ALL THE VERY BEST FOR YOUR EXAMS

SHORT NOTES FOR

CAIIB

BANK FINANCIAL MANAGEMENT

Though we had taken enough care to go through the notes provided here, we shall not be responsible for any loss or damage, resulting from any action taken on the basis of the contents. Creation of these short notes is the efforts of so many persons. First of all we thank all of them for their valuable contribution. We request everyone to go through the Macmillan book and update yourself with the latest information through RBI website and other authenticated sources. In case you find any incorrect/doubtful information, kindly update us also (along with the source link/reference for the correct information).

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CAIIB – GENERAL INFORMATION

Consists of 5 papers :

I. Compulsory Paper

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

II. Elective Papers (Candidates to choose any one of their Choice)

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

- Only existing employees of banks who had cleared JAIIB can appear for CAIIB Exam.
- CAIIB exams are conducted in on-line mode only.
- The examination will be conducted normally twice a year in May / June and November / December on Sundays.
- The duration of the examination will be of 2 hours.
- **Examination Pattern** :

(i) Question Paper will contain 100 objective type multiple choice questions for 100 marks including questions based on case studies/ case lets. The Institute may however vary the number of questions to be asked for a subject.
(ii) There may be some numerical questions in some of the CAIIB subjects where, no options will be provided. These questions will not be in the MCQ pattern and the answer has to be keyed in by the candidate.
(iii) The examination will be held in Online Mode only.
(iv) There will be no negative marking for wrong answers.
(v) Questions for the examination will be asked for:
   a. Knowledge testing
   b. Conceptual grasp
   c. Analytical/ logical exposition
   d. Problem solving
   e. Case analysis

- **Passing Criteria** :

1. Minimum marks for pass in the subject is 50 out of 100.
2. Candidates securing at least 45 marks in each subject with an aggregate of 50% marks in all subjects of examination in a single attempt will also be declared as having completed the Examination.
3. Candidates will be allowed to retain credits for the subject they have passed in an attempt till the expiry of the time limit for passing the examination.

Note : A candidate will be given 5 attempts for completion of exam (CAIIB) but, within a maximum period of three years, whichever is earlier, from the time he/she registers for the exam. These 5 attempts need not be consecutive.

- **"Class of Pass" Criteria :**
  - **First Class :** 60% or more marks in aggregate and pass in all the subjects in the FIRST PHYSICAL ATTEMPT.
  - **First Class with Distinction :** 70% or more marks in aggregate and 60% or more marks in each subject in the FIRST PHYSICAL ATTEMPT.
  - Candidates who have been granted exemption in the subject/s will be given **"Pass Class"** only.

- **Cut-off Date of Guidelines /Important Developments for Examinations** :
  - In respect of the exams to be conducted by the Institute for the Period from February to July of a calendar year, instructions/guidelines issued by the regulator(s) and important developments in banking and finance up to 31st December will only be considered for the purpose of inclusion in the question papers.
  - In respect of the exams to be conducted by the Institute for the period from August to January of a calendar year, instructions/guidelines issued by the regulator(s) and important developments in banking and finance up to 30th June will only be considered for the purpose of inclusion in the question papers.

- **Exam Fees**

Description	Fees*
First attempt fee	5,000
Second attempt fee	1,300
Third attempt fee	1,300
Fourth attempt fee	1,300
Fifth attempt fee	1,300

* Plus Convenience charges and Taxes as applicable.

Please Note: Candidates are required to Register for every attempt separately

SYLLABUS

The details of the prescribed syllabus which is indicative are furnished in the booklet. However, keeping in view the professional nature of examinations, all matters falling within the realm of the subject concerned will have to be studied by the candidate as questions can be asked on all relevant matters under the subject.
Candidates appearing for the examination should particularly prepare themselves for answering questions that may be asked on the latest developments taking place under the various subject/s of the said examination although those topics may not have been specifically included in the syllabus. Further, questions based on current developments in banking and finance may be asked. **Candidates are advised to refer to financial news papers / periodicals more particularly "IIBF VISION" and "BANK QUEST" published by IIBF.**

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; UCP 600 and Important Articles; 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 LC Transactions; Standby Letter of Credit (Similar to Guarantees); Uniform Rules for Bank-to-Bank Reimbursements (URR–725); International Standard Banking Practice – 745 (ISBP 745); Incoterms; Case Studies

Facilities for Exporters and Importers

Exchange and Trade Control Guidelines for Exporters; Facilities for Exporters;; 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 Risks in International Trade; Country Risk; Export Credit Insurance in International Trade; ECGC 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 – 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), GIFTCity

Scope of IFSC in India; Opportunities at Gift City; Guidelines relating to setting up of IFSC Banking Units (IBUs); 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 process of International Trade 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 Management?; 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; Scenario Analysis; 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; Reporting to the Reserve Bank of India; Internal Controls

Basel III Framework on Liquidity Standards

Liquidity Coverage Ratio; Liquidity Risk Monitoring Tools; Net Stable Funding Ratio

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; Indian Depository Receipts; 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 and Credit 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

Banking Regulation and Capital
Capital and Banking Regulation

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:

UNIT – 1: EXCHANGE RATES AND FOREX BUSINESS

1. Foreign Exchange: Conversion of currencies from the currency of invoice to the home currency of the exporters is called as **Foreign Exchange.**

2. Foreign Exchange Management Act **(FEMA),1999** defines Foreign Exchange as o " All deposits, credits and balances payable in foreign currency and any drafts, traveler's Cheques, LCs and Bills of Exchange, expressed or drawn in Indian Currency and payable in any foreign currency."

> 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.

3. A **Foreign Exchange transaction** is a contract to exchange funds in one currency for funds in another currency at an agreed rate and arranged basis.

4. **Exchange Rate** means the price or the ratio or the value at which one currency is exchanged for another currency.

5. **Foreign Exchange markets participants** are
Central Banks
Commercial Banks
Investment Funds/Banks
Forex Brokers
Corporations
Individuals

6. The Forex Markets are highly dynamic, that on an average the exchange rates of major currencies fluctuate **every 4 Seconds**, which effectively means it registers **21,600 changes** in a day (15X60X24)

7. Forex markets usually operate from **"Monday to Friday"** globally, except for the Middle East or other Islamic Countries which function on Saturday and Sunday with restrictions, to cater to the local needs, but are closed on Friday.

8. The bulk of the Forex markets are **OTC (Over the Counter).**

9. Factors Determining Exchange Rates:

a) Fundamental Reasons
Balance of Payment
Economic Growth rate
Fiscal policy
Monetary Policy
Interest Rates
Political Issues

b) Technical Reasons
- Government Control can lead to unrealistic value.
- Free flow of Capital from lower interest rate to higher interest rates

c) **Speculative** - **higher the speculation higher the volatility in rates**

10. Due to vastness of the market, operating in different time zones, most of the Forex deals in general are done on **SPOT basis.**

11. The delivery of **FX deals can be settled** in one or more of the following ways:
Ready or Cash
TOM
Spot
Forward
Spot and Forward

12. **Ready or Cash**: Settlement of funds takes place on the same day (date of Deal)

13. **TOM:** Settlement of funds takes place on the next working day of the deal. If the settlement day Is holiday in any of the 2 countries, the settlement date will be next working day in both the countries.

14. **Spot** : Settlement of funds takes place on the second working day after/following the date of Contract/deal. If the settlement day is holiday in any of the 2 countries, the settlement date will be next working day in both the countries.

15. **Forward:** Delivery of funds takes place on any day after SPOT date.

16. **Spot and Forward Rates**: On the other hand, when the delivery of the currencies is to take place at a date beyond the Spot date, it is Forward Transaction and rate applied is called Forward Rate.

17. Forward Rates are **derived from Spot Rates** and are function of the spot rates and forward premium or discount of the currency, being quoted.

18. Forward Rate = **Spot Rte + Premium or – Discount**

19. If the value of the currency is more than being quoted for Spot, then it is said to be **at a premium.**

20. If the currency is cheaper at a later date than Spot, then it is called **at a Discount.**

21. The forward premium and discount are generally based on the **interest rate differentials** of the two currencies involved.

22. In a perfect market, with no restriction on finance and trade, the **interest factor** is the basic factor in arriving at the forward rate.

23. The Forward price of a currency against another can be worked out with the following **factors:**

Spot price of the currencies involved
The Interest rate differentials for the currencies.
The term i.e. the future period for which the price is worked out.

24. The price of currency can be expressed in two ways i.e. **Direct Quote, Indirect Quote.**

25. Under **Direct Quote, the local currency is variable** E.g.: 1 USD = `48.10

26. Direct Quote rates are also called **Home Currency or Price Quotations.**

27. Under **indirect Quote, the local currency remains fixed**, while the number of units of foreign currency varies. E.g. `100 = 2.05 USD

28. Globally all currencies (Except a few) are quoted **as Direct Quotes**, in terms of USD = So many units of another currency)

29. Only in case of **GBP (Great Britain Pound) £, €, AU$ and NZ$, the currencies are quoted as indirect rates.**

30. Japanese Yen being quoted **per 100 Units.**

31. **Cross Currency Rates**: When dealing in a market where rates for a particular currency pair are not directly available, the price for the said currency pair is then obtained indirectly with the help of Cross rate mechanism.

32. **How to calculate Cross Rate?:**
The math is simple algebra: **[a/b] x [b/c] = a/c**
Substitute currency pairs for the fractions shown above, and you get, for instance,
GBP/AUD x AUD/JPY = GBP/JPY.
This is the **implied** (or theoretical) value of the GBP/JPY, based on the value of the other two pairs.
The actual value of the GBP/JPY will vary around this implied value,as the following calculation shows.

Here are Friday's actual closing BID prices for the 3 currency pairs in this example (taken from FXCM's Trading Station platform): GBP/AUD = 1.73449, AUD/JPY = 0.85535 and GBP/JPY = **1.48417**.
Now, let's do the math:
GBP/AUD x AUD/JPY = GBP/JPY
1.73449 x 0.85535 = **1.4836**, which is not exactly the same as the actual market price
Here's why. During market hours (Sunday afternoon to Friday afternoon, EST), all prices are LIVE, and small departures from the mathematical relationships can exist momentarily.

33. **Fixed Vs Floating Rates:**
The fixed exchange rate is the official rate set by the monetary authorities for one or more currencies. It is usually pegged to one or more currencies.
Under floating exchange rate, the value of the currency is decided by supply and demand factors for a particular currency.

34. Since **1973,** the world economies have adopted **floating exchange** rate system.

35. India switched to a **floating exchange rate regime** in **1993.**

36. **Bid & Offered Rates:** The buying rates and selling rates are referred to as Bid & Offered rate.
37. **Exchange Arithmetic** – Theoretical Overview:
Chain Rule: It is used in attaining a comparison or ratio between two quantities linked together through another or other quantities and consists of a series of equations.
Per Cent or Per mille: A percentage (%) is a proportion per hundred. Per Mille means per thousand.

38. **Value Date:** 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 TT, the value date is usually the same in both centers.

39. The payments made in same day, so that no gain or loss of interest accrues to either party is called as **Valuer Compense**, or simply here and there.

40. **Arbitrage in Exchange:** Arbitrage consist in the simultaneous buying and selling of a commodity in two or more markets to take advantage of temporary discrepancies in prices.

41. A transaction conducted between two centers only is known as **simple or direct arbitrage.**

42. Where additional centers are involved, the operation is known as **compound or Three (or more) point arbitrage.**

43. Forex Operations are divided into 3:
1) Forex Dealer
2) Back Office
3) Mid Office

44. The **Forex dealing room** operation functions:
a service branch to meet the requirement of customers of other branches/divisions to buy or sell foreign currency,
Manage foreign currency assets and liabilities,
Fund and manger Nostro Accounts as also undertake proprietary trading in currencies.
It is a separate profit center for the Bank/FI

45. A Forex Dealer has to maintain two positions – **Funds position and Currency Position**

46. Funds position reflects the **inflow and out flow of funds.**
47. Back office takes care of processing of **Deals, Account, reconciliation etc. It has both a supportive as well as a checking role over the dealers.**

48. Mid Office deals with **risk management and parameterization of risks for forex dealing operations.** Mid Office is also supposed to look after the compliance of various guidelines/instructions and is an independent function.

49. The major **risks associated with the dealing operations** are :
Operational Risk
Exchange Risk
Credit Risk
Settlement Risk
Liquidity Risk
Gap Risk/ Interest/ Rate Risk

Market Risk
Legal Risk
Systemic Risk
Country Risk
Sovereign Risk

50. The **Operation Risk** is arising on account of human errors, technical faults, infrastructure breakdown, faulty systems and procedures or lack of internal controls.

51. The **Exchange Risk** 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.

52. **Credit risk** arises due to inability or unwillingness of the counterpart to meet the obligations at maturity of the underlying transactions.

53. Credit Risk is classified into
Pre- Settlement Risk
Settlement Risk

54. **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.

55. **Settlement Risk** is Failure of the counter party during the course of settlement, due to the time zone differences, between the two currencies to be exchanged.

56. **Liquidity Risk** is the potential for liabilities to drain from the bank at a faster rate than assets. The mismatches in the maturity patterns of assets and liabilities give rise to liquidity risk.

57. **Gap Risk/ Interest Rate Risk** are the risk arising out of adverse movements in implied interest rates or actual interest rate differentials.

58. **Market Risk:** This is arises out of adverse movement of market variables when the players are unable to exit the positions quickly.

59. **Legal Risk** is arising on account of non-enforceability of contract against a counter party.

60. **Systemic Risk** is the possibility of a major bank failing and the resultant losses to counter parties reverberating into a banking crisis.

61. **Country Risk** is 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 local government regularizations or political or economic instability in that country.

62. **Sovereign Risk** is over all country risk

63. **RBI** has prescribed guidelines for authorized dealers, permitted by it, to deal in foreign exchange and handle foreign currency transactions.

64. **FEMA 1999** also prescribes rules for persons, corporate etc in handing foreign currencies, as also transactions denominated therein.

65. The **RBI** is issued **licenses** to Authorized Dealers to undertake foreign exchange transactions in India.

66. The RBI has also issued **Money Changer License** to a large number of established firms, companies, hotels, shops etc. to deal in foreign currency notes, coins and TCs

67. **Full Fledged Money Changers (FFMC)** : Entities authorized to buy and sell foreign currency notes, coins and TCs
68. **Restricted Money Changers (RMCs):** Entities authorized to buy foreign currency.

69. Categories of Authorized Dealers; in the year 2005, the categorization of dealers authorized to deal in foreign exchange has been changed.

Category	Entities
AD - Category I	Banks, FIs and other entities allowed to handle all types of Forex
AD - Category II	Money Changers (FFMCs)
AD - Category III	Money Changers (RMCs)

70. **Foreign Exchange Dealers Association of India, FEDAI (ESTD 1958)** prescribes guidelines and rules of the game for market operations, merchant rates, quotations, delivery dates, holiday, interest on defaults , Handling of export – Import Bills, Transit period, crystallization of Bills and other related issues.

71. Export bills drawn in foreign currency, purchased/ Discounted/ negotiated, must be crystallized into rupee liability. The same would be done at **TT selling rate.**

72. The crystallization period can vary from Bank to bank, (For Export Bills Generally on **the 30th Day**) customers to customer but **cannot exceed 60 days.**

73. Sight Bills drawn under ILC would be crystallized on the **10th day after the due date of receipt** if not yet paid.

74. All forward contracts must be for a **definite amount with specified delivery dates.**

75. All contracts, which have matured and have not been picked up, shall be automatically cancelled on the **7th working day, after the maturity date.**

76. All cancellations shall be at **Bank's opposite TT rates**. **TT Selling = purchase contracts; TT buying = Sale contracts.**

77. All currencies to be quoted per unit Foreign **Currency = `**, JPY, Indonesian Rupiah, Kenyan Schilling quoted as **100 Units of Foreign currency = `.**

UNIT –2 : Liberalised Remittance Scheme (LRS) and other Remittance Facilities for Residents

- Liberalised Remittance Scheme (LRS scheme) for resident individual was introduced w.e.f. 04th Feb 2004.
- The scheme facilitates resident individuals to remit funds abroad for permitted current or capital account transactions or a combination of both.

- LRS is available to: The scheme is available to resident individuals (including Minors).
- LRS is not available to: Corporates, Partnership Firms, HUFs, Trusts and NRIs are not eligible.

Capital Account Transaction

Foreign Exchange Management Act (FEMA Act 1999), Sub-section 2 (e) defines that Capital Account Transaction means a transaction which alters the assets or liabilities, including contingent liabilities, outside India of persons resident in India or assets or liabilities in India of persons resident outside India.

Current Account Transaction

Foreign Exchange Management Act (FEMA Act 1999), Sub-section 2 (j) define that Current Account Transaction means a transaction other than Capital Account Transaction and includes payments connected to trade, interest on loans and income on investments, expenses connected to travel, family maintenance, medical treatment, etc.

Permissible/Non-permissible remittances under LRS

There are 3 schedules in LRS:

1- Schedule I – Non-permissible remittances i.e. Prohibited remittances.

2- Schedule II – Remittances permissible subject to approval of the respective Government Departments / Ministries.

3- Schedule III - Remittances for resident individuals – Permissible under the delegated powers of the Authorized Dealers. Schedule I – Non-permissible remittances (Prohibited remittances)

Schedule I – Non-permissible remittances i.e. Prohibited remittances.

The following remittances are not permitted:

- Remittances for margins or margin calls to Overseas exchanges/Overseas Counterparties.
- Payment of commission on exports made towards equity investments in Joint Ventures (JVs) / Wholly Owned Subsidiaries (WOS) abroad.
- Payment related to “Call Back Services” of telephones.
- Remittance towards banned/proscribed magazines.
- Purchase of foreign currency convertible bond (FCCBs) issued by Indian companies abroad.

- Remittance of dividends by any company to which the requirement of dividend balancing is applicable.
- Remittance of interest income on funds held in Non-Resident Special Rupee accounts.
- Remittance out of lottery winnings, remittance for purchase of lottery tickets.
- Remittance of income from racing, riding or any other hobby.
- Payment of commission on exports under Rupee State Credit Route.

Schedule II – remittances permissible subject to approval of the respective Government Departments/Ministries

- Remittances towards Cultural tours – approval from Department of Education and Culture - Ministry of Human Resources Development.
- Advertisements in Foreign Print Media by State Governments /PSU Undertakings – Ministry of Finance.
- Remittances towards Freights of Vessels chartered by PSUs – Ministry of Road Transport.
- Payment of Imports through Ocean Transport on CIF basis by Government dept/PSUs – Ministry of Road Transport.
- Remittances of hiring charges of transponders by TV Channels, Internet Service Providers, etc. – Ministry of Information & Broadcasting, Ministry of Information Technology.
- Remittance of prize money, sponsorship of sports activities abroad by a person other than International/ National/State level sports bodies and where the amount involved exceeds USD1,00,000 - Department of Youth Affairs & Sports, Ministry of Human Resources Development.

Schedule III - Remittances for resident individuals – permissible under the delegated powers of the Authorized Dealers

- Private visits to any country (other than Nepal & Bhutan)
- Gift or donation
- Going abroad for employment
- Emigration
- Maintenance of close relatives abroad
- Travel for business by resident individuals - attending international conferences, specialized training, etc.
- Accompanying as attendant to a patient going abroad for medical treatment.
- Expenses in connection with medical treatment abroad
- Studies abroad
- Purchase of Objects of Art subject to Foreign Trade Policy
- Others viz., remittances towards health insurance, etc.

General Operational Guidelines

- PAN is mandatory under the LRS scheme irrespective of the amount of remittance.

- Remit funds abroad for permissible current (Schedule III remittances) or permissible capital account transactions or a combination of both.
- Transactions freely allowed up to an overall limit of USD 2,50,000 per FY for any permissible current or capital account transactions or combination of both.
- No restrictions on the frequency of remittances in an FY.
- However, once a remittance limit of USD 2,50,000 is utilized in an FY, no further remittance is allowed.
- International Credit Cards, International Debit Cards and ATM Cards can be used for current account transactions
- Citizens of a foreign state (other than Pakistan) and resident in India on account of employment or deputation of specified duration or for a specific job or assignments, the duration of which does not exceed 3 years, is a resident but not permanently resident.
- Such individuals are eligible to make remittances under LRS subject to deduction of taxes, contributions to Provident Fund and other deductions.
- Any amount in excess of the LRS limits requires prior approval from RBI.

Documentation

The following are the documents which generally need to be obtained while handling requests from Residents for remittances towards LRS

- Form A2 vis-à-vis FEMA Declaration – Online submission of Form A2 allowed.
- Simplified documentation for individuals for amounts up to USD 2,50,000 subject to the satisfaction of the AD Bank.
- Declaration of source of funds.
- PAN, irrespective of the amount.
- Copy of confirmed ticket and VISA, if the remittance is for travel abroad.
- Where the services of Tour Operators are being availed, the tour operator can collect the amount from the resident individual either in INR or in FC.
- In which case the tour operator can open a Special foreign currency account with a Bank in India.
- Tax Collected at Source (TCS) applicable in respect of release of exchange by the tour operators irrespective of the threshold limits.

Remittances under LRS for Current Account Transactions

Private visits to any country (other than Nepal & Bhutan):

- For private visits abroad, other than to Nepal and Bhutan, any resident individual can obtain foreign exchange up to an aggregate amount of USD 2,50,000 from an Authorised Dealer, in any one financial year, irrespective of the number of visits undertaken during the year.
- Irrespective of the number of visits undertaken in a FY, cash towards release of exchange can be accepted up to Rs. 50,000/- beyond which transaction to be routed through the A/C.

- Foreign Currency notes may be released up to limits permitted.
- Unutilized foreign exchange to be surrendered to the AD within 180 days from the date of return to India.

Release of foreign exchange in form of foreign currency (FC) notes (cash):

- Foreign exchange in full may be released in the form of FC Notes or up to the cash limit specified by the Haj Committee of India, to the Haj Pilgrims.
- Travellers proceeding to Islamic Republic of Iran, Russian Federation (including erstwhile CIS countries) – full exchange may be released in the form of FC Notes.
- Travelers proceeding to Iraq and Libya - USD 5000/-
- All other countries - USD 3000/-

Who is relative as per Companies Act 2013?

Companies Act, 2013 defines "relative" as "one who is related to another" if:

- They are members of HUF,*Documentary evidence, wherever applicable.
- They are husband and wife,
- One person is related to other in such a manner as prescribed under the Act.

i.e., father (including step father), mother (including step mother), brother (including step brother), sister (including step sister), son (including step son), daughter, daughter's husband, etc.

Certain relatives who were included under Companies Act 1956 are not included under the definition of relative for gifting under Companies Act 2013.

- These excluded persons are:

Step daughter, father's father, father's mother, mother's father, mother's mother., Son's son., Son's son's wife, son's daughter, son's daughter's husband, daughter's son, daughter's son's wife, daughter's daughter's husband, brother's wife, sister's husband.

- A resident cannot gift to another resident, in foreign currency or foreign security, for the credit of the latter's foreign currency account held abroad, under this scheme.

Donation to a person outside India or to an Organization outside India

Any resident individual may remit up-to USD 2,50,000 in one FY as gift to a person residing outside India or as donation to an organization outside India.

Emigration – as prescribed by the country of Immigration

A person wanting to emigrate can draw foreign exchange from AD Bank up to the amount prescribed by the country of emigration or USD 2,50,000

Going abroad for employment

A person going abroad for employment can draw foreign exchange up to USD 2,50,000 per FY from any Authorised Dealer in India.

Maintenance of Close relatives abroad

A resident individual can remit up-to USD 2,50,000 per FY towards maintenance of relatives abroad.

Purchase of Objects of Art

Subject to Foreign Trade Policy, Resident Individuals importing objects of art for personal purposes not connected with trade or commercial purpose.

Business trips

- Visits by individuals in connection with attending of an international conference, seminar, specialised training, apprentice training, etc., are treated as business visits.
- For business trips to foreign countries, resident individuals can avail of foreign exchange up to USD 2,50,000 in a FY irrespective of the number of visits undertaken during the year.

  - Travel for business.
  - Attending conferences.
  - Specialized training.

If an employee is being deputed by an entity for any of the above and expenses are borne by the Company; these are outside the purview of the LRS and may be permitted without any limit.

Expenses in connection with medical treatment abroad

- Authorised Dealers may release foreign exchange up to an amount of USD 2,50,000 or its equivalent per FY without insisting on any estimate from a hospital/doctor.
- For amount exceeding the above limit, Authorised Dealers may release foreign exchange under general permission based on the estimate from the doctor in India or hospital/doctor abroad.
- In addition to the above, an amount up to USD 2,50,000 per financial year is allowed to a person for accompanying as attendant to a patient going abroad for medical treatment/ check-up.

Studies abroad: After having obtained admission in the Overseas University.

- Foreign exchange beyond USD 2,50,000 may be released if it is so required by the University where the admission is secured, subject to suitable documentary evidence submitted by the individual to the satisfaction of the AD Bank.
- Foreign Bank guarantees towards educational purposes in favour of Overseas Universities/entities are not permitted.
- In terms of FEMA, students going abroad for studies are considered as NRIs and the existing resident account needs to designated as NRO in which case they can make use of remittance facilities available to NRIs.

- They can remit up to USD 1 Million from their NRO accounts per FY provided the credits in the NRO are legitimate dues, due in India, to the erstwhile resident.

Tax Collected at Source (TCS):

- The Finance Act, 2020 has a new insertion in the Income Tax Act on Tax Collected at Source (TCS) at 5% on foreign remittance LRS, with effect from 1st October 2020.
- The threshold for TCS is Rs 7 lakhs for an entire FY and TCS is applicable only on the remittance amount that exceeds the annual cap of Rs 7 lakhs.
- In case of non-availability of PAN/AADHAR – TCS is at 10%.
- TCS is also applicable for transactions involving transfer from domestic rupee account to the NRO account under LRS.
- Remittances under LRS, towards studies abroad where the source of funds is educational loan, 0.5% will be the TCS and applicable over the threshold limit of Rs. 7 lakhs.

Capital Account transactions under LRS

Remittances to International Financial Services Centres (IFSCs):

With a view to deepen the financial markets in the International Financial Service Centers (IFSCs), an opportunity is provided to the resident individuals to diversify their portfolio wherein residents are permitted to make remittances under LRS to IFSCs, set up in India under the Special Economic Zone (SEZ) guidelines, subject to the overall limit permissible under the extant guidelines.

The following provisions need to be adhered to by the resident individuals:

- The remittances shall be made only for making investments in IFSCs in securities, other than those issued by entities/ companies resident (outside IFSC) in India.
- Opening of a non-interest-bearing Foreign Currency account (FCA) in IFSCs permitted for making the above permissible investments under the LRS.
- Any funds lying idle in the account for a period up to 15 days from the date of credit into the account shall be immediately repatriated to domestic INR account of the investor in India.
- No domestic transactions are permissible to be settled with other residents through these FCAs held in IFSC.

Remittances of capital account nature transaction can be made, under LRS, for the following:

- Opening of foreign currency accounts abroad.
- Purchase of Immovable Property abroad.
- Making Investments abroad in the form of:
  - Acquisition & holding of shares both in Listed/Unlisted Cos.
  - Acquisition of debt instruments.
  - Acquisition of qualification shares of an Overseas Co., for holding the post of Director.

- Acquisition of shares of a foreign company towards professional services rendered or in lieu of Director's remuneration.
- Units of Mutual Funds, Venture Capital Funds, Unrated debt securities, Promissory Notes, etc.
- Setting up of JVs/WOS outside India where the JV/WOS is engaged in a Bonafide business activity*.
- (c) Extending loans including loans in INR to NRIs who are close relatives.

A resident individual is prohibited from making direct investments in a JV/WOS which is engaged in the following:

1. In real estate business,
2. Banking business, or
3. In the business of financial service activities.

The following are also to be complied with reference to LRS for capital account transactions:

- The resident individual to designate a Branch of an AD Bank through which all the remittances
- The individual should have maintained account with the Branch for a minimum period of one year prior to the date of remittance and the dealings should be satisfactory.
- Investment in Property by resident individuals up to the limit of USD 250,000 in a FY.
- No Credit facilities to be extended to facilitate capital account transactions.
- Remittances can be consolidated in respect of family members subject to individual family members complying with the terms & conditions & all the family members are co-owners, co-partners of the Overseas Property, i.e., Joint ownership.

Remittances under LRS for Overseas Direct Investments (ODI):

A resident individual (either singly or in association with another resident individual/Indian party), may make Overseas Direct Investments in equity shares and compulsorily convertible preference shares of a JV/WOS outside India.

Direct Investment outside India means (Regn. 2 (e)):

- Investments by way of contribution to the capital.
- Subscription to Memorandum of Association of the foreign entity.
- Purchase of existing shares of a foreign entity either by market purchase or private placement or through stock exchange but does not include Portfolio Investments.

A resident individual is prohibited from making direct investments in a JV/WOS which is engaged:

- In real estate business,
- Banking business, or
- In the business of financial service activities.

- Investments can be either in listed companies or unlisted companies or a combination of both subject to a maximum overall limit for all purposes put together at USD 250,000/FY.
- No credit facilities to be extended to facilitate capital account transactions.
- Opening of Bank account abroad permitted for facilitating and putting through the investment transactions.

In respect of investments in the existing JV/WOS, valuation shall be as follows (Regn. 6 (6)):

- Where investments are more than USD 5 Mn (or equivalent in other currencies), valuation by Category I Merchant Banker registered with SEBI or an Investment Banker/Merchant Banker outside India registered with appropriate regulatory authority in the host country.
- Where investments are less than USD 5 Mn (or equivalent in other currencies), a Certificate by a C.A. or a C.P.A.

- Repatriate all dues viz., Dividends, Royalties, Technical fees, etc., within 60 days of such amounts falling due.
- Disinvestments shall be allowed only after one year from the date of making the first investment.
- No write-off allowed in respect of disinvestments by resident individuals.
- A resident individual is prohibited in making Direct Investments in FATF Non-compliant countries.
- The JV/WOS should be engaged in Bonafede business activity.
- The JV/WOS should be an operating entity only and no step-down subsidiary is allowed to be acquired by the JV/WOS

Documentation for ODI:

- Form A2 vis-à-vis FEMA Declaration – Online submission of Form A2 allowed.
- Simplified documentation for individuals for amounts up to USD 25,000 subject to the satisfaction of the AD Bank
- Declaration of source of funds.
- PAN CARD.
- Form ODI (in respect of investment in WOS/JV abroad).

- Part I of Form ODI to be submitted within 30 days of making the first remittance.
- Designated AD Bank to report to RBI in Form ODI (Part I & II) within 30 days from the date of making the remittance by the resident individual. *Documentary evidence, wherever applicable.
- Resident individual should submit share certificates/any other document as evidence, within 6 months from the date of making the remittance.
- Post investment changes/alterations in share holding pattern to be reported to the Designated AD within 30 days from date of such changes.

- Submit every year, before 31st December, the Annual Performance Reports - APRs.
- Foreign Liabilities and Assets (FLA) report is not required.
- Disinvestments allowed after one year from the date of remittance.
- Disinvestments shall be repatriated to India immediately and in any case not later than 60 days from date of disinvestment & same is to be reported to the designated AD within 30 days from the date of receipt of disinvestment proceeds.

Loans by resident individuals to NRI close relatives:

- Resident individual is permitted to lend to a Non-resident Indian (NRI)/ Person of Indian Origin (PIO) by way of crossed cheque/ electronic transfer subject to the following conditions:
- Loan is free of interest.
- Minimum maturity of loan is one year.
- For borrower's personal requirements or for business purposes.

Loan shall not be utilized for:

- Business of chit funds/Nidhi funds.
- Agricultural, plantation or real estate activities, construction of farm houses, trading in TDRs, etc.
- Proceeds may be credited to the NRO account of the NRI/PIO.
- The loan amount shall not be remitted outside India.
- Repayment shall be from inward remittances or transfer from NRO/NRE/FCNR accounts.

Reporting Requirements under LRS

With effect from April 2018, a daily reporting system by AD Banks of transactions undertaken by the resident individuals has been put in place by RBI.

- ADs are required to upload daily transaction-wise information undertaken by them under the LRS.
- The reporting of daily transactions is to be reported on the XBRL platform by close of business of the next working day.*
- NIL report to be uploaded if there are no transactions on a particular business day.
- The data on such daily reporting is made available to all the AD Banks.

UNIT 3 – Correspondent Banking and NRI Accounts

1. **Corresponding Banking** is the relationship between two banks which have mutual accounts with each other, r one of them having account with the other.

2. **Functions** of Corresponding Banks:
A. Account Services
i. Clearing House Functions
ii. Collections
iii. Payments
iv. Overdraft and loan facility
v. Investment Services
B. Other Services
i. Letter of Credit Advising
ii. LC confirmation
iii. Bankers Acceptance
iv. Issuance of Guarantees – Bid-bond, Performance
v. Foreign Exchange services, including derivative products
vi. Custodial Services etc.

3. **Types of Bank Accounts:** The foreign account maintained by a Bank, with another bank is classified as Nostro, Vostro, and Loro Accounts.

4. **Nostro Account:** "Our Account with you". DLB maintains an US $ account with Bank of Wachovia, New York is Nostro Account in the books of DLB, Mumbai.

5. **Vostro Account:** "Your account with us". Say American Express Bank maintain a Indian Rupee account with SBI is Vostro Account in the books of American Express bank

6. **Loro Account:** It refers to accounts of other banks i.e. His account with them. E.g. Citi Bank referring to Rupee account of American Express Bank, with SBI Mumbai or some other bank referring to the USD account of SBI, Mumbai with Citi Bank, New York.

