule 1 – Hours of business

- normal market hours for transacting in FCY/INR 9.00 am to 5.00 pm on all working days.
- customer transactions and IB transactions on all working days beyond normal market hours permitted for Cross Currency transactions.
- transactions with persons resident outside India through their foreign branches may be undertaken beyond normal market hours. However, Cash value transactions only up to 5.00 pm.
- in case of individuals, transactions can be handled even on Saturdays, Sundays and holidays as per Bank's internal policy subject to Bank ensuring that such transactions are within NOOP limits of the Bank.
- Saturday is not considered as a working day except as at point above.
- known holiday – a holiday which is known at least 3 working days before the date. A holiday that is not a known holiday, is defined as a suddenly declared holiday.

## Rule 2 – Export transactions

- (i) Post shipment finance – Purchase/Discount/negotiation – Bill buying rate.
- (ii) Normal Transit Period (NTP) – sight bills 25 days., NTP – Sight bills drawn in INR – 20 days.
- (iii) application of interest on post-shipment finance – as per RBI directives.
- (iv) early realization of an export bill – interest for the unexpired period to be refunded to the Exporter.
- (v) bills drawn under LC – TT reimbursement to be claimed within 5 days from the date of handling the Export bill.
- (vi) in case of non-payment of bills on the due date - Crystallization of the foreign currency liability – Bill Selling rate – as per the bank’s approved policy and the policy should be made aware to the Exporters.
- (vii) realization of the export bill subsequent to crystallization – TT buying rate.
- (viii) dishonor of bills – TT selling along with the interest till date of dishonour.
- (ix) export bills on collection basis – TT Buying

## Rule 3 – Import transactions

- (i) application of exchange rate – Retirement of Import bills – Bill selling rate.
- (ii) application of interest – Bills under Negotiation under LCs – commercial rate of interest as applicable to Bank’s domestic advances from time to time.
- (iii) crystallization of Import bills – unpaid import bills drawn under LCs crystallized as per Bank’s policy. Crystallization of Import bills – Bill selling rate.

## Rule 4 – Clean Instruments

- (i) execution of inward remittances – surrender of foreign exchange to the Bank within 7 calendar days.
- (ii) Bank to have an internal policy to convert in to INR up to a certain amount, provided all the details including the name and address of the overseas remitter is provided in the MT 103.
- (iii) applicable exchange rate is TT buying rate.
- (iv) compensation for delayed payment – within 2 days from the date of credit to Nostro.
- (v) in case of delay, interest @ 2 % over the SB rate of interest to be paid for the delayed period.
- (vi) the bank shall also be liable to pay compensation for adverse movement of exchange rates as per the Bank’s compensation policy.
- (vii) in case the beneficiary does not respond within 5 working days from the date of credit to Nostro account and Bank does not return the funds to the remitter, Bank shall crystallize the remittance.
- (viii) transfer of funds between Vostro accounts with 2 different banks –
  - (a) the remitting Bank should while crediting the funds to the Bank also submit Form A3 to the beneficiary bank providing full details within 5 days from the date of credit.
  - (b) delay beyond 5 days will attract penalty of Rs. 1,000 per day and the penalty is capped at Rs. 10,000 per instance of delay.
- (ix) encashment of Travelers Cheques (TCs)/ Currency Notes (CNs) – TC buying rate and Currency buying rate.
- (x) outward remittances – TT selling rate or forward selling rate.
- (xi) sale of TCs/CNs – TC selling rate and CN selling rate

## Rule 5 – Foreign Exchange Contracts

- (i) Amounts are for definite amounts and definite periods.
- (ii) Option period of delivery shall not exceed beyond 1 month.
- (iii) If fixed date falls on a holiday, last date of delivery shall be the preceding working day.
- (iv) In case of suddenly declared holiday, delivery falls the next working day.
- (v) Date of delivery – In case of purchased / discounted / negotiated bills, the date of purchase / discount / negotiation and rupees paid to the customer is the delivery date.
- (vi) In case of collection documents, date of payment of INR on realization.
- (vii) In case of retirement/crystallization of Import bills, the date of retirement/Crystallization is the delivery date.
- (viii) Option of delivery – the customer (buyer or the seller) will have the option of delivery.
- (ix) Rounding off – settlement of all merchant transactions, the rate is rounded off to the rupee amount or to actual paise, as per Bank’s internal policy.

