EXECUTIVE DIPLOMA IN
COST & MANAGEMENT ACCOUNTING FOR ENGINEERS

TREASURY & FINANCIAL SERVICES AND INSURANCE & RISK MANAGEMENT

MODULE IV

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THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

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VISION STATEMENT

The Institute of Cost Accountants of India would be the preferred source of resources and professionals for the financial leadership of enterprises globally.

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2018

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ABOUT THE COURSES

01: EXECUTIVE DIPLOMA IN BUSINESS VALUATION

Valuation, particularly financial valuation, is emerging as an important profession, with the growth in the profession of financial analysts due to various factors like increased interest in mergers, acquisitions, demerger and divestiture, increased interest of PE firms in Indian business and implementation of IndAS. The valuation profession is expected to get a boost with the introduction of the concept of Registered Valuers in the Companies Act 2013. Registered Valuers will provide valuation in respect of property, stocks, shares, debentures, securities, goodwill or any other assets or net worth of a company or its assets or liabilities.

This diploma course aims to develop proficiency in Valuing assets and liabilities through a learning process that blends concepts with applications. The course is an advanced knowledge module that presupposes understanding of management accounting and corporate finance. The participants will get extensive exposure through project work on Valuation and by analyzing case studies.

Course Duration: 6 months

02: EXECUTIVE DIPLOMA IN COST & MANAGEMENT ACCOUNTING FOR ENGINEERS

In modern competitive business environment, suitable business decision making is very crucial. All professionals irrespective of their domain expertise need to understand the commercial aspects of the business, contribute effectively and efficiently to the strategic business decisions making.

Engineers being the frontline technocrats, are part of the team for taking various commercial decisions in the interest of the organization, which requires adequate expertise to understand the various facets of the Cost, Finance, Taxation, Laws and other such aspects. This course has been specifically designed for Engineers to synergies their domain expertise with the commercial link in a most practical oriented manner.

Course Duration: 6 months

03: CERTIFICATE COURSE IN ARBITRATION

Arbitration is a form of alternative dispute resolution (ADR), is a technique for the resolution of disputes outside the courts, the parties to a dispute refer it to Arbitration by one or more persons (the arbitrators awards or arbitral Tribunal), and agree to BE bound by the arbitration decision (the award). A third party reviews the evidences in the case and imposes a decision that is legally binding on both sides and enforceable in the courts. In fact Arbitration is a process in which disputants can resolve dispute amicably. This method can bring solutions to disputes as well as among disputants.

The objective of this course is to familiarize the participants with legal framework of arbitration, arbitration procedures, and arbitration practice. It is also designed to cover practical aspects covering case analysis and mock arbitral proceedings.

Course Duration: 3 months

04: CERTIFICATE COURSE IN GOODS AND SERVICES TAX (GST)

Goods & Services Tax (GST) is a major tax reform in the Country and is a game changer. There has been a paradigm shift in the Indirect Tax structure with the GST rollout w.e.f 01st July 2017. As a professional, it is imperative to understand and assimilate the new taxation structure, associated compliances and the changes in business processes emanating there from.

In the above backdrop, a course module on GST has been planned so as to upgrade the knowledge level of our members & professionals in a structured and practical oriented manner. Institute has twin expectations from this course, first the GST concepts and implementation has to be understood in a simple way by our professional colleagues, and second the same can be percolated to the business houses, traders and other such concerns having GST impact in their respective locations. This course is being launched in association with Tax Research Department of the Institute.

Course Duration: 3 months

Email: advstudies@icmai.in

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PART A : TREASURY & FINANCIAL SERVICES Marks - 50

PART B : INSURANCE & RISK MANAGEMENT Marks - 50

Part-A

TREASURY & FINANCIAL SERVICES

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

EXECUTIVE DIPLOMA IN COST & MANAGEMENT ACCOUNTING FOR ENGINEERS

QUALIFIED ENGINEER

KNOWLEDGE OF ENGINEERING SUBJECTS

Module - I
Costing Principles & Practices and Financial Accounting

Module - III
Indirect Taxation (GST & Customs Law) and Project Management

Tools & Techniques for Decision Making

Tools & Techniques for Decision Making

Module - II
Contract Management and Industrial Laws, Commercial Laws & Company Law