7. **Mirror Account:** While a Bank maintains Nostro Account with a foreign Bank, (Mostly in foreign currency), it has to keep an account of the same in its books. The mirror account is maintained in two currencies, one in foreign currency and one in Home currency.

8. **Electronic Modes of transmission/ payment gateways :** SWIFT, CHIPS, CHAPPS, RTGS, NEFT

9. **SWIFT:** Society for Worldwide Interbank Financial Telecommunications.

10. **SWIFT** has introduced new system of authentication of messages between banks by use of Relationship Management Application (RMA) also called as **SWIFT BIC i.e.Bank Identification Code.**

11. **CHIPS: (Clearing House Interbank Payment System)** is a major payment system in USA since 1970. It is established by New York Clearing House. Present membership is 48. CHIPS are operative only in New York.

12. **FEDWIRE:** This is payment system of Federal Reserve Bank, operated all over the US since 1918. Used for domestic payments.

13. All US banks maintain accounts with **Federal Reserve Bank** and are allotted an **"ABA number"** to identify senders and receivers of payment

What Does *ABA Transit Number* Mean?
A unique number assigned by the American Bankers Association (ABA) that identifies a specific federal or state chartered bank or savings institution. In order to qualify for an ABA transit number, the financial institution must be eligible to hold an account at a Federal Reserve Bank. ABA transit numbers are also known as ABA routing numbers, and are used to identify which bank will facilitate the payment of the check.

14. **CHAPS:** Clearing House Automated Payments system is British Equivalent to CHIPS, handling receipts and payments in LONDON

15. **TARGET:** Trans-European Automated Real Time Gross Settlement Express Transfer System is a EURO payment system working in Europe. And facilitates fund transfers in Euro Zone.
16. **RTGS + and EBA:** RTGS+ is Euro German Based hybrid Clearing System. RTGS+ has 60 participants.

17. **EBA-Euro 1** is a cross Border Euro Payments

18. **RTGS/NEFT in India:** The RTGS system is managed by IDRBT- Hyderabad. Real Time Gross Settlement takes place in RTGS. NEFT settlement takes place in batches.

19. **NRI: (Non- resident Indian) definition**: **As per FEMA 1999**
A person resident outside India who is a citizen of India i.e.
a) Indian Citizen who proceed abroad for employment or for carrying on any business or vocation or for any other purpose in cirucumstances indicating indefinite period of stay outside India.
b) Indian Citizens working abroad on assignment with Foreign government, government agencies or International MNC

c) Officials of Central and State Governments and Public Sector Undertaking deputed abroad on assignments with Foreign Govt Agencies/ organization or posted to their own offices including Indian Diplomatic Missions abroad.

20. **NRI** is a Person of Indian **Nationality or Origin,** who resides abroad for business or vocation or employment, or intention of employment or vocation, and the period of stay abroad is indefinite. And a person is of Indian origin if he has held an Indian passport, or he/she or any of his/hers parents or grandparents was a citizen of India.

21. **A spouse , who is a foreign citizen**, of an India citizen or PIO, is also treated **at a PIO,** for the purpose of opening of Bank Account, and other facilities granted for investments into India, provided such accounts or investments are in the joint names of spouse.

22. NRE Accounts – Rupee and Foreign Currency Accounts

23. NRI has provided with various schemes to open Bank A/cs an invest in India.
1) Non Resident (External) Rupee Account (NRE);
2) Non- Resident (Ordinary) Rupee Account (NRO);
3)Foreign Currency (Non-Resident) Account (Banks) {FCNR(B)}

When resident becomes NRI, **his/her domestic rupee account, has to be re-designated as an NRO account.**
For NRE – Rupee A/cs , w.e.f 15-3-2005 an attorney can withdraw for **local payments or remittance to the account holder himself through normal banking channels.**

Unit 4. Documentary Letters of Credit

1. In international trade, where buyers and sellers are far apart in two different countries, or even continents, the **Letter of Credit acts** as a most convenient instrument, giving assurance to the sellers of goods for payment and to the buyers for shipping documents, as called for under the Credit.

2. In order to bring an uniformity in matters pertains to LC Documents and Transactions, International Chamber of Commerce formed rules and procedures. Those are called as **Uniform Customs and Practices for Documentary Credits (UCPDC).**

3. The **International Chamber of Commerce** (ICC)was established in **1919 headquartered at Paris.**

4. The first UCPDC published in **1933** and has been revised from time to time in 1951, 1962,1974,1983,1993 and **recently in 2007.**

5. The updated UCPDC in 2007 is called as **UCPDC 600.** And it has been implemented **w.e.f 1-7-2007.**

6. **Documentary Credit/Letter of Credit**: LC/DC can be defined as a signed or an authenticated instrument issued by the buyer's Banker, embodying an undertaking to pay to the seller a certain amount of money, upon presentation of documents, evidencing shipment of goods, as specified, and compliance of other terms and conditions..

7. In a **LC, Parties are as follows:**
a. **The buyers/**Importers or the applicant – on whose behalf LC is opened.
b. The Sellers/Exporters or the **Beneficiary** of the LC
c. The **Opening Bank (Buyer's Bank),** who establishes the LC
d. The Advising **bank (Bank in sellers country),** who acts as an agent of the issuing bank and authenticates the LC.
e. The **Confirming Bank-** Who undertakes to pay on behalf of the issuing bank.
f. The **Negotiating Bank (Seller's** bank or Bank nominated by the opening Bank)
g. **Reimbursing Bank** – Who reimburses the negotiating or confirming bank.

For example, in a hypothetical Situation given below:
Mr Ram, (Banking with Dhanlaxmi Bank) an agriculture entrepreneur growing vegetables in green house technology in Khammam wants to update his farm house with modern machinery. He is importing the same from a Chinese manufacturer M/s Zuanch LLC, Beijing who are banking with China Development Bank for total cost of US$ 4500. M/s Zaunch LLC has issued an invoice stating the sale transaction must be backed by LC. As such, Mr Ram approaches Dhanlaxmi Bank for opening of Letter of Credit (Foreign) in FCY USD. Dhanlaxmi Bank's China Foreign Correspondent Bank is Bank of China, Beijing.

Applicant of LC	-	Mr Ram, Khammam
Beneficiary of LC	-	M/s Zaunch LLC
LC Opening/ Issuing Bank	-	Dhanlaxmi Bank
Advising Bank /Confirming Bank	-	Bank of China
Negotiating bank China	-	Development Bank
Reimbursing Bank	-	Bank of China in China

8**. Types of Letters of Credit**
a. Revocable LC
b. Irrevocable LC
c. Irrevocable Confirmed LC
d. Transferable LC
e. Red Clause LC
f. Sight/Acceptance, Deferred Payment, or Negotiation LC
g. Back to Back LC

9. **Revocable LC** can be amended or cancelled at any moment by the issuing bank without the consent of any other party, as long as the LC has not been drawn or documents taken up.

10. In case the Negotiating Bank has taken up the documents under revocable LC, prior to receipt of cancellation notice, the issuing bank is liable to compensate/reimburse the same to the negotiating bank.

11. **Irrevocable LC** which holds a commitment by the issuing bank to pay or reimburse the negotiating bank, provided conditions of the LC are complied with.

12. **Irrevocable LC** cannot be amended or cancelled without the consent of all parties concerned.

13. The **irrevocable LC** is an unconditional undertaking by the issuing bank to make payment on submission of documents conforming to the terms and conditions of the LC

14. All LCs issued, unless and otherwise specified, are **irrevocable Letter of Credits.**

15. **Irrevocable confirmed LC** is an L/c which has been confirmed by a bank, other than the issuing a bank, usually situated in the country of the exporter, thereby taking an additional undertaking to pay on receipt of documents conforming to the terms & conditions of the LC

16. The **Conforming Bank** can be **advising Bank**, which on receipt of request from the issuing bank takes this additional responsibility.

17. The conforming bank steps into the shoes of **the issuing bank** and performs all functions of the issuing bank.

18. **Transferrable LC** is available for transfer in full or in part, in favour of any party other than beneficiary, by the advising bank at the request of the issuing bank.

19. **Red Clause LC** enables the beneficiary to avail pre-shipment credit from the nominated/advising bank. The LC bears a clause in "RED Letter" authorizing the nominated bank to grant advance to the beneficiary, prior to shipment of goods, payment of which is guaranteed by the Opening Bank, in case of nay default or failure of the beneficiary to submit shipment documents.

20. **Under a Sight LC,** the beneficiary is able to get the payment on presentation of documents conforming to the terms and conditions of the LC at the nominated bank's countries.

21. **Under the Acceptance Credit**, the bill of exchange or drafts are drawn with certain Usance period and are payable upon acceptance, at a future date, subject to receipt of documents conforming to the terms and condition of the LC.

22. **A Deferred Payment Credit** is similar to Acceptance Credit, except that there is no bill of exchange or draft drawn and is payable on certain future date, subject to submission of credit confirmed documents. The due date is generally mentioned in the LC

23. A **Negotiation Credit,** the issuing Bank undertakes to make payment to the Bank, which has negotiated the documents.

24. **In a Negotiation LC,** LC may be freely negotiable or may be restricted to any bank nominated by the LC issuing Bank.

25. **Back to Back LC**: when an exporter arranges to issue an LC in favour of Local supplier to procure goods on the strength of export LC received in his favour, it is known as Back to Back LC.

26. UCP 600 come into **force w.e.f. 01/07/2007.**

27. Important Changes in the Articles of UCP 600 and their implication for the Banks:-
A reduction in the number of articles from **49 to 39**
New articles **on "Definitions" and "Interpretations"** providing more clarity and precision in the rules
A definitive description of negotiation as "purchase" of drafts of documents

The replacement of the **phrase "reasonable time" for acceptance o**r refusal of documents by a maximum **period of five banking days**
New provisions allow for the discounting of deferred payment credits
Banks can now accept an insurance document that contains **reference to any exclusion clause**

28. **UCP 600 does not apply by default** to letters of credit issued after July 1st 2007. **A statement needs to be incorporated** into the credit (LC), and preferably also into the sales contract that expressly states it is subject to these rules.

29. **Revocable Credits (Article 2):** One of the most important changes in UCP 600 is the exclusion of any verbiage regarding revocable letters of credit, which can be amended or canceled at any time without notice to the seller. .Actually, **Article 2** explicitly defines a credit as "any arrangement, however named or described, that is irrevocable and thereby constitutes a definite undertaking of the issuing bank to honour a complying presentation."

30. **Article 3** states that "**A credit is irrevocable even if there is no indication to that effect."** and **Article 10** makes it clear that "**a credit can neither be amended nor cancelled without the agreement of the issuing bank, the confirming bank, if any, and the beneficiary**" (seller).Therefore, it is prudent for the seller to stipulate in the sales contract that the "buyer will open an irrevocable letter of credit", and to check that the buyer's credit does, in fact, either describe itself as "irrevocable" or state that it incorporates UCP 600 (without exclusion).

31. **Definitions and Interpretations (Articles 2 and 3)**: A new section of Definitions and Interpretations has been introduced in the UCP 600. This includes definitions of "Advising bank", "Applicant", "Banking day", "Beneficiary", "Complying presentation", "Confirmation", "Confirming bank", "Credit", "Honour", "Issuing bank", "Negotiation", "Nominated bank", "Presentation", "Presenter". In addition to that, the following terms are now clearly defined : "singular/plural", "irrevocable", "signatures", "legalizations", "Branches of a bank", "Terms describing issuer of a document", "Prompt etc", "on or about", "to", "until", "till", "from", "between", "before", "from", "after", "first half", "second half", "beginning", "middle", "end".

32. **Deferred payment undertakings - Articles 7 and 8** :. Articles 7 and 8 establish a definite undertaking by issuing and confirming banks to reimburse on maturity whether or not the nominated bank prepaid or purchased its own acceptance or deferred payment undertaking before maturity.

33. Article 12(b) expressly provides authority from an issuing bank to a nominated bank to discount prepay or purchase) a draft that it has accepted or a deferred payment undertaking that it has given.

34. **Advising of credits - Article 9**: At present an advising bank only has to verify the apparent authenticity of the credit that it has advised. Under art 9(b) it has to certify that the document that it

advises to the beneficiary is the same document that it received. **The obligation is also extended to any second advising ban**k.

35. **Amendments - Article 10**:- The position under article 9(d)(iii) of UCP 500 has been maintained in Article 10 under UCP 600. Article 10 now deals exclusively with amendments and article 10(c) provides: '… **The beneficiary should give notification of acceptance or rejection of an amendment**. If the beneficiary fails to give such notification, a presentation that complies with the credit and to any not yet accepted amendment will be deemed **to be notification of acceptance by the beneficiary of such amendment**.

36. **Time Allowed Banks for Document Review (Article 14)** :- Under UCP 500, banks have a **"reasonable time … not to exceed seven banking days**" in which to honor or dishonor documents. **UCP 600** shortens the period to a **maximum of five "banking days".**

37. Article 2 defines a **banking day as** "a day on which a bank is regularly open at the place at **which an act subject to these rules is to be performed**."

38. **Non-Matching Documents (Article 14):-** Article 14(d) provides the standard for examination of documents generally. It seeks to resolve the problem of inconsistency in data by clarifying that there is no need for a mirror image but rather

39. **Regarding addresses on the various documents, Article 14** indicates that they do not have to exactly match as long as the country is the same. The only exception is when addresses appear as part of the consignee or notify party details on a transport document, in which case they must be the same as stated in the credit.

40. **Examination of documents:** The standard for examining documents is reflected in article 14. **Banks now only have 5 banking days to accept or refuse documents.** This replaces the "Reasonable time not exceeding 7 banking days".

41. **The period for presentation (usually 21 days) only applies to original transport documents.**

42. Addresses of beneficiaries and applicants need no longer be as mentioned in the documentary credit. They must however be within the same country.

43. **Non-Documentary Requirements**: - Under UCP 600, Banks should disregard all non-documentary requirements. This means that any requirement in the credit that is not specifically part of a required document will be ignored by the bank in determining conformity.

44. **Complying presentation - article 15**:- Under UCP 600 it is clear that this begins when the bank determines that a presentation is compliant.

45. **Discrepant documents, waiver and notice - Article 16**:- Under UCP 500 a bank which refuses documents has the option of holding them at the presenter's disposal or handling them in accordance with the presenter's prior instructions, such as to return them. Article 16 now encompasses additional options designed to avoid banks sitting on discrepant documents and issues relating to forced waivers.

The options (which are alternatives) are as follows:
Hold documents pending further instructions from the presenter; or
Hold documents until it receives a waiver from the applicant and agrees to accept it, or receives further instructions from the presenter prior to agreeing to accept a waiver; or return the documents; or act in accordance with instructions previously received from the presenter. There is no provision for payment under reserve or indemnity.

46. **Original Documents (Article 17)**:- Article 17 of the new rules attempts to define original documents with more precision.

47. **Transport documents: Articles 19-24**:- The transport articles have been redrafted under advice of a group of "transport experts". The requirement that a bill of lading must show that goods are shipped on board a named vessel has been made much simpler which will hopefully lead to less confusion.

48. It is now acceptable that a **"Charterer"** (or a named agent on behalf of the charterer) can sign a **Charter Party Bill of Lading**. If an agent signs on behalf of a "**Master" on a Charter Party Bill of Lading t**hen the name of **the master need not appear from the document**.

49. Under UCP 600 a generic set of rules generally applies to all transport documents (other than charter party bills of lading). These include the following:
The document must indicate the name of the carrier and be signed by: (a) the carrier or named agent for or on behalf of the carrier; or (b) the master or named agent for or on behalf of the master.
Any signature by the carrier, master or agent must be identified as that of the carrier, master or agent.
Any signature of an agent must indicate whether the agent has signed for or on behalf of the carrier for or on behalf of the master.
There is no need to name the master.
In the case of charter party bills of lading :
These no longer need to indicate the name of the carrier.

They may now also be signed by the charterer, although it is difficult to envisage a situation where an FOB buyer/ applicant would wish to rely on a bill of lading signed by the seller/beneficiary and vice versa in the case of a CIF sale.
Transport documents also no longer need to bear the clause 'clean' in order to comply with any credits that require a document to be 'clean on board'.

50. **Insurance documents - article 28**:- Documents providing for wider coverage than stipulated in a credit will be acceptable. Banks will also be able to accept an insurance document that **contains reference to any exclusion clause**.

51. For the insurance documents the following has been changed: **"Proxies" can now sign** on behalf of the **insurance company** or **underwriter.**

52. **Force majeure - Article 36**:-Despite suggestions for an option to allow a grace period of five banking days after a bank reopens for the presentation of documents, the position remains as it was under UCP 500 -i.e. **banks will not honour or negotiate under a credit that expired during the force majeure event.**

53. It is the responsibility of the **Negotiating bank** to examine the documents, before making payment.

54. In case the advising bank does not advise the LC, it must inform of its decision to the **Opening Bank** immediately.

55. The **advising bank** must ensure the authenticity of LC before advising the same to the beneficiary.

56. In case the reimbursing bank does not pay to the negotiating bank, the ultimate **liability** lies with the **opening bank.**

57. **Important documents** called for under the **Letter of Credit :**
a. Bill of Exchange
b. Invoice
c. Bill of Lading
d. Insurance Policy/Certificate
e. Certificate of Origin
f. Packing List, Weight List and other Documents

58. **Bill of exchange** is drawn by the Beneficiary on the LC issuing Bank.

59. **Invoice** is a commercial Document and is a basic necessity of trade documents. It is being prepared by the Beneficiary

60. If invoice is issued for an amount in excess of the amount permitted by credit (when not specifically prohibited by the terms of LC), as per Article 18 B of UCPDC, **the drawing should not exceed the amount of credit.**

61. **Bill of Lading** is a transport document evidencing movement of goods from the port of acceptance to port of destination. It is a receipt issued by the ship owner or its authorized agent.

Unit - 5. Facilities for Exporters and Importers

Exports

RBI and DGFT RBI controls Foreign Exchange and DGFT (Directorate General of Foreign Trade) controls Foreign Trade. Exim Policy as framed in accordance with FEMA is implemented by DGFT. DGFT functions under direct control of Ministry of Commerce and Industry. It regulates Imports and Exports through EXIM Policy.

On the other hand, RBI keeps Forex Reserves, Finances Export trade and Regulates exchange control. Receipts and Payments of Forex are also handled by RBI.

IEC – Importer Exporter Code

One has to apply for IEC to become eligible for Imports and Exports. DGFT allots IEC to Exporters and Importers in accordance with RBI guidelines and FEMA regulations. EXIM Policy is also considered before allotting IEC.

Export Declaration Form

All exports (physically or otherwise) shall be declared in the following Form.

GR form--- meant for exports made otherwise than by post.

PP Form---meant for exports by post parcel.

Softex form---meant for export of software.

SDF (Statutory Declaration Form)----replaced GR form in order to submit declaration electronically.

SDF is submitted in duplicate with Custom Commissioned who puts its stamp and hands over the same to exporter marked “Exchange Control Copy” for submission thereof to AD.

Exceptions

Trade Samples, Personal effects and Central Govt. goods.

Up to USD 25000 (value) – Goods or services as declared by exporter.

Gift items having value up to Rs. 5.00 lac.
Goods with value not exceeding USD 1000 value to Mynmar.
Goods imported free of cost for re-export.
Goods sent for testing.

Prescribed Time limits

The time norms for export trade are as under:
Submission of documents with "Exchange Control Copy" to AD within 21 days from date of shipment.
Time period for realisation of Export proceeds is 12 M or 365 days from date of shipment.
No time limit for SEZ (Special economic zones) and SHE(Status Holder Exporters) and 100 EOUs.
After expiry of time lime limit, extension is sought by Exporter on ETX Form.
The AD can extend the period by 6M. However, reporting will be made to RBI on XOS Form on half yearly basis in respect of all overdue bills.

Direct Dispatch of Shipping Documents
AD banks may handle direct dispatch of shipping documents provided export proceeds are up to USD 1 Million and the exporter is regular customer of at least 6 months.

Prescribed Method of payment and Reduction in export proceeds
Exporter will receive payment though any of the following mode:
Bank Drafts, TC, Currency, FCNR/NRE deposits, International Credit Card. But the proceeds can be in Indian Rupees from Nepal.
Export proceeds from ACU countries (Bangladesh, Burma, Mynmar, Iran, Pak, Srilanka, Nepal and Maldivis can be settled in ACUEURO or USD. A separate Dollar/Euro account is maintained.

Exports may be allowed to reduce the export proceeds with the following:
Reduction in Invoice value on account of discount for pre-payment of Usance bills (maximum 25%)
Agency commission on exports.
Claims against exports.
Write off the unrecoverable export dues up to maximum limit of 10% of export value.
The proceeds of exports can be got deposited by exporter in any of the following account:
Overseas Foreign Currency account.
Diamond Dollar account.
EEFC (Exchange Earners Foreign Currency account)

DDA _ diamond Dollar accounts
Diamond Dollar account can be opened by traders dealing in Rough and Polished diamond or Diamond studded Jewellary with the following conditions:
With track record of 2 years.

Average Export turnover of 3 crore or above during preceding 3 licensing years.
DDA account can be opened by the exporter for transacting business in Foreign Exchange. An exporter can have maximum 5 Diamond Dollar accounts.

EEFC Exchange Earners Foreign Currency accounts can be opened by exporters. 100% export proceeds can be credited in the account which do not earn interest but this amount is repatriable outside India for imports (Current Account transactions).

Pre-shipment Finance or Packing Credit
Packing credit has the following features:
Calculation of FOB value of order/LC amount or Domestic cost of production (whichever is lower).
IEC allotted by DGFT.
Exporter should not be on the "Caution List" of RBI.
He should not be under "Specific Approval list" of ECGC.
There must be valid Export order or LC.
Account should be KYC compliance.
Liquidation of Pre-shipment credit
Out of proceeds of the bill.
Out of negotiation of export documents.
Out of balances held in EEFC account
Out of proceeds of Post Shipment credit.
Concessional rate of interest is allowed on Packing Credit up to 270 days. Previously, the period was 180 days. Running facility can also be allowed to good customers.

Post Shipment Finance
Post shipment finance is made available to exporters on the following conditions:
IEC accompanied by prescribed declaration on GR/PP/Softex/SDF form must be submitted.
Documents must be submitted by exporter within 21 days of shipment.
Payment must be made in approved manner within 6 months.
Normal Transit Period is 25 days.
The margin is NIL normally. But in any case, it should not exceed 10% if LC is there otherwise it can be up to 25%.

Types of Post Shipment Finance:
Export Bills Purchased for sights bills and Discounting for Usance bills.
Export bills negotiation.

Discrepancies of Documents
Late Shipment, LC expired, Late presentation of shipping documents, Bill of Lading not signed properly, Incomplete Bill of Lading, Clause Bill of Lading , Short Bill of Lading or Inadequate Insurance.

Advance against Un-drawn Balance

Undrawn balance is the amount less received from Importers. Bank can finance up to 10% undrawn amount.

Advance against Duty Drawback

Duty drawback is the support by Government by way of refund of Excise/Custom duty in case the domestic cost of the product is higher than the Price charged from the importer. This is done to boost exports despite international competition. Bank can make loan to exporter against Duty Drawback.

Crystallization of Overdue Bills

Consequent upon non-realization, Conversion of Foreign Exchange liability into Rupees is called crystallization. It is done on 30th day after notional due date at prevailing TT selling rate or Original Bill Buying Rate (Whichever is higher).

DA Bills

Notional due date is calculated in DA Bill by adding normal period of transit say 25 days in the Usance period. 30th day is taken from notional due date.

DP Bills

30th day after Normal Transit Period. If 30th day happens to be holiday or Saturday, liability will be crystallized on the following working day.
Policy has been liberalized and crystallization period will be decided.

Export of services

Credit can be provided to exporters of all 161 tradable services covered under GATS (General Agreement on Trade in services) where payment for such services is received in Forex. The provisions applicable to export of goods apply to export of services.

Gold Card Scheme

All exporters in Small and Medium Sector with good track record are eligible to avail Gold Card Scheme. The conditions are :
Account should be classified as Standard assets for the last 3 years.
Limit is sanctioned for 3 years and thereafter automatic renewal.
There is provision of 20% Standby limit.
Packing Credit is allowed in Foreign currency.
Concessional rate is allowed for 90 days initially which can be extended for 360 days.
Bank may waive collateral and provide exemption from ECGC Guarantee schemes.

Factoring and Forfaiting

Factoring is financing and collection of Export Receivables. The client sells Receivables at discount to Factor in order to raise finance for Working Capital. It may be with or without recourse. Factor finances about 80% and balance of 20% is paid after collection from the borrower. Bill should carry LR/RR. Maximum Debt period permitted is 150 days inclusive of grace period of 60 days. Debts are assigned in favour of Factor. There are 2 factors in International Factoring. One is Export Factor and the other is Import Factor. Importer pays to Import factor who remits the same to Export Factor.

Forfaiting is Finance of Export Receivables to exporter by the Forfaitor. It is also called discounting of Trade Receivables such as drafts drawn under LC, B/E or PN. It is always No Recourse asis (i.e. without recourse to exporter). Forfaitor after sending documents to Exporters' Bank , makes 100% payment to exporter after deducting applicable discount.

Pre-shipment & Post-shipment Finance

Q. 1. Received order of USD 50000(CIF) to Australia on 1.1.2015 when USD/INR Bill Buying Rate is 43.50. How much preshipment finance will be released considering profit margin of 10% and Insurance and freight cost@ 12%.

Solution

FOB Value = CIF – Insurance and Freight – Profit (Calculation at Bill Buying Rate on 1.1.2015)
= 50000X43.5 = 2175000 – 216000(12%) – 191400(10% of 1914000) = 1722600
Pre-shipment Finance = FOB value -25%(Margin) = 1722600-430650=1291950.

Q. 2. What will be amount of Post-shipment Finance under Foreign Bill Purchased for USD 45000 when Bill Buying rate on 31.3.2015 (date of submission of Export documents) is 43.85

Solution

45000X43.85 = 1973250 Ans.

Q. 3. Period for which concessional Rate of Interest is charged on DP bills from date of purchase.

Ans - 25 days

Q. 4. If the above said bill remains overdue for 2 months, what will be date of crystallization?

Due Date of Bill will be 31.3.11 + 25 days = 25.4.2011
The bill will be crystallized on 24.5.2011 i.e. on 30th day from due date.

Q. 5. On 8th Sep, an exporter tenders a demand bill for USD 100000 drawn on New York. The USD/INR quote is as under:

Spot---------USD 1 =34.3000/3500
Spot Sep----------6000/7000
Spot Oct----------8000/9000
Spot Nov----------10000/11000
Transit Period is 20 days and Exchange margin 0.15%
Calculate Rupee payable to the customer. Customer wants to retain 15% in Dollars

Solution
Since, the currency is at premium, the transit period will be rounded off to the lower month (i.e. NIL). And the rate to the customer will be based on Spot Rate. If interest rate is 13%, how much interest will be recovered from the exporter.

Spot Buying rate = 34.3000
Less Exchange Margin = 0.0515
34.2485 or 34.25 per dollar.
Amount in Indian Rupee = 85000(85% of 100000) x 34.25 = 2911250/-
Interest will be charged on 2911250/- @ 13% for 20 days = 20738/-.

Q. 6. On 26th Aug, an exporter tenders for purchase a bill payable 60 days from sight and drawn on New York for USD 25650. The dollar rupee rate is as under:

Spot----------1USD = 34.6525/6850
Spot Sep----------1500/1400
Spot Oct----------2800/2700
Spot Nov----------4200/4100
Spot Dec----------5600/5500

Exchange Margin is 0.15%, Transit Period is 20 days. Rate of Interest is 13%.
What will be the exchange rate payable to the customer and Rupee amount payable?

Solution
Notional due Date = 20+60 days from 26th Aug i.e. 14th Nov. Since, the currency is at discount, the period will be rounded off to the same month (higher of Oct or Nov). Obviously, the discount of Nov will be more and it will make the Buy Rate Lower.

Dollar/Rupee market spot Buying Rate = 34.6525
Less Discount for August to November = 0.4200 = 34.2325
Less Exchange Margin @.15% .0513 = 34.1812
Rupee Amount payable to exporter = 25650 X 34.18 = 876717.00
Less Interest for 80 days @ 13% = 24980.00

Less out of pocket expenses = 500.00 = 851237.00

Imports

Imports – Prerequisites
AD1 banks are to ensure that Imports are in accordance with:
Exim Policy
RBI Guidelines
FERA Rules
Goods are as per OGL (Open General list).
Importer is having IEC (Import Export Code) issued by DGFT.

Imports Formalities & Time limit for import payment
The following are essential elements of Imports:
An importer before remitting proceeds exceeding USD 500 must submit application on Form A-1 to the Authorized Dealer.
AD banks can issue LC on the basis of License and Exchange Control Copy.
Remittance against exports should be completed within 6 months from date of shipment.
Any delay beyond 6 months will be treated as Deferred Payment arrangement and the same will be treated as Trade Credit up to the period less than 3 years.

Advance Remittances
AD Banks may remit advance payment of Imports subject to following conditions:
Up to USD 2,00,000 or equivalent after satisfying about nature of transaction, trade and standing of Supplier.
In excess of 2,00,000 USD, an irrevocable Standby LC or Guarantee from a bank of international repute or a guarantee from bank in India, if such guarantee is issued against Counter guarantee of International bank outside India.
The requirement of guarantee may not be insisted upon in case of remittances above USD200000 up to USD 50,00,000 (5 million) subject to suitable policy framed by BOD of bank.
The AD should be satisfied with track record of the exporter.
Approval of RBI is required only if Advance remittance exceeds USD 50,00,000 or equivalent.
Advance remittance will be made direct to Overseas supplier or his bank.
Physical imports must be made within 6 months from date of Remittance. For Capital goods, the period is 3 years.

Evidence of Imports
Importer must submit Evidence of Imports i.e. Exchange control copy of “Bill Of Entry”. The AD will ensure receipt of Bill Of Entry in all cases where Value of Forex exceeds USD 100000, within 3 months

from date of remittance. Otherwise, one months' notice will be served. If there is still default of 21 days after serving notice, Ad will forward Statement to RBI on Half yearly basis on BEF Form.

Import Finance Importer can avail finance from banks/FIs in the shape of :
Letter of Credit
Import Loans against Pledge/Hypothecation of stocks.
Trade Credit – Supplier Credit or Buyer Credit

Trade Credit If the Import proceeds are not remitted, within 6 months, it is treated as Trade Credit up to the period less than 3 years. For period 3 years and above, the credit is called ECB (External Commercial Borrowings).

Suppliers' Credit
It is credit extended by Overseas suppliers to Importer normally beyond 6 months up to period of 3 years.
Up to 1 year for Current Account Transactions
Up to 3 years for Capital Account Transactions
Monetary Limit is USD 20 million per transaction.

Buyers' Credit
It is credit arranged by Importer from Banks/Fis outside countries. Banks can approve proposals of Buyers' Credit with period of Maturity:
Up to 1 year for Current Account Transactions
Up to 3 years for Capital Account Transactions
Monetary Limit is USD 20 million per transaction.

Crystallization of Foreign Currency Liability into INR

In case the importer fails to make payment,
crystallization of Foreign Exchange liability into Indian Rupees is done on 10th day at TT selling Rate.

In case of Retirement of Import Bill
The crystallization is done at current Bill Selling Rate or Contracted Bill Selling Rate (Whichever is higher).
DP Bill: On 10th Day from date of receipt of Import Bill.
DA Bill: On Actual Due Date.

Unit – 6 : External Commercial Borrowings and Foreign Investments in India

- External Commercial Borrowings (ECBs) are commercial borrowings raised by eligible resident entities from recognized non-resident entities (lenders) towards medium-term (3/5 years) and long-term (10 years) foreign currency denominated debts including Indian Rupee denominated borrowings with a minimum average maturity period (MAMP) of 3 years and above.
- The eligible resident Indian entities are also eligible to borrow for periods of less than 3 years, subject to the extant guidelines of the Reserve Bank of India.
- ECBs can be raised either under the Automatic route or through the Approval route

FCY Denominated ECB

It can be in any freely convertible foreign currency and includes bank loans, floating/fixed rate notes/bonds/ debentures (other than fully and compulsorily convertible instruments), trade credits beyond 3 years,Foreign Currency Convertible Bonds (FCCBs), Foreign Currency Exchangeable Bonds (FCEBs).

INR Denominated ECB

Which includes bank loans, floating/fixed rate notes/bonds/ debentures (other than fully and compulsorily convertible instruments), trade credits beyond 3 years, Foreign Currency Convertible Bonds (FCCBs), Foreign Currency Exchangeable Bonds (FCEBs) and includes Plain Vanilla Rupee denominated bonds issued overseas which can be either placed privately or listed on exchanges - as per host country regulations.

External Commercial Borrowings - Eligible Borrowers

- All entities eligible to receive FDI.
- Entities recognized as Startup by the Central Government as on date of raising ECB.
- Port Trusts, Units in SEZ, SIDBI, EXIM Bank.
- Registered entities engaged in micro-finance activities viz., registered Not for Profit Companies, registered societies/ trusts/co-operatives and Non-Government Organizations are permitted only to raise INR ECBs.