## Rule 6 – Early delivery, extension and cancellation

- (i) discretion is of the Bank for early delivery or extension of the contract.
- (ii) Customer to request for extension/cancellation before the maturity date.
- (iii) extension – cancellation and rebooking simultaneously and any profit or loss to be passed on/recovered to/from the customer.
- (iv) cancellation – recover / pay difference in exchange rates. In respect of loss, the client may be allowed to pay in instalments also, as per the internal policy of the Bank & dues to be cleared well within the maturity date of the contract.
- (v) purchase contracts cancelled at TT selling rate and Sale contracts at TT buying rate. Wherever the contract is cancelled before the maturity date, the forward TT buying or TT selling rate to be applied.
- (vi) if contracts not cancelled on or before the maturity date, Bank automatically cancels the contract on the third day from the maturity date and any losses are recovered and profits are not passed on.
- (vii) however, where the reasons put forth by the client for cancellation is beyond the control of the client, Bank, as per their internal policy, may pass on the profits on cancellation, even if cancelled after the maturity date.

## Rule 7 – Business Intermediaries

- (i) exchange brokers, multi-bank portals (MBPs), electronic order matching systems (EOMS), etc., are some of the commonly used intermediaries in foreign exchange markets. These business intermediaries are to be accredited by FEDAI. For MBPs and EOMS – RBI authorization is mandatory.
- (ii) all the Business intermediaries are to adhere to the code of conduct laid by FEDAI.
- (iii) review of intermediaries from time to time is to be done and reporting to be made to FEDAI for any violation or acting contrary to the code.
- (iv) all contracts/confirmations should contain the clause “Subject to Rules and Regulations of FEDAI.”

### Rule 8 – Inter-Bank Payments and Settlements

- (i) interbank settlements – Banks to track delivery of funds, note discrepancies and take up with the counterparty for corrective actions separately.
- (ii) interest for delayed delivery for the no. of days @ 2 % over the benchmark rates of the currency. (INR – MIBOR, USD – Base rate of Citi Bank, CHF – Base rate of Swiss National Bank, EUR – Marginal lending rate of the ECB, CAD – Base rate of Bank of Nova Scotia, JPY – Base rate of Bank of Tokyo Mitsubishi).
- (iii) acceptance of back valuation – discretion of the buyer’s bank and to be executed within 2 working days from the due date of the contract.
- (iv) time limit to claim – 15 days from the due date of the contract.
- (v) undue enrichment of funds – to return funds with interest.
- (vi) all banks should be registered with Clearing Corporation of India (CCIL).
- (vii) if due date falls on a known holiday, settlement on preceding working day.
- (viii) if due date is a suddenly declared holiday, settlement on the next working day.

### FX Global Code

FX Global Committee at their global meet in London has endorsed the publication of the FX Global Code, a uniform code across the globe for the wholesale foreign exchange markets which aims at the following:

- (a) principles of good practices,
- (b) engaging local participants actively,
- (c) promoting healthy & disciplined dealing room trading, etc.
- (d) Hongkong Monetary Authority (HKMA), Monetary Authority of Singapore (MAS), Reserve Bank of Australia (RBA), Bank of Korea and RBI apart from the Federal Reserve Bank, USA have already endorsed the FX Global Code,
- (e) The revised FEDAI Code of Conduct Adoption and Implementation in the Indian Foreign Exchange Market is implemented w.e.f. 1<sup>st</sup> Sept 2021.

Let us also see some of the RBI guidelines which are applicable to Authorized Persons, with regard to their operations and risk management of their own asset/liabilities and products that they can offer to their clients:

- (a) AD Cat I – Banks are allowed to open/close rupee accounts (non-interest bearing) in the names of their overseas branches or correspondents (except Pakistani banks operating outside Pakistan) without prior reference to RBI.
- (b) Opening of Rupee accounts in the name of Exchange Houses for facilitating private remittances through exchange houses requires prior approval of RBI.
- (c) AD Cat I – Banks are allowed to open/close foreign currency accounts in their own name, abroad to route foreign exchange transactions handled by them. Banks are also allowed to maintain balances in these accounts, as approved by their Board.
- (d) AD Cat I – Banks are free to undertake investments in overseas markets in money market instruments and/or debt instruments, issued by foreign state with a residual maturity of less than one year and rated as per guidelines.