Module - V
Advanced Cost & Financial Management and Management Reporting

Module - IV
Treasury & Financial Services and Insurance & Risk Management

Relevant Experience

Relevant Experience

Synergy Effect

STRATEGIC DECISION MAKER

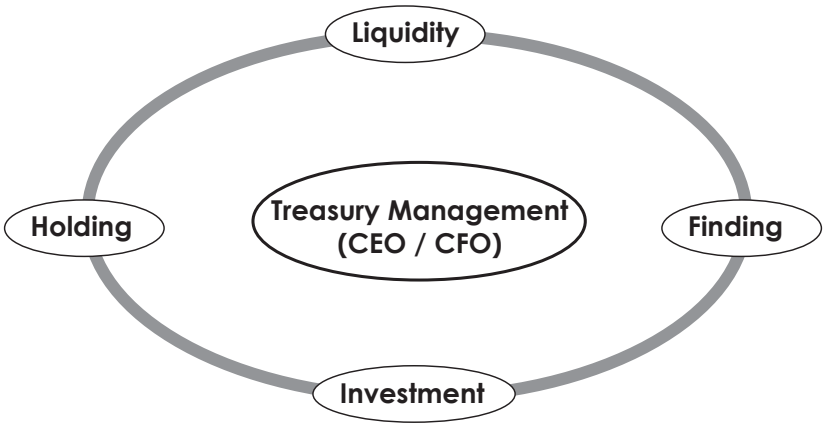
CMD / MD / CEO / COO / PRESIDENT / VICE-PRESIDENT

CAREER PATH FOR ENGINEERS TO BECOME STRATEGIC DECISION MAKERS

1 INTRODUCTION TO CORPORATE TREASURY MANAGEMENT

1.1 INTRODUCTION-TO TREASURY MANAGEMENT

Treasury management (or treasury operations) includes management of an enterprise's holdings, with the ultimate goal of managing the firm's liquidity and mitigating its operational, financial and reputational risk. Treasury Management includes a firm's collections, disbursements, concentration, investment and funding activities. In larger firms, it may also include trading in bonds, currencies, financial derivatives and the associated financial risk management.



The Treasury Management process is responsible for risk identification associated with the entity's varying activities and for controlling risks that could erode financial strength, using mitigation and hedging techniques and encouraging a culture of sound financial practice.

In essence treasury management is all about handling the banking requirements, the funding for the entity and managing financial risk. It therefore incorporates raising and managing money, currency, commodity and interest rate risk management and dealing, and, in some entities the related areas of insurance, pensions, property and taxation.

1.2 ROLE OF THE TREASURER

The treasury department is concerned with managing the financial risks of a business. Hence, the treasurer's job is to understand the nature of these risks, the way they interact with the business, and to minimize or to offset them. He must assist and advise the board in its decision-making activity, based on his understanding of the risks.

In order to do this efficiently many treasurers prefer to organise their department around treasury processes. This method is very efficient as it allows for a focus as well as links to similar functions in other geographic areas of the organisation. The treasury processes mentioned generally consist of financial planning and reporting, funding, risk management (FX and money market), credit management, and cash management.

The most operational of these processes are risk management and cash management. Both these processes require a significant amount of attention to detail but also differ in one other aspect. Of all the processes mentioned, these two tend to be the most 'treasury independent' processes. As such the treasurer has significant leeway in both the design and implementation of the process. Given this flexibility and the operational nature of the processes it is in the best interests of the Treasurer to pay a high level of attention to the design and implementation of the processes.

Treasury plays a pivotal role in managing risks and rewards both inside and outside the organisation. As the function concerned with the provision and use of finance, Treasury typically handles collections, banking, working capital, short-term borrowing, foreign currency management, provision of capital and money market investment. In the past two decades, Treasury has become more involved in identifying unmanageable organisational risk and hedging it in open markets. Increasingly, Treasury is becoming involved in handling operational risks through insurance mechanisms and, in some leading companies, viable risk/reward management systems.

Treasury Activities comprise the following:

1. **Setting corporate financial objectives** - strategies, policies, measurement, internal capital allocation, pricing, reporting and systems;
2. **Liquidity management** - The treasury function has to ensure that the company has sufficient liquid funds available to ensure a smooth running of its operations and to meet short-term financial obligations as and when due Moreover, treasury is also responsible for investing surplus funds, cash flow management, control of funds, working capital, money transmission, banking relationships and streamlining the operational flow of funds;
3. **Funding management** - policies, procedures, types of funds and self-funding mechanisms;
4. **Exposure management** - currency exposure, international netting/pooling, exchange dealing, international monetary economics, commodities markets and hedging;
5. **Corporate finance** - equity capital management, taxation issues, pension funding, business acquisitions and disposals, project finance and joint ventures;
6. **Corporate treasury structure** - information systems support, central/local procedures, cost centre/ profit-centre management, asset management, compliance, staffing, controls, risk attitudes, fraud prevention, business unit evaluation and Treasury performance evaluation.
7. **Funding management -** The treasury function has to source and secure funds for the needs of the business.
8. **Debt portfolio management -** The treasury function has to manage the debt portfolio which emerges from the accumulation of individual financing transactions so as to achieve an acceptable cost and risk profile for the portfolio over time.
9. **Risk management -** The treasury function has to advise on and implement effective hedging of treasury type risks, especially, foreign exchange, interest rate and commodity price risks, as well as liquidity, credit and counterparty risks.
10. Bank, financial counterparty and rating agency **relationship management**.