Not Permitted End Use

The negative list for which ECB proceeds cannot be utilized

- Real estate activities
- Investment in capital market
- Equity investment
- Working capital purposes except from foreign equity holder
- General corporate purposes except from foreign equity holder
- Repayment of Rupee loans except from foreign equity holder
- On-lending to entities for the above activities

ECBs Recognized Lenders

- The lender should be resident of FATF (Financial Action Task Force) compliant country or IOSCO (International Organization of Securities Commission) compliant country.
- Multilateral and Regional Financial Institutions where India is a member country will also be considered as recognized lenders.
- Individuals as lenders can only be permitted if they are foreign equity holders or for subscription to bonds/debentures listed abroad.
- Foreign branches / subsidiaries of Indian banks are permitted as recognized lenders only for FCY ECBs (except FCCBs and FCEBs).
- Foreign branches / subsidiaries of Indian banks, subject to applicable prudential norms, can participate as arrangers / underwriters /market-makers/ traders for Rupee denominated Bonds issued overseas.

Minimum Average Maturity

Minimum average maturity period (MAMP) will be 3 years, including borrowing by startups.

All-in-Cost

- It includes rate of interest, other fees, expenses, charges, guarantee fees, whether paid in foreign currency or INR but will not include commitment fees and withholding tax payable in INR.
- In the case of fixed rate loans, the swap cost + spread should not be more than the floating rate + spread.
- Additionally, for FCCBs the issue related expenses should not exceed 4% of issue size if listed and in case of private placement, these expenses should not exceed 2% of the issue size, etc.

All-in-Cost ceiling:

- For new ECBs - Benchmark Rate + 500 bps spread.
- For existing ECBs linked to LIBOR whose benchmarks are changed to ARR – Benchmark Rate + 550 bps spread.

ARR: Alternative Reference Rates

For INR denominated ECBs - Benchmark rate + 450 bps spread

ECBs other operational concepts:

- Change of currency of ECB from one freely convertible foreign currency to any other freely convertible foreign currency as well as to INR is freely permitted.
- The ECB borrower will be required to cover principal as well as coupon through financial hedges. The financial hedge for all exposures on account of ECB should start from the time of each such exposure (i.e., the day liability is created in the books of the borrower). • All eligible borrowers can raise ECB up to USD 750 million or equivalent per financial year under

Automatic Route. However, entities recognized as Startup by the Central Government can raise maximum of USD 3 million or equivalent per financial year.

- In case of FCY denominated ECB raised from direct foreign equity holder, ECB liability-equity ratio for ECBs raised under the automatic route cannot exceed 7:1.
- Issuance of any type of guarantee by Indian banks, All India Financial Institutions and NBFCs relating to ECB is not permitted.
- ECB proceeds meant only for foreign currency expenditure can be parked abroad pending utilization.
- Until utilization of ECB proceeds, funds can be invested in liquid assets viz.,
- ➢ Deposits or Certificate of Deposit (CD) or other products offered by banks rated not less than AA- by Standard and Poor/ Fitch or Aa3 by Moody's.
- ➢ Treasury bills and other monetary instruments of one-year maturity having minimum rating as indicated above and
- ➢ Deposits with foreign branches of Indian banks abroad.
- ECB proceeds meant for Rupee expenditure should be repatriated immediately for credit to Lender's Rupee accounts with AD Category I banks in India.
- ECB borrowers are also allowed to park ECB proceeds in term deposits with AD Category I banks in India for a maximum period of 12 months cumulatively.
- Any draw-down in respect of an ECB should take place only after obtaining the Loan Registration Number (LRN) from the Reserve Bank on submission of Form ECB.

Draw-down: Withdrawal

- The borrowers are required to report actual ECB transactions in Form ECB 2 Return through the AD Category I bank on monthly basis to reach RBI within 7 working days from the close of month to which it relates.
- Changes in ECB parameters in consonance with the ECB norms, including reduced repayment by mutual agreement between the lender and borrower, should be reported to the RBI through revised Form ECB at the earliest, in any case not later than 7 days from the changes effected.

Refinancing of existing ECB

- Refinancing of existing ECB by fresh ECB is permitted, provided the outstanding maturity of the original borrowing is not reduced and the all-in-cost of fresh ECB is lower than the all-in-cost of existing ECB.
- Foreign branches of Indian banks are permitted to participate in refinancing of existing ECB, only for highly rated corporates (AAA) and for Maharatna/Navratna Public Sector Undertakings.

Reporting Requirements

- Loan Registration Number (LRN) – Drawdown of ECBs should happen only after obtention of LRN from the RBI
- The borrowers are required to submit Form ECB through the AD Category I Bank
- The borrowers are required to report the actual ECB transactions through ECB 2 returns through the AD Category I Bank on a monthly basis so as to reach within 7 days from the close of the relevant month
- Any borrower, who is otherwise in compliance of the ECB guidelines, can regularize the delay in reporting by payment of Late Submission Fees (LSF) for the period of delay and the delays may range from up to 30 days from the due date of submission to beyond 3 years from the due date of submission.
- The late submission fees may also range from Rs. 5,000 to Rs. 1,00,000 per year depending on the extant delayed submission

Conversion of ECB into Equity

Conversion should be with the lender's consent and without any additional cost and adhering to the sectoral cap as per the FDI Policy.

Foreign Investment

Foreign Investment in India is regulated in terms of Section 6 [sub-section 2A] and Section 47 of the Foreign Exchange Management Act, 1999 (FEMA) read with Foreign Exchange Management (Non-Debt Instruments) Rules, 2019 (NDI Rules).

Foreign Investments - Revised Framework

There are multiple regulators dealing with foreign investment as under:

- Department of Economic Affairs of Finance Ministry notifies Non-Debt Instruments (NDI) rules.
- RBI – Nodal authority for Valuations & Reporting of foreign investment.
- Approval for foreign investment not falling within automatic route - earlier "Foreign Investment Promotion Board (FIPB)".
- Now, Department of Industrial Policy & Promotion (DIPP) -For issuing policy measures and approvals in some sectors like NRI investment and retail trading & Formulate FDI Policy.
- Ministry of Commerce - approvals / licenses for specific matters like defense, insurance, etc.

Key Concepts: Foreign Direct Investment (FDI)

- Any investment in Equity instruments.
- Made by a Person Resident Outside India (PROI). On a repatriable basis:
  - In an unlisted Indian company
  - 10% or more of the paid-up equity capital, on a fully diluted, basis in a listed company.
  - In an LLP towards capital contribution.

- In case an existing investment by a PROI in equity instruments of a listed Indian company falls to a level below 10% of the post issue paid-up equity capital on a fully diluted basis, the investment shall continue to be treated as FDI.
- Once an FDI, always an FDI.

Foreign Portfolio Investment (FPI)

- Foreign Portfolio Investor (FPI) means a person registered in accordance with the Provisions of SEBI (FPI) Regulations 2019 wherein FPIs can invest in securities in the primary and secondary markets including shares, debentures and warrants of companies, listed or to be listed on a recognized stock exchange in India.
- Investment made by a PROI in less than 10% of the paid-up equity capital, on a fully diluted basis of a listed company.
- The 10% limit for foreign portfolio investors shall be applicable to each foreign portfolio investor or an investor group as referred in Securities and Exchange Board of India (Foreign Portfolio Investors) Regulations, 2014.
- A PROI may hold foreign investment either as FDI or FPI in any particular Indian company.

Downstream Investments (Indirect Foreign Investments)

Downstream investment means the indirect foreign investment in the Indian company (i.e. investee company) as a result of investment by other Indian company (i.e. investor company) having foreign investment in it.

Sectoral Cap

Sectoral Cap is the ceiling limit up to which a PROI can subscribe to the Paid-up capital of Indian Investee Company as prescribed under Sector-wise/Activity-wise by Department of Industrial Policy & Promotion (DIPP), Govt. of India.

Foreign Venture Capital Investments (FVCI)

- FVCI is incorporated outside India and can invest in Domestic Venture Capital Fund or a Venture Capital undertaking (Domestic unlisted Company).
- They are SEBI registered Investment Vehicle

Foreign investment in Investment Vehicle

- Real Estate Investment Trusts (REITs) governed by the SEBI (REITs) Regulations, 2014.
- Infrastructure Investment Trusts (InvITs) governed by the SEBI (InvIts) Regulations, 2014.
- Alternative Investment Funds (AIFs) governed by the SEBI (AIFs) Regulations, 2012.

Start-up Company

- Start-up recognition will be restricted to 7 years from the incorporation/registration.
- In case of bio-technology sector, start-up recognition will be up to 10 years.

- Turnover for any FY since incorporation/registration does not exceed INR 100 crores.
- The entity is working towards innovation, development or improvement of product or processes or services, or operating on a scalable business model with high potential for employment generation/wealth creation.

Eligible Foreign Investors

- PROI- Non-resident entities, NRIs, OCIs, Foreign Nationals
- NRIs resident in Nepal and Bhutan subject to the inward remittances received in free foreign exchange
- Erstwhile overseas corporate body (OCBs) who are not under the RBI caution list
- Foreign Portfolio Investors (FPI)
- Foreign Venture Capital Investors (FVCI)

Eligible Investee Entities: Where you can invest?

- Indian Companies as defined under the Companies Act 2013
- Trusts being Venture Capital Funds regulated by SEBI
- LLPs
- Special Investment Vehicles
- Start-up companies

Eligible Investment Instruments:

- Fully paid Equity shares.
- Partly paid Equity shares, provided 25% of total consideration is received upfront and balance within 12 months.
- Fully, Compulsorily and mandatorily convertible debentures/Preference shares.
- Share warrants provided at least 25% of consideration is received upfront and balance within 18 months of issuance. Share warrants or stock warrants are documents issued by a company that give you the right to buy or sell the company's shares at a specific price at a particular date or within a period.
- Convertible notes issued by Startup entities, repayable at the option of the holder or converted into equity within a period not exceeding 5 years from the date of issue of the CN.
- Bonus Shares/Rights Shares/ESOPs (Employee Stock Ownership Plans)
- Swap of equity instruments (FDI & ODI (Outward Direct Investment))- NRI owned companies.
- Import of capital goods/machinery.
- Conversion of ECB into equity shares.

Prohibited Sectors: Where you can't invest?

- Lottery business including Government, Private and On-line
- Gambling and betting including Casinos
- Chit Funds

- Nidhi Business
- Trading in Transferable Development Rights
- Real Estate Business, Construction of Farmhouses, etc
- Manufacturing of Tobacco, Cigarettes tobacco substitutes
- Sectors do not open to Private investments, eg., Atomic Energy, Railways

List of Documents for Obtention of Foreign Investments

- Application (for Inward) along with FEMA declaration signed by Investee Company
- Brief profile of Investee Company providing main business activities of the entity with 5-digit NIC code as per NIC 2008 list. (NIC: National Industrial Classification)
- Copy of MOA of Indian Investee Company
- Copy of MOU/share purchase agreement
- 6 Point KYC SWIFT of the remitter/investor as per RBI format
- NOC from joint account holder if shares are being issued on single name (applicable for remittance received from joint accounts only).
- Declaration stating Capital instruments against this remittance would be issued within 60 days accordance with the provisions.
- Scan email acknowledgement received by the investee company from FIRMS helpdesk w.r.t to Entity master.
- FIRMS: Foreign Investment Reporting and Management System
- FC-GPR: Foreign Currency Gross Provisional Return

List of Documents for Refund of Foreign Investments

- Application (FCTRS Outward) + Form A2 signed by Investee Company. FC-TRS: Foreign Currency Transfer of Shares.
- FIRC in original obtained and endorsed and retained along with the records. FIRC: Foreign Inward Remittance certificate.
- Copy of UIN letter/FIRMS FC-GPR reporting Ref Number. UIN: Unique Identification Number. Allotted by RBI.
- Letter from the Company mentioning reason for return of funds.
- Board resolution from the company confirming excess funds have been received as share application money and the excess funds are being repatriated back to the investor.
- Letter confirmation that no interest element involved in refund of excess share application funds.
- Branch has to intimate to RBI about refund once refund transaction is processed.

Unit – 7 : Risks in Foreign Trade - Role of ECGC

Risks in International Trade

Foreign trade risk may be defined as Uncertainty or Unplanned events with financial consequences resulting into loss. Types of Risks are as under:
Buyers' Risk: Non-Acceptance or non-payment
Sellers' Risk: Non- shipping or Shipping of poor quality goods or delay.
Shipping Risk: Mishandling, Goods siphoned off, Strike by potters or wrong delivery.

Other Risks:
Credit Risk
Legal Risk
Country Risk
Operational Risk
Exchange Risk
Country Risk

Provision of risk is made if Exposure to one country is 1% or more of total assets. ECGC has the list of Country Risk Ratings which can be referred to by the Banks and the banks can make their own country risk policy.

Risk Classification of Countries

Export Credit and Guarantee Corporation provides guarantee cover for risks which can be availed by the banks after making payment of Premium. ECGC adopts 7 fold classification covering 204 countries. The list is updated and published on quarterly basis. The latest classification is as under:

Insignificant Risks A1
Low Risk A2
Moderately Low Risk B1
Moderate Risk B2
Moderately High Risk C1
High Risk C2
Very High Risk D

Besides above, 20 countries have been placed in "Restricted Cover Group-1" where revolving limits are approved by ECGC and these are valid for 1 year. The other 13 countries are placed in "Restricted Cover Group-2" where specific approval is given on case to case basis by ECGC.

ECGC ECGC was established in 1964. Export Credit and Guarantee Corporation provides guarantee cover for risks which can be availed by the banks after making payment of Premium. Its activities are governed by IRDA. The functions of ECGC are 3 fold:

It rates the different countries.
It issues Insurance Policies.
It guarantees proceeds of Exports.

Types of Policies:
Standard Policies
It provides cover for exporters for short term exports. These cover Commercial and Political Risks.

The different types of Policies are:
Shipment (Comprehensive Risk) Policy – to cover commercial and political risks from date of shipment. Default of 4 months.
Shipment (Political Risks) Policy.
Contracts (Comprehensive Risk) Policy for both commercial and Political risks.
Contracts (Political Risks) Policy

Small Exporters' policy
A small exporter is defined whose anticipated total export turnover for the period of 12 M is not more than 50 lac. The policy is issued to cover shipments 24 M ahead.
The policy provides cover against Commercial risks and Political risks covering insolvency of the buyer, failure of the borrower to make payment due within 2 months from due date, borrower's failure to accept the goods due to no fault of exporter.

Specific Shipment Policy
Commercial risks – Failure to pay within 4M. It covers short term credit not exceeding 180 days Exports Specific Buyer Policy
Commercial risks – Failure to pay within 4M and Political Risks

The other Policies are Exports (specific buyers' Policy), Buyers' Exposure Policy, Export Turnover Policy (exporters who pay minimum 10 lac premium to ECGC are eligible) and Consignment export Policy.

Financial Guarantees
ECGC issues following types of Guarantees for the benefit of Exporters:
Packing Credit Insurance

ECIB (WT-PC) – Exporters Credit Insurance for Banks (whole Turnover Packing Credit)

This policy is issued to banks to guarantee export risks:
For all exporters
Minimum 25 accounts should be there.
Minimum assured premium is Rs. 5.00 lac.
Period of cover is 12M.
The claim is payable if there is default of 4 Months.
Premium for fresh covers is 8 paisa per month and for others is 6-9.5 paisa percent. It is calculated on average outstanding.
Percentage of cover ranges from 50-75%
If due date of export proceeds is extended beyond 360 days, approval of ECGC is required.
Claim is to be filed within 6M of report of default to ECGC.

ECIB – PC – for individual exporters. The advance should be categorized as Standard Asset. The period of coverage is 12M and %age of cover is 66-2/3 %. The premium is 12 paisa% on highest outstanding.
Monthly declaration by banks before 10th.
Approval of Corporation beyond 360 days PC.
Report of default within 4M from due date.
Filing of claim within 6M of the report.

ECIB –(WT- PS) – Whole Turnover Post Shipment Credit Policy
It is a common policy for all exporters.
Advances against export bills are covered.
Premium is 5-9 paisa % per month.
Over is usually 60-75%.
If the cover is taken by exporter individually, the cover increases to 75-90%.

Export Finance Guarantee
When banks make advance to exporters against export incentives receivables like Duty Drawback etc. The cover available is 75% and the premium ranges from 7 paisa onwards.

Exchange Fluctuation Risk Cover Scheme
The cover is available for payment schedule over 12 months up to maximum period of 15 years. Cover is available for payments specified in USD, GBP, EURO, JPY, SWF, AUD and it can be extended for other convertible currencies.

The contract cover provided a franchise of 2% Loss or gain within range of 2% of reference rate will go to the account of the exporter. If the loss exceeds 2% , the ECGC will make good the portion of loss in excess of 2% but not exceeding 35%.

The other guarantees are:
Export Performance Guarantee
Export Finance (Overseas Lending) Guarantee.
Transfer guarantee – cover to the confirming bank in India.

Maturity Factoring

ECGC provides full fledged Factoring Insurance services. It facilitates purchase of account receivables. It provides up to 90% finance against approved transactions. It follows up collection of sales proceeds. Exporters of good track record and dealing on DA terms having unexpected bulk orders are eligible to apply.

Common Guidelines

Notice of Default

Notice of default must be served within a period of 4 months from due date or 1 month from date of recall.

Lodging of Claim

The claim should be filed with ECGC within maximum period of 6 months date of lodging of Default Notice.

Unit – 8 : Role of EXIM Bank, Reserve Bank of India, Exchange Control in India - FEMA and FEDAI and Others

Exim Bank – its functions

Exim Bank (Export/Import Bank) was established in 1981 with the objective of financing Import Export Trade specially on Long term basis. The functions of Exim bank are as under:

Offering Finance for Exports at competitive rates.
Developing alternate financial solution
Data and Information about new export opportunities.
Respond to export problems and pursue Policy solutions.

The finance activities of Exim bank consist of :
Arranging Suppliers' credit and Buyers' credit
Consultancy and Technical services for exporters
Pre-shipment credit – over 6 months
Setting up of EOU in EPZ (Export Processing Zones)
Finance for DTA (Domestic Tariff Area) units exporting minimum 25% of annual sales.
Finance for Import of Computer System and Development of Software. Plant and Machinery and Technical up-gradations etc.
Services for Overseas Investments.
Line of Credit to exporters on the basis of which they receive export orders.
EXIM Bank performs following functions for Commercial Banks:
Export Bills Rediscounting – Usance period should not exceed 180 days.
SSI Export Bills Rediscounting.
Refinance of Export credit
Refinance of TL to EOU, Software Capital goods up to 100%
Participates with banks in Issuance of Guarantees.

Besides above, the EXIM bank arranges Relending facilities for Overseas Banks, sanctions direct credit to foreign importers and arranges line of credit for foreign importers.

DPG (Deferred Payment Guarantees)
It is normally beyond 6M and meant for SHE (Status Holder Exporters) only.
Banks can approve proposals up to 25 crore.
Above 25 crore up to 100 crore are referred to EXIM bank.
Above 100 crore proposals will be considered by Inter institutional Working Group consisting of members from RBI, FEDAI, ECGC and EXIM.

Other services of EXIM bank

Besides above, the EXIM bank provides assistance for :
Project Exports – export of Engineering goods on Deferred Payment terms
Turnkey Projects- supply of equipment along with related services like design, detailed engineering etc.
Construction Projects
Funded facilities.
EXIM Bank is nodal agency designated by GOI to manage Export Marketing Fund (EMF) which consists of loan made available to India by World bank to promote International Trade.

Reserve Bank of India

RBI controls Foreign Exchange

RBI is empowered to
Control and regulate Foreign Exchange Reserves
Supervise Foreign Exchange dealings
Maintain external value of Rupee
FERA was replaced by FEMA in the year 1999.

FEMA provisions The important FEMA guidelines with regard to Foreign exchange are as under:
No drawl of exchange for Nepal and Bhutan
If Rupee equivalent exceeds Rs. 50000/-, payment by way of crossed cheque.
During visit abroad, one can carry Foreign currency notes up to USD 3000 or equivalent. For Libya and Iraq, the limit is USD5000 and the entire amount for Iran and Russian states.
Indian citizens can retain and possess Foreign currency up to USD 2000 or its equivalent.
Unspent currency must be surrendered within a period of 180 days after arrival in India.
Basic Travel Quota (BTQ)

Purpose of Visit	Up to USD or equivalent
Personal/Tourism	- 10000 per Financial year
Business Purpose	- 25000 per visit
Seminars/conferences	- 25000 per visit
Employment/Immigration	- 100000
Studies	- 100000 per academic year
Donations/Gifts	- 5000 per donor per year
Consultancy services	- 100000 per project
Debit Credit/Credit Card	- As per BTQ as above

*AD can release Foreign Exchange 60 days ahead of journey
LRS (Liberalized Remittance Scheme

The scheme is meant for Resident Indians individuals. They can freely remit up to USD 200000 per financial year in respect of any current or capital account transaction (e.g. to acquire property outside India) without prior approval of RBI. The precondition is that the remitter should have been a customer of the bank for the last 1 year. PAN is mandatory.

Not Applicable
The scheme is not applicable for remittance to Nepal, Bhutan, Pak, Mauritius or other counties identified by FATF.
The scheme is not meant for remittance by Corporate.
Import and Export of Indian Rupees
Limit is Rs. 7500/- while leaving India and while coming to India.

RETURNS TO BE SUBMITTED TO RBI
Following important returns are submitted to RBI

R- Returns - Forex Operations (Fortnightly)
BAL statement - Balance in Nostro/Vostro account
STAT 5 - Transactions in FCNR B accounts
STAT 8 - Transactions in NRE/NRO accounts
LRS Statement - UP to USD 200000 (monthly)
Trade Credit Statement - Buyers' and Suppliers' Credit
XOS O/S - Overdue Export bills
BEF - Import Remittance effected but Bill of Entry not submitted for >3M.
ETX Form - Seeking relaxation from RBI after expiry of 12M when export proceeds are not received.

RFC accounts Resident Foreign Currency account is opened by Indian residents who were earlier NRIs and forex is received by them from their overseas dues:
The accounts can be opened as SB/CA/FD type.
Proceeds are received from overseas.
Out of Monetary benefits accruing abroad
The funds are freely repatriable.
Minimum amount is USD 5000.

RFC- D accounts Resident Foreign Currency (Domestic) accounts are opened:
By Indian residents who visit abroad: and
Bring with them Foreign Exchange;
As honorarium, gift etc.
Unspent money can also be deposited.
These are CA nature accounts and no interest is paid.

FEDAI Foreign Exchange association of India is a non-profit body established in 1958 by RBI. All public sector banks, Private Banks, Foreign Banks and Cooperative banks are its members. The functions of FEDAI are:
Forming uniform rules
Providing training to bankers; and
Providing guidance and information from time to time.

The important rules are:
Export Transactions : Forex liability must be crystallized into Indian rupees on 30th day after expiry of NTP (Notional Transit Period) in case of Sight bills and on 30th day after notional due date in case of Usance bills. The rule has since been relaxed and bank can frame its own rule for nos. of days for crystallization.
Concessional rate of interest is applied up to Notional due date or up to value date of realization of export dues (whichever is earlier)
Import Transactions: For retirement of Import bills whether under LC or otherwise, banks Bill selling rate on date of retirement or the Forward rate will be applied.
DP Bills (sight) are retired after crystallization on 10th day after receipt.
DA Bills are retired (crystallized) on Due Date.
All Foreign Currency bills under LC, if not retired on receipt, shall be crystallized into Rupee liability on 10th day after date of receipt of documents at TT Selling Rate.

Normal Transit Period is:
- 25 days for export bills,
- 3 days for Rupee bills drawn under LC and payable locally
- 7 days for rupee bills drawn under LC and payable at other centers
- 20 days for Rupee bills not drawn under LC.
- For exports to Iraq, normal transit period is 60 days.

Compensation on Delayed payment:
All Foreign Inward remittances up to Rs.1.00 lac should be converted into Indian Rupees immediately
The proceeds of any Inward remittance should be credited to the account within 10 days and advice of receipt is to be sent within 3 days, failing which, compensation @2% above SB rate will be paid to the beneficiary.

Forward Contracts
Exchange contracts will be for definite amount and period.
Contracts must state first and last date of contracts e.g. from 1-31 Jan or from 17th Jan to 16th Feb.
For contracts up to 1 month, option period for delivery may be specified.
In case of extension of contract, previous contract will be cancelled at TT Buying rate or TT selling rate as the case may be.

Overdue contracts are liable to be cancelled on 7th working day after maturity date if no instructions are received. The contracts must state first and last date of the contract.
Banks are now free to fix their own rates of commission and margin etc.

ECBs External Commercial Borrowings are medium and long term loans as permitted by RBI for the purpose of :
Fresh investments
Expansion of existing facilities
Trade Credit (Buyers' Credit and Sellers' Credit) for 3 years ar more.
Automatic Rout
ECB for investment in Real Estate sector , Industrial sector and Infrastructure do not require RBI approval
It can be availed by Companies registered under Indian Company Act.
Funds to be raised from Internationally recognized sources such as banks, Capital markets etc.
Maximum amount is USD 20 million with minimum average maturity of 3 years and USD 50 million with average maturity of 5 years.
All in cost ceiling is LIBOR+350 bps for ECB up to 5 years and LIBOR+500 bps for ECBs above 5 years.

Approval Route
Under this route, funds are borrowed after seeking approval from RBI.
The ECBs not falling under Automatic route are covered under Approval Route.
Under this route, Issuance of guarantees and Standby LC are not allowed.
Funds are to be raised from recognized lenders with similar caps of all-in-cost ceiling.

ADRs American Depository Receipts are Receipts or Certificates issued by US Bank representing specified number of shares of non-US Companies. defined as under:
These are issued in capital market of USA alone.
These represent securities of companies of other countries.
These securities are traded in US market.
The US Bank is depository in this case.
ADR is the evidence of ownership of the underlying shares.

Unsponsored ADRs
It is the arrangement initiated by US brokers. US Depository banks create such ADRs. The depository has to Register ADRs with SEC (Security Exchange Commission).

Sponsored ADRs
Issuing Company initiates the process. It promotes the company's ADRs in the USA. It chooses single Depository bank. Registration with SEC is not compulsory. However, unregistered ADRs are not listed in US exchanges.

GDRs Global Depository Receipt is a Dollar dominated instrument with following features:
Traded in Stock exchanges of Europe.
Represents shares of other countries.
Depository bank in Europe acquires these shares and issues "Receipts" to investors.
GDRs do-not carry voting rights.
Dividend is paid in local currency and there is no exchange risk for the issuing company.
Issuing Co. collects proceeds in foreign currency which can be used locally for meeting Foreign exchange requirements of Import.
GDRS are normally listed on "Luxembourg Exchange " and traded in OTC market London and private placement in USA.
It can be converted in underlying shares.
IDRs Indian Depository Receipts are traded in local exchanges and represent security of Overseas Companies.

CDF (Currency Declaration Form)
CDF is required to be submitted by the person on his arrival to India at the Airport to the custom Authorities in the following cases:
If aggregate of Foreign Exchange including Foreign currency/TCs exceeds USD 10000 or its equivalent.
If aggregate value of currency notes (cash portion) exceeds USD 5000 or its equivalent.

Interest Subvention on Export Credit @2%
Reserve Bank of India has now decided to extend the interest subvention of 2% on rupee export credit for the period 1.4.2012 to 31.3.2013 on the same terms and conditions to the following sectors:
i. Handicrafts
ii. Carpet
iii. Handlooms
iv. Small and Medium Enterprises (SMEs) (as defined in Annexure-I)
v. Readymade Garments
vi. Processed Agriculture Products
vii. Sport Goods
viii. Toys

Interest subvention of up to 2% may be allowed on pre-shipment credit up to 270 days and post-shipment credit up to 180 days on the outstanding amount for the period 1.4.2012 to 31.3.2013 to the above mentioned sectors subject to the condition that the rate of interest shall not fall below 7% after allowing the aforesaid subvention. Further, it should be ensured that the benefit of interest subvention is passed on completely to the eligible exporters.

Unit – 9 : International Financial Service Centre (IFSC), GIFT City

- An International Financial Service Centre (IFSC) caters to customers outside the jurisdiction of the domestic economy.
- Such centres deal with flows of finance, financial products and services across the borders with emphasis on the following:
  - Fund raising services for Individuals, Corporates and Governments.
  - Asset Management and Global Portfolio Diversification undertaken by pension funds, insurance companies and mutual funds.
  - Wealth Management.
  - Global Tax Management and cross border tax liability optimization, which provides a business opportunity for financial intermediaries, accountants and law firms.
  - Global and regional corporate treasury management operations that involve fund-raising, liquidity investment and management of asset-liability matching.
  - Risk Management operations such as insurance and reinsurance.
  - Merger and Acquisition activities among trans-national corporations.

GIFT: Gujarat International Finance Tec-City

Opportunities at GIFT City

- Access to large hinterland economy.
- Access to international markets.
- Connecting 30 million strong Indian diaspora which has a combined worth of USD 3 trillion to India through the IFSC.
- Inbound and outbound gateway for international financial services.
- Potential to be a leading destination for Global in-house centers with a globally competitive cost structure.
- Attracting global talent to the world class fintech hub in Gift city.
- Emerging as a leading hub for fund administration.

Key Business Opportunities - (Segment-Wise)

- Wholesale banking
- Capital Markets
- Retail Banking
- Treasury management
- Other Opportunities like Distributor of MF units, insurance and other financial products, Investment advisory services, Portfolio Management Services, trustee and fiduciary services, Regional Administrative Office (RAD) and Representative office.

Guidelines for setting up of "IFSC Banking Units (IBUs)" by Indian Banks

Eligibility

- Indian banks viz... Banks in the Public Sector and the Private Sector authorized to deal in foreign exchange will be eligible to set up IBUs.
- Each eligible bank would be permitted to set up only one IBU in each IFSC.

Licensing

- Eligible Banks interested in setting up IBUs will be required to obtain prior permission of the RBI for opening an IBU.
- For most regulatory purposes, an IBU will be treated on par with a foreign branch of an Indian bank.

Capital

The parent bank will be required to provide a Minimum Capital of USD 20 Million or equivalent in any foreign currency to its IBU which should be maintained at all times.

Reserve requirements

The liabilities of the IBU are exempt from, both, CRR and SLR requirements of RBI

Resources and deployment

- The funds raised will be from Non-Residents and Overseas branches of Indian Banks
- Deployment of funds can be with, both, persons resident in India as well as persons resident outside India
- However, deployment of funds with persons resident in India shall be subject to the provisions of FEMA 1999

Operational Aspects:

- Cash transactions and savings bank accounts are not permitted
- Deposits can be maintained in current accounts and term deposits
- Indian KYC-AML and delinquency norms are applicable
- Deposits with IBUs are not insured

International Financial Services Centers Authority (IFSCA)

- International Financial Services Centers Authority (IFSCA) is a unified authority for the development and regulation of financial products, financial services and financial institutions in the IFSC in India.
- Prior to the establishment of IFSCA, the existing regulators RBI, SEBI, PFRDA and IRDAI regulated the businesses in IFSC.

- IFSCA has been established on April 27th 2020 under the IFSCA Act 2019 with headquarters in Gandhinagar, Gujarat.

Regulatory Framework

Indian and Foreign Banks intending to set up an IBU in IFSC are required to obtain license from IFSCA

The Parent Bank is required to satisfy the following conditions:

- Maintain necessary regulatory capital subject to a minimum of USD 20 Million at the Parent Bank level.
- Obtain No Objection letter from home country regulator for setting up an IBU in IFSC.
- Letter of comfort from Parent Bank regarding liquidity and resource support to IBU.
- IBUs are not required to maintain SLR and CRR.
- IBUs are required to maintain LCR and NSFR at IBU level
- Leverage ratio for IBUs may be maintained by the Parent Bank and at the level specified by the home regulator and subject to the regulations applicable to the parent bank.
- IBUs are required to maintain a "retail deposit reserve ratio" on daily basis at 3% of the deposits raised from individuals outstanding as at the end of the previous working day.
- IBUs are required to comply with the prudential directions and instructions issued by their home regulator unless otherwise specified by the IFSCA.

Permissible activities at IBUs

- IBUs can undertake transactions with
- Resident entities (for deployment of funds) and
- Non-resident entities (for both raising of resources and deployment of funds)
- Other than individuals including HNIs / retail customers.
- Means IBUs can't undertake transactions with resident individuals including HNIs/retail customers
- All transactions shall be in currency other than INR.
- IBUs can deal with WOS (Wholly Owned Subsidiary)/JVs (Joint Venture) of Indian companies registered abroad.
- IBUs are not allowed to open Saving Accounts.
- They can open foreign currency current accounts of units operating in IFSCs and of Non-resident institutional investors to facilitate their investment transactions.
- They can open foreign currency current accounts (including escrow accounts) of their corporate borrowers subject to FEMA.
- No cheque facility will be available for holders of current accounts in the IBUs.
- All transactions are to be done through bank transfers.
- IBUs are permitted to undertake factoring/forfaiting of export receivables
- IBUs shall obtain prior approval of RBI for offering derivative products.

- IBUs are allowed to open foreign currency Escrow accounts of Indian resident entities for the purpose of temporarily subscriptions to GDR/ADR issues, until issuance of receipts.
- IBUs are allowed to act as underwriter/arranger of INR denominated Overseas bonds issued by Indian entities in Overseas markets.
- Exposure ceiling for IBUs shall be
- 5% of the parent Bank's Tier-I Capital in case of Single borrower and
- 10% of the parent Bank's Tier-I Capital in the case of a borrower group.
- All AML/CFT instructions issued by RBI to be followed.
- The IBUs will be regulated and supervised by the RBI
- The IBUs would operate and maintain balance sheet only in foreign currency and will not be allowed to deal in Indian rupees except for having a special rupee account for the purpose of defraying their administrative and statutory expenses.
- IBUs are not allowed to participate in the Indian domestic call, notice, term, forex, money and other onshore markets and domestic payment systems.
- IBUs will be required to maintain separate Nostro accounts with correspondent banks which would be distinct from Nostro accounts maintained by other branches of the same bank.
- IBUs may maintain SNRR (Special Non-Resident Rupee) accounts with the domestic AD and these accounts must be funded only by foreign currency remittances through international channel.
- The loans and advances of IBUs would not be reckoned as part of the Net Bank Credit of the Parent Bank for computing priority sector lending obligations.
- No liquidity support will be available to the IBUs from the RBI.