- (e) Surplus funds in NOSTRO accounts can be utilized for granting loans to resident constituents for meeting their foreign exchange or rupee working capital or capital expenditure needs, extending credit facilities to Wholly Owned Subsidiaries/Joint Ventures of Indian companies abroad, subject to terms and conditions.
- (f) Loans/overdrafts: All borrowings of banks, including ECB, and temporary overdrafts in NOSTRO accounts not adjusted within five days, shall not exceed 50% of their unimpaired Tier 1 capital or USD 10 million, whichever is higher. Overseas borrowings for the purpose of extending export credit in foreign currency, Tier II capital placed by head offices of foreign banks' with their Indian branches and Capital funds raised by issue of perpetual instruments or debt capital instruments shall not be a part of the above ceiling for raising foreign currency funds.
- (g) Banks can allow residents to book forward exchange contracts to hedge their exchange risk exposure in respect of a transaction for which sale or purchase of foreign exchange is permissible under the FEMA 1999.
- (h) Banks should satisfy themselves about the genuineness of the underlying documentary evidence and exposure, irrespective of the transaction being current or capital account in nature. The particulars of the forward contract booked should be marked on the documents, and copies retained thereof for verification. It must be ensured that the maturity of the contract must not exceed the tenor of the underlying.
- (i) Banks can allow their importer and exporter customers to book forward contact on the basis of a declaration of an exposure and based on past performance up to an average of the previous three financial years (April-March) actual import/export turnover or previous year's actual turnover, whichever is higher, subject to certain conditions.
- (j) Similarly, Small and Medium Enterprises (SME) can book forward contracts to hedge their direct or indirect exposures, without production of the underlying, subject to the condition that the SME enjoys credit facilities with the bank with which it desires to book the forward contract, and the quantum of forward contracts is in alignment with the credit facilities availed by it, and certain other conditions, as specified.
- (k) Banks can also allow resident individuals, who are banking with them, to book forward contracts up to a limit of USD 100,000 with the condition that contracts booked under this facility will normally be on deliverable basis, the notional value should not exceed USD 100,000 and the forward contract may be booked for tenors up to one year only.
- (l) Banks are also allowed to offer other derivative contracts, such as Interest Rate Swaps or Coupon Swaps or foreign currency Options or Interest Rate Caps or Collars or Forward Rate Agreement contracts, to resident entities who have borrowed foreign exchange in accordance with the provisions of FEMA 1999. These offerings and cover thereof, shall be subject to certain conditions as specified.
- (m) Bank can also offer Foreign Currency – Rupee Swap to resident persons that has a foreign exchange or a rupee liability to hedge long term exposure, with certain conditions.
- (n) Banks can enter into cross currency options with their customers on back-to-back basis, subject to certain conditions.
- (o) Banks can also enter into foreign currency – rupee options with their customers on back-to-back basis. They can also run a book for this product, subject to RBI permission.

## Check Your Progress (C)

### Fill in the blanks:

1. The dealers are officials, who are actually involved in the \_\_\_\_\_ and \_\_\_\_\_ of currencies.
2. The section which handles processing of deals, reconciliation, etc., is called \_\_\_\_\_ office.
3. Banks permitted to deal in foreign exchange are called \_\_\_\_\_ persons.
4. Unpaid Import bills drawn under Letters of Credit must be crystallized into Rupees as per the policy of the \_\_\_\_\_.
5. In terms of FEDAI rules, besides, Japanese Yen, \_\_\_\_\_, and \_\_\_\_\_ are the other currencies which are quoted as 100 units = so much Rupee.

## 1.8 FOREIGN EXCHANGE ARITHMETIC – CONCEPTS AND EXAMPLES

Foreign Exchange is a commodity and like any other commodity transaction, foreign exchange transactions are of two types – Purchase transaction and Sale transaction. However, the unique feature of a foreign exchange transaction compared to the other commodity transactions is that both the purchase and sale transactions are identified from the point of view of the Bank. In other words, the Buying rate is the rate at which Bank purchases foreign exchange from the Customers (the BID rate) and Selling rate is the rate at which Bank sells foreign exchange to the Customers (the ASK rate).

Let us understand the concept of purchase and sale in foreign exchange.

Purchase – Conversion of Foreign currency, say USD to Home currency (INR) and Sale is conversion of Home currency to Foreign Currency, Say INR to USD.

While purchase transactions emanate from Inward remittances, sale transactions emanate from Outward remittances. Inward remittances are also known as Inflows into the country and Outward remittances are known as Outflows from the Country. In other words, Inward remittances are Purchase transactions for the Bank and Outward remittances are Sale transactions for the Bank.

To understand the concepts better, let us elaborate on the inward remittances and outward remittances.

### Inward remittances (Purchase transactions)

Bank receives inward remittances in foreign currency on behalf of their customers either through the Nostro channel or in the form of Foreign Currency Notes/Foreign Currency travellers cheques. The inward remittances received gets converted at the instructions of the Customer into Rupees and credited to Customer's account at the applicable purchase rate.

Where the foreign exchange is received to the credit of Bank's Nostro account and the foreign currency funds are sighted (received), the Bank applies the applicable TT buying rate at which the foreign currency, say USD, is converted into INR and the customer's account credited. Where foreign exchange is received in the form of Currency Notes and Travellers Cheques and the customer tenders such Currency notes or