Treasury Function in an International Bank

A treasury function in an international bank is concerned with three main activities:-

1. Dealing,
2. Settlement
3. Control.

Globalization of world markets and the complexities involved in a bank's trading operations have led to the setting up of a department specializing in the areas of funding, lending, investment and foreign exchange. Banks felt that they could operate more profitably by engaging in a function whose purpose is to minimize funding costs and to maximize returns. Further, given the need to manage the flow of transactions, a treasury

function is best placed to establish and run the back-office operations - the settlement office and the control office. Within the control office, the bank has to demonstrate to the regulatory authorities and to its own senior management that the bank is operating ethically, prudently, legally and profitably.

1.3 TREASURY OPERATIONS

A dedicated treasury operation would normally be involved in the activities centering around dealing, settlement, and control. Prudent control maintains the good name of the bank while it pursues its main function as the provider of the funding for both the bank's foreign currency investments and for their international business.

1.4 DEALING

The treasury maintains and develops its dealing operations, evolving its business and controlling its operations across the broad range of instruments - for example in futures, options, cash, swaps and forward-rate agreements. It maintains and develops the investment portfolios and seeks to utilize the bank's surplus funds to best advantage for:

- Day-to-day funding requirements
- Funding investments in associated companies and subsidiaries
- Raising debt to meet capital requirements

1.5 VALEUR COMPENSEE (VC)

Valeur Compensee (VC) relates to the aggregate of purchase and sales that mature on any one value date in the future. The principle that the deal; should be completed on the same day.

1.6 SETTLEMENT

The settlement office is responsible for processing payments, issuing confirmations, reconciliation of accounts, custody of securities, systems, and accounting and statutory returns. This area clears the paperwork following the purchase or sale of financial products -investments, loans or trading in currency instruments. Sales have to be reconciled in the bank's back office, clients have to pay or be paid, certificates have to be exchanged and purchases and sales have to be reconciled. This is an important part of the bank's operation and requires skilled managers to ensure that there is a smooth flow of paper to support the transactions taking place. Heavy dealing in any day or over a period of time can cause serious bottlenecks which, in turn, affect the efficiency and even the reputation of the institution. Recent a dvances in electronic settlement have made the process quicker and more effective.

1.5 CONTROL

The treasury function takes on the responsibility for producing a set of policies and procedures governing the way in which the bank trades in the various instruments and the levels at which it trades. Risks relating to credit limits, liquidity, cash flows, interest rates and exchange rates will also be controlled by the function using a system of checks and reviews through audits and the examination of returns required to be made by each of the dealing and settlement operations.

Particular attention should be paid to the possibility of fraudulent activity, internally or by third parties, which, in the context of a bank trading in enormous amounts of money each day, could have catastrophic consequences for the very survival of the institution as demonstrated by the events that unfolded at the Bank of International Credit and Commerce and at Barings Bank.

Even fraudulent activity on a much smaller scale can impact on the confidence the financial markets have in an institution. It undermines the perceived level of control exercised by the bank. For the purpose of maintaining the bank's capital adequacy requirements, the treasury control office will be involved in capital and loan stock issues relating to the bank's own balance sheet management, a crucial function for the very survival of the bank. All existing stock also has to be managed and this will be done through a set of guidelines, policies and procedures. Treasury functions often need to lead their organisations in understanding and managing risk and reward.

Proprietary Trading

This occurs when a bank trades for direct gain instead of commission dollars. Essentially, the bank has decided to profit from the market rather than from commissions from processing trades. Banks that engage in proprietary trading believe that they have a competitive advantage that will enable them to earn excess returns.