Relaxations for the FPI (Foreign Portfolio Investors) Entities at GIFT City

- SEBI has permitted FPIs registered in India to trade on exchanges operating in the GIFT City.
- FPIs are also allowed to trade in commodity derivatives on IFSC exchanges.
- Companies do not pay securities transaction tax or commodity transaction costs.
- All exchanges operate 22 hours a day and FPIs permitted to operate without any additional documentation.
- Waiver of short-term capital gains tax on derivatives trade (at present FPIs pay 30 % as short-term capital gains tax.)
- Allowing retail investors to trade to build liquidity in the market.

Unit – 10 : Technology in International Banking

Many of the Banks who started with technology have started reengineering their architecture in order to support the updated developments in the field of digital banking, especially with regard to international banking

The following may be broad thoughts on upgrading the bank's digital re-engineering plans

- Making the bank more relevant to customers with more flexible financial and non-financial products.
- Relative benefits of speed vis-à-vis in-house talent.
- Developing the digital eco-systems and platforms that deliver traditional and non-traditional products to customers.
- Organization readiness to re-assigning, re-training and, if need be, recruiting additional resources.
- Becoming pro-active and agile to customers responses and market request.
- Self-assessment and driving team work to react to the changing market conditions and monitoring the progress at regular intervals and not simply following a plan.

Benefits and Limitations of Technology in International Banking

Benefits

Benefits include accuracy, speed, lower transaction costs, ease of doing business, compliance, reduction in manpower, regulatory requirement, management Information system, continuity in business, etc.

Limitations

Limitations includes costs in Infrastructure, technical glitches, creating awareness amongst customers because of the widespread reach, putting in control limits for withdrawal and deposits may pose inconveniences to customers, customers service gets affected at times, security issues, cybercrime is on the increase and added to this is the frauds by external sources.

Digital Platforms in International Banking

Inward Remittances Online

- A secured portal for on-line inward remittances from across.
- The Overseas Online Money transfer from across the globe, by the NRIs from their country of location or any Overseas Bank from any country (FATF compliant countries) to any Bank account in India.

Benefits:

- Quick and seamless transfers from any country (as long as the country is FATF compliant)
- Fixed and fair exchange rates
- 24/7 customer support

Outward Remittances Online:

- A quick and seamless on-line portal for outward remittances.
- Residents and NRIs, on request through an application form and subject to Bank's internal guidelines, will get on-boarded by the Bank for International Digital Banking.

Benefits:

- Fast, easy and convenient way of outward remittances.
- Secure facility for transfer of money (in permissible currencies) via internet banking.
- All purposes as permissible under Schedule III remittances as per the provisions of FEMA and subject to the permissible limits under the relevant provisions.
- Education, Family Maintenance, Self-transfer, Health services, NRE repatriation, etc., can be sent directly in beneficiary home currency (subject to permissible currencies) and facility available 24/7.
- The inward remittance (remitters) and the outward remittances (beneficiaries) to comply with the US/UN/FATF sanction and related guidelines will also be complied by bank through these online portals.

Trade Finance Portal

Web based online portal for International Trade transactions viz., Imports and Exports.

Benefits:

- Templated transactions and in compliance with the provisions relating to International Trade.
- Bulk upload facility available.
- Approval of the transactions by the corporate online through maker-checker facility.
- Copies of advices, ready reference to debit and credit entries, SWIFT copies available online.
- Details on limits sanctioned (LC/BG limits), limit availability, limits utilized, etc., available online.
- Role based dashboards, overview of pending actionable items viz., IDPMS, EDPMS, Forward contract confirmations, etc., available for different users.

Foreign Exchange Rate Portal

- Portal provided to the Corporates who meet the criteria set up by the Bank for getting on-boarded after getting the log-in ID and the password, as per the internal guidelines.
- Enables the corporates to directly log on to the Bank's Internet Banking Platform and access the Foreign Exchange Rate Portal.
- Corporates allowed to access the dealing room on a real-time basis for booking their foreign exchange requirements including Cash, TOM, SPOT and forward contracts.

Benefits:

- Seamless interaction through the portal with the Bank's dealing room on rate movements.
- Advisory from the Bank's dealers on the Inter-Bank markets and the latest developments on the exchange front.
- Real time basis quotation.

Export Data Processing and Monitoring System (EDPMS)

The Reserve Bank of India (RBI) operationalized the EDPMS w.e.f. March 1, 2014 wherein the Data pertaining to

- 1.Export Declaration Forms (EDF)
- 2.Shipping Bills (SB)
- 3.SOFTEX (SOFTEX is a form that needs to be filed by every software exporter within 30 days from the date of invoice)

would flow from the Customs/STPI(Software Technology Parks of India)/SEZ(Special Economic Zone) to the EDPMS Software and AD Banks were required to report lodgment and realization of these EDF/SB/SOFTEX in EDPMS.

Additional features of EDPMS:

- Reporting of advance remittances related to exports.
- Reporting realization of EDF/SB/SOFTEX against inward remittances reported.
- System based caution listing of exporters whose EDF/SB/SOFTEX were outstanding beyond 2 years and where extension of due date was not granted by AD Bank/RBI.
- Issuance of e-BRC was introduced w.e.f. 16th Oct 2017, as a result of which AD Banks were to update the EDPMS with data of export proceeds on "as and when realized basis" to facilitate AD Banks to issue e-BRC only from the data available in the EDPMS.
  (e) However, the export transactions relating to Service Exports are not supported under the EDPMS Platform.

What is e-BRC?

- An Electronic Bank Realization Certificate (e-BRC) is a vital digital certificate for export businesses.
- A bank issues the e-BRC to confirm that the buyer made payment to the exporter against the export of services or goods. The BRC is the proof of realization of payment against exports.

Import Data Processing and Monitoring System (IDPMS)

- In order to enhance ease of doing business and facilitate efficient data processing for payment of import transactions and effective monitoring thereof, IDPMS has been developed in consultation with the customs authorities and other stakeholders.
- Based on the AD Code declared by the importer, the Banks shall download the BoE (Bill of Entry) issued by EDI Ports (Electronic Data Exchange) from the BoE Master in the IDPMS.

"FIRMS Portal" for online filing of the Foreign Investments received by the Investee Companies

- FIRMS: Foreign Investment Reporting and Management System.
- Advance Remittance Form (ARF) used by the companies to report the Foreign Direct Investment (FDI) inflows to RBI.

- FC-GPR: Foreign Currency - Gross Provisional Returns: FC-GPR is applied when entity receives foreign investment, and against such investment, the entity allots shares to the foreign investors.
- Single Master Form (SMF) was introduced and a window was provided between June 28th 2018 to July 20th 2018, to the Public (Investees) to update investments received under the Foreign Investments route, on an on-line basis.
- With the implementation of SMF, a consolidated reporting merging the ARF and the FC-GPR was introduced w.e.f. 1st Sept 2018 through a single revised FC-GPR.

Fintech and Evolution of Fintech in International Banking

Fintech refers to the synergy between finance and technology.

It can take the form of a software, a service or a business that provides technologically advanced ways to make financial processes more efficient by disrupting traditional methods

Evolution of FINTECHS - A Snapshot:

- 1866- The first transatlantic cable was successfully laid between New York and London providing fundamental infrastructure for the period of intense financial globalization. This is know as FINTECH Version 1.0
- 1918 - FEDWIRE, the first electronic funds transfer with the help of telegraph and Morse Code
- 1950- Diners Club and Amex Cards
- 1967 - Though financial services were strongly connected with technology, the financial services remained mostly analogue i.e. using signals, codes until the first ATM machine by Barclays was introduced thereby switching from Analogue mode to the Digital mode. This came to be known as the beginning of Modern FINTECH i.e. FINTECH Version 2.0
- 1967 - First digital stock exchange and SWIFT was established. Internet and Computers were brought into on-line banking.
- 2008- brought in FINTECH Version 3.0 as a result of the financial crisis that erupted across the globe where people start distrusting traditional banking services.
- 2009 - Bitcoin introduced followed by other different crypto currencies. Google and Apple Pay introduces payment systems.
- 2010- FINTECH Version. 3.5 mainly by the Asian countries where Entrepreneurs, Investors, Consumer businesses and Banks were introduced to FINTECH and FINTECH business applications.

FINTECH and Artificial Intelligence

Artificial intelligence is the simulation of human intelligence processes by machines which combines computer systems and robust databases to enable problem solving in the Banking space.

The following are some of the scenarios where AI may be used:

- Identify customers better - prospecting, sourcing, underwriting – on boarding of Customers, both Importers, Exporters, etc., who are involved in international trade with the Overseas buyers and suppliers.
- Source business better – Cash flows, business models, structures and managing global value chains, change in consumer demand and to better manage risks involved in international trade.
- AI has the potential to be used to improve outcome from the international trade negotiations analyzing the economic trajectories of each economic partner under different assumption.
- Identify the needs of the Customers and analyzing their inward and outward volumes, their overseas counterparties, periodicity of payments, collections, etc.
- Business Intelligence of the Clients viz., processing ability, recovery analysis (credit management) understanding the maturity profile of receivables (Exports) and payables (Imports) (f) Credit Scoring - check on the credit worthiness of the Clients - lending is all about availability of data through which willingness/ability to repay can be analyzed, assessing financial statements and analysis, etc.
- Fraud detection by fixing through threshold limits, regulatory compliance - working in tandem with the regulators, etc.

FINTECH and Big Data & Data Analytics

Big data analytics describes the process of uncovering trends, patterns, and correlations in large amounts of raw data to help make data-informed decisions.

The following are some of the application areas to big data analysis

(a) Data on customers is of high value to FINTECH Companies
(b) Data on markets is of high value to FINTECH Companies
(c) Consumer Preferences, spending habits, investment behavior can be extracted and used to develop predictive analysis.
(d) Predictive analysis- refers to how consumers are likely to behave using past information and a mathematical algorithm.
(e) Data helps in formulating marketing strategies.
(f) helps in fraud detection algorithm.

FINTECH and Robotic Process Automation (RPA)

Robotic Process Automation (RPA) refers to the process of assigning manual repetitive tasks to robots instead of humans in order to streamline workflows in financial institutions. The most widespread applications are:

- Statistics and data collection
- Regulatory compliances management
- Communication and marketing through emails and chat bots
- Transaction management.

FINTECH and Block Chain Management

- Blockchain is a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system.
- A Blockchain is essentially a digital ledger of transactions that is duplicated and distributed across the entire network of computer systems on the Blockchain.
- Each transaction is encrypted and the chances of cyber-attacks are relatively low when block chain technology is employed

MODULE - B : RISK MANAGEMENT

Unit – 11 : Risk and Basic Risk Management Framework

What Is Risk?

We may define 'Risks 'as uncertainties resulting in adverse outcome, adverse in relation to planned objective or expectations. 'Financial Risks' are uncertainties resulting in adverse variation of profitability or outright losses.

Uncertainties associated with risk elements impact the net cash flow of any business or investment. Under the impact of uncertainties, variations in net cash flow take place. This could be favourable as well as unfavourable. The possible unfavourable impact is the 'RISK' of the business.

- **Lower risk:** implies lower variability in net cash flow with lower upside and downside potential. Higher risk would imply higher upside and downside potential.
- **Zero Risk** would imply no variation in net cash flow. Return on zero risk investment would be low as compared to other opportunities available in the market.

Linkages Among Risk, Capital & Return

Linkage Between Risk & Capital:

- Higher the risk, higher the capital & vice- versa.
- Bank maintain capital funds as percentage of RWAs.
- Banks creating low risk assets can maintain low capital
- Bank exposing to high risk assets, have to maintain high capital

Basic Risk Management Framework

The basic considerations that should be taken into account for designing a risk management framework in an organisation are as follows:

- Management of risk is a major concern for the top management. Successful implementation of risk management process emanates from the top management and the main challenge centres on facilitating the implementation of risk and business policies simultaneously in a consistent manner. Modern best practices consist of setting risk limits based on economic measures of risk while ensuring the best risk adjusted return keeping in view the capital that has been invested in the business. It is a question of taking a balanced view on risks and returns and that too within the constraints of available capital.
- Management of risks begins with their identification and quantification. It is only after risks are identified and measured that we may decide to accept the risks or to accept the risks at a reduced level by undertaking steps to mitigate the risks, either fully or partially. In addition, pricing of the transaction should be in accordance with the risk content of the transaction.

- Risk management happens to be a job that requires special skills and has an objective which is more orientated towards the control aspect of the business, it requires a separate setup in the organization.

Response to these considerations calls for risk management framework in an organization that has well articulated processes covering the following areas:

- Organization for Risk Management
- Risk Identification
- Risk Measurement
- Risk Pricing
- Risk Monitoring and Control
- Risk Mitigation

Organisation for Risk Management

Usually, risk management organization consists of:

- The Board of Directors
- The Risk Management Committee of the Board
- The Committee of senior-level executives
- The Risk management support group

Risk Identification

Nearly all transactions undertaken would have one or more of the major risks, i.e., liquidity risk, interest rate risk, market risk, default or credit risk and operational risk with their manifestations in different dimensions. Although all these risks are contracted at the transaction level, certain risks such as risk and interest rate risk are managed at the aggregate or portfolio level. Risks such as credit risk, operational risk and market risk arising from individual transactions are taken cognizance of, at the transaction-level as well as at the portfolio-level.

Risk Measurement

Risk management relies on the quantitative measures of risk. The risk measures seek to capture variations in earnings, market value, losses due to default, etc.,
(referred to as target variables), arising out of uncertainties associated with various risk elements. Quantitative measures of risks can be classified into three categories

- Based on Sensitivity
- Based on Volatility
- Based on Downside Potential

Sensitivity: Sensitivity captures deviation of a target variable due to unit movement of a single market parameter. Only those market parameters, which drive the value of the target variable are relevant for the purpose.

Volatility: It is possible to combine sensitivity of target variables with the instability of the underlying parameters. The volatility characterises the stability or instability of any random variable. It is a common statistical measure of dispersion around the average of any random variable such as earnings, mark-to-market values, market value, losses due to default, etc.

Downside Potential: Risk materialises only when earnings deviate adversely. Volatility captures both upside and downside deviations. Downside potential only captures possible losses ignoring the profit potential. It is the adverse deviation of a target variable.

Risk Pricing

Risks in banking transactions impact banks in two ways. Firstly, banks have to maintain necessary capital, at least as per regulatory requirements. The capital required is not without costs. The cost of capital arises from the need to pay investors in bank's equity in the form dividends and for internal generation of capital necessary for business growth. Each banking transaction should be able to generate necessary surplus to meet this costs.

Pricing, therefore, should take into account the following:

- Cost of Deployable Funds
- Operating Expenses
- Loss Probabilities
- Capital Charge
- Profit Margin or Return on Networth

Risk Monitoring and Control

The key driver in managing a business is seeking enhancement in risk-adjusted return on capital (RAROC). It is a question of taking a balanced view on risks and returns and that too within the constraints of available capital. In order to achieve the above objective, banks put in place the following:

- An organizational structure.
- Comprehensive risk measurement approach.
- Risk Management Policies adopted at the corporate level, which are consistent with the broader business strategies, capital strength, management expertise and risk appetite.
- Guidelines and other parameters used to govern risk taking including detailed structure of prudential limits, discretionary limits and risk-taking functions.

Risk Mitigation

Since risks arise from uncertainties associated with the risk elements, risk reduction is achieved by adopting strategies that eliminate or reduce the uncertainties associated with the risk elements. This is called "Risk Mitigation".

Enterprise-Wide Risk Management (EWRM)

- EWRM can be defined as a continuous and structured process of listing the objectives of the organisation
- Identifying all external and internal risk-factors that could impact the achievement of the objectives and organisation's business and financial targets; prioritising the risk-factors
- Exploring alternatives for mitigating the risks; and controlling and monitoring such risks

Thus, EWRM is a dynamic process involving people at all levels, covers every aspect of the organisation's resources and operations and takes a holistic picture of the entire organisation for the purpose of risk management.

The implementation of EWRM involves the following steps:

Evaluation of the existing risk management systems involving

- Review of the internal environment with a view to assess the risk philosophy and risk culture
- Review of the process of setting objectives
- Assessment of the existing mechanism of identifying risk-factors that can affect achievement of the desired objectives
- Evaluation of the existing process of assessing risks
- Assessment of the process of responding to identified risks
- Evaluation of the adequacy of existing control processes
- Assessment of the adequacy of existing management information system (MIS)
- Review of the process of monitoring risks

Formulation of a road map for the implementation plan that seeks to bridge the gaps in risk management practices vis-à-vis EWRM.

- Banks have identified and started adapting the Enterprise Risk Management Framework released by COSO (Committee of Sponsoring Organizations of the Treadway Commission) as a framework to drive their initiatives in risk management beyond Basel norms and regulatory compliances.
- The COSO ERM framework has all the components that could help the banks to stand a chance to derive business value while meeting compliance requirements.

The ERM Framework is structured around:

- Eight key components viz Internal Environment, Objective setting, Risk Assessment, Risk response, Control Activities, Information & Communication, Monitoring
- Four key objectives of business viz. strategic, operations, reporting and compliance.

Enterprise risk management (ERM) helps in identifying and selecting among alternative risk responses – risk avoidance, reduction, transfer, and acceptance.

Unit 12: Risks in Banking Business

Risk Identification in Banking Business

Banking business lines are many and varied. Commercial banking, corporate finance, retail banking, trading and investment banking and various financial services form the main business lines of banks. Within each line of business, there are sub-groups and each sub-group contains a variety of financial activities. Bank's clients may vary from retail consumer segment to mid-market corporate/large corporate financial institutions.

	Business Lines of Banking Industry	
Business Lines	**Sub-groups**	**Activities**
Corporate Finance	Corporate Finance Municipal/ Government, Finance, Merchant Banking, Advisory Services	Mergers and acquisitions, underwriting, privatisations, securitisation, research, debt (government, high yield), equity, syndications, IPO, secondary private placements
Trading and Sales	Sales, Market making, Proprietary Positions, Treasury	Fixed income, equity, foreign exchanges, commodities, credit, funding, own position securities, lending and repos, brokerage, debt, prime brokerage
Retail Banking	Retail Banking	Retail Lending & Deposits,Banking Services, Trust and Estates
	Private Banking	Private Lending & Deposits, Banking Services, Trust and Estates, Investment Advice
	Card Services	Merchant/Commercial Corporate Cards, PrivateLabels and Retail
Commercial Banking	Commercial Banking	Project finance, real estate,export finance, trade finance, factoring, leasing, lending, guarantees, bills of exchange
Payments and Settlements	External Clients	Payments and collections, funds transfer, clearing andsettlement
Agency Services	Custody Corporate Agency Corporate Trust	Escrow, depository receipts, securities lending(customers), corporate actions Issuer and paying agents
Asset Management	Discretionary Fund Mgt Non-Discretionary Fund Management	Pooled, segregated, retail,institutional, closed, open
Retail brokerage	Retail Brokerage	Execution and full service

From the risk management point of view, banking business lines may be grouped broadly under the following major heads.

- The Banking Book
- The Trading Portfolio
- Off-Balance Sheet Exposures

The Banking Book

The banking book includes all advances, deposits and borrowings, which usually arise from commercial and retail banking operations. All assets and liabilities in banking book have the following characteristics:

- They are normally held until maturity.
- Accrual system of accounting is applied.
- They are not subjected to MTM (mark to market) exercise.
- They attract capital charge on credit risk and not on market risk.

The Trading Book

The trading book includes all the assets that are marketable, i.e., they can be traded in the market. Contrary to the characteristics of assets and liabilities held in the banking book, the trading book assets have the following characteristics:

- They are normally not held until maturity and positions are liquidated in the market after holding the assets for a certain period
- Mark-to-Market system is followed and the difference between the market price and the book value is taken to profit and loss account.

The trading book mostly comprises of fixed income securities, equities, foreign exchange holdings, commodities, etc., held by the bank on its own account.

Off-Balance Sheet Exposures

- Off-balance sheet exposures are contingent in nature. Where banks issue guarantees, committed or backup credit lines, letters of credit, etc., banks face payment obligations contingent upon some event.
- These contingencies adversely affect the revenue generation of banks. Banks may also have contingent assets (for example, a bank may have purchased insurance to protect against certain negative events).
- Here banks are the beneficiaries subject to certain contingencies. Derivatives are off-balance sheet market exposures. They may be swaps, futures, forward contracts, foreign currency contracts, options, etc.

Banking Risks - Definitions

From the discussion above, we may summarise the major risks in banking business or “Banking Risks'. They are listed as follows:

- Liquidity Risk
- Interest Rate Risk
- Market Risk
- Default or Credit Risk
- Operational Risk

Liquidity Risk

The liquidity risk of banks arises mainly from funding of long-term assets by short-term liabilities, thereby making the liabilities subject to rollover or refinancing risk. Liquidity Risk is defined as the inability to obtain funds to meet cash flow obligations at a reasonable rate.

- Funding Risk: This arises from the need to replace net outflows due to unanticipated withdrawal non-renewal of deposits (wholesale and retail)/premature closure of term deposits;
- Time Risk: This arises from the need to compensate for non-receipt of expected inflows of funds i.e. performing assets turning into non-performing assets; or borrowers not repaying their instalments (EMI) on due dates; and
- Call Risk: This arises due to crystallization of contingent liabilities since customers are not meeting their commitments on due dates. This may also arise when a bank may not be able to undertake profitable business opportunities when it arises.

Interest Rate Risk

Interest Rate Risk (IRR) is the exposure of a Bank's revenue to adverse movements in interest rates. Interest Rate Risk (IRR) refers to potential adverse impact on Net Interest Income or Net Interest Margin or Market Value of Equity (MVE), caused by changes in market interest rates. It may be defined as the risk of changes in the financial value of assets or liabilities (or inflows/outflows) because of fluctuations in interest rates.

- Gap or Mismatch Risk: A gap of mismatch risk arises from holding assets and liabilities and off-balance sheet items with different principal amounts, maturity dates or repricing dates, thereby creating exposure to unexpected changes in the level of market interest rates.
- Basis Risk: The risk that the interest rate of different assets, liabilities and off- balance sheet items may change in different magnitude is termed as basis risk.
- An example of basis risk would be to say in a rising interest rate scenario asset interest rate may rise in different magnitude than the interest rate on corresponding liability creating variation in net interest income.
- Yield Curve Risk: In case the banks use two different instruments maturing at different time horizon for pricing their assets and liabilities, any non-parallel movements in yield curves would affect the NII.
- Reinvestment Risk: Uncertainty with regard to interest rate at which the future cash flows could be reinvested is called reinvestment risk. Any mismatches in cash flows would expose the banks to variations in NII as the market interest rates move in different directions.

- Net Interest Position Risk: Where banks have more earning assets than paying liabilities, interest rate risk arises when the market interest rates adjust downwards. Such banks will experience a reduction in NII as the market interest rate declines and increases when interest rate rises. Its impact is on the earnings of the bank or its impact on the economic value of the bank's assets, liabilities and OBS positions.

Market Risk

Market risk is the risk of adverse deviations of the mark-to-market value of the trading portfolio, due to market movements, during the period of holding. This results from adverse movements of the market prices of interest rate instruments, equities, commodities and currencies. Market Risk is also referred as Price Risk.

- **Forex Risk:** Forex risk, also termed as Exchange Risk, is the risk that a bank may suffer losses as a result of adverse exchange rate movements during a period in which it has an open position, either spot or forward, or a combination of the two, in an individual foreign currency.
- **Marker Liquidity Risk:** Market liquidity risk arises when a bank is unable to conclude a large transaction in a particular instrument near the current market price.

Default or Credit Risk

Credit Risk is most simply defined as the potential of a bank borrower or counterparty fail to meet its obligations in accordance with agreed terms. For most banks, loans and corporate bonds are the largest and most obvious source of credit risk.

- **Counterparty Risk:** This is a variant of credit risk and is related to non- performance of the trading partners due to counterparty's refusal and or inability to perform. Normally such defaults happen in Call money borrowing between banks since it is purely unsecured. The counter-party risk is generally viewed as a transient financial risk associated with trading rather than standard credit risk.
- **Country Risk:** This is also a type of credit risk where non-performance by a borrower or counter-party arises due to constraints or restrictions imposed by a country. In this case, the reasons for non-performance are external factors on which the borrower or the counterparty has no control.

Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. Strategic risk and reputation risk, though in the nature of operational risk, are not covered under the definition of operational risk by BCBS.

- **Transaction Risk:** Transaction risk is the risk arising from fraud, both internal and external, failed business processes and the inability to maintain business continuity and manage information.

- **Compliance Risk:** Compliance risk is the risk of legal or regulatory sanction, financial loss or reputation loss that a bank may suffer as a result of its failure to comply with any or all of the applicable laws, regulations, codes of conduct and standards of good practice. It is also called integrity risk since a bank's reputation is closely linked to its adherence to principles of integrity and fair dealing.
- **Strategic Risk:** Strategic Risk is the risk arising from adverse business decisions, improper implementation of decisions, or lack of responsiveness to industry changes. This risk is a function of the compatibility of an organisation's strategic goals, the business strategies developed to achieve those goals, the resources deployed against these goals and the quality of implementation. In short, this risk calls for whether there is gap between the strategy aimed at and implemented. If there is a gap, then the strategy is not implemented in letter and spirit.
- **Reputation Risk:** Reputation Risk is the risk arising from negative public opinion. This risk may expose the institution to litigation, financial loss, or a decline in customer base. Risks faced by banking and financial services may be summarised as shown in

Model Risk

Models are designed to predict values of variables for which it is specifically designed. Value of a given variable would depend upon one or more parameters, which influence the value of the given variable. Model risk usually arises because of the following reasons:

- Incorrect assumptions or assumptions, which have become non-relevant
- Ignoring one or more parameters – usually for simplification or for some practical reasons
- Errors of statistical techniques or insufficient data points
- Incorrect judgment in dealing with outliers, etc.

Climate Risk

Climate-related risks refer to the potential risks that may arise from climate change or from efforts to Mitigate climate change, their related impact, and the economic and financial consequences. It can Impact on the financial sector through two broad channels i.e., physical risks and transition risks.

- **Physical risks**, which arise from the changes in weather and climate that impact the economy. They can be categorized as acute risks (such as floods, heatwaves, landslides etc).
- **Transition risks**, which arise from the process of adjustment towards a low- carbon economy. This can have a significant impact on the economy.

Unit 13: Regulation of Banking Industries - Necessities and Goals

Banking and financial services, all over the world, are regulated usually by the Monetary Authority of the land. This is because banking and financial services are the backbone of an economy. A healthy and strong banking system is a must for any economy to function smoothly and to prosper. As we have seen, banks have risks and risk taking is their business. But if risk-taking is not regulated properly, banks may fail and it would have a disastrous effect on the economy. Therefore, Monetary Authorities across the world regulate functioning of the banks. In India, this function, as we all know, is with Reserve Bank of India, Country's monetary authority.

Regulations have several goals. They are:

- Improving the safety of the banking industry, by imposing capital requirements in line with bank's risks.
- Note: Regulatory Authorities impose recognition of the core concept of the capital adequacy principle and of 'risk-based capital', which means banks' capital should be in line with risks. This implies a quantitative assessment of risks as well.
- Levelling the competitive playing field of banks through setting common benchmarks for all players.
- Promoting sound business and supervisory practices.
- Controlling and monitoring Systemic Risk'.
- Protecting interest of depositors as depositors cannot impose a real market discipline on banks.

Systemic Risk

Systemic risk is the risk of failure of the whole banking system. An Individual bank's failure is one of the major sources of the systemic risk. This happens because of high inter-relations that exist on a ongoing basis between banks through mutual lending and borrowing and other commitments.

Basel Committee on Banking Supervision

Why BCBS?

- On 26th June 1974, a number of banks had released Deutschmarks to Bank Herstatt in Frankfurt in exchange for dollar payments that were to be delivered in New York.
- Due to differences in time zones, there was a lag in dollar payments to counterparty banks during which Bank Herstatt was liquidated by German regulators (Bundesbank), i.e., before the dollar payments could be effected.

Note: The risk of settlement that arises from time-difference came to be known as 'Herstatt Risk'.

The Basel Committee has the following five groups:

- Policy Development Group

- Supervision and Implementation Group
- Basel Consultative Group
- Macro prudential Supervision Group
- Accounting Experts Group

The five Committee groups report directly to the BCBS Chairman and form part of its permanent internal structure. Within each group are working groups – which support specified technical work - and task forces - which undertake specific tasks for a limited time. High-level task forces are also in place to support broader goals outside the Committee groups' primary activities.

Basel Norm

- Basel is a city in Switzerland which is also the headquarters of Bureau of International Settlement (BIS).
- The Bank for International Settlements (BIS) established on 17 May 1930, is the world's oldest international financial organisation. There are two representative offices in the Hong Kong and in Mexico City.

BASEL- I

- In 1988, The Basel Committee on Banking Supervision (BCBS) introduced capital measurement system called Basel capital accord, also called as Basel 1.
- It focused almost entirely on credit risk, It defined capital and structure of risk weights for banks.
- The minimum capital requirement was fixed at 8% of risk-weighted assets (RWA).
- India adopted Basel 1 guidelines in 1999.
- In India, however banks are required to maintain a minimum Capital-to-risk weighted Asset ratio (CRAR) of 9% on an ongoing basis.

BASEL- II

In 2004, Basel II guidelines were published by BCBS, which were considered to be the refined and reformed versions of Basel I accord.

Basel II Accord is based on three pillars:

1. Minimum capital requirement
2. Supervisory review process
3. Market discipline

Pillar 1 - Minimum Capital Requirement

1. Capital for Credit Risk

(a) Standardised Approach

(b) Internal Ratings Based (IRB) Foundation Approach
(c) Internal Ratings Based (IRB) Advanced Approach

2.Capital for Market Risk

(a) Standardised Approach (Maturity Method)
(b) Standardised Approach (Duration Method)
(c) Internal Models Method

3. Capital for Operational Risk

(a) Basic Indicator Approach
(b) Standardised Approach
(c) Advanced Measurement Approach

Pillar 2 - Supervisory Review Process

1. Evaluate risk assessment.
2. Ensure soundness and integrity of banks' internal process to assess the adequacy of capital.
3. Ensure maintenance of minimum capital - with PCA (Prompt Corrective Action) for shortfall.
4. Prescribe differential capital, where necessary - i.e., where the internal processes are slack.

Pillar 3 - Market Discipline

1. Enhance disclosure
2. Core disclosures and supplementary disclosures
3. Timely - semi annual

BASEL - III

Basel III or Basel 3 released in December, 2010 is the third in the series of Basel Accords. These accords deal with risk management aspects for the banking sector. So we can say that Basel III is the global regulatory standard on bank capital adequacy, stress testing and market liquidity risk. (Basel I and Basel II are the earlier versions of the same, and were less stringent).

The RBI issued Guidelines based on the Basel III reforms on capital regulation on May 2 2012, to the extent applicable to banks operating in India. The Basel III capital regulation has been implemented form April 1, 2013 in India in phase and it will be fully implemented as on March 31, 2019 but Extended.

- In Basel 3, implementation of CCB extended from 31.03.20 to 30.09.20 (further changed to 1.4.2021).
- In Basel 3, implementation of NSFR extended from 1.4.20 to 1.10.20 (further changed to 1.4.2021)

Consequently, Basel III capital regulations had to be fully implemented as on October, 1,2021.

Aims of the Basel III

- Improve the banking sector's ability to absorb ups and downs arising from financial and economic instability
- Improve risk management ability and governance of banking sector
- Strengthen banks' transparency and disclosures

What are the major changes proposed in Basel III over earlier accords i.e. Basel I and Basel II?

- **Better Capital Quality:** One of the key elements of Basel 3 is the introduction of much stricter definition of capital. Better quality capital means the higher loss- absorbing capacity. This in turn will mean that banks will be stronger, allowing them to better withstand periods of stress.
- **Capital Conservation Buffer:** Another key feature of Basel iii is that now banks will be required to hold a capital conservation buffer of 2.5%. The aim of asking to build conservation buffer is to ensure that banks maintain a cushion of capital that can be used to absorb losses during periods of financial and economic stress.
- **Countercyclical Buffer:** This is also one of the key elements of Basel III. The countercyclical buffer has been introduced with the objective to increase capital requirements in good times and decrease the same in bad times. The buffer will slow banking activity when it overheats and will encourage lending when times are tough i.e. in bad times. The buffer will range from 0% to 2.5%, consisting of common equity or other fully loss-absorbing capital.
- **Minimum Common Equity and Tier 1 Capital Requirements:** The minimum requirement for common equity, the highest form of loss-absorbing capital, has been raised under Basel III from 2% to 4.5% of total risk-weighted assets. The overall Tier 1 capital requirement, consisting of not only common equity but also other qualifying financial instruments, will also increase from the current minimum of 4% to 6%. Although the minimum total capital requirement will remain at the current 8% level, yet the required total capital will increase to 10.5% when combined with the conservation buffer.
- **Leverage Ratio:** A review of the financial crisis of 2008 has indicted that the value of many assets fell quicker than assumed from historical experience. Thus, now Basel III rules include a leverage ratio to serve as a safety net. A leverage ratio is the relative amount of capital to total assets (not risk-weighted). This aims to put a cap on swelling of leverage in the banking sector on a global basis. 3% leverage ratio of Tier 1 will be tested before a mandatory leverage ratio is introduced in January 2018.
- **Liquidity Ratios:** Under Basel III, a framework for liquidity risk management will be created. A new Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) are to be introduced in 2015 and 2018, respectively.
- **Systemically Important Financial Institutions (SIFI):** As part of the macro- prudential framework, systemically important banks will be expected to have loss-absorbing capability beyond the Basel III requirements. Options for implementation include capital surcharges, contingent capital and bail-in-debt.

Composition of Regulatory Capital

Common Equity (Tier 1 capital ratio) = *Common Equity Tier 1 Capital / (Credit Risk RWA* + Market Risk RWA + Operational Risk RWA)*
Tier 1 capital ratio ((CETI + AT1)) = *Eligible Equity Tier 1 Capital / (Credit Risk RWA* + Market Risk RWA + Operational Risk RWA)*
Total Capital ((CRAR)#) = *Eligible Total Capital / (Credit Risk RWA + Market Risk RWA + Operational Risk RWA)*

Elements of Regulatory Capital and the Criteria for their Inclusion in the Definition of Regulatory Capital

Components of Capital

Total regulatory capital will consist of the sum of the following categories:

(i) Tier 1 Capital (going-concern capital)
  (a) Common Equity Tier 1
  (b) Additional Tier 1
(ii) Tier 2 Capital (gone-concern capital)

From regulatory capital perspective, going-concern capital is the capital which can absorb losses without triggering bankruptcy of the bank. Gone-concern capital is the capital which will absorb losses only in a situation of liquidation of the bank.

Limits and Minima

- As a matter of prudence, it has been decided that scheduled commercial banks (excluding Local Area Banks and Regional Rural Banks) operating in India shall maintain a minimum total capital (MTC) of 9% of total risk weighted assets (RWAs) i.e. capital to risk weighted assets (CRAR). This will be further divided into different components as described hereunder.
- Common Equity Tier 1 (CETI) capital must be at least 5.5% of risk-weighted assets (RWAS) i.e. for credit risk + market risk + operational risk on an ongoing basis.
- Tier 1 capital must be at least 7% of RWAs on an ongoing basis. Thus, within the minimum Tier 1 capital, Additional Tier 1 capital can be admitted maximum at 1.5% of RWAS.
- Total Capital (Tier 1 Capital plus Tier 2 Capital) must be at least 9% of RWAs on an ongoing basis. Thus, within the minimum CRAR of 9%, Tier 2 capital can be admitted maximum up to 2%.
- If a bank has complied with the minimum Common Equity Tier 1 and Tier 1 capital ratios, then the excess Additional Tier 1 capital can be admitted for compliance with the minimum CRAR of 9% of RWAS.

- In addition to the minimum Common Equity Tier 1 capital of 5.5% of RWAs, banks are also required to maintain a capital conservation buffer (CCB) of 2.5% of RWAs in the form of Common Equity Tier 1 capital. Details of operational aspects of CCB are given in RBI Circular.

Thus, with full implementation of capital ratios and CCB the capital requirements as on 1st October, 2021 will be as follows:

S. No.	Regulatory Capital	As % to RWAs
(i)	Minimum Common Equity Tier 1 Ratio	5.5
(ii)	Capital Conservation Buffer (comprised of Common Equity)	2.5
(iii)	Minimum Common Equity Tier 1 Ratio plus Capital Conservation Buffer [(i)+(ii)]	8.0
(iv)	Additional Tier 1 Capital	1.5
(v)	Minimum Tier 1 Capital Ratio [(i) +(iv)]	7.0
(vi)	Tier 2 Capital	2.0
(vii)	Minimum Total Capital Ratio (MTC) [(v)+(vi)]	9.0
(viii)	Minimum Total Capital Ratio plus Capital Conservation Buffer [(vii)+(ii)]	11.5

Capital Charge for Credit Risk

The Reserve Bank has identified the external credit rating agencies that meet the eligibility criteria specified under the revised Framework. Banks may rely upon the ratings assigned by the external credit rating agencies chosen by the Reserve Bank for assigning risk weights for capital adequacy purposes as per the mapping furnished in the RBI Guidelines.

The Circular issued by the Reserve Bank of India has laid down detailed guidelines on the capital adequacy requirements and the risk weights to be applied in case of the following claims:

- Claims on Domestic Sovereigns
- Claims on Foreign Sovereigns
- Claims on Public Sector Entities (PSES)
- Claims on Multilateral Development Banks, Bank for International Settlements and the International Monetary Fund
- Claims on Banks (Exposure to capital instruments)
- Claims on Primary Dealers
- Claims on Corporates, Asset Finance Companies and Non-Banking Finance Companies-Infrastructure Finance Companies
- Claims included in the Regulatory Retail Portfolios
- Claims secured by Residential Property
- Claims Classified as Commercial Real Estate Exposure
- Non-Performing Assets (NPAs)

- Specified Categories Venture Capital Funds
- Other Assets like loans and advances to bank's own staff
- Off-Balance Sheet Items
- Securitisation Exposures
- Capital Adequacy Requirement for Credit Default Swap (CDS) Positions in the Banking Book

Eligible Credit Rating Agencies

- Brickwork Ratings India Pvt. Limited (Brickwork);
- Credit Analysis and Research Limited;
- CRISIL Limited;
- ICRA Limited;
- India Ratings and Research Private Limited (India Ratings); and
- SMERA Ratings Ltd. (SMERA)
- INFORMERICS Valuation and Rating Pvt. Ltd (from June, 2017)

The Reserve Bank of India has decided that banks may use the ratings of the following international credit rating agencies for the purposes of risk weighting their claims for capital adequacy purposes where specified:

- Fitch
- Moody's
- Standard & Poor's

Internal Rating Based Approach

One of the most innovative aspects of the New Accord is the IRB approach to measurement of capital requirements for credit risk. The IRB Approach offers the following two options:

- Foundation IRB Approach (FIRB)
- Advanced IRB Approach AIRB) version.

The IRB approach differs substantially from the standardised approach to the extent that banks' internal assessments of key risk parameters serve as primary inputs to capital calculation. Since the approach is based on banks' internal assessments, the potential for more risk-sensitive capital requirements is substantial. The salient features of IRB Approach are as under:

- The IRB Approach computes the capital requirements of each exposure directly before computing the risk-weighted assets.
- Capital charge computation is a function of the following parameters:
  - Probability of Default (PD)
  - Loss Given the Default (LGD)
  - Exposure at Default (EAD) (iv)Maturity (M)

The risk-weighted assets are derived from the capital charge computation.

- **Probability of Default (PD),** which measures the likelihood that the borrower will default over a time given horizon.
- **Loss Given Default (LGD),** which measures the proportion of the exposure that will be lost if a default occurs.
- **Exposure At Default (EAD),** which for loan commitment measures the amount of the facility that is likely to be drawn in the event of a default.
- **Maturity (M),** which measures the remaining economic maturity of the exposure.

The differences between Foundation and Advanced IRB approaches based on who provides the inputs on the various parameters:

Parameter	Foundation IRB	Advanced IRB
PD	Bank	Bank
LGD	Supervisor	Bank
EAD	Supervisor	Bank
M	Bank or Supervisor	Bank
Risk Weight	Function provided by the committee	Function provided by the committee
Data Requirement	Historical data to estimate PD [5 years]	Historical loss data to estimate LGD (7 years) and historical exposure data to estimate EAD (7 years)] plus that for PD estimation

Credit Risk Mitigation

General Principles

- No transaction in which Credit Risk Mitigation (CRM) techniques are used should receive a higher capital requirement than an otherwise identical transaction where such techniques are not used.
- The effects of CRM will not be double counted. Therefore, no additional supervisory recognition of CRM for regulatory capital purposes will be granted on claims for which an issue-specific rating is used that already reflects that CRM.
- Principal-only ratings will not be allowed within the CRM framework.
- While the use of CRM techniques reduces or transfers credit risk, it simultaneously may increase other risks (residual risks). Residual risks include legal, operational, liquidity and market risks. Therefore, it is imperative that banks employ robust procedures and processes to control these risks, including strategy, consideration of the underlying credit; valuation; policies

Legal Certainty

- In order for banks to obtain capital relief for any use of CRM techniques, the following minimum standards for legal documentation must be met.
- All documentation used in collateralised transactions and guarantees must be binding on all parties and legally enforceable in all relevant jurisdictions. Banks must have conducted sufficient legal review, which should be well documented, to verify this requirement.
- Such verification should have a well-founded legal basis for reaching the conclusion about the binding nature and enforceability of the documents. Banks should also undertake such further review as necessary to ensure continuing enforceability.

Credit Risk Mitigation Techniques – Collateralised Transactions

A Collateralised Transaction is one in which:

- Banks have a credit exposure and that credit exposure is hedged in whole or in part by collateral posted by a counterparty or by a third party on behalf of the counterparty. Here, "counterparty" is used to denote a party to whom a bank has an on- or off-balance sheet credit exposure.
- Banks have a specific lien on the collateral and the requirements of legal certainty are met.

Capital Charge for Market Risk

Market risk is defined as the risk of losses in on-balance sheet and off-balance sheet positions arising from movements in market prices.

The market risk positions subject to capital charge requirement are:

- The risks pertaining to interest rate related instruments and equities in the trading book; and
- Foreign exchange risk (including open position in precious metals) throughout the bank (both banking and trading books).

Scope and Coverage of Capital Charge for Market Risks

These guidelines seek to address the issues involved in computing capital charges for interest rate related instruments in the trading book, equities in the trading book and foreign exchange risk (including gold and other precious metals) in both trading and banking books. Trading book for the purpose of capital adequacy will include:

- Securities included under the Held for Trading category
- Securities included under the Available for Sale category
- Open gold position limits
- Open foreign exchange position limits
- Trading positions in derivatives, and
- Derivatives entered into for hedging trading book exposures

Measurement of Capital Charge for Interest Rate Risk

- The capital charge for interest rate related instruments would apply to current market value of these items in bank's trading book. Since banks are required to maintain capital for market risks on an ongoing basis, they are required to mark to market their trading positions on a daily basis.
- The current market value will be determined as per extant RBI guidelines on valuation of investments.

The minimum capital requirement is expressed in terms of two separately calculated charges,

- "Specific risk" charge for each security, which is designed to protect against an adverse movement in the price of an individual security owing to factors related to the individual issuer, both for short (short position is not allowed in India except in derivatives and Central Government Securities) and long positions, and
- "General market risk" charge towards interest rate risk in the portfolio, where long and short positions (which is not allowed in India except in derivatives and Central Government Securities) in different securities or instruments can be offset.

General Market Risk

The capital requirements for general market risk are designed to capture the risk of loss arising from changes in market interest rates.

The capital charge is the sum of four components:

- The net short (short position is not allowed in India except in derivatives and Central Government Securities) or long position in the whole trading book;
- A small proportion of the matched positions in each time-band (the "vertical disallowance");
- A larger proportion of the matched positions across different time-bands (the "horizontal disallowance"); and
- A net charge for positions in options, where appropriate.

Capital Charge for Operational Risk

Operational Risk

- Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk, but excludes strategic and reputational risk.
- Legal risk includes, but is not limited to, exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements.

The Measurement Methodologies

The New Capital Adequacy Framework (NCAF) outlines three methods for calculating operational risk capital charges in a continuum of increasing sophistication and risk sensitivity:

- The Basic Indicator Approach (BIA);
- The Standardised Approach (TSA); and
- Advanced Measurement Approaches (AMA).

The Basic Indicator Approach

Under the Basic Indicator Approach, banks must hold capital for operational risk equal to the average over the previous three years of a fixed percentage (denoted as alpha) of positive annual gross income. Figures for any year in which annual gross income is negative or zero should be excluded from both the and numerator denominator when calculating the average. If negative gross income distorts a bank's

- Pillar 1 capital charge, Reserve Bank will consider appropriate supervisory action under
- Pillar 2. The charge may be expressed as follows:

KBIA = [∑ (GI1……n x α ●)]/n

Where:
KBIA = the capital charge under the Basic Indicator Approach
GI = annual gross income, where positive, over the previous three years
n = number of the previous three years for which gross income is positive
α = 15 per cent, which is set by the BCBS, relating the industry wide level of required capital to the industry wide level of the indicator.

Gross income is defined as "Net interest income" plus "net non-interest income".
It is intended that this measure should:

- be gross of any provisions (e.g. for unpaid interest) and write-offs made during the year,
- be gross of operating expenses, including fees paid to outsourcing service providers, in addition to fees paid for services that are outsourced, fees received by banks that provide outsourcing services shall be included in the definition of gross income;
- exclude reversal during the year in respect of provisions and write-offs made during the previous year
- exclude income recognised from the disposal of items of movable and immovable property;
- exclude realised profits/losses from the sale of securities in the "held to maturity" category;
- exclude income from legal settlements in favour of the bank;
- exclude other extraordinary or irregular items of income and expenditure; and
- exclude income derived from insurance activities (i.e. income derived by writing insurance policies) and insurance claims in favour of the bank.

Features of a Sound Risk Management System

- Active board and senior management oversight;
- Appropriate policies, procedures and limits;
- Comprehensive and timely identification, measurement, mitigation, controlling, monitoring and reporting of risks;
- Appropriate management information systems (MIS) at the business and firm- wide level; and
- Comprehensive internal controls.

Guidelines for the SREP of the RBI and the ICAAP of Banks

The Basel capital adequacy framework rests on the following three mutually – reinforcing pillars:

- Pillar 1: Minimum Capital Requirements – which prescribes a risk-sensitive calculation of capital requirements that, for the first time, explicitly includes operational risk in addition to market and credit risk.
- Pillar 2: Supervisory Review Process (SRP) – which envisages the establishment of suitable risk management systems in banks and their review by the supervisory authority.
- Pillar 3: Market Discipline – which seeks to achieve increased transparency through expanded disclosure requirements for banks.

The Basel Committee also lays down the following four key principles in regard to the SRP envisaged under Pillar 2:

- **Principle 1:** Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.
- **Principle 2:** Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with the regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process.
- **Principle 3:** Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.
- **Principle 4:** Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

Pillar 3 - Market Discipline

The purpose of Market discipline is to complement the minimum capital requirements (detailed under pillar 1) and the supervisory review process (detailed under Pillar 2). The aim is to encourage market discipline by developing a set of disclosure requirements which will allow market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes and hence, the capital adequacy of the institution.

In principle, banks' disclosures should be consistent with how senior management and the Board of Directors assess and manage the risks of the bank. Under Pillar 1, banks use specified approaches/

methodologies for measuring the various risks they face and the resulting capital requirements. It is believed that providing disclosures that are based on a common framework is an effective means of informing the market about a bank's exposure to those risks and provides a consistent and comprehensive disclosure framework that enhances comparability.

Scope and Frequency of Disclosures

Pillar 3 applies at the top consolidated level of the banking group to which the Capital Adequacy Framework applies. Disclosures related to individual banks within the groups would not generally be required to be made by the parent bank. An exception to this arises in the disclosure of capital ratios by the top consolidated entity where an analysis of significant bank subsidiaries within the group is appropriate, in order to recognise the need for these subsidiaries to comply with the Framework and other applicable limitations on the transfer of funds or capital within the group. Pillar 3 disclosures will be required to be made by the individual banks on a stand-alone basis when they are not the top consolidated entity in the banking group.

Banks are required to make Pillar 3 disclosures as per RBI Guidelines at least on a half yearly basis, irrespective of whether financial statements are audited, with the exception of following disclosures:

- Table DF-2: Capital Adequacy;
- Table DF-3: Credit Risk: General Disclosures for All Banks; and
- Table DF-4: Credit Risk: Disclosures for Portfolios Subject to the Standardised Approach.

Leverage Ratio

- Definition, Minimum Requirement and Scope of Application of the Leverage Ratio Definition and minimum requirement: exposure
- The Basel III leverage ratio is defined as the capital measure (the numerator) divided by the measure (the denominator), with this ratio expressed as a percentage
- Leverage ratio = Capital Measure/Exposure Measure Regulatory Capital Requirement for Indian Banks under Basel III Elements of Common Equity Tier 1 Capital:

Indian Banks

Elements of Common Equity component of Tier 1 capital will comprise the following:

- Common shares (paid-up equity capital) issued by the bank which meet the criteria for classification as common shares for regulatory purposes;
- Stock surplus (share premium) resulting from the issue of common shares;
- Statutory reserves;
- Capital reserves representing surplus arising out of sale proceeds of assets;
- Other disclosed free reserves, if any;
- Balance in Profit & Loss Account at the end of the previous financial year;
- Banks may reckon the profits in current financial year for CRAR calculation on a quarterly basis provided the incremental provisions made for non-performing assets at the end of any of the four quarters of the previous financial year have not deviated more than 25% from the

average of the four quarters. The amount which can be reckoned would be arrived at by using the following formula:

EPt = {NPt - 0.25*D*t}

Where;

EPt = Eligible profit up to the quarter 't' of the current financial year; t varies from 1 to 4 NPt = Net profit up to the quarter 't'

D = average annual dividend paid during last three years

- Revaluation Reserves at a discount of 55%;
- While calculating capital adequacy at the consolidated level, common shares issued by consolidated subsidiaries of the bank and held by third parties (i.e. minority interest) which meet the laid down criteria; and
- Less: Regulatory adjustments/deductions applied in the calculation of Common Equity Tier! capital (i.e. to be deducted from the sum of items (i) to (viii)].

Foreign Banks' Branches

Elements of Common Equity Tier 1 capital will remain the same and consist of the following:

- Interest-free funds from Head Office kept in a separate account in Indian books specifically for the purpose of meeting the capital adequacy norms;
- Statutory reserves kept in Indian books;
- Remittable surplus retained in Indian books which is not repatriable so long as the bank functions in India;
- Interest-free funds remitted from abroad for the purpose of acquisition of property and held in a separate account in Indian books provided they are non- repatriable and have the ability to absorb losses regardless of their source;
- Capital reserve representing surplus arising out of sale of assets in India held in a separate account and which is not eligible for repatriation so long as the bank functions in India, and
- Less: Regulatory adjustments/deductions applied in the calculation of Common Equity Tier 1 capital [i.e. to be deducted from the sum of items (i) to (v)].

Definitions and General Terminology

- **Counterparty Credit Risk (CCR)** is the risk that the counterparty to a transaction could default before be final settlement of the transaction's cash flows. An economic loss would occur if the transactions or portfolio of transactions with the counterparty has a positive economic value at the time of default. Unlike a firm's exposure to credit risk through a loan, where the exposure to credit risk is unilateral and only the lending bank faces the risk of loss, CCR creates a bilateral risk of loss : the market value of the transaction can be positive or negative to either counterparty to the transaction. The market value is uncertain and can vary over time with the movement of underlying market factors.

- **Securities Financing Transactions (SFTs)** are transactions such as repurchase agreements, reverse repurchase agreements, security lending and borrowing, collateralised borrowing and lending (CBLO) and margin lending transactions, where the value of the transactions depends on market valuations and the transactions are often subject to margin agreements.
- **Hedging Set** is a group of risk positions from the transactions within a single netting set for which only their balance is relevant for determining the exposure amount or EAD under the CCR standardised method.
- **Current Exposure** is the larger of zero, or the market value of a transaction or portfolio of transactions within a netting set with a counterparty that would be lost upon the default of the counterparty, assuming no recovery on the value of those transactions in bankruptcy. Current exposure is often also called Replacement Cost.
- **Credit Valuation Adjustment** is an adjustment to the mid-market valuation of the portfolio of trades with a counterparty. This adjustment reflects the market value of the credit risk due to any failure to perform on contractual agreements with a counterparty. This adjustment may reflect the market value of the credit risk of the counterparty or the market value of the credit risk of both the bank and the counterparty.
- **One-Sided Credit Valuation Adjustment** is a credit valuation adjustment that reflects the market value of the credit risk of the counterparty to the firm, but does not reflect the market value of the credit risk of the bank to the counterparty.
- **A central counterparty (CCP)** is a clearing house that interposes itself between counterparties to contracts traded in one or more financial markets, becoming the buyer to every seller and the seller to every buyer and thereby ensuring the future performance of open contracts.
- **A qualifying central counterparty (QCCP)** is an entity that is licensed to operate as a CCP (including a license granted by way of confirming an exemption), and is permitted by the appropriate regulator overseer to operate as such with respect to the products offered.
- **A Clearing member** is a member of, or a direct participant in, a CCP that is entitled to enter into a transaction with the CCP, regardless of whether it enters into trades with a CCP for its own hedging, investment or speculative purposes or whether it also enters into trades as a financial intermediary between the CCP and other market participants.
- **A client** is a party to a transaction with a CCP through either a clearing member acting as a financial intermediary, or a clearing member guaranteeing the performance of the client to the CCP.
- **Initial margin** means a clearing member's or client's funded collateral posted to the CCP to mitigate the potential future exposure of the CCP to the clearing member arising from the possible future change in the value of their transactions.
- **Variation margin** means a clearing member's or client's funded collateral posted on a daily or intraday basis to a CCP based upon price movements of their transactions.
- **Trade exposures** include the current and potential future exposure of a clearing member or a client to a CCP arising from OTC derivatives, exchange traded derivatives transactions or SFTs, as well as initial margin.

- **Default funds, also known as clearing deposits or guarantee fund contributions** (or any other names), are clearing members' funded or unfunded contributions towards, or underwriting of, a CCP's mutualised loss sharing arrangements. The description given by a CCP to its mutualised loss sharing arrangements is not determinative of their status as a default fund; rather, the substance of such arrangements will govern their status.
- **Offsetting transaction** means the transaction leg between the clearing member and the CCP when the clearing member acts on behalf of a client (e.g. when a clearing member clears or novates a client's trade).

Unit 14: Market Risk

Market Risk in Banks

Banks also have several activities and undertake transactions that result in market exposure. They are not immune to these risks and have to face them too. All such transactions are reflected in the trading book. A trading book consists of a bank's proprietary positions in financial instruments covering:

- Debt Securities
- Equity
- Foreign Exchange
- Commodities (not permitted in our country presently)
- Derivatives held for Trading

A bank's trading book exposure has the following risks, which arise due to adverse changes in the market variables such as interest rates, currency exchange rate, Commodity prices, market liquidity, etc., and their volatilities impact the bank's earnings and capital adversely.

1. Market Risk
2. 2.Liquidity Risk
    a. Asset Liquidity Risk
    b. Market Liquidity Risk
3. Credit and Counterparty risks

Note: The market liquidity risk is different from funding the liquidity risk that arises due to asset-liability mismatch and is a subject matter of Asset Liability management.

Market Risk

- Market risk is the risk of adverse deviations of the mark-to-market value of the trading portfolio, due to market movements, during the period required to liquidate the transactions.
- The period of liquidation is critical to assess such adverse deviations. If the period of liquidation of the position gets longer, the possibilities of larger adverse deviations from the current market value also increase.

Trading Liquidity Risk

Trading liquidity is the ability to freely transact in markets at reasonable prices. Trading liquidity is ability to liquidate positions without

- Affecting market prices
- Attracting the attention of other market participants.

Trading liquidity allows one to transact without compromising on counter-party quality.

Liquidation involves asset and market liquidity risks. Price volatility is not the same in high-liquidity and poor-liquidity situations.

The liquidity issue becomes critical in emerging markets. Prices in emerging markets often diverge considerably from a theoretical 'fair value'. Liquidation risk arise from lack of trading liquidity and results in

- Adverse change in market prices
- Inability to liquidate position at a fair market price
- Large price changes caused by liquidation of position
- Inability to liquidate position at any price

Credit and Counterparty Risks

- Markets value the credit risk of issuers and borrowers and it reflects in prices. Credit risk of traded debts, such as bonds and debentures and commercial papers, etc., is indicated by Credit Rating given by rating agencies.
- Credit rating indicates the risk level associated with the instruments and is factored into as add-ons to the risk-free rate of the corresponding maturity. The lower the risk level, the lower is the spread over risk-free rate.

Market Risk Management Framework

Market risk management involves finding answer to four key questions.

- What are the risks?
- What is the quantum? How much could the price change? What would be the effect on profit and loss?
- How can we monitor and control price risk?
- Can we reduce the risk? And, if so, then how?

Management processes for market risk management are designed essentially to answer these questions. Accordingly, management processes are sub-divided into the following four parts:

- Risk Identification
- Risk Measurement
- Risk Monitoring and Control
- Risk Mitigation

An effective market risk management framework in a bank comprises of risk identification, setting up of limits and triggers, risk monitoring, models of analysis that value positions or measure market risk, risk reporting, etc. Financial instrument take their price from the market and that depends upon the interaction of market variables. Hence, market risk management processes do not have a risk pricing process.

Organisation Structure

Management of market risk is a major concern of the top management of banks. Successful implementation of risk management process emanates from the top management in the bank. The main challenge centres on facilitating implementation of risk and business policies simultaneously in a consistent manner. Modern best practices consist of setting risk limits based on economic measures of risk while ensuring the best risk adjusted return keeping in view the capital that has been invested in the business. It is a question of taking a balanced view on risks and returns and within the constraints of available capital. Usually, Market Risk Management organisation would consist:

- The Board of Directors
- The Risk Management Committee
- The Asset-Liability Management Committee (ALCO)
- The ALM Support Group/Market Risk Group
- The Middle Office

The Risk Management Committee is a Board level Sub-Committee**. The responsibilities of Risk Management Committee** with regard to market risk management aspects include the following:

- Setting guidelines for market risk management and reporting
- Ensuring that market risk management processes conform to the policy
- Setting up prudential limits and their periodical review
- Ensuring robustness of measurement of risk models
- Ensuring proper manning for the processes

The Asset-Liability Management Committee (ALCO) is responsible for implementation of risk and business policies simultaneously in a consistent manner and decides on the business strategy to achieve these objectives. **Its role encompasses the following:**

- Product pricing for deposits and advances
- Maturity profile and mix of incremental assets and liabilities
- Articulating interest rate view of the bank
- Funding policy
- Transfer pricing
- Balance sheet management It set

Risk Identification

All products and transactions should be analysed for risks associated with them. While, various risks associated with a standardised product stand analyzed, the risks in case of a non-standard products need to be analysed. Therefore, the approach to deal in standard and non-standard products differs. We have seen under the general approach to risk management that the guidance for risk taking at the transaction level comes from the corporate level. It applies to the management of market risk too.

- Usually all standard products would have 'Product Programme' for each of them. All Risk-Taking Units operate within an approved Product Programme'. Product programme defines procedures, limits and controls for all aspects of the product. The product programme also specifies market risk measurement at an individual product level and at aggregate portfolio level.
- New products or non-standard products may operate under a 'Product Transaction Memorandum' on a temporary basis while a full Market Risk Product programme is being prepared.

Risk Measurement

Market risk management framework is heavily dependent upon the quantitative measures of risk. The market risk measures seek to capture variations in market value arising out of uncertainties associated with various risk elements. These provide an objective measure of market risk in a transaction or of a portfolio. Market risk measures are based on -

- Sensitivity
- Downside Potential

Sensitivity

- Sensitivity, as had been stated deviation of market price due to unit movement of a single market parameter. Supply-demand position, interest rate, market liquidity, inflation, exchange rate, stock prices, etc., are the market parameters, which drive market values.
- For example, change in interest rate would drive the market value of bonds and forward foreign exchange held in a portfolio. If liquidity in the market increases, it may result in increased demand which in turn may increase the market price.

Basis Point Value (BPV)

- This is the change in value due to 1 basis point (0.01%) change in the market yield. This is used as a measure of risk. The higher the BPV of a bond, higher is the risk associated with the bond. Computation of BPV is quite simple.

- For example, a 5 year 6% semi-annual bond @ market yield of 8%, has a price of Rs. 92, which rises to Rs. 92.10 at a yield of 7.95%. So, for one BP fall in yield, market price
- changes by Rs. 0.02 or gains by Rs. 2,000 per Rs. 1 crore face value. BPV of the bond is, therefore, Rs. 2,000. per crore face value.

- This also helps us to quickly calculate profit or loss for a given change of yield. If the yield on a bond with BPV of 2,000 declines by 8 BPs, then that would result in a profit of 8 X 2000 = Rs. 16,000 per crore of face value. If one is holding Rs. 10,00,000 face value of this bond, he makes a profit of Rs. 1,600.

BPV changes with the remaining maturity. Suppose the bond described above has 5 years to mature and the present BPV is 2000, the BPV will decline with time and on the day of maturity it will be zero. Duration or Modified duration is Macaulay's duration discounted by 1 period yield to maturity,
The longer the duration of a security, the greater will be the price sensitivity to yield changes and the higher would be the risk associated with the bond. Bond price changes can be estimated with the help of modified duration by using the following relationship.

Approx % change in price = — modified duration X yield change

Downside Potential

- Risk materializes only when earnings deviate adversely. Downside potential captures the possible losses only and ignores the profit potential. Downside risk is the most comprehensive measure of risk as integrates sensitivity and volatility with the adverse effect of uncertainty.
- This is the measure that is most relied upon by banking and financial service industry as also the regulator.

Yield Vs Price Volatility

- Yield volatility is the degree of variance in yield. This is largely unaffected by time and duration. The volatility rises as yields fall.
- Price volatility is degree of variance in price. This is largely unaffected by yield and substantially affected by time and duration.

Price Volatility = (Yield volatility BPV x Yield)/Price

There are three main approaches to calculating value-at-risk:

- The correlation method, also known as the variance/covariance matrix method
- Historical simulation
- Monte Carlo simulation

Why VaR is Useful?

- Good tool for all banks, financial institutions, multinationals, fund managers for protection of customers, shareholders, employees and overall franchise of the business.
- Translates portfolio exposures into potential impact on Profit and Loss.
- Aggregates and reports multi-product, multi-market exposures into one number.
- Meets external risk management disclosure and expectations.
- A vital component of current best practices in risk measurement.
- Embraced by practitioners, regulators and academicians.
- Valuable as a probabilistic measure of potential losses.

Limitation of VaR

VaR is not worst-case scenario. It does not measure losses under any particular market conditions. VaR by itself - is not sufficient for risk measurement. Measures to get over the limitation include back testing and model calibration and scenario analysis and stress testing.

Role of VaR in Control and Monitoring

- Estimating Valatility
- Back Testing
- Stress Testing

Risk Monitoring And Control

- Risk monitoring and control calls for implementation of risk and business policies simultaneously. It consists of setting the market risk limits or controlling the market risk, based on the economic measures of risk while ensuring the best risk adjusted return.
- Controlling market risk means keeping the variations of the value of a given portfolio within the given boundary values through actions on limits, which are upper bounds imposed on risks.

This is achieved through the following:

- Policy guidelines limiting roles and authority
- Limit structure and approval process
- System and procedures to unbundle products and transactions to capture all risks
- Guidelines on portfolio size and mix
- System for estimating portfolio risk under normal and stressed situations
- Defined policy for mark-to-market
- Limit monitoring and reporting
- Performance Measurement and Resource Allocation

Limits and Triggers

Approved market risk limits for factor sensitivities and Value at Risk are duly set by the designated authority (usually by the Risk Policy Committee). The approval is based on the unit's capacity and capability to perform within those limits, effectiveness of controls and trading revenues.

- Sensitivity and Value at Risk limits for trading portfolios and accrual portfolios are measured daily. Where market risk is not measured daily, Risk Taking Units must have procedures that monitor activity to ensure that they remain within approved limits at all times.
- Approved management triggers or stop-loss limits for all mark to market risk taking activities.
- Appropriate market risk limits for basis risk for the products, wherever applicable, in the Market Risk Product Programme.

Risk Monitoring

- A monitoring process to ensure that all transactions are executed and revalued at the prevailing market rates. The rates used at inception or for periodic marking to market for risk management or accounting purposes must be independently verified.
- Financial Models used for revaluations for income recognition purposes or to measure or monitor Price Risk must be independently tested and certified.
- Stress tests must be performed preferably quarterly with predetermined changes in the underlying assumptions of the model/market conditions.

Models of Analysis

- Appropriate and duly approved (usually by Risk Policy Committee) model control and certification policy.
- Fully documented financial models.
- Duly validated by the designated person, to ensure that the algorithm employed is appropriate and accurate. At least once in a year, the model should be validated by a98 reputed external agency also.
- No unauthorized or unintended changes should be made in models.
- The models should also be subject to model assumption review on a periodic basis.

Risk Reporting

Risk report should enhance risk communication across different levels of the bank, from the trading desk to the CEO. In order of importance, senior management reports should be -

- Regular and in time
- Reasonably accurate
- Including highlights of portfolio risk concentrations & exceptional events
- Containing written commentary
- Concise.

Managing Trading Liquidity

Risk of trading liquidity is managed by avoiding

- Large market share in any given type of asses
- Infrequently traded instruments
- Instruments with unusual tenors
- One-sided liquidity in the market

Risk Terminology in Risk Measurement

Say Mr. Raj takes a position in stock 'A' and wants to explain to his 'Boss' about the market position. He can explain the position in three possible ways:

- He tells his Boss that he purchased 1,000 shares of stock ‘A’ at Rs. 600 per share
- He tells his Boss that he has taken a Rs. 600,000 position in stock ‘A’

- He tells his Boss that he invested in stock "A" . He explains that if price changes by 1%, he would have an impact of Rs. 6,000. But since the price is expected to fluctuate 3% daily (daily volatility - figure estimated from past data), he estimates the daily potential loss to be Rs. 41,868
- Mr. Raj's position analysis using risk terminology will be:
- Market factor - Stock price
- Market Factor Sensitivity - Rs. 6,000 (1% of total position)
- Volatility (Daily) - 3%
- Defeasance period - 1 day (i.e., to sell the stock)
- Defeasance factor - at 3% volatility it is 3 x 2.326 (@ 99% Confidence level)
- Value at Risk (VaR) - Rs. 41,868 - This is also the potential loss amount under normal market conditions.