2 MONEY MARKET

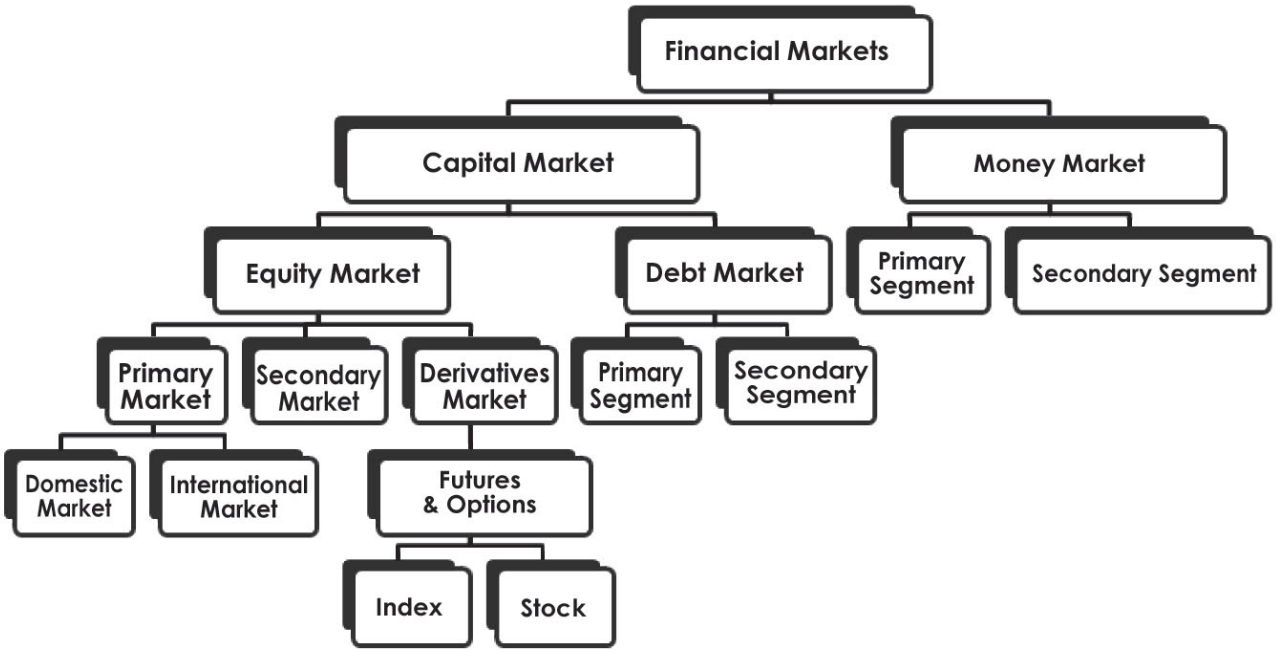
In a market economy, the allocation of economic resources is the outcome of many private decisions. In an economy markets can be divided into (1) product market (i.e. manufactured goods and services) (2) factor market (i.e. factors of production such as labour and capital). One part of the factor market is the market for financial assets.

A financial market is a market where financial instruments are exchanged or traded. The market in which a financial asset trades for immediate delivery is called the spot and cash market. The three important functions are to improve the price discovery process, enhance liquidity and reduce the cost of transacting. The market participants in financial markets include households, business entities, government state and local agencies and regulators.

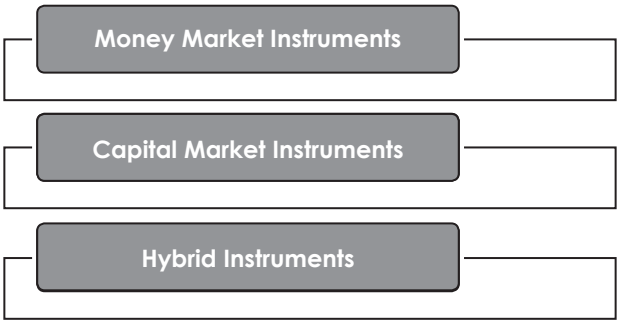
Classification of financial markets

There are different ways to classify financial markets. They are classified according to the financial instruments they are trading, features of services they provide, trading procedures, key market participants, as well as the origin of the markets.

The generalized financial market classification is given in Table below:



Types of Financial Market Instruments:



2.1 MONEY MARKET

Money market is a very important segment of the Indian financial system. It is the market for dealing in monetary assets of short-term nature. Short-term funds up to one year and for financial assets that are close substitutes for money are dealt in the money market. It is not a physical location (like the stock market), but an activity that is conducted over the telephone. Money market instruments have the characteristics of liquidity (quick conversion into money), minimum transaction cost and no loss in value. Excess funds are deployed in the money market, which in turn is availed of to meet temporary shortages of cash and other obligations.

Money market provides access to providers (financial and other institutions and individuals) and users (comprising institutions and government and individuals) of short-term funds to fulfill their borrowings and investment requirements at an efficient market-clearing price. The rates struck between borrowers and lenders represent an array of money market rates. The interbank overnight money rate is referred to as the call rate. There are also a number of other rates such as yields on treasury bills of varied maturities, commercial paper rate and rates offered on certificates of deposit. Money market performs the crucial role of providing an equilibrating mechanism to even out short-term liquidity and in the process, facilitating the conduct of monetary policy. Short-term surpluses and deficits are evened out. The money market is the major mechanism through which the Reserve Bank influences liquidity and the general level of interest rates. The Bank's interventions to influence liquidity serve as a signaling device for other segments of the financial system.

The Indian money market was segmented and highly regulated and lacked depth till the late eighties. A limited number of participants, regulation of entry and limited availability of instruments characterized it. The instruments were limited to call (overnight) and short notice (up to 14 days) money, inter-bank deposits and loans and commercial bills. Interest rates on market instruments were regulated. Sustained efforts for developing and deepening the money market were made only after the initiation of financial sector reforms in early nineties.

Features of Money Market:

(a) Instruments Traded: Money Market is a collection of Instruments like Call Money, Notice Money, Repos, Term Money, Treasury Bills, Commercial Bills, Certificate of Deposits, Commercial Papers, Inter-Bank Participation Certificates, Inter Corporate Deposits, Swaps, etc.

(b) Large Participants: The participants of Money Market are — (i) Lenders, (ii) Mutual Funds, (iii) Financial Institutions including the RBI, Scheduled Commercial Banks, Discount and Finance House of India and (iv) Borrowers. Network of a large number of participants exists which add greater depth to the market. This network can be broadly classified as follows :

Organized Sector	Unorganized Sector
1. Commercial and Other Banks	1. Indigenous Bankers
2. Non-Banking Financial Companies	2. Nidhis and Chit Funds
3. Co—operative Banks	3. Unorganized Money Lenders

(c) Zone Centric Activities: Activities in the money market tend to concentrate in some centre, which serves

a region or an area. The width of such area may vary depending upon the size and needs of the market itself.

(d) Pure Competition: Relationship between Participants in a money market is impersonal in character, and the competition is relatively pure.

(e) Lower Price Differentials: Price differentials for assets of similar type tend to be eliminated by the interplay of demand and supply.

(f) Flexible Regulations: Certain degree of flexibility in the regulatory framework exists and there are constant endeavours for introducing a new instruments / innovative dealing techniques.

(g) Market Size: It is a wholesale market and the volume of funds or financial assets traded are very large, i.e. in crores of rupees.

Functions of the Money Market:

A money market is generally expected to perform three broad functions:

- Provide a balancing mechanism to even out the demand for and supply of short- term funds.
- Provide a focal point for central bank intervention for influencing liquidity and general level of interest rates in the economy.
- Provide reasonable access to suppliers and users of short-term funds to fulfill their borrowings and investment requirements at an efficient market clearing price.

Besides the above functions, a well-functioning money market facilitates the development of a market for longer-term securities. The interest rates for extremely short-term use of money serve as a benchmark for longer-term financial instruments.

Pre- requisites for an efficient Money Market:

1. Features of a well developed Money Market:

(a) Uses a broad range of financial instruments (treasury bills, bills of exchange etc).

(b) Channelizes savings into productive investments.

(c) Promote financial mobility in the form of inter sectoral flows of funds.

(d) Facilitate the implementation of monetary policy by way of open market operations.

2. Pre-Requisites for an Efficient Money Market:

(a) Economic System: Institutional development, relative political stability and a reasonably well developed banking and financial system.

(b) Integrity: Transactions in money market are concluded over telephone followed by written confirmation from the contracting parties. Hence, integrity is a basic necessity. Thus banks and other players in the market may have to be licensed and effectively supervised by regulators.

(c) Short Term Funds: The market should be able to provide an investment outlet for any temporarily surplus funds that may be available. Thus, there must be effective demand and supply of short term monies the demand for which arises from short term liquidity requirements and supply of which arises from idle cash available for temporary investment.

(d) Clearing Mechanism: Efficient clearing and settlement systems. Electronic Funds Transfer (EFT), Depository System, Delivery versus Payment (DVP), High Value Inter-bank Payment System, etc. are essential pre-requisites for ensuring a risk free and transparent payment and settlement system.

(e) Regulation: Government and Central Bank intervention to moderate liquidity profile.

(f) Apex Body: An empowered Central Bank to ensure credibility in the system and to supervise the players in the market.

(g) Instruments: The market should have varied instruments with distinctive maturity and risk profiles to serve the needs of the players in the market. Multiple instruments add strength and depth to the market.

(h) Integration: Market should be integrated with the rest of the markets in the financial system to ensure perfect equilibrium. The funds should move from one segment of the market to another for exploiting arbitrage opportunities.

Benefits of an efficient Money Market:

- Provides a stable source of funds to banks
- Encourages development of non-bank entities
- Facilitates government market borrowing
- Makes effective monetary policy actions
- Helps in pricing different floating interest products

Differences between Capital Market and Money Market:

Aspect	Capital Market	Money Market
Type of Instruments	Debt and Equity Instruments.	Debt Instruments only.
Tenor of Instruments	Medium and Long Term Instruments.	Short Term usually less than one year.
Examples	Equity Shares, Preference Stock, Debenture Stock, Zero Coupon Bonds, etc.	Treasury Bills, Certificates of Deposits, Commercial Papers, Banker's Acceptance.
Classification	Capital Market is further classified into Primary Market and Secondary Market.	There is no such further classification.
Participants	Retail Investors, Institutional Investors (Mutual Funds), Financial Institutions, etc.	Banks, Financial Institutions, Reserve Bank of India, Government.
Risk	Low credit and market risk involved.	High credit and market risk.
Regulator	SEBI	RBI

Role of the Reserve Bank of India in the Money Market:

The Reserve Bank of India (RBI) is the most important constituent of the money market. The market comes within the direct purview of the Reserve Bank regulations.