Risk Mitigation

Market risk arises due to volatility of financial instruments. The volatility of financial instruments is instrumental for both profits and risk. Risk mitigation in market risk, i.e., reduction in market risk is achieved by adopting strategies that eliminate or reduce the volatility of the portfolio. However, there are couple of issues that are also associated with risk mitigation measures

- Risk mitigation, measures aim to reduce downside variability in net cash flow but it also reduces the upside potential or profit potential simultaneously,
- In addition risk mitigation strategies, which involve counterparty, will always be associated with counterparty risk. Of course, where counterparty is an established 'Exchange' or a central counterparty, counterparty risk gets reduced very substantially. In OTC deals, counterparty risk would depend upon the risk level associated with party to the contract.

Unit 15: Credit Risk

Credit Risk Management Framework

As in the case of market risk management, credit risk management also involves finding answer to four key questions.

- What are the risks?
- Which, when and how much risk to accept that results in improving bottom-line?
- How can we monitor and control credit risk?
- Can we reduce the risk? And, if so, then how?

Management processes are designed essentially to answer these questions. Accordingly, **credit risk management processes are sub-divided into following four parts**.

- Credit Risk Identification
- Credit Risk Measurement
- Credit Risk Monitoring and Control
- Credit Risk Mitigation Management of credit risk needs an organisation structure in place that can carry out the functions required for the purpose.

Organisation Structure

Organisation for credit risk management is created with the objective of achieving compatibility in risk and business policies and to ensure their simultaneous implementation in a consistent manner. It involves setting risk limits based on the objective measures of risk and simultaneously ensuring optimum risk adjusted return keeping in view the capital constraints. It is a question of bank's policy in balancing risks, returns and capital. Organisation for credit risk management should be able to achieve it. Usually, Credit Risk Management organisation would consist of:

- The Board of Directors
- The Risk Management Committee
- Credit Policy Committee (CPC)
- Credit Risk Management Department

The Board of Directors has the overall responsibility for management of risks. The Board articulates credit risk management policies, procedures, aggregate risk limits, review mechanisms and reporting and auditing systems. The Board decides the level of credit risk for the bank as a whole, keeping in view its profit objective and capital planning.

The Risk Management Committee is a Board level Sub-Committee. **The responsibilities of Management Committee with regard to credit risk management aspects include the following**:

- Setting guidelines for credit risk management and reporting
- Ensuring that credit risk management processes conform to the policy
- Setting up prudential limits and their periodical review

- Ensuring robustness of measurement of risk models
- Ensuring proper manning for the processes Management

Credit Policy Committee (CPC), also called Credit Control Committee/Credit Risk Management Committee (CRMC) deals with issues relating to credit policy and procedures and to analyse, manage and control credit risk on a bank wide basis. The Committee formulates policies on standards for presentation of credit proposals, financial covenants, rating standards and benchmarks, delegation of credit approving powers, prudential limits on large credit exposures, asset concentrations, standards for loan collateral, portfolio management, loan review mechanism, risk concentrations, risk monitoring and evaluation pricing of loans, provisioning, regulatory/legal compliance, etc.

Credit Risk Management Department (CRMD), which is independent of the Credit Administration Department, enforces and monitors compliance of the risk parameters and prudential limits set by the CPC/CRMC. The CRMD also lays down risk assessment systems, monitors quality of loan portfolio identifies problems and corrects deficiencies, develops MIS and undertakes loan review/audit. Department undertakes portfolio evaluations and conducts comprehensives studies on the environment to test the resilience of the loan portfolio.

Risk Identification

Credit risk arises from potential changes in the credit quality of a borrower. It has two components:

- Default risk and
- Credit spread risk.

Default Risk

Default risk is driven by the potential failure of a borrower to make promised payments, either partly or wholly. In the event of default, a fraction of the obligations will normally be paid. This is known as recovery the rate

Credit Spread Risk or Downgrade Risk

If a borrower does not default, there is still risk due to worsening in credit quality. This results in the possible widening of the credit-spread. This is credit- spread risk. Usually this is reflected through rating downgrade. It is normally firm-specific.

Portfolio Risk

Default risk and downgrade risk are transaction level risks. Risks associated with the credit portfolio as a whole are termed portfolio risks. **Portfolio risk has two components**

- Systematic or Intrinsic Risk
- Risk Concentration Risk

Systematic or Intrinsic Risk

Portfolio risk is reduced due to diversification. If a portfolio is fully diversified, i.e. diversified across geographies, industries, borrowers, markets, etc., equitably, then the portfolio risk is reduced to a minimum level. This minimum level corresponds to the risks in the economy which it is operating. This is systematic or intrinsic risk.

Concentration Risk

- If the portfolio is not diversified that is to say that it has higher weight in respect of a borrower or geography or industry, etc., the portfolio gets concentration risk.
- A portfolio is open to the systematic risk i.e., the risks associated with the economy. If economy as a whole does not perform well, the portfolio performance will be affected.
- That is why when an economy stagnates or faces negative or reduced growth, credit portfolio of banking industry as a whole shows indifferent performance. Credit portfolio having concentration in any segment would be affected if the segment does not perform well.
- Measuring and managing credit risk, whether for loans, bonds or derivative securities, has become a key issue for financial institutions. The risk analysis can be performed either for stand-alone trades or for portfolios as a whole. **Banks adopt the risk analysis in the following manner.**
  - Standalone analysis for Corporate exposures.
  - Portfolio analysis for Retail lending exposures.

Risk Measurement

Measurement of credit risk consists of:

- Measurement of risk through credit rating/scoring;
- Quantifying the risk through estimating expected loan losses, i.e., the amount of loan losses that bank would experience over a chosen time horizon (through tracking portfolio behaviour over 5 or more years) and unexpected loan losses

i.e. the amount by which actual losses exceed the expected loss (through standard deviation of losses or the difference between expected loan losses and some selected target credit loss quartile).

Credit Rating - Why is it Necessary?

Credit Rating of an account is done with the primary objective to determine whether the account, after the expiry of a given period, would remain a performing asset, i.e., it will continue to meet its obligation to its creditors, including Bank and would not be in default. In other words, credit rating exercise seeks to predict whether the borrower would have the capability to honour its financial commitment in future to the rest of the world.

A Credit Rating depicts the credit quality of the borrower and depicts his default. A credit rating process normally would consist of the following parameters:

- Financial Parameter
- Management Parameter

- Industry Parameter
- Business Parameter

Credit Risk Control and Monitoring

- Risk taking through lending activities needs to be supported by a very effective control and monitoring mechanism, firstly because this activity is widespread, and secondly, because of very high share of credit risk in the total risk taking activity of a bank. An elaborate and well-communicated policy at transaction level that articulates guidelines for risk taking, procedural guidelines and an effective monitoring system is necessary. This is also necessary to achieve the desired portfolio. Active portfolio management is required to keep up with the dynamics of the economy. It is also necessary to monitor it.
- Consequently, credit risk control and monitoring is directed both at transaction level and portfolio level.
- It must be mentioned here that an appropriate credit information system is the basic prerequisite for effective control and monitoring. A comprehensive and detailed MIS (Management Information System) and CIS (Credit Information System) is the backbone for an effective CRM System. There is also a need to review the existing MIS available from HO and branches and the applicability of data for analysis purposes. A detailed MIS and CIS structure should be set up and enforced for future data requirements.

Credit Risk Policies and Guidelines at Transaction Level

The instruments of Credit Risk Management at transaction level are:

- Credit Appraisal Process
- Risk Analysis Process
- Credit Audit and Loan Review
- Monitoring Process

There is a need to constantly improve the efficiency for each of these processes in objectively identifying the credit quality of borrowers, enhancing the default analysis, capturing the risk elements adequately for future reference and providing an early warning signal for deterioration in the credit risk of borrowers.

Credit risk taking policy and guidelines at transaction level should be clearly articulated in the Bank's Loan Policy Document approved by the Board. Standards and guidelines should be outlined for

- Delegation of Powers
- Powers Credit Appraisals
- Rating Standards and Benchmarks (derived from the Risk Rating System)
- Pricing Strategy
- Loan Review Mechanism

Credit Approving Authority

Each Bank should have a carefully formulated scheme of delegation of powers. The banks should also evolve multi-tier credit approving system where the loan proposals are approved by an 'Approval Grid' or a Committee'. The 'Grid' or 'Committee', comprising at least 3 or 4 officers, may approve the credit facilities above a specified limit and invariably one officer should represent the CRMD, who has no volume and profit targets.

Credit Appraisal

- Credit appraisal guidelines include borrower standards, procedures for analyzing credit requirements and risk factors, policies on standards for presentation of credit proposals, financial covenants, rating standards and benchmarks, etc.
- This brings a uniformity of approach in credit risk taking activity across the organisation. Credit appraisal guidelines may include risk monitoring and evaluation of assets at transaction level, pricing of loans, regulatory/legal compliance, etc.

Prudential Limits

Prudential limits serve the purpose of limiting credit risk. There are several aspects for which prudential limits may be specified. They may include:

- Prudential limits for financial and profitability ratios such as current ratio, debt equity and return on capital or return on assets, debt service coverage ratio, etc.
- Prudential limits for credit exposure
- Prudential limits for asset concentration
- Prudential limits for large exposures
- Prudential limit for maturity profile of the loan book.

Prudential limits may have flexibility for deviations. The conditions subject to which deviations are permitted and the authority thereof should also be clearly spelt out in the Loan low Policy.

Risk Pricing

The pricing strategy for credit products should move towards risk-based pricing to generate adequate risk adjusted returns on capital. The Credit Spread should have a bearing on the expected loss rates and charges on capital.

Credit Control and Monitoring At Portfolio Level

Credit control and monitoring at portfolio level deals with the risk of a given portfolio, expected losses, requirement of risk capital, and impact of changing the portfolio mix on risk, expected losses and capital It also deals with the marginal and absolute risk contribution of a new position and diversification benefits that come out of changing the mix. It also analyses factors that affect the portfolio's risk profile. The activities include:

- Identification of portfolio credit weakness in advance - through credit quality migrations.

- Moving from measuring obligor specific risk associated with individual credit exposures to measuring concentration effects on the portfolio as a whole.
- Evaluating exposure distribution over rating categories and stipulating quantitative ceilings on aggregate exposure in specified rating categories.
- Evaluating rating-wise distribution in various industries and setting corresponding exposure limits to contain concentration risk.
- Moving towards Credit Portfolio Value at Risk Models.

Some measures to maintain the portfolio quality are:

- Quantitative ceiling on aggregate exposure in specified rating categories.
- Evaluation of rating-wise distribution of borrowers in various industries, business segments, etc.
- Industry-wise and sector-wise monitoring of exposure performance. Where portfolio exposure to a single industry is badly performing, the banks may increase the quality standards for that specific industry.
- Target for probable defaults and provisioning requirements as a prudent planning exercise. For any deviation/s from the expected parameters, an exercise for restructuring of the portfolio should immediately be undertaken and if necessary, the entry-level criteria could be enhanced to insulate the portfolio from further deterioration.
- Undertake rapid portfolio reviews, stress tests and scenario analysis when external environment undergoes rapid changes (e.g., volatility in the forex market, economic sanctions, changes in the fiscal/monetary policies, general slowdown of the economy, market risk events, extreme liquidity conditions, etc.). Based on the findings of stress test, prudential limits, quality standards, etc., may be revised.
- Introduce discriminatory time schedules for review of borrowers.

Active Credit Portfolio Management

Motivation for active credit portfolio management comes from changing demand of traditional products and new business opportunities. Change in demand of traditional products has arisen due to

- Less demand due to disintermediation
- More supply due to capital mobility
- Lower returns and increased importance of risk

The motivation for active credit portfolio management also comes from new opportunities in the economy, such as:

- Pass through certificates
- Syndicated lending
- Project/structured finance

Essentially, new products have different types of risks as compared to traditional products. In addition, banks also have new tools to manage credit portfolio such as:

- Secondary loan trading
- Securitisation
- Credit derivatives

This calls for a business transformation plan - a gradual process with a well-articulated strategy and with a thorough understanding of markets and supported by

- Necessary infrastructure
- Appropriate policy development
- Human resource training
- Careful system selection
- Continuous testing and refinement

Controlling Credit Risk Through Loan Review Mechanism (LRM)

LRM is also called as Credit Audit. LRM an effective tool for constantly evaluating the quality of loan book and to bring about qualitative improvements in credit administration. Loan Review Mechanism is used for large value accounts with responsibilities assigned in various areas such as, evaluating effectiveness of loan administration, maintaining the integrity of credit grading process, assessing portfolio quality, etc.

The main objectives of LRM are:

- To promptly identify loans, which develop credit weaknesses and initiate timely corrective action.
- To evaluate portfolio quality and isolate potential problem areas.
- To provide information for determining adequacy of loan loss provision.
- To assess the adequacy of and adherence to, loan policies and procedures, and to monitor compliance with relevant laws and regulations.
- To provide top management with information on credit administration, including credit sanction process, risk evaluation and post-sanction follow up.

Qualification and Independence

- The Loan Review Officers should have sound knowledge in credit appraisal, lending practices and loan policies of the bank. They should also be well- versed in the relevant laws/regulations that affect lending activities.
- The independence of Loan Review Officers should be ensured and the findings of the reviews should also be reported directly to the Board or Committee of the Board.

Frequency and Scope of Reviews

- The Loan Reviews are designed to provide feedback on effectiveness of credit sanction and to identify incipient deterioration in portfolio quality.
- Reviews of high value loans should be undertaken usually within three months of sanction/renewal or more frequently when factors indicate a potential for deterioration in the credit quality.

Depth of Reviews

The loan reviews should focus on:

- Approval process
- Accuracy and timeliness of credit ratings assigned by loan officers
- Adherence to internal policies and procedures, and applicable laws/regulations
- Compliance with loan covenants
- Post-sanction follow us
- Sufficiency of loan documentation
- Portfolio quality
- Recommendations for improving portfolio quality

Credit Risk Mitigation

- Credit risk mitigation is an essential part of credit risk management. This refers to the process through which credit risk is reduced or it is transferred to counterparty. Strategies for risk reduction at transaction level differ from that at portfolio level.
- At transaction level banks use a number of techniques to mitigate the credit risks to which they are exposed. They are mostly traditional techniques and need no elaboration. They are, for example, exposures collateralised by first priority claims, either in whole or in part, with cash or securities, or an exposure guaranteed by a third party. Recent techniques include buying a credit derivative to offset credit risk at transaction level.

Securitisation

- Securitisation refers to a transaction where financial securities are issued against the cash flow generated from a pool of assets. Cash flows arising out of payment of interest and repayment of principal are used to service interest and repayment of financial securities.
- Usually an SPV - special purpose vehicle is created for the purpose. Originating bank - that is the bank which has originated the assets -- transfers the ownership of such assets to the SPV. The SPV issues financial securities and has the responsibility to service interest and repayments on such financial instruments.

Credit Derivatives (CDS)

For most banks, particularly Indian banks, the single largest source of earnings and perhaps earnings volatility also are on account of credit risk. The traditional means to deal with credit risk include

lending policies, credit approval processes, discretionary power structure, collateral and guarantees, concentration limits (with regard to single or group borrowers, industries or geographic regions), documentation, etc.

Credit Derivatives Defined

- A credit derivative is an over-the-counter bilateral contract between two or more counterparties that provide for transfer of risks in a credit asset or credit portfolio without necessarily transferring the underlying asset from the books of the originator.
- Generally, credit derivatives transfer risks in a credit asset without transferring the underlying asset themselves from the books of the originator. Hence, they are off-balance sheet financial instruments. All credit assets (loans, bonds, account receivable, financial leases, etc.) are bundles of risk and rewards.

Credit Default Swaps (CDS)

- A Credit default swap is a transaction in which a credit hedger (PB) pays a periodic premium to an investor (PS) in return for protection against a credit event experienced on a reference obligation, (i.e., the underlying credit that is being hedged).
- Credit events are ISDA defined credit events and include six events, namely - bankruptcy, obligation acceleration, obligation default, failure to pay, repudiation/moratorium and restructuring.

Total Return Swaps (TRS)

- In a total return swap, the PB swaps with the PS, total actual return (coupon capital appreciation depreciation) on an asset in return for a premium. The premium is arrived at by adding a spread to a reference rate like LIBOR. Thus, in a TRS, the protection seller is able to synthetically create an exposure to the reference asset without actually lending to it.
- A total return swap represents an off-balance sheet replication of a financial asset such as a loan or bond Whereas credit default swaps capture only credit risk, total return swaps involved the transfer of the total economic return of the asset (i.e., both credit and market risks.)

Credit Linked Notes (CLN)

Credit default swaps (CDS) are generally off-balance sheet items and are not funded exposures. Credit linked notes are on-balance sheet equivalents of CDS, which combine credit derivatives with normal bond instruments and thus convert credit derivatives (generally an OTC instrument) into capital market instruments.

Credit Spread Options

Credit Spread options enable credit hedgers to acquire protection from an unfavourable migration or Credit spread risk of an asset, as measured by a widening of its credit spread. Credit spread options

transfer credit spread risk from the credit spread PB to an investor (PS), in return for an upfront or periodic payment of premium.

Example

Transferring default risks; Imagine that an A-rated oil company is planning to arrange a fully drawn one-year credit for Rs. 1,600 Crores and has invited few banks into the deal. The company requested the bank to commit Rs. 600 Crores but the bank's credit portfolio management team has placed a limit of Rs. 200 Crores as they are concerned about the bank's significant exposure to the oil company.

Solution: The bank can commit to the request and arrange a credit default swap with another bank for Rs. 400 Crores. The bank can approach foreign or regional banks that are at a credit risk origination disadvantage and transfer the credit risk of the credit without transferring the loan itself.

The advantages of this approach include:

- The bank-client relationship is preserved.
- Alternative strategies, such as sale in the secondary markets or participation, may have adverse consequences for the bank-client relationship.
- The bank enjoys, the fee-based income associated with the higher level of commitment
- The hedging bank has significantly diversified its risk, only experiencing a default if both the oil company and counterparty bank fail jointly and concurrently to perform. This joint probability of default is likely to be quite low.
- The return on capital of the hedged position can be significantly higher.

Hedging Pitfalls in Practice

Transaction Origination

- Successful credit derivatives dealers endeavour to.
- Establish client/product suitability.
- Identify and fully appreciate end-user motivations and portfolio.
- Provide end users with useful feedback and help manage expectations about the timing of transactions.
- Understand that transaction terms are generally indicative and not firm.
- Appreciate that dealers may have limits on their appetite for certain credits.
- Appreciate the limitations and liquidity restraints of the developing credit derivatives market.

Transactions Structuring

Occurs once a credit derivatives transaction has been originated. The major terms and conditions/issues to confirm at this stage include:

- All settlement methods are agreed and market disruption clauses have been considered.

- The hedging strategy employed is the most efficient vehicle in terms of funding, relationship issues and capital treatment
- If the reference asset and the underlying credit risk are one and the same, no residual basis risk remains (or, if it does, is identified and priced accordingly). In addition, a thorough check of the reference asset is required to identify any risk of pre-payment, extension, sinking fund or call features.
- The assignability of the unvetted underlying assets is established (otherwise alternative settlement techniques need to be established).
- The parties have a thorough understanding of any materiality tests requirements, especially in the case of non-investment grade credits.
- If a credit-linked note is being issued by a founder, it must confirm that credit events in the credit default swap confirmation are mirrored in the credit-linked note pricing supplement.
- Credit events are appropriate for the situation.

Transactions Documentation

All transaction structuring issues must be resolved prior to documentation. A successful documentation process includes:

- Presentation by credit derivatives trading to documentation of a transaction term sheet setting out terms and conditions.
- Good communication between all members of the credit hedging team.
- An appreciation of transaction objectives and goals.
- Problem-solving approach with the credit derivatives trading desk, the end-users and other internal partners
- A well thought-out transaction template or use of ISDA-sponsored transaction confirmation.

Unit 16: Operational Risk

Operational risk is one area of risk that is faced by all organisations. The more complex an organisation is, the more would be its exposure to operational risk.

Operational risk would arise due to deviations from normal and planned functioning of systems, procedures, technology and human failures of omission and commission.

Operational Risk - Classification

- Before we classify operational risk into various categories, we must understand the nature of the operational risk. Operational risk arises literally from all the activities undertaken and consequently it is present everywhere in an organisation.
- Impact of various forms of operational risk on the organisation may vary in degree

The nature of operational risk may be listed as:

- Operational risk exists almost everywhere in the organisation.
- Operational risks vary in their components. Some are high occurrence low value risks, while some are low occurrence high value risks.
- Operational risks in the organisation continuously change especially when an organisation is undergoing changes.

The Second Consultative Paper of Basel II suggested classification of operational risks based on the 'Causes' and 'Effects'. That is, classifications based on causes that are responsible for operational risks or classifications based on effects of risks were suggested. Classifications based on 'Causes' and 'Effects' are listed below.

Cause-based

- People oriented causes - negligence, incompetence, insufficient training, integrity, key man.
- Process oriented (Transaction based) causes - business volume fluctuation, organizational complexity, product complexity, and major changes.
- Process oriented (Operational control based) causes - inadequate segregation of duties, lack of management supervision, inadequate procedures.
- Technology oriented causes - poor technology and telecom, obsolete applications, lack of automation, information system complexity, poor design, development and testing.
- External causes - natural disasters, operational failures of a third party, deteriorated social or political context.

Effect Based

- **Legal liability**
- **Regulatory, compliance and taxation penalties**

- **Loss or damage to assets**
- **Restitution**
- **Loss of recourse**
- **Write-downs**

Event Based

- Internal Fraud
- External Fraud
- Employment practices and workplace safety
- Clients, products and business practices
- Damage to physical assets
- Business disruption and system failures
- Execution, delivery and process management

Operational Risk Classification By Event Type

- **Internal Fraud:** Losses due to acts of a type intended to defraud, misappropriate property or circumvent regulations, the law or company policy, excluding diversity/discrimination events, which involve at least one internal party.
- **External Fraud:** Losses due to acts of a type intended to defraud, misappropriate property or circumvent the law, by a third party
- **Employment Practices and Work Place Safety:** Losses arising from acts inconsistent with employment, health or safety laws or agreements from payment of personal injury claims, or from diversity/ discrimination events.
- **Clients, Products and Business Practices:** Losses arising from an unintentional or negligent failure to meet a professional obligation to specific clients (including fiduciary and suitability requirements), or from the nature or design of a product.
- **Damage to Physical Assets:** Losses arising from loss or damage to physical assets from natural disasters or other events.
- **Business Disruption and System Failures:** Losses arising from disruption of business or system failures.
- **Execution, Delivery and Process Management:** Losses from failed transaction processing or process management, from relations with trade counterparties and vendors.

Operational Risk Management Practices

Fundamental principles of operational risk management

Principle 1

The board of directors should take the lead in establishing a strong risk management culture. The board of directors and senior management should establish a corporate culture that is guided by strong risk management and that supports and provides appropriate standards and

incentives for professional and responsible behaviour. In this regard, it is the responsibility of the board of directors to ensure that a strong operational risk management culture exists throughout the whole organisation.

Principle 2

Banks should develop, implement and maintain a Framework that is fully integrated into the bank's overall risk management processes. The Framework for operational risk management chosen by an individual bank will depend on a range of factors, including its nature, size, complexity and risk profile.

Governance

The Board of Directors

Principle 3

The board of directors should establish, approve and periodically review the Framework. The board of directors should oversee senior management to ensure that the policies, processes and systems are implemented effectively at all decision levels.

Principle 4

The board of directors should approve and review a risk appetite and tolerance statement for operational risk that articulates the nature, types, and levels of operational risk that the bank is willing to assume.

Senior Management

Principle 5

Senior management should develop for approval by the board of directors a clear, effective and robust governance structure with well defined, transparent and consistent lines of responsibility. Senior management is responsible for consistently implementing and maintaining throughout the organisation policies, processes and systems for managing operational risk in all of the bank's material products, activities, processes and systems consistent with the risk appetite and tolerance.

Risk Management Environment Identification and Assessment

Principle 6

Senior management should ensure the identification and assessment of the operational risk inherent in all material products/activities, processes and systems to make sure the inherent risks and incentives are well understood.

Principle 7

Senior management should ensure that there is an approval process for all new products, activities, processes and systems that fully assesses operational risk.

Monitoring Reporting

Principles 8

Senior management should implement a process to regularly monitor operational risk profiles and material exposures to losses. Appropriate reporting mechanisms should be in place at the board, senior management, and business line levels that support proactive management of operational risk.

Control and Mitigation

Principle 9

Banks should have a strong control environment that utilises policies, processes and systems; appropriate internal controls; and appropriate risk mitigation and/or transfer strategies.

Business Resiliency and Continuity

Principle 10

Banks should have business resiliency and continuity plans in place to ensure an ability to operate on an ongoing basis and limit losses in the event of severe business disruption.

Principle 11

A bank's public disclosures should allow stakeholders to assess its approach to operational risk management.

Operational Risk Management Practices should be based on a well laid out policy duly approved at the board level that describes the processes involved in controlling operational risks. It should meet the standards set in terms of the principles mentioned above. In addition, well laid down procedures in dealing with various products and activities should be in place. The policies and procedures should also be communicated across the organisation. **The policy should cover:**

- Operational risk management structure
- Role and responsibilities
- Operational risk management processes
- Operational risk assessment/measurement methodologies

Management Overview and Organisational Structure

- **Role of Board:** The board of directors takes overall responsibility to manage and implement the operational risk framework. It should approve bank's ORM framework and review it periodically. The framework should provide a firm- wide definition of operational risk and lay down the principles of how operational risk is to be identified, assessed, monitored, and controlled/mitigated.

- **Role of Operational Risk Management Committee:** The operational risk management committee should identify the operational risks to which the bank is exposed to, formulate policies and procedures for operational risk management, set clear guidelines on risk assessment/measurement and ensure adequacy of risk mitigating controls.
- **Role of Operational Risk Management Department:** The operational risk management department is the nodal department for identifying, managing and quantifying operational risks. ORMD, in conjunction with groups, lays down procedures for management of operational risks.
- **Role of Internal Audit/Business Functions:** Roles and responsibilities relating to internal audit business functions in the operational risk processes should be clearly defined. These should include comprehensive audit of the ORM framework so as to assess its effectiveness. The internal audit function should be operationally independent and should not be directly responsible for operational risk management.

Processes and Framework

The processes and framework include the following:

- Mapping of Processes and Identification of Risks/Control.
- The key business processes in the bank must be mapped into sub-processes. This should be a joint exercise between the operational risk group and the business groups.
- Implementation of a Qualitative Approach to Aggregating and Assessing Operational Risks.
- A system to qualitatively analyse the operational risk profile using a scorecard approach should be implemented. This would involve self-assessment by the business group and normalization/collation by the operational risk management department.
- Implementation of a Quantitative Approach to Assessing Operational Risks New Product Processes.

Risk Monitoring and Control Practices

Risk Monitoring and Control Practices encompasses the following:

- Collection of Operational Risk Data (incident reporting framework).
- Regular monitoring and feedback mechanism in place for monitoring any deterioration in the operational risk profile.
- Collation of incident reporting data to assess frequency and probability of occurrence of operational risk events.
- Monitoring and control of management of large exposures. The modalities to be prescribed in the Loan Policy document.

Information System Infrastructure: Information system infrastructure should be responsive to the ORM framework.

Operational Risk Quantification

This is by far the most difficult of all risk measurements. The behaviour pattern of operational risk does not follow the statistically normal distribution pattern and that makes it difficult to estimate the probability of an event resulting in losses.

The historical loss distribution pattern, which may provide a method to estimate operating losses requires a data set that has statistically acceptable numbers of loss.

Related data may be captured only over a period. Basel II has recognised the difficulties in measurement of operational losses. Consequently, it has provided options in the measurement of operational risk for the purpose of capital allocation purposes. They are:

- The Basic Indicator Approach (BIA)
- The Standardised Approach (TSA)
- Advanced Measurement Approaches (AMA)

Of these, the Basic Indicator and the Standardised Approaches are based on the income generated. The Advance Measurement Approach is based on operational loss measurement. A brief description of the Basel II prescriptions under these approaches is given below. For details, it is advised that Basel II document may be consulted.

The Basic Indicator Approach

Banks using the Basic Indicator Approach must hold capital for operational risk equal to the average over the previous three years of a fixed percentage (15%) of positive annual gross income. Figures for any year in which annual gross income is negative or zero should be excluded from both the numerator and denominator when calculating the average. This 15% of average gross income is called as Alpha.

Gross income is defined as net interest income plus net non-interest income. It is intended that this measure should:

- Be gross of any provisions (e.g., for unpaid interest);
- Be gross of operating expenses, including fees paid to outsourcing service providers;
- Exclude realised profits/losses from the sale of securities in the banking book; and
- Exclude extraordinary or irregular items as well as income derived from insurance.

To make it further simple, Gross Income of the bank can be arrived at using three formulae given below:

Formula No.1:

Gross Income = Net Profit + Provisions & Contingencies + Expenditure incurred under Schedule 16 – minus profit on HTM and irregular/ non-banking transactions income/ income non-banking transactions (such as insurance etc.).

Formula No. 2:

Gross Income = Operating Profit + Expenditure incurred under Schedule 16 – minus profit on HTM and irregular/ non-banking transactions income /income from non- banking transactions (such as insurance etc.)

Operating Profit = Net Profit + Provisions & Contingences.

Formula No.3:

Gross Income is defined as the net interest income plus non-interest income.

Non-Interest income excludes the profits/losses arising out of the following:

- HTM transactions.
- Income from Insurance business
- Any irregular/ non-banking transactions.

The Standardised Approach

In the Standardised Approach, banks' activities are divided into eight business lines:

- Corporate finance, trading and sales, retail banking, commercial banking, payment and settlement, agency services, asset management, and retail brokerage.
- Within each business line, gross income is a broad indicator that serves as a proxy for the scale of business operations and thus the likely scale of operational risk exposure within each of these business lines. The capital charge for each business line is calculated by multiplying gross income by a factor (denoted beta assigned to that business line (Beta Factors).

Business Lines Beta Factors

- Corporate finance - 18%
- Trading and sales - 18%
- Retail banking - 12%
- Commercial banking - 15%
- Payment and settlement - 18%
- Agency services - 15%
- Asset management - 12%
- Retail brokerage - 12%

Advanced Measurement Approach (AMA)

Under the AMA, the regulatory capital requirement will equal the risk measure generated by the bank's internal operational risk measurement system using the quantitative and qualitative criteria for the AMA discussed below. Use of the AMA is subject to supervisory approval.

A Generic Measurement Approach

The first step in measurement approach is operation profiling. The steps involved OP Profiling are:

- Identification and quantification of operational risks in terms of its components.
- Prioritisation of operational risks and identification of risk concentrations - hot spots resulting in lower exposure.
- Formulation of bank's strategy for operational risk management and risk based audit.

Estimated level of operational risk depends on

- Estimated probability of occurrence
- Estimated potential financial impact
- Estimated impact of internal controls

Estimated Probability of Occurrence

This will be based on historical frequency of occurrence and estimated likelihood of future occurrence. Probability is mapped on a scale of 5 say where

- Implies negligible risk
- Implies low risk
- Implies medium risk
- Implies high risk
- Implies very high risk

Estimated Potential Financial Impact

This will be based on severity of historical impact and estimated severity of impact from unforeseen events. Probability is mapped on a scale of 5 as mentioned above.

Estimated Impact of Internal Controls

- This will be based on historical effectiveness of internal controls and estimated impact of internal control on risks. This is estimated as fraction in relation to total control, which is valued at 100%.
- Estimated level of operational risk = Estimated probability of occurrence impact x Estimated potential financial x Estimated impact of internal controls

In case of a hypothetical example where

- Probability of occurrence = 2 (Medium)
- Potential financial impact = 4 (very high)

- Impact of internal controls = 50%
- Estimated level of operational risk = [(2 * 4* (1 - 0.50)] ^ 0.5 = 2.00 or 'Low'

Scenario Analysis

Basel II guidelines on scenario analysis are as follows.

- A bank must use scenario analysis based on expert opinion in conjunction with external data to evaluate its exposure to high-severity events. This approach draws on the knowledge of experienced business managers and risk management experts to derive reasoned assessments of plausible severe losses.
- In addition, scenario analysis should be used to assess the impact of deviations from the correlation assumptions embedded in the bank's operational risk measurement framework, in particular, to evaluate potential losses arising from multiple simultaneous operational risk loss events.
- Over time, such assessments need to be validated and re-assessed through comparison to actual loss experience to ensure their reasonableness.

The Necessity of Integrated Risk Management

Risk Management is a basic necessity for financial institutions of all sizes, and ultimately central to their success and survival. It integrates an organisation's internal and external business processes by applying standard risk terminology, metrics and reporting to facilitate optimal risk/return decisions. An integrated approach to risk management centralizes the process of supervising risk exposure so that the organisation can determine how best to absorb, limit or transfer risk.

When properly implemented, Integrated Risk Management:

- Aligns the strategic aspects of risk with day-to-day operational activities.
- Facilitates greater transparency for investors and regulators.
- Enhances revenue and earnings growth.
- Controls downside risk potential.

Integrated Risk Management: Approach

The Process of Integrated Risk Management Consists of

- Strategy
- Organisation
- Process
- System

Unit 17: Liquidity Risk Management

Liquidity Risk Management - Need & Importance

A bank is said to be solvent if it's net worth is not negative. To put it differently, a bank is solvent if the total realizable value of its assets is more than its outside liabilities (i.e., other than its equity/owned funds). As such, at any point in time, a bank could be:

- both solvent and liquid
- liquid but not solvent
- solvent but not liquid
- neither solvent nor liquid

The need to stay both solvent and liquid therefore, makes effective liquidity management crucial for increasing the profitability as also the long-term viability/solvency of a bank. This also highlights the importance of the need of having the best Liquidity Risk Management practices in place in Banks.

Some Key Considerations in Liquidity Risk Management include:

- Availability of liquid assets,
- Extent of volatility of the deposits,
- Degree of reliance on volatile sources of funding,
- Level of diversification of funding sources,
- Historical trend of stability of deposits,
- Quality of maturing assets,
- Market reputation,
- Availability of undrawn standbys,
- Impact of off balance sheet exposures on the balance sheet, and
- Contingency plans.

Some of the issues that need to be kept in view while managing liquidity include:

- The extent of operational liquidity, reserve liquidity and contingency liquidity that are required.
- The impact of changes in the market or economic condition on the liquidity needs.
- The availability, accessibility and cost of liquidity.
- The existence of early warning systems to facilitate prompt action prior to surfacing of the problem and
- The efficacy of the processes in place to ensure successful execution of the solutions in times of need.

Potential Liquidity Risk Drivers

The internal and external factors in banks that may potentially lead to liquidity risk problems in Banks are as under:

Internal Banking Factors	External Banking Factors
High off-balance sheet exposures	Very sensitive financial markets depositors.
The banks rely heavily on the short-term corporate deposits	External and internal economic shocks.
A negative gap (liability is more than the asset) in the maturity dates of assets and liabilities.	Low/slow economic performances.
The banks' rapid asset expansions exceed the available funds on the liability side.	Decreasing depositors' trust on the banking sector
Concentration of deposits in the short term Tenor	Non-economic factors
Less allocation in the liquid government instruments.	Sudden and massive liquidity withdrawals from depositors.
Fewer placements of funds in long-term deposits.	Unplanned termination of government deposits.

Types of Liquidity Risk

Banks face the following types of liquidity risk:

- **Funding Liquidity Risk** - the risk that a bank will not be able to meet efficiently the expected and unexpected current and future cash flows and collateral needs without affecting either its daily operations or its financial condition.
- **Market liquidity Risk** - the risk that a bank cannot easily offset or eliminate a position at the prevailing market price because of inadequate market depth or market disruption.

Principles for Sound Liquidity Risk Management

After the global financial crisis, in recognition of the need for banks to improve their liquidity risk management, the Basel Committee on Banking Supervision (BCBS) published "Principles for Sound Liquidity Risk Management and Supervision" in September 2008. The broad principles for sound liquidity risk management by banks as envisaged by BCBS are as under:

BCBS's Fundamental principle for the management and supervision of liquidity risk

- **Principle 1:** A bank is responsible for the sound management of liquidity risk. A bank should establish a robust liquidity risk management framework that ensures it maintains sufficient liquidity, including a cushion of unencumbered, high quality liquid assets, to withstand a range of stress events, including those involving the loss or impairment of both unsecured and secured funding sources. Supervisors should assess the adequacy of both a bank's liquidity risk management framework and its liquidity position and should take prompt action if a bank is deficient in either area in order to protect depositors and to limit potential damage to the financial system.

Governance of liquidity risk management

- **Principle 2:** A bank should clearly articulate a liquidity risk tolerance that is appropriate for its business strategy and its role in the financial system.
- **Principle 3:** Senior management should develop a strategy, policies and practices to manage liquidity risk in accordance with the risk tolerance and to ensure that the bank maintains sufficient liquidity. Senior management should continuously review information on the bank's liquidity developments and report to the board of directors on a regular basis. A bank's board of directors should review and approve the strategy, policies and practices related to the management of liquidity at least annually and ensure that senior management manages liquidity risk effectively.
- **Principle 4:** A bank should incorporate liquidity costs, benefits and risks in the internal pricing, performance measurement and new product approval process for all significant business activities (both on- and off-balance sheet), thereby aligning the risk-taking incentives of individual business lines with the liquidity risk exposures their activities create for the bank as a whole.

Measurement and management of liquidity risk

- **Principle 5:** A bank should have a sound process for identifying, measuring, monitoring and controlling liquidity risk. This process should include a robust framework for comprehensively projecting cash flows arising from assets, liabilities and off-balance sheet items over an appropriate set of time horizons.
- **Principle 6:** A bank should actively monitor and control liquidity risk exposures and funding needs within and across legal entities, business lines and currencies, taking into account legal, regulatory and operational limitations to the transferability of liquidity.
- **Principle 7:** A bank should establish a funding strategy that provides effective diversification in the sources and tenor of funding. It should maintain an ongoing presence in its chosen funding markets and strong relationships with funds providers to promote effective diversification of funding sources. A bank should regularly gauge its capacity to raise funds quickly from each source. It should identify the main factors that affect its ability to raise funds and monitor those factors closely to ensure that estimates of fund raising capacity remain valid.
- **Principle 8:** A bank should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems.
- **Principle 9:** A bank should actively manage its collateral positions, differentiating between encumbered and unencumbered assets. A bank should monitor the legal entity and physical location where collateral is held and how it may be mobilised in a timely manner.
- **Principle 10:** A bank should conduct stress tests on a regular basis for a variety of short-term and protracted institution-specific and market-wide stress scenarios (individually and in

combination) to identify sources of potential liquidity strain and to ensure that current exposures remain in accordance with a bank's established liquidity risk tolerance. A bank should use stress test outcomes to adjust its liquidity risk management strategies, policies, and positions and to develop effective contingency plans.

- **Principle 11:** A bank should have a formal contingency funding plan (CFP) that clearly sets out the strategies for addressing liquidity shortfalls in emergency situations. A CFP should outline policies to manage a range of stress environments, establish clear lines of responsibility, include clear invocation and escalation procedures and be regularly tested and updated to ensure that it is operationally robust.
- **Principle 12**: A bank should maintain a cushion of unencumbered, high quality liquid assets to be held as insurance against a range of liquidity stress scenarios, including those that involve the loss or impairment of unsecured and typically available secured funding sources. There should be no legal, regulatory or operational impediment to using these assets to obtain funding.

Public disclosure

- **Principle 13:** A bank should publicly disclose information on a regular basis that enables market participants to make an informed judgment about the soundness of its liquidity risk management framework and liquidity position.

Governance of Liquidity Risk Management

The Reserve Bank had issued guidelines on Asset Liability Management (ALM) system, covering inter alia liquidity risk management system, in February 1999 and October 2007. Successful implementation of any risk management process has to emanate from the top management in the bank with the demonstration of its strong commitment to integrate basic operations and strategic decision making with risk management. Ideally, the organisational set up for liquidity risk management should be as under:

- **The Board of Directors (BOD):** The BoD should have the overall responsibility for management of liquidity risk. The Board should decide the strategy, policies and procedures of the bank to manage liquidity risk in accordance with the liquidity risk tolerance/limits as detailed in paragraph 14. The risk tolerance should be clearly understood at all levels of management. The Board should also ensure that it understands the nature of the liquidity
- **The Risk Management Committee:** The Risk Management Committee, which reports to the Board, consisting of Chief Executive Officer (CEO) Chairman and Managing Director (CMD) and heads of credit, market and operational risk management committee should be responsible for evaluating the overall risks faced by the bank including liquidity risk. The potential interaction of liquidity risk with other risks should also be included in the risks addressed by the risk management committee.
- **The Asset-Liability Management Committee (ALCO):** The Asset-Liability Management Committee (ALCO) consisting of the bank's top management should be responsible for ensuring adherence to the risk tolerance/limits set by the Board as well as implementing the

liquidity risk management strategy of the bank in line with bank's decided risk management objectives and risk tolerance.

- **The Asset Liability Management (ALM) Support Group:** The ALM Support Group consisting of operating staff should be responsible for analysing, monitoring and reporting the liquidity risk profile to the ALCO. The group should also prepare forecasts (simulations) showing the effect of various possible changes in market conditions on the bank's liquidity position and recommend action needed to be taken to maintain the liquidity position/adhere to bank's internal limits.

Liquidity Risk Management Policy

- **Liquidity Risk Tolerance:** Banks should have an explicit liquidity risk tolerance set by the Board of Directors. The risk tolerance should define the level of liquidity risk that the bank is willing to assume, and should reflect the bank's financial condition and funding capacity. The tolerance should ensure that the bank manages its liquidity in normal times in such a way that it is able to withstand a prolonged period of, both institution specific and market wide stress events.
- **Strategy for Managing Liquidity Risk:** The strategy for managing liquidity risk should be appropriate for the nature, scale and complexity of a bank's activities. In formulating the strategy, banks/banking groups should take into consideration its legal structures, key business lines, the breadth and diversity of markets, products, jurisdictions in which they operate and home and host country regulatory requirements, etc. Strategies should identify primary sources of funding for meeting daily operating cash outflows, as well as expected and unexpected cash flow fluctuations.

Management of Liquidity Risk

A bank should have a sound process for identifying, measuring, monitoring and mitigating liquidity risk as enumerated below:

- **Identification:** A bank should define and identify the liquidity risk to which it is exposed for each major on and off balance sheet position, including the effect of embedded options and other contingent exposures that may affect the bank's sources and uses of funds and for all currencies in which a bank is active.
- **Measurement of Liquidity Risk**: There are two simple ways of measuring liquidity; one is the stock approach and the other, flow approach. The stock approach is the first step in evaluating liquidity. Under this method, certain ratios, like liquid assets to short term total liabilities, purchased funds to total assets, core deposits to total assets, loan to deposit ratio, etc., are calculated and compared to the benchmarks that a bank has set for itself. While the stock approach helps up in looking at liquidity from one angle, it does not reveal the intrinsic liquidity profile of a bank.

Ratios in Respect of Liquidity Risk Management

Certain critical ratios in respect of liquidity risk management and their significance for banks are given below. Banks may monitor these ratios by putting in place an internally defined limit approved by the Board for these ratios.

Sl No.	Ratio	Significance	Industry Average (in %)
1.	**(Volatile liabilities - Temporary Assets) (Earning Assets - Temporary Assets)**	Measures the extent to which volatile money supports bank's basic earning assets. Since the numerator represents short-term, interest sensitive funds, a high and positive number implies some risk of illiquidity.	**40**
2.	**Core deposits / Total Assets**	Measures the extent to which assets are funded through stable deposit base.	**50**
3.	**(Loans + mandatory SLR + mandatory CRR + Fixed Assets) / Total Assets**	Loans including mandatory cash reserves and statutory liquidity investments are least liquid and hence a high ratio signifies the degree of 'illiquidity embedded in the balance sheet.	**80**
4.	**(Loans + mandatory SLR + mandatory CRR + Fixed Assets) / Core Deposits**	Measure the extent to which illiquid assets are financed out of core deposits.	**150**
5.	**Temporary Assets / Total Assets**	Measures the extent of available liquid assets. A higher ratio could impinge on the asset utilisation of banking system in terms of opportunity cost of holding liquidity.	**40**
6.	**Temporary Assets / Volatile Liabilities**	Measures the cover of liquid investments relative to volatile liabilities. A ratio of less than 1 indicates the possibility of a liquidity problem.	**60**
7.	**Volatile Liabilities / Total Assets**	Measures the extent to which volatile liabilities fund the balance sheet.	**60**

Volatile Liabilities: (Deposits + borrowings and bills payable up to 1 year). Letters of credit – full outstanding. Component-wise CCF of other contingent credit and commitments. Swap funds (buy/sell) up to one year. Current deposits (CA) and Savings deposits (SA) i.e. (CASA) deposits reported by the hanks as payable within one year (as reported in structural liquidity statement) are included under volatile liabilities.

- Borrowings include from RBI, call, other institutions and refinance.

Temporary assets = Cash + Excess CRR balances with RBI + Balances with banks + Bills purchased/ discounted up to 1 year + Investments up to one year + Swap funds
(sell/buy) up to one year.

Earning Assets = Total assets - (Fixed assets + Balances in current accounts with other banks + Other assets excluding leasing + Intangible assets).

Core deposits = All deposits (including CASA) above 1 year (as reported in structural liquidity statement) + net worth.

Stress Testing

- Stress testing should form an integral part of the overall governance and liquidity risk management culture in banks. A bank should conduct stress tests on a regular basis for a variety of short term and protracted bank specific and market wide stress scenarios (individually and in combination).
- In designing liquidity stress scenarios, the nature of the bank's business, activities and vulnerabilities should be taken into consideration so that the scenarios incorporate the major funding and market liquidity risks to which the bank is exposed.

Contingency Funding Plan

- A bank should formulate a contingency funding plan (CFP) for responding to severe disruptions which might affect the bank's ability to fund some or all of its activities in a timely manner and at a reasonable cost CFPs should prepare the bank to manage a range of scenarios of severe liquidity stress that include both bank specific and market-wide stress and should be commensurate with a bank's complexity, risk profile, scope of operations.
- Overseas Operations of The Indian Banks' Branches And Subsidiaries And Branches Of Foreign Banks In India
- A bank's liquidity policy and procedures should also provide detailed procedures and guidelines for their overseas branches/subsidiaries to manage their operational liquidity on an ongoing basis. Similarly, foreign banks operating in India should also be self-reliant with respect to liquidity maintenance and management.

Broad Norms in Respect of Liquidity Management

Some of the broad norms in respect of liquidity management are as follows:

- Banks should not normally assume voluntary risk exposures extending beyond a period of ten years
- Banks should endeavour to broaden their base of long-term resources and funding capabilities consistent with their long term assets and commitments.
- The limits on maturity mismatches shall be established within the following tolerance levels
  (a) long term resources should not fall below 70% of long term assets

(b) long and medium term resources together should not fall below 80% of the long and medium term assets. These controls should be undertaken currency-wise, and in respect of all such currencies which individually constitute 10% or more of a bank's consolidated overseas balance sheet. Netting of inter-currency positions and maturity gaps is not allowed. For the purpose of these limits. Short term, medium term and long term are defined as under:

- **Short-term:** those maturing within 6 months.
- **Medium-term:** those maturing in 6 months and longer but within 3 years.
- **Long-term:** those maturing in 3 years and longer.

- The monitoring system should be centralised in the International Division (ID) of the bank for controlling the mismatch in asset-liability structure of the overseas sector on a consolidated basis, currency-wise. The ID of each bank may review the structural maturity mismatch position at quarterly intervals and submit the review/s to the top management of the bank.

Liquidity Across Currencies

- Banks should have a measurement, monitoring and control system for liquidity positions in the major currencies in which they are active. For assessing the liquidity mismatch in foreign currencies, as far as domestic operations are concerned, banks are required to prepare Maturity and Position (MAP) statements according to the extant instructions.
- A bank should also undertake separate analysis of its strategy for each major currency individually by taking into account the outcome of stress testing.

Management Information System (MIS)

- A bank should have a reliable MIS designed to provide timely and forward- looking information on the liquidity position of the bank and the ALM Group should place this information periodically to the Board and ALCO, both under normal and stress situations.
- The MIS should cover liquidity positions in all currencies in which the bank conducts its business - both on a subsidiary/branch basis (in all countries in which the bank is active) and on an aggregate group basis.

Reporting To The Reserve Bank Of India

Banks are required to submit the liquidity return, as per the prescribed format to the Chief General Manager-in-Charge, Department of Banking Supervision, Reserve Bank of India, Central Office, World Trade Centre, Mumbai as detailed below:

Statement of Structural Liquidity:

The existing liquidity reporting requirements have been reviewed by RBI. The statement is required to be reported in five parts viz.

(i) For domestic currency, Indian operations
(ii) For foreign currency, Indian operations
(iii) For combined Indian operations

(iv) For overseas operations
(v) For Consolidated bank operations

While statements at (i) to (iii) are required to be submitted fortnightly, statements at (iv) and (v) are required to be submitted at monthly and quarterly intervals, respectively.

- Reporting dates will be 15th and last date of the month – in case these dates are holidays, the reporting dates will be the previous working day.
- Reporting date will be the last working day of the month/quarter.

Internal Controls

- A bank should have appropriate internal controls, systems and procedures to ensure adherence to liquidity risk management policies and procedure as also adequacy of liquidity risk management functioning.
- A Bank's Management should ensure that an independent party regularly reviews and evaluates the various components of the bank's liquidity risk management process. These reviews should assess the extent to which the bank's liquidity risk management complies with the regulatory/supervisory instructions as well as its own policy.
- The independent review process should report key issues requiring immediate attention, including instances of non-compliance to various guidance/limits for prompt corrective action consistent with the Board approved policy. A bank should have a sound process for identifying, measuring, monitoring and mitigating liquidity risk.

Unit 18: Basel-III Framework on Liquidity Standards

Objective

- The LCR standard aims to ensure that a bank maintains an adequate level of unencumbered HQLA, that can be converted into cash to meet its liquidity needs for a 30 calendar day time horizon under a significantly severe liquidity stress scenario specified by supervisors.
- At a minimum, the stock of liquid assets should enable the bank to survive until day 30 of the stress scenario, by which time it is assumed that appropriate corrective actions can be taken.

Scope

- To start with, the LCR and monitoring tools would be applicable for Indian banks at whole bank level only i.e. on a stand-alone basis including overseas operations through branches.
- However, banks should endeavour to move over to meeting the standard at consolidated level also. For foreign banks operating as branches in India, the framework would be applicable on stand-alone basis (i.e. for Indian operations only).

Liquidity Coverage Ratio (LCR)

The Liquidity Coverage ratio is computed as under:

LCR = High-Quality Liquid Asset Amount (HQLA) / Total Net Cash Flow Amount

Calculation of LCR

- As stated in the definition of LCR, it is a ratio of two factors, viz. the Stock of HQLA and the Net Cash Outflows over the next 30 calendar days.
- Therefore, computation of LCR of a bank will require calculations of the numerator and denominator of the ratio, as detailed in the RBI Circular.

Liquidity Risk Monitoring Tools

In addition to the two liquidity standards, the Basel III framework also prescribes five monitoring tools/ metrics for better monitoring a bank's liquidity position. These metrics along with their objective and the prescribed returns are as under:

Contractual Mismatch Maturity

- The contractual maturity mismatch profile identifies the gaps between the contractual inflows and outflows of liquidity for defined time bands. These maturity gaps indicate how much liquidity a bank would potentially need to raise in each of these time bands if all outflows occurred at the earliest possible date.
- This metric provides insight into the extent to which the bank relies on maturity transformation under its current contracts.

Concentration of Funding

- This metric is meant to identify those sources of funding that are of such significance, the withdrawal of which could trigger liquidity problems. The metric thus encourages the diversification of funding sources recommended in the Basel Committee's Sound Principles.
- This metrics aims to address the funding concentration of banks by monitoring their funding from each significant counterparty, each significant product/instrument and each significant currency.

Available Unencumbered Assets

This metric provides supervisors with data on the quantity and key characteristics of banks' available unencumbered assets. These assets have the potential to be used as collateral to raise additional secured funding in secondary markets and/or are eligible at central banks.

LCR by Significant Currency

While the LCR standard is required to be met in one single currency, in order to better capture potential currency mismatches, the LCR in each significant currency needs to be monitored.

Market-related Monitoring Tools

This includes high frequency market data that can serve as early warning indicators in monitoring potential liquidity difficulties at banks.

Basel III Liquidity Returns

S. No.	Name of the Basel III Liquidity Return (BLR)	Frequency of Submission	Time Period by which Required to be reported
1.	Statement on Liquidity Coverage Ratio (LCR)-BLR1	Monthly	within 15 days
2.	Statement of Funding Concentration-BLR2	Monthly	within 15 days
3.	Statement of Available Unencumbered Assets-BLR3	Quarterly	within a month
4.	LCR by Significant Currency-BLR4	Monthly	within a month
5.	Statement on Other Information on Liquidity-BLR5	Monthly	within 15 days

Net Stable Funding Ratio

RBI, vide its circular dated May 17, 2018 released the final guidelines on Net Stable Funding Ratio (NSFR). The NSFR guidelines was issued to ensure reduction in funding risk over a longer time horizon by requiring banks to fund their activities with sufficiently stable sources of funding in order to mitigate the risk of future funding stress. The objective of NSFR is to ensure that banks maintain a stable funding profile in relation to the composition of their assets and off-balance sheet activities.

The NFSR limits overreliance on short-term wholesale funding, encourages better assessment of funding risk across all on- and off-balance sheet items, and promotes funding stability. RBI vide its Circular dated 5th February, 2021 deferred the implementation of NSFR upto 30th September, 2021 in view of the ongoing stress on account of COVID-19. Accordingly, the NSFR Guidelines came into effect from October 1, 2021. The NSFR would be applicable for Indian banks at the solo as well as consolidated level. For foreign banks operating as branches in India, the framework would be applicable on stand-alone basis (i.e., for Indian operations only).

The NSFR is defined as the amount of available stable funding relative to the amount of required stable funding. "Available stable funding" (ASF) is defined as the portion of capital and liabilities expected to be reliable over the time horizon considered by the NSFR, which extends to one year. The amount of stable funding required ("Required stable funding") (RSF) of a specific institution is a function of the liquidity characteristics and residual maturities of the various assets held by that institution as well as those of its off-balance sheet (OBS) exposures.

The above ratio should be equal to at least 100% on an ongoing basis. However, the NSFR would be supplemented by supervisory assessment of the stable funding and liquidity risk profile of a bank.

Definition and Computation of Available Stable Funding

The amount of ASF is measured, based on the broad characteristics of the relative stability of an institution's funding sources, including the contractual maturity of its liabilities and the differences in the propensity of different types of funding providers to withdraw their funding. The amount of ASF is calculated by first assigning the carrying value of an institution's capital and liabilities to one of five categories as presented below. The amount assigned to each category is then multiplied by an ASF factor, and the total ASF is the sum of the weighted amounts. Carrying value represents the amount at which a liability or equity instrument is recorded before the application of any regulatory deductions, filters or other adjustments.

Definition and Computation of Required Stable Funding (RSF)

The amount of required stable funding is measured based on the broad characteristics of the liquidity risk profile of an institution's assets and OBS exposures. The amount of required stable funding is calculated by first assigning the carrying value of an institution's assets to the associated ASF factor.

MODULE - C : TREASURY MANAGEMENT

UNIT – 19: Introduction to Treasury Management

1. Fund management has been the primary activity of treasury, but treasury is also responsible for Risk Management & plays an active part in ALM.

2. D-mat accounts are maintained by depository participants to hold securities in electronic form.

3. In present scenario treasury function is liquidity management and it is considered as a service center.

4. From an organizational point of view treasury was considered as a service center but due to economic reforms & deregulation of markets treasury has evolved as a profit center.

5. Treasury connects core activity of the bank with the financial markets.

6. Investment in securities & Foreign Exchange business are part of integrated treasury.

7. Integrated treasury refers to integration of money market, Securities market and Foreign Exchange operations.

8. Banks have been allowed large limits in proportion of their net worth for overseas borrowings and investment.

9. Banks can also source funds in global markets and Swap the funds into domestic currency or vice versa.

10. The treasury's transactions with customers is known as merchant business.

11. The treasury encompasses funds management, Investment and Trading in a multy currency environment.

12. Globalization refers to integration between domestic and global markets.

13. RBI has been progressively relaxing the Exchange Controls.

14. The Exchange Control Department of RBI has been renamed as Foreign Exchange Department with effect from January 2004.

15. Though treasury trades with narrow spreads, the profits are generated due to high volume of business.

16. Foreign currency position at the end of the day is known as open position.

17. Open position is also called Proprietary position or Trading position.

18. Treasury sells Foreign Exchange services, various risk management products & structured loans to corporates.

19. Forward Rate Agreement (FRA) is entered to fix interest rates in future.

20. SWAP is offered to convert one currency into another currency.

21. Allocation of costs to various departments or branches of the bank on a rational basis is called transfer pricing.

22. The treasury functions with a degree of autonomy and headed by senior management person.

23. The treasury may be divided into three main divisions 1) Dealing room 2) Back office and 3) Middle office.

24. Securities market is divided into two parts, primary & secondary markets.

25. The security dealers deals only with secondary market.

26. The back office is responsible for verification & settlement of the deals concluded by the dealers.

27. Middle office monitors exposure limits and stop loss limits of treasury and reports to the management on key parameters of performance.

28. Minimum marketable investment is Rs. 5.00 Crores.

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1. The driving force of integrated treasury are:

A) Integrated cash flow management B) Interest arbitrage C) Investment opportunities D) Risk Management..

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2. The functions of Integrated Treasury are:

A) Meeting Reserve requirements B) Efficient Merchant services C) Global cash management D) Optimizing profit by exploiting market opportunities in Forex market, Money market and Securities market E) Risk management F) Assisting bank management in ALM.

3) The immediate impact of globalization is three fold A) Interest rate B) New institutional structure C) Derivatives were allowed.

4) RBI is allowing banks to borrow and invest through their overseas correspondents, in foreign currency upto 25% of their Tier – I capital or USD 10Million which amounts higher.

5) Treasury products have become more attractive for two reasons 1) Treasury operations are almost free of credit risk and require very little capital allocation and 2) Operation coats are low as compared to branching banking.

6. Treasury generates profits from under noted businesses.

1) Conventional A) Foreign exchange business and B) Money market deals.
2) Investment activities e.g. SLR, non – SLR & investment in Subsidiaries.
3) Interest Arbitrage.
4) Trading is a speculative activity, where profits arise out of favorable price movements during the interval between buying and selling.

7. ARBITRAGE: is the benefit accruing to traders, who play in different markets simultaneously.

8. DERIVATIVES are financial contracts to buy or sell or to exchange a cash flow in any manner at a future date, the price of which is based on market price of an underlying assets which may be financial or a real asset with or with out an obligation to exercise the contract.

9. EMERGING MARKET COUNTRIES are countries with a fast developing economy, which are largely market driven.

10. D-MAT ACCOUNTS are maintained by depository participants to hold securities in electronic form, so that transfer of securities can be affected by debit or credit to the respective account holders without any physical document.

UNIT – 20 : TREASURY PRODUCTS

1. In Foreign Exchange market free currencies can be bought and sold readily.

2. Free Currencies belong to those countries whose markets are highly developed and where exchange controls are practically dispensed with.

3. Foreign Exchange market is most transparent & it is virtual market.

4. Foreign Exchange market may be called near perfect with an efficient price discovery system.

5. Spot settlement takes place two working days from the trade date i.e. on third day.

6. Customers expecting Foreign Currency transactions cover their risk by entering forward contracts.

7. Treasury enters into Forward Contract for making profits out of price movements.

8. Forward exchange rates are arrived at on the basis of interest rates differentials of two currencies.

9. A combination of Spot and Forward transactions is called Swap.

10. The Swap route is used extensively to convert cash flows from one currency to another currency.

11. Inter bank loans, Short term investments and Nostro accounts are the avenues for investment of Forex surpluses.

12. Nostro accounts are current accounts maintained in Foreign Currency by the banks with their correspondent banks in the home currency of the country.

13. Balance held in Nostro accounts do not earn any interest.

14. Rediscounting of Foreign Bills is an inter bank advance.

15. RBI has allowed banks to include rediscounting of bills in their credit portfolio

16. Money market refers to raising and developing short term resources.

17. Inter bank market is subdivided into Call Money, Notice Money & Term Money.

18. Call Money refers to overnight placement.

19. Notice Money refers to placement beyond overnight for periods not exceeding 14 days.

20. Term Money refers placement beyond 14 days but not exceeding one year.

21. RBI pays interest on CRR balance in excess of 3% at Reverse Repo Rate.

22. Inter bank market carries lowest risk next to Sovereign risk.

23. The interest on treasury bills is by way of discount i.e. Bills are priced below face value, this is known as implicit yielding.

24. Each issue of 91 days T-bills is for Rs.500 Crores and auction is conducted on Weekly basis I.e. on every Wednesday.

25. Each issue of 364 days T-bills is Rs.1000 Crores and auction is conducted on Fortnightly basis i.e. on alternate Wednesday.

26. The payment of T-bills is made and received through Clearing Corporation of India Limited (CCIL)

27. Commercial paper is short term debt market paper.

28. The Commercial Paper issuing company should have minimum P2 credit rating.

29. Banks can invest in Commercial Paper only if it is issued in D-mat form.

30. Certificate of Deposit attracts stamp duty.

31. Repo is used for lending and borrowing money market funds.

32. Repo refers to sale of securities with a commitment to repurchase the same securities at a later date.

33. Presently only Govt. securities are being dealt with under Repo transaction.

34. Repo is used extensively by RBI as an instrument to control liquidity in the inter bank market.

35. Infusion of liquidity is effected through lending to banks under Repo transactions.

36. Absorption of liquidity is done by accepting deposits from banks known as Reverse Repo.

37. Banks may submit their bids to RBI either for Repo or for Reverse Repo.

38. The Repo would set upper rate of interest and Reverse Repo would set floor for the money market.

39. Investment business is composed of buying and selling products available in securities market.

40. To satisfy SLR banks can also invest in priority sector bonds of SDBI & NABARD.

41. State Government also issue State Development Bonds through RBI.

42. Corporate Debt papers includes medium and long term bonds & debentures issued by corporates and Financial Institutions.

43. Debentures and bonds are debt instruments issued by corporate bodies with or without security.

44. In India debentures are issued by corporates in private sector and bonds are issued by institutions in Public Sector.

45. Debentures are governed by relevant company law and transferable only by registration. But bonds are negotiable instruments governed by law of contracts.

46. If the bond holders are given an option to convert the debt into equity on a fixed date or during a fixed period , these bonds are called Convertible bonds.

47. Banks are permitted to invest in equities subject to a ceiling presently 5% of its total assets.

48. Foreign Institutional Investors are now allowed to invest in debt market subject to an overall ceiling currently USD 1.75 Billion.

49. Index Futures, Index Options, Stock futures and Stock Options etc. are the Derivative products recently introduce.

50. The Derivative Products are highly popular for Risk Management as well as for speculation.

51. Banks are also permitted to borrow or invest in overseas markets with in a ceiling subject to guidelines issued by RBI presently 25% of Tier – I capital or minimum USD 10 Million.

52. The treasury operates in exchange market, Money market and Securities market.

53. Foreign Exchange transaction includes Spot, Forward and Swap trades.

54. Money market is used for deployment of surplus funds and also to raise short term funds to bridge gaps in the cash flow of bank.

55. Money market products include T-bills, Commercial paper, Certificate of Deposit and Repo.

56. Under EEFC exporters are allowed to hold a portion of the export proceeds in current account with the bank.

57. GILTS are securities issued by Government which do not have any risk.

58. SGL accounts are maintained by Public Debt Office of RBI in electronic form.

59. FCNR deposit is denominated in four major currencies maintained by NRIs.

Unit-21: International Equity and Debt Products

'Foreign Direct Investment' (FDI)
FDI is the investment through capital instruments by a person resident outside India (a) in an unlisted Indian company; or (b) in 10 percent or more of the post issue paid-up equity capital on a fully diluted basis of a listed Indian company.

Fully diluted basis means the total number of shares that would be outstanding if all possible sources of conversion are exercised.

If an existing investment by a person resident outside India in capital instruments of a listed Indian company falls to a level below 10 percent of the post issue paid-up equity capital on a fully diluted basis, the investment will continue to be treated as FDI.

Foreign Portfolio Investment
Foreign Portfolio Investment is any investment made by a person resident outside India in capital instruments where such investment is (a) less than 10 percent of the post issue paid-up equity capital on a fully diluted basis of a listed Indian company or (b) less than 10 percent of the paid up value of each series of capital instruments of a listed Indian company.

Foreign Portfolio Investor (FPI)
FPI is a person registered in accordance with the provisions of Securities Exchange Board of India (Foreign Portfolio Investors) Regulations, 2014.

Any Foreign Institutional Investor (FII) or a sub account registered under the Securities Exchange Board of India (Foreign Institutional Investors) Regulations, 1995 and holding a valid certificate of registration from SEBI shall be deemed to be a FPI till the expiry of the block of three years from the enactment of the Securities Exchange Board of India (FPI) Regulations, 2014.

Foreign Investment
Foreign Investment is any investment made by a person resident outside India on a repatriable basis in capital instruments of an Indian company or to the capital of an LLP.

Any investment by a person who is a citizen of Bangladesh or Pakistan or is an entity incorporated in Bangladesh or Pakistan requires prior Government approval.

Global Depository Receipts (GDRs)
GDRs represent Receipts that entitle the holder to convert into specified number of equity shares of Indian Company. The Receipts are issued by a Depository abroad and are traded in overseas markets. They are negotiable Receipts. The underlying shares, issued by the Indian Company, are held by an

Indian Custodian on behalf of the Overseas Depository. They are denominated in foreign currency. The exchange risk on the GDR is borne by the overseas investor. The equivalent number of equity shares is fixed as per pricing norms of SEBI.

Indian depository receipt (IDR)

The Indian depository receipt (IDR) is a negotiable and transferable financial instrument denominated in Indian rupees that allows overseas corporations to raise capital through the Indian stock and financial markets.

External Commercial Borrowing (ECB)

External Commercial Borrowing (ECB) refers to the borrowing of funds by Indian companies from foreign sources in the form of loans, bonds, or other financial instruments. ECB can be used to finance a variety of purposes, including the expansion of business, the acquisition of assets, and the repayment of existing debt.

Trade Credits

Trade Credits (TC) refer to the credits extended by the overseas supplier, bank, financial institution and other permitted recognised lenders for maturity, as prescribed in this framework, for imports of capital/non-capital goods permissible under the Foreign Trade Policy of the Government of India. Depending on the source of finance, such TCs include Suppliers' Credit and Buyers' Credit from recognised lenders.