The aims of the Reserve Bank's operations in the money market are:

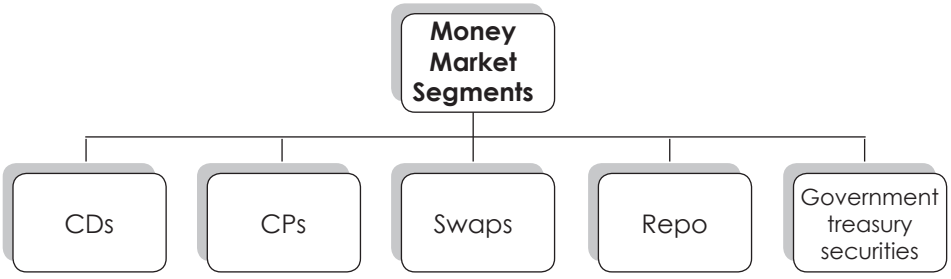
- To ensure that liquidity and short-term interest rates are maintained at levels consistent with the monetary policy objectives of maintaining price stability;
- To ensure an adequate flow of credit to the productive sectors of the economy; and
- To bring about order in the foreign exchange market.

The Reserve Bank influences liquidity and interest rates through a number of operating instruments- cash reserve requirement (CRR) of banks, conduct of open market operations (OMOs), repos, change in bank rates, and, at times, foreign exchange swap operations.

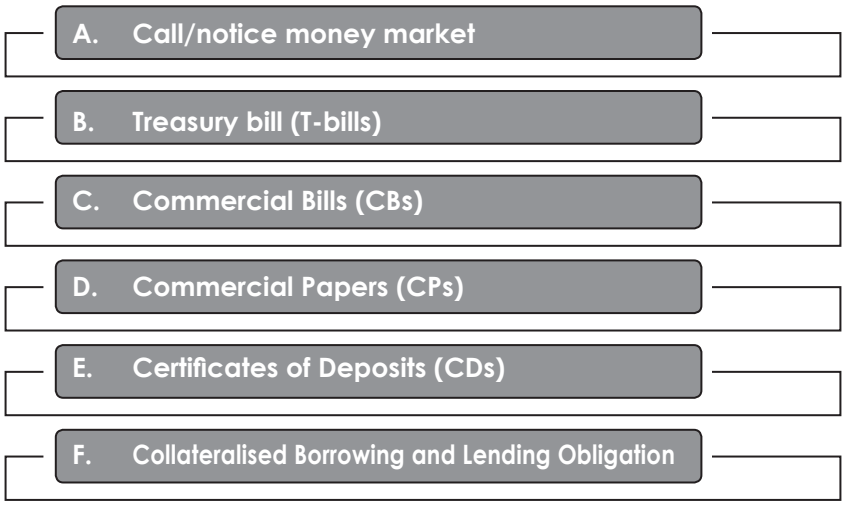
Money Market Segments:

In a broad sense, money market consists of the market for short-term funds, usually with maturity up to one year. It can be divided into several major segments:

Money Market Segments



2.2 MONEY MARKET INSTRUMENTS



Call/notice money market and treasury bills form the most important segments of the Indian money market. Treasury bills, call money market, and certificates of deposit provide liquidity for government and banks while commercial paper and commercial bills provide liquidity for the commercial sector and intermediaries.

Major characteristics of money market instruments are:

- Short-term nature;
- Low risk;
- High liquidity (in general);
- Close to money.

The various instruments are now detailed as under:

2.2.1 Call/Notice Money

Call/Notice money is an amount borrowed or lent on demand for a very short period. If the period is more than one day and upto 14 days, it is called notice money and if the period is more than 14 days, it is called call money.

Exclusions: Intervening holidays and / or Sundays are excluded for this purpose. No collateral security is required to cover these transactions.

Participants of Call money:

Nature of Persons	Persons
Borrow and Lend	Reserve Bank of India (RBI) through LAFs, Banks, Primary Dealers (PD)
Lenders	Financial Institutions such as:-
	(a) Life Insurance Corporation of India (LIC)
	(b) Unit Trust of India (UTI) and Mutual Funds
	(c) General Insurance Corporation (GIC)
	(d) Industrial Development Bank of India (IDBI)
	(e) National Bank for Agricultural and Rural Development (NABARD)
	(f) Industrial Credit Investment Corporation of India (ICICI)

Benefits:

(a) Banks and Institutions: Call Market enables Banks and Financial Institutions to even out their day- to-day deficits and surpluses of money.

(b) Cash Reserve Requirements: Commercial Banks, Co-operative Banks and Primary Dealers are allowed to borrow and lend in this market for adjusting their cash reserve requirements.

(c) Outlet for Deploying Funds: It serves as an outlet for deploying funds on short-term basis to the lenders having steady inflow of funds.

Other Features:

(a) Restriction on Participation:

- ❖ Specified All-India Financial Institutions, Mutual Funds and certain specified entities are allowed to access Call/Notice money only as Lenders.
- ❖ Call money is an inter-bank market, hence non-bank entities are not allowed access to this market.

(b) Interest Rates: Interest rates in the call and notice money market are market determined.

(c) Account with RBI: In view of the short tenure of such transactions, both the Borrowers and the Lenders are required to have current accounts with the Reserve Bank of India.

Purposes: Banks borrow in this money market for the following purpose—

(a) To fill the gaps or temporary mismatches in funds.

(b) To meet the Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) mandatory requirements as stipulated by RBI.

(c) To meet sudden demand for funds arising out of large outflows.

Nature of Call money market:

Call money represents the amount borrowed by the commercial banks from each other to meet their temporary funds requirements. The market for such extremely short period loans is referred to as the "call money market".

Call loans in India are given:

(i) to the bill market,

(ii) to dealers in stock exchange for the purpose of dealings in stock exchange,

(iii) between banks, and

(iv) to individuals of high financial status in Mumbai for ordinary trade purpose in order to save interest on cash credit and overdrafts.

Among these uses, inter-bank use has been the most significant. These loans are given for a very short duration, between 1 day to 15 days. There are no collateral securities demanded against these loans i.e., unsecured. The borrower has to repay the loans immediately they are called for i.e., highly liquid. As such, these loans are described as "call loans" or "call money".

Call money market -An edge for Commercial Banks

Call loans are preferable to Commercial Banks because:

(i) It is available from other banks in order to meet a sudden demand for funds, large payments, large remittance and to maintain cash reserve ratio (CRR) with the RBI.

(ii) These loans are given for a very short duration between 1day to 15 days. Banks can easily and quickly borrow from call market to meet their needs.

(iii) There are no collateral securities demanded against these loans i.e., unsecured. The RBI had recommended that the call market should be reserved for commercial banks without any ceiling on call rates.

(iv) Banks can invest their temporary surplus fund in call market of high call rate to earn maximum profit without hampering liquidity.

Volatile nature of Call money rate

The rate of interest paid on call loans is known as the call rate. The call rate is highly variable with changes in demand for and supply of call loans. It varies from day to day, from hour to hour and from centre to centre. Average monthly call rates are higher in March, April, May, October & November. Average monthly call rates are lower in January, August, and December because demand for liquid fund is lower in that time.

Factors affecting fluctuation of call rate:

After the removal of ceiling, the call rate has fluctuated widely. The call rate is volatile due to following reasons:

(a) Large borrowings on certain dates by banks to meet the CRR requirements (then call rate rise sharply) and demand for call money falls when CRR needs are met.

(b) The credit operations of certain banks tend to be much in excess of their own resources.

(c) Disturbance in the banking industry.

(d) When liquid fund of an institution is very essential to repay the loan, advance tax, matured amount of security, and at the boom position of institution the call rates increase.

(e) When call market is easy, Banks invest funds in govt. securities, bonds in order to maximise earnings. But with no buyers in the market, these securities are not cashed. Due to such liquidity crisis, call rate is high.

(f) The structural deficiencies in the banking system. The banking system tries to build up deposits in last week of end of the year.

(g) Forex market turbulence.

(h) Call market is over-the-telephone-market. Borrowers and lenders contact each other over telephone. In the absence of perfect communication they deal at different rates.

(i) In call market, main borrowers are commercial banks and lenders are UTI, LIC etc .In absence of lenders for few days, call rates rise up.

(j) When Govt. securities mature and are encashed by the public, supply of call loans increases and call rates fall.

(k) Cyclical mass import payments reduce liquidity in the money market and hence call rates decreases.

Measures adopted from time to time for stabilizing call rates:

The volatility of call rate can be controlled to achieve a state of stability by the following ways:

(i) Intervention by the DFHI as market maker.

(ii) Channelization of more funds by the RBI through the DFHI, & STCI.

(iii) Channelization of more funds by certain financial institutions with surplus funds.

(iv) Introduction of new money market instruments and allowing large number of participants in call money market.

(v) Use of call loans for normal banking operation.

Inter Bank Market for deposits of maturity beyond 14 days is referred to as Inter-Bank Term Money. Term Money is accepted by the institutions at a discounted value, and on the due date payment will be made equal to the face value.

Participants: Financial Institutions permitted by RBI such as IFCI, SIDBI, NABARD, EXIM Bank, DFHI (Discount & Finance House of India), etc.

Tenor of Instrument: 3 Months to 6 Months.

Rate of Interest: Negotiated between the Participants.

Other Feature: Investment in Term Money is unsecured and the limits are fixed by RBI.

Reasons for Development of Term Money Market:

(a) Declining spread in lending operations

(b) Volatility in the call money market with accompanying risks in running mismatches.

(c) Growing desire for fixed interest rate borrowing by corporates.

(d) Fuller integration between forex and money markets.

Inter Bank Participation Certificate:

Inter Bank Participation Certificates (IBPC) are short-term instruments to even out the short term liquidity within the Banking system particularly when there are imbalances affecting the maturity mix of assets in Banking Book.

Objective: To provide a degree of flexibility in the credit-portfolio of Banks. It can be issued by Scheduled Commercial Bank and can be subscribed by any Commercial Bank.

Types: There are two types of participation certificates-

Aspect	Without Risk to Lender	With Risk to Lender
Period	Period not exceeding 90 Days	91 Days to 180 Days
Disclosure	Issuing Bank: Disclose as Liability under Borrowing from Banks. participating Bank: Advances to Bank	Issuing Bank: Reduce from Advances Outstanding. Participating Bank: Under Advances

Other Features:

(a) Interest rate on IBPC is freely determined in the market, i.e. negotiable.

(b) Certificates are neither transferable nor prematurely redeemable by the Issuing Bank.

(c) Issuing Bank can secure funds against advances without actually diluting its asset-mix.

2.2.2 Treasury Bills

Treasury bills are short-term instruments issued by the Reserve Bank on behalf of the government to tide over short-term liquidity shortfalls. This instrument is used by the government to raise short-term funds to bridge seasonal or temporary gaps between its receipts (revenue and capital) and expenditure. They form the most important segment of the money market not only in India but all over the world as well.

T-bills are repaid at par on maturity. The difference between the amount paid by the tenderer at the time

of purchase (which is less than the face value) and the amount received on maturity represents the interest amount on T-bills and is known as the discount. Tax deducted at source (TDS) is not applicable on T-bills.

Features of T-bills:

- ❖ They are negotiable securities.
- ❖ They are highly liquid as they are of shorter tenure and there is a possibility of inter-bank repos in them.
- ❖ There is an absence of default risk.
- ❖ They have an assured yield, low transaction cost, and are eligible for inclusion in the securities for SLR purposes.
- ❖ They are not issued in scrip form. The purchases and sales are effected through the Subsidiary General Ledger (SGL) account.
- ❖ At present, there are 91-day, 182-day, and 364-day T-bills in vogue. The 91-day T-bills are auctioned by the RBI every Friday and the 364-day T-bills every alternate Wednesday, i.e., the Wednesday preceding the reporting Friday.
- ❖ Treasury bills are available for a minimum amount of ₹25,000 and in multiiples thereof.

Issue Price: Treasury Bills are issued at a discount and redeemed at face value.

Auction Method: 91 days T-Bills are auctioned under uniform price auction method whereas 364 days T-Bills are auctioned on the basis of multiple price auction method.

Investors: Banks, Primary Dealers, State Governments, Provident Funds, Financial Institutions, Insurance Companies, NBFCs, FIIs (as per prescribed norms), NRIs & OCBs can invest in T-Bills.

Yield in T-Bill : Yield = $\frac{F-P}{P} \times \frac{365}{M} \times 100$ P

Where, F = Face Value of T-Bill

P = Purchase Price or Issue Price

M = Maturity Period

Types of Treasury Bills available in the Money Market:

There are three categories of T-bills:

On-tap Bills:

On-tap Bills, as the name suggests, could be bought from the Reserve Bank at any time at an interest yield of 4.66 per cent. They were discontinued from April 1, 1997, as they had lost much of their relevance.

Ad hoc Bills:

Ad hoc Bills were introduced in 1955. It was decided between the Reserve bank and the Govt. of India that the government could maintain with the Reserve Bank a cash balance of not less than ₹50 crore on Fridays and ₹4 crore on other days, free of obligation to pay interest thereon, and whenever the balance fell below the minimum, the govt. account would be replenished by the creation of ad hoc bills in favour of the Reserve Bank. Ad hoc 91-day T-bills were created to replenish the government's cash balances with the Reserve Bank. But,

they were discontinued from April 1, 1997.

Auctioned T-bills:

Auctioned T-bills, the most active money market instrument, were first introduced in April 1992. The Reserve Bank receives bids in an auction from various participants and issues the bills subject to some cut-off limits. Thus, the yield of this instrument is market determined. These bills are neither rated nor can they be rediscounted with the Reserve Bank. At present, the Reserve Bank issues T-bills of three maturities: 91-days, 182-days, and 364-days.

14 Day T-bills:

With the 91-day tap T-bills being discontinued, a scheme for the sale of 14-day intermediate T-bills was introduced effective from April 1, 1997 and 14-day auction T-bills was introduced from May 20, 1997 to facilitate the cash management requirements of various segments of the economy and emergence of a more comprehensive yield curve.

These represent Government's contribution to the money market. They are intended to Mop-up short- term funds in the money market, and hence act as an important tool in monetary policies. The Treasury Bills are generally sold through auctions, the discount rate determined by the market.

Features	Advantages
1. Sold for a minimum amount of ₹1,00,000 and in multiples of ₹ 1,00,000.	1. Manage cash position with minimum balances.
2. Issued only in book entry form.	2. Increased liquidity.
3. Not transferable.	3. Minimal risk of Capital Loss.
4. Re-discounted at 50 basis points higher than the discount rate and on re-discounting are extinguished.	4. Market related yield.
	5. Eligible for repo transactions.
	6. Classifiable as SLR security.

91 Day T-bills: These are again two types- ordinary and ad-