Unit – 22: Funding and Regulatory Aspects

1. Cheques and Credit Cards etc are near money and also add to money supply.

2. The money in circulation is indicated by Broad Money or M3.

3. The cash component is just 15% of money supply or M3.

4. The monetary policy of RBI is aimed at controlling the inflation and ensuring stability of financial markets.

5. Liquidity refers to surplus funds available with banks.

6. An excess of liquidity leads to inflation while shortage of liquidity may result in high interest rates and depreciation of rupee exchange rate.

7. CRR is to be calculated on the basis of DTL with a lag of one fortnight.

8. The interest on CRR is paid at the reverse repo rate of RBI (presently 6.25% P.A.)

9. SLR is to be maintained in the form of Cash, Gold and approved securities.

10. Liquidity adjustment facility (LAF) is the principal operating instrument of RBI's monetary policy.

11. LAF is used to day to day liquidity in the market.

12. LAF refers to RBI lending funds to banking sector through Repo instrument.

13. RBI also accepts deposits from banks under Reverse Repo.

14. RBI purchases securities from banks with an agreement to sell back the securities after a fixed period is called Repo.

15. The Repo rate is 7.25% on par with bank rate and Reverse Repo rate is 6.25%.

16. The objective of RBI policy is the money market rates should normally move with in the corridor of Repo rates and Reverse Repo rates.

17. Banks can borrow and lend overnight upto maximum of 100% and 25% respectively of their net worth.

18. The securities clearing against assured payment is handled by CCLI.

19. CCIL is a specialized institution promoted by major banks.

20. RTGS has been fully activated by RBI from Oct – 2004.

21. All inter bank payments and high value customer payments are settled instantly under RTGS.

22. Banks accounts with all the branch offices of RBI are also integrated under RTGS.

23. The INFINET has helped introduction of SFMS.

24. The SFMS facilitates domestic transfer of funds and authenticated messages similar to SWIFT used by banks for international messaging.

25. All security dealings are done through NDS and settled by CCIL.

UNIT-23: TREASURY RISK MANAGEMENT

1. The organizational controls refer to the checks and balanced within system.

2. In Treasury business front office is called Dealing Room.

3. Exposure limits protect the bank from Credit Risk.

4. The Counter party Risk is bankruptcy or inability of counter party to complete the transaction at their end.

5. The exposure limits are fixed on the basis of the counter party's net worth, market reputation and track record.

6. RBI has imposed a ceiling of 5% of total business in a year with individual branches.

7. Limits imposed are preventive measures to avoid or contain losses in adverse market conditions.

8. Trading limits are of three kinds, they are 1) Limits on deal size 2) Limits on open positions and 3) Stop loss limits.

9. Open position refers to the trading positions, where the buy / sell positions are not matched.

10. All the forward contracts are revalued periodically (Every month)

11. The stop loss limits prevent the dealer from waiting indefinitely and limit the losses to a level which is acceptable to the management.

12. The Stop loss limits are prescribed per deal, per day, per month as also an aggregate loss limit per year.

13. Two main components of market risk are Liquidity risk and Interest rate risk.

14. Liquidity risk implies cash flow gaps which could not be bridged.

15. Liquidity risk and Interest rate risk are like two sides of a coin.

16. The Interest rate risk refers to rise in interest costs eroding the business profits or resulting in fall in assets prices.

17. The interest rate risk is present where ever there is mismatch in assets and liabilities.

18. If the currency is convertible, the exchange rate and interest rate changes play greater role in attracting foreign investment inflows into the secondary market.

19. Marker Risk is a confluence of liquidity risk, interest rate risk, Exchange rate risk, Equity risk and Commodity risk.

20. BIS defines Market Risk as, " The Risk that the value of on- or – off Balance Sheet positions will be adversely affected by movements in equity and interest rate markets, Currency exchange rates and Commodity prices"

21. The Market Risk is closely connected with ALM.

22. The Market Risk is also known as Price Risk.

23. Two important measures of risk are Value at Risk and Duration method.

24. Value at Risk (VAR) at 95% confidence level implies a 5% probability of incurring the loss.

25. VAR is an estimate of potential loss always for a given period at a confidence level.

26. There are three approaches to calculate the AVR i.e. Parametric Approach, Monte Carlo Approach and Historical Data.

27. VAR is derived from a statistical formulae based on volatility of the market.

28. Parametric Approach is based on sensitivity of various Risk components.

29. Under Monte Carlo model a number of scenarios are generated at random and their impact on the subject is studied.

30. Duration is widely used in investment business.

31. The rate at which the present value equals the market price of a bond is known as YTM.

32. Yield & price of a bond moves in inverse proportion.

33. Duration is weighted average measure of life of a bond, where the time of receipt of a cash flow is weighted by the present value of the cash flow.

34. Duration method is also known as Mecalay Duration, its originator is Frederic Mecalay.

35. Longer the duration, greater is the sensitivity of bond price to changes in interest rate.

36. A proportionate change in prices corresponding to the change in yields is possible, only when the yield curve is linear.

37. Derivatives are used to protect treasury transactions from Market Risk.

38. Derivatives are also useful in managing Balance Sheet risk in ALM.

39. Treasury transactions are of high value & relatively need low capital.

40. Market movements are mainly due speculation.

41. VAR is the maximum loss that may take place with in a time horizon at a given confidence level.

42. Leverage is Capital Adequacy Ratio incase of companies it is expressed as Debt / Equity Ratio.

43. Treasury Risk is sensitive because
- ❖ The Risk of losing capital is much higher than the risk in the credit business
- ❖ Large size of transactions done at the discretion of treasurer
- ❖ Losses in treasury business materialize in very short term and the transactions once confirmed are irrevocable.

44. The conventional control and supervisory measures of treasury can be divided in to three parts
- ❖ Organizational controls
- ❖ Exposure ceiling
- ❖ Limits on trading portions and stop loss limits.

Unit-24: Derivative Products

1. Treasury uses derivatives to manage risk including ATL, to cater needs of corporate customers and to trade.

2. The value of a Derivative is derived from on underlying market.

3. Derivatives always refer to future price.

4. The Derivatives that can be directly negotiated and obtained from banks and investment institutions are known as over the counter (OTC) products.

5. Derivatives are of two types OTC products and Exchange traded products.

6. The value of trade in OTC products is much larger than that of Exchange traded products.

7. Derivative products can be broadly categorized into Options, Futures & Swaps.

8. Options refer to contracts where the buyer of an Option has a right but no obligation to exercise the contract.

9. Put Option gives a right to the holder to sell an underlying product at a pre-fixed rate on a specified date.

10. Call option gives a right to the holder to buy the underlying product at a pre-fixed rate on a specified date or during a specified period.

11. The pre-fixed rate is known as Strike Rate.

12. Options are two types, an American type option can be executed at any time before expiry date and European type option can be exercised only on expiry date. In India we use only European type of Option.

13. A Dollar put Option gives right to the holder to sell Dollars.

14. If the strike price is same as the spot price, it is known as at the money.

15. The option is in the money (ITM), if the strike price is less than the forward rate in case of a Call Option or strike price is more than the forward rate in case of a put option.

16. The Option is out of Money (OTM) if the strike price is more than the forward rate in case of call option or if the strike price is less than forward rate in case of a put Option.

17. In the context of Options spot rate is the rate prevailing on the date of maturity.

18. The profit potential of buyer of an option is unlimited.

19. The option seller's potential loss is unlimited.

20. Payment of differences between strike price & market price on expiry is known as cash settlement.

21. The buyer of an option pays premium to the seller for purchase of Option.

22. The option premium is paid upfront.

23. A USD put Option on TJY is right to sell USD against JPY at 'X' price.

24. A stock option is the right to buy or sell equity of a company at the strike price.

25. Options are used to hedge against price fluctuations.

26. A convertible option may be the bond holder option of converting the debt into equity on specified terms.

27. A bond with call option gives right to the issuer to prepay the debt on specified date.

28. Futures are forward contracts.

29. Under Futures contract the seller agrees to deliver to the buyer specified security / Currency or commodity on a specified date.

30. Future Contracts are of standard size with prefixed settlement dates.

31. A distinct feature of Futures is the contracts are marked to market daily and members are required to pay margin equivalent to daily loss if any.

32. In case of Futures the exchange guarantees all trades roughted through its members and in case of default or insolvency of any member the exchange will meet the payment out of its trade protection fund.

33. Currency Futures serve the same purpose as Forward Contracts, conventionally issued by banks in foreign exchange business.

34. Futures are standardized and traded on exchanges but Forward Contracts are customized OTC Contracts.

35. The Futures can be bought only for fixed amounts and fixed periods.

36. A Swap is an exchange of cash flow.

37. An interest rate Swap is an exchange of interest flows on an underlying asset or liability.

38. The cash flows representing the interest payments during the Swap period are exchanged.

39. For USD the bench mark rates are generally LIBOR (London Inter Bank Offer Rate)

40. MIBOR is announced daily at 9.50 A.M by NSE.

41. MIBOR is used as a base rate for short term and Medium Term lending.

42. Interest rate Swap is shifting of interest rate calculation from fixed rate to floating or floating rate to fixed rate or floating rate to floating rate.

43. A Floating to Floating rate Swap involves change of bench mark.

44. Quanto Swaps refer to paying interest in home currency at rate s applicable to foreign currency.

45. Coupon Swaps refer to floating rate in one currency exchanged to fixed rate in another currency.

46. In Indian Rupee market only plain vanilla type Swaps are permitted.

47. A Currency Swap is an exchange of cash flow in one currency with that of another currency.

48. The need for Currency Swap arises when loan raised in one currency is actually required to be used in another currency.

49. The Interest rate Swaps (IRS) and Forward rate agreements (FRA) were first allowed by RBI in 1998.

50. Banks and counter parties need to execute ISDA master agreement before entering into any derivative contracts.

51. A right to buy is Call Option and a right to Sell is Put Option.

52. Swaps are used to minimize cost of borrowings and also to benefit from arbitrage in two currencies.

53. Currency and interest rate Swaps with basic structure without in built positions or knock-out levels are plain vanillas type Swaps.

Unit-25: Treasury and Asset Liability Management

1. The risks arise out of mismatch of Assets and Liabilities of the Bank.

2. ALM is defined as protection of net worth of the Bank.

3. Liquidity Risk translates into interest rate risk when the bank has to recycle the deposit funds or role over a credit on market determined terms.

4. Liquidity implies a positive cash flow.

5. The difference between sources and uses of funds in specific time band is known as Liquidity Gap which may be positive or negative.

6. Interest rate risk is measured by the gap between interest rate sensitive asset and interest rate sensitive liability in a given time band.

7. The Assets & Liabilities are rate sensitive when their value changes in reverse direction corresponding to a change in market rate of interest.

8. The Gap management is only way of monitoring ALM.

9. The Duration and Simulation methods are used to make ALM more effective.

10. Derivatives are useful in reducing the Liquidity & Interest rate Risk.

11. Derivatives replicate market movements.

12. Derivatives can be used to hedge high value individual transactions.

13. The Derivative transaction is independent of the banking transaction.

14. Treasury products such as Bonds & Commercial papers are subject to credit risk.

15. Credit Risk in a loan & bond are similar, unlike a loan bond is tradable and hence it is more liquid asset.

16. Now a days the conventional credit is converted into tradable treasury product through Securitisation process by issue of PTC.

17. Securitisation infuses liquidity into the issuing bank & frees blocked capital.

18. Transfer pricing refers to fixing the cost of resources and return on Assets of the bank in a rational manner.

19. In a multi branch transfer pricing is particularly useful to assess the branch profitability.

20. ALM policy prescribes composition of ALCO & operational assets of ALM.

21. Liquidity policy prescribes minimum liquidity to be maintained.

22. Modern banking may be defined as Risk Intermediation.

23. Market Risk comprises of Liquidity and interest rate risk.

24. Banks are highly sensitive to liquidity risk as they can not afford to default or delay in meeting their obligations to depositors and other lenders.

25. Liquidity & interest rate sensitivity gap are measured in specified time bands.

26. Treasury connects core banking activity with financial markets.

27. Derivatives and Options are used in managing the mismatches in bank's Balance Sheet.

28. Treasury is also responsible for transfer pricing.

29. A situation where depositors of a bank lose confidence in the bank and withdraws their balances immediately is known as Run on the Bank.

30. Securities that can be readily sold for cash in secondary markets are Liquefiable securities.

31. Ratio of interest rate sensitive assets to rate sensitive liabilities is Sensitive Ratio.

32. Capacity and willingness to absorb losses on account of market risk is Risk Appetite.

MODULE - D : BALANCE SHEET MANAGEMENT

Unit-26: Components of Assets & Liabilities in Bank's Balance Sheet

- At macro-level. Asset Liability Management involves the formulation of critical business policies, efficient allocation of capital and designing of products with appropriate pricing strategies.
- At micro-level the Asset Liability Management aims at achieving profitability through price matching while ensuring liquidity by means of maturity matching.
- ALM is therefore, the management of the Net Interest Margin (NIM) to ensure that its level and riskiness are compatible with risk/return objectives of the bank.
- The strategy of actively managing the composition and mix of assets and liabilities portfolios is called balance sheet restructuring.
- The impact of volatility on the short-term profit is measured by Net Interest Income.Net Interest Income = Interest Income - Interest Expenses.
- Minimizing fluctuations in NII stabilizes the short term profits of the banks.
- Net Interest Margin is defined as net interest income divided by average total assets. Net Interest Margin (NIM) = Net Interest Income/Average total Assets.
- Net Interest Margin can be viewed as the 'Spread' on earning assets. The higher the spread the more will be the NIM
- The ratio of the shareholders funds to the total assets(Economic Equity Ratio) measures the shifts in the ratio of owned funds to total funds. This fact assesses the sustenance capacity of the bank.
- Price Matching basically aims to maintain spreads by ensuring that deployment of liabilities will be at a rate higher than the costs.
- Liquidity is ensured by grouping the assets/liabilities based on their maturing profiles. The gap is then assessed to identify future financing requirements
- Profit = Interest Income - Interest expense - provision for loan loss + non-interest revenue - non-interest expense – taxes

UNIT 27- Banking Regulation and Capital

- Systemic risk is the risk that a default by one financial institution will create a 'ripple effect' that leads to defaults by other financial instigations and threatens the stability of the financial system.

- In calculating the Cooke ratio both on-balance-sheet and off-balance-sheet items are considered. They are used to calculate bank's total risk-weighted assets. It is a measure of the bank's total credit exposure. CRAR = Capital/Risk Weighted Assets.

- Tier-I capital consists mainly of share capital and disclosed reserves and it is a bank's highest quality capital because it is fully available to cover losses.

- Tier-II capital on the other hand consists of certain reserves and certain types of subordinated debt. The loss absorption capacity of Tier-II capital is lower than that of Tier-I capital.

- The elements of Tier-I capital include Paid-up capital (ordinary shares), statutory reserves, and other disclosed free reserves.

UNIT 28 - Capital Adequacy - The Basel-II Overview

- The Basel Committee provided the framework for capital adequacy in 1988, which is known as the Basel-I accord.The Basel-I accord provided global standards for minimum capital requirements for banks.

- The Revised Framework consists of three-mutually reinforcing pillars, viz., minimum capital requirements, supervisory review of capital adequacy, and market discipline.

- The Framework offers three distinct options for computing capital requirement for credit risk and three other options for computing capital requirement for operational risk.

- The options available for computing capital for credit risk are Standardised Approach, Foundation Internal Rating Based Approach and Advanced Internal Rating Based Approach.

- The options available for computing Market risk is standardized approach (based on maturity ladder and duration based) and advanced approach, i.e., internal models such as VAR

- The options available for computing capital for operational risk are Basic Indicator Approach, Standardised Approach and Advanced Measurement Approach.
- The revised capital adequacy norms shall be applicable uniformly to all Commercial Banks (except Local Area Banks and Regional Rural Banks).
- A Consolidated bank is defined as a group of entities where a licensed bank is the controlling entity.
- All commercial banks in India shall adopt Standardised Approach (SA) for credit risk and Basic Indicator Approach (BIA) for operational risk.
- Banks shall continue to apply the Standardised Duration Approach (SDA) for computing capital requirement for market risks.
- The term capital would include Tier-I or core capital, Tier-II or supplemental capital, and Tier-III capital
- Core capital consists of paid up capital, free reserves and unallocated surpluses, less specified deductions.
- Supplementary capital comprises subordinated debt of more than five years' maturity, loan loss reserves, revaluation reserves, investment fluctuation reserves, and limited life preference shares.
- Tier-II capital is restricted to 100% of Tier-I capital as before and long-term subordinated debt may not exceed 50% of Tier-I capital.
- Tier-III capital will be limited to 250% of a bank's Tier-1 capital that is required to support market risk. This means that a minimum of about 28.5% of market risk needs to be supported by Tier-I capital. Any capital requirement arising in respect of credit and counter-party risk needs to be met by Tier-I and Tier-II capital.
- Capital adequacy ratio(C) = Regulatory capital(R)/Total risk weighted assets(T).
- Regulatory Capital ‘R’=C*T and Total Risk weighted Assets ‘T’= R/C
- Total Risk weighted assets =(Risk weighted assets for credit risk) +(12.5*Capital requirement for market risk)+(12.5*Capital requirement for operational risk)

UNIT 29- Supervisory Review

- Pillar I: Minimum Capital Requirements - which prescribes a risk-sensitive calculation of capital requirements that, for the first time, explicitly includes operational risk in addition to market and credit risk.

- Pillar 2: Supervisory Review Process (SRP) - which envisages the establishment of suitable risk management systems in banks and their review by the supervisory authority.

- Pillar 3: Market Discipline - which seeks to achieve increased transparency through expanded disclosure requirements for banks.

UNIT 30 - Pillar 3 - Market Discipline

- Market Discipline is to compliment the minimum capital requirements (Pillar 1) and the supervisory review process (Pillar 2). Pillar 3 provides disclosure requirements for banks using Basel-II framework.

- Information would be regarded as material if its omission or misstatement could change or influence the assessment or decision of a user relying on that information for the purpose of making economic decisions.

UNIT 31 - Asset Classification and Provisioning Norms

- Banks should classify an account as NPA only if the interest charged during any quarter is not serviced fully within 90 days from the end of the quarter

- An account should be treated as 'out of order' if the outstanding balance remains continuously in excess of the sanctioned limit/drawing power In cases where the outstanding balance in the principal operating account is less than the sanctioned limit/drawing power, but there are no credits continuously for 90 days as on the date of Balance Sheet or credits are not enough to cover the interest debited during the same period, these accounts should be treated as 'out of order'.

- Any amount due to the bank under any credit facility is 'overdue' if it is not paid on the due date fixed by the bank.

- Interest on advances against term deposits, NSCs, IVPs, KVPs and life policies may be taken to income account on the due date, provided adequate margin is available in the accounts.

- A substandard asset would be one, which has remained NPA for a period less than or equal to 12 months. a substandard asset would be one, which has remained NPA for a period less than or equal to 12 months.

- If arrears of interest and principal are paid by the borrower in the case of loan accounts classified as NPAs, the account should no longer be treated as nonperforming and may be classified as 'standard' accounts.

- Advances against Term Deposits, NSCs, KVP/IVP, etc, need not be treated as NPAs. Advances against gold ornaments, Government securities and all other securities are not covered by this exemption.

UNIT 32 - Liquidity Management

- Bank's liquidity management is the process of generating funds to meet contractual or relationship obligations at reasonable prices at all times.

- Good management information systems, central liquidity control, analysis of net funding requirements under alternative scenarios, diversification of funding sources, and contingency planning are crucial elements of strong liquidity management at a bank of any size or scope of operations.
- The residual maturity profile of assets and liabilities will be such that mismatch level for time bucket of 1-14 days and 15-88 days remains around 80% of cash outflows in each time bucket.

- Flow approach is the basic approach being followed by Indian banks. It is called gap method of measuring and managing liquidity

- Stock approach is based on the level of assets and liabilities as well as off-balance sheet exposures on a particular date.

- Ratio of Core Deposit to Total Assets: - Core Deposit/Total Assets: More the ratio, better it is.

- Net Loans to Totals Deposits Ratio:- Net Loans/Total Deposits: It reflects the ratio of loans to public deposits or core deposits. Loan is treated to be less liquid asset and therefore lower the ratio, better it is.

- Ratio of Time Deposits to Total Deposits:-Time deposits provide stable level of liquidity and negligible volatility. Therefore, higher the ratio better it is.

- Ratio of Volatile Liabilities to Total Assets:- Higher portion of volatile assets will pose higher problems of liquidity. Therefore, lower the ratio better it is.

- Ratio of Short-Term Liabilities to Liquid Assets:- Short-term liabilities are required to be redeemed at the earliest. It is expected to be lower in the interest of liquidity.
- Ratio of Liquid Assets to Total Assets:-Higher level of liquid assets in total assets will ensure better liquidity. Therefore, higher the ratio, better it is.

- Liquid assets may include bank balances, money at call and short notice, inter bank placements due within one month, securities held for trading and available for sale having ready market.

- Ratio of Short-Term Liabilities to Total Assets:-A lower ratio is desirable

- Short-term liabilities may include balances in current account, volatile portion of savings accounts leaving behind core portion of saving which is constantly maintained. Maturing deposits within a short period of one month.

- Ratio of Prime Asset to Total Asset - Prime Asset/Total Assets:-More or higher the, ratio better it is.

- Prime assets may include cash balances with the bank and balances with banks including central bank which can be withdrawn at any time without any notice.

- Ratio of Market Liabilities to Total Assets:-Lower the ratio, better it is.

- Market liabilities may include money market borrowings, inter-bank liabilities repayable within a short period.

- A maturity ladder should be used to compare a bank's future cash inflows to its future cash outflows over a series of specified time periods.
- The need to replace net outflows due to unanticipated withdrawal of deposits is known as Funding risk.
- The need to compensate for non-receipt of expected inflows of funds is classified as Time Risk
- Call risk arises due to crystallisation of Contingent liabilities
- Maturity ladders enables the bank to estimate the difference between Cash inflows and Cash Outflows in predetermined periods.
- Liquidity management methodology of evaluating whether a bank has sufficient liquid funds based on the behaviour of cash flows under the different 'what if scenarios is known as Alternative Scenarios
- The capability of bank to withstand a net funding requirement in a bank specific or general market liquidity crisis is denoted as Contingency planning

UNIT 33 - Interest Rate Risk Management

- Interest rate risk is the exposure of a bank's financial condition to adverse movements in interest rates.
- Gap: The gap is the difference between the amount of assets and liabilities on which the interest rates are reset during a given period.
- Interest rate risk refers to volatility in Net Interest Income (NiI) or in variations in Net Interest Margin (NIM)
- The degree of basis risk is fairly high in respect of banks that create composite assets out of composite liabilities.
- The risk that the interest rate of different assets and liabilities may change in different magnitudes is called basis risk.

- When assets and liabilities fall due to repricing in different periods, they can create a mismatch. Such a mismatch or gap may lead to gain or loss depending upon how interest rate in the market tend to move.

- The degree of basis risk is fairly high in respect of banks that create composite assets out of composite liabilities

- When the variation in market interest rate causes the Nil to expand, the banks have experienced a favourable basis shift and if the interest rate movement causes the Nil to contract, the basis has moved against the bank.

- An yield curve is a line on a graph plotting the yield of all maturities of a particular instrument

- Price risk occurs when assets are sold before their maturity dates.

- The price risk is closely associated with the trading book which is created for making profit out of short-term movements in interest rates.

- Uncertainty with regard to interest rate at which the future cash flows can be reinvested is called reinvestment risk.

- When the interest rate goes up, the bonds price decreases

- When the interest rate declines the bond price increases resulting in a capital gain but the realised compound yield decreases because of lower coupon reinvestment income.

- Duration is a measure of the percentage change in the economic value of a position that will occur, given a small change in the level of interest rates.

- Higher duration implies that a given change in the level of interest rates will have a larger impact on economic value.

- Interest Rate Sensitive Gap: Interest Rate Sensitive Assets(RSA) - Interest Rate Sensitive Liabilities (RSL).

- Positive Gap or Asset Sensitive Gap - RSA - RSL > 0 & Negative Gap or Liability Sensitive - RSA - RSL < 0

Important Formulas

Some of these Formulas may not be applicable for BFM, but I request all of you to go through all of them to understand the concepts clear for ABM, BFM and ABFM.

1. Raw material Turnover Ratio = Cost of RM used / Average stock of R M

2. SIP Turnover = Cost of Goods manufactured / Average stock of SIP

3. Debt Collection period = No. days or months or Weeks in a year/Debt Turnover Ratio.

4. Average Payment Period = No. days or months or Weeks in a year/Creditors Turnover Ratio.

5. Inventory Turnover Ratio = Cost of Goods Sold / Average Inventory.

6. Debtors Turnover Ratio = Net Credit Sales / Average Debtors.

7. Creditors Turnover Ratio = Net Credit Purchases / Average Credits.

8. Defensive Interval Ratio = Liquid Assets / Projected Daily Cash Requirement

9. Projected daily cash requirement = Projected operating cash expenses / 365.

10. Debt Equity Ratio = Long Term Debt / Equity.

11. Debt Equity Ratio = Total outside Liability / Tangible Net Worth.

12. Debt to Total Capital Ratio = Total Debts or Total Assets/(Permanent Capital + Current Liabilities)

13. Interest Coverage Ratio = EBIT / Interest.

14. Dividend Coverage Ratio = N. P. after Interest & Tax / Preferential dividend

15. Gross Profit Margin = Gross Profit / Net Sales * 100

16. Net Profit Margin = Net Profit / Net Sales * 100

17. Cost of Goods Sold Ratio = Cost of Goods Sold / Net Sales * 100.

18. Operating Profit Ratio = Earnings Before Interest Tax / Net Sales * 100

19. Expenses Ratio or Operating Ratio = Expenses / Net Sales * 100

20. Net Profit Ratio = Net Profit After interest and Tax / Net Sales * 100

21. Operating Expenses Ratio = (Administrative + Selling expenses) / Net Sales * 100

22. Administrative Expenses Ratio =(Administrative Expenses / Net Sales) * 100

23. Selling Expenses Ratio =(Selling Expenses / Net Sales) * 100

24. Financial Expenses Ratio = (Financial Expenses / Net Sales) * 100

25. Return on Assets = Net Profit After Tax / Total Assets.

26. Total Assets = Net Fixed Assets + Net Working Capital.

27. Net Fixed Assets = Total Fixed Assets – Accumulated Depreciation.

28. Net Working Capital = (CA –CL) – (Intangible Assets + Fictitious Assets + Idle Stock + Bad Debts)

29. Return on Capital Employed = Net Profit Before Interest and Tax / Average Capital Employed.

30. Average Capital employed = Equity Capital + Long Term Funds provided by Owners & Creditors at the beginning & at the end of the accounting period divided by two.

31. Return on Ordinary Share Holders Equity = (NPAT – Preferential Dividends) / Average Ordinary Share Holders Equity or Net Worth.

32. Earnings Per Share = Net Profit After Taxes and Preferential dividends / Number of Equity Share.

33. Dividend per Share = Net Profit After Taxes and distributable dividend / Number of Equity Shares.

34. Dividend Pay Out Ratio = Dividend per Equity Share / Earnings per Equity Share.

35. Dividend Pay Out Ratio = Dividend paid to Equity Share holders / Net Profit available for Equity Share Holders.

36. Price Earning Ratio = Market Price per equity Share / Earning per Share.

37. Total Asset Turnover = Cost of Goods Sold / Average Total Assets.

38. Fixed Asset Turnover = Cost of Goods Sold / Average Fixed Assets.

39. Capital Turnover = Cost of Goods Sold / Average Capital employed.

40. Current Asset Turnover = Cost of Goods Sold / Average Current Assets.

41. Working Capital Turnover = Cost of Goods Sold / Net Working Capital.

42. Return on Net Worth = (Net Profit / Net Worth) * 100

43. DSCR = Profit after Tax & Depreciation + Int. on T L & Differed Credit + Lease Rentals if any divided by Repayment of Interest & Installments on T L & Differed Credits + Lease Rentals if any.

44. Factory Cost = Prime cost + Production Overheads.

45. Cost of Goods Sold = Factory Cost + Selling, distribution & administrative overheads

46. Contribution = Sales – Marginal Costs.

47. Percentage of contribution to sales = (Contribution / Sales) * 100

48. Break Even Analysis = F / (1 – VC / S)
F = Fixed costs, VC = Total variable operating costs & S = Total sales revenue

49. Break Even Margin or Margin of Safety = Sales – Break Even Point / Sales.

50. Cash Break Even = F – N / P – R or F – N / 1 – (VC / S)

51. BEP = Fixed Costs / Contribution per unit.

52. Sales volume requires = Fixed cost + Required profit / Contribution per unit.

53. BEP in Sales = (Fixed Costs / Contribution per unit) * Price per unit.

54. Contribution Sales Ratio = (Contribution per unit / Sale price per unit) * 100

55. Level of sales to result in target profit after Tax = (Target Profit) / (1 – Tax rate / Contribution per unit)

56. Level of sales to result in target profit = (Fixed Cost + Target profit) * sales price per unit Contribution per unit.

57. Net Present Value = - Co + C1 / (1 + r)

58. Future expected value of a present cash flow = Cash Flow (1 + r) ^ t

59. Present value of a simple future cash flow = Cash Flow / (1 + r) ^ t

60. The Discount Factor = 1 / (1 + r) ^ t

61. Notation used internationally for PV of an annuity is PV (A, r, n)

62. Notation used internationally for FV of an annuity is FV (A, r, n)

63. The effective annual rate = (1 + r) ^ t – 1 or (1 + (r / N)) – 1)
N = Number of times compounding in a year

64. PV of end of period Annuity = A { (1- (1 / (1+r) ^ n) / r

65. CR = CA : CL

66. Net Worth = CA - CL

67. DER = TL/TNW or debt/equity or TL/equity

68. Price Elasticity of Supply = (% change in quantity supplied/(% change in price)

69. PV = P / R * [(1+R)^T - 1]/(1+R)^T

70. PV = P / (1+R)^T

71. FV = P * (1 + R)^T

72. FV = P*(1-R)^T

73. FV = P / R * [(1+R)^T - 1]

74. FV = P / R * [(1+R)^T - 1] * (1+R)

75. EMI = P * R * [(1+R)^T/(1+R)^T-1)]

76. FV of annuity = A/r ×{(1+r)^n-1}

77. Bond Price = (1/(1+R)^t)((coupon*((1+R)^t-1)/R)+Face Value)

ABFM Important Formula

Earnings Per Share	**EAT/No of Equity Shares**
Degree of Operating Leverage (DOL)	**% change in EBIT / %change in Sales**
Impact of Fixed Cost: DOL	**Contribution / EBIT**
Degree of Financial Leverage (DFL)	**% change in EPS / %change in EBIT**
Impact of Interest Cost: DFL	**EBIT / EBT**
Degree of Combined Leverage (DCL) OR Degree of Total Leverage (DTL)	**% change in EPS / %change in Sales**
Impact of Interest Cost and Fixed Cost: DCL	**Contribution / EBT**
Break-Even Formula: Break- Even Point	**Fixed Cost / Contribution per Unit**
Pay Back Period	**Initial Investment / Annual Cash Inflow**
Net Present Value (NPV)	**Present value of net cash inflow - Total net initial investment** if NPV ≥ 0 :- Accept the Proposal if NPV ≤ 0 :- Reject the Proposal
Accounting Rate of Return (ARR)	**(Average Annual Net Earning after Taxes / Average Investment) × 100%**
ARR	**(Average Profit / Average Investment) × 100%**
Average profit made yearly	**Total Profit / No.of Years**
Average Investment	**{(Initial Investment–Scrap) / 2} + Scrap Value**
Average Investment	**(Initial Investment + Scrap Value)/2**
Average Investment	**{(Initial Investment–Salvage Value) /2} + Salvage Value**
Deprecation per year	**(Price of Machine–Salvage Value) / Life of Machine (Year)**
Break-even Point (per month in units)	**(Fixed Cost p.*m*.+number of setups × cost per setup) / Contribution p.u.**
Profit per month	**{Monthly demand (units) × Contribution per unit} – Fixed Cost per month + setup cost per month**

Activity cost driver rate	**Total cost of activity / Activity driver**
Non-DCF Valuation Models: EBITDA Basis Book Value Basis Seles Basis	 **EV / EBITDA** **EV / Book Value** **EV / Sales Value**
P/E multiple	**Market price per share / Earnings per share**
Price-earnings multiple	**P0 / E1**
The book value per share (B)	**(Shareholders funds–Preference capital) / Number of outstanding equity shars**
EV to EBITDA Multiple	**Enterprise value (EV) / Earnings before Interest, Taxes, Depreciation, and Amortizatio*n***
EV/EBIT Multiple	**Enterprise value (EV) / Earnings before Interest, Taxes, (EBIT)**
EV/FCFF Multiple	**Enterprise value (EV) / Free cash flow to firm(FCFF)**
EV/BV Multiple	**Enterprise value (EV) / Book value of assets (BV)**
EV/Sales Multiple	**Enterprise value (EV) / Sales(S)**

ALL THE VERY BEST FOR YOUR EXAMS

SHORT NOTES FOR

CAIIB

BANK FINANCIAL MANAGEMENT

Though we had taken enough care to go through the notes provided here, we shall not be responsible for any loss or damage, resulting from any action taken on the basis of the contents. Creation of these short notes is the efforts of so many persons. First of all we thank all of them for their valuable contribution. We request everyone to go through the Macmillan book and update yourself with the latest information through RBI website and other authenticated sources. In case you find any incorrect/doubtful information, kindly update us also (along with the source link/reference for the correct information).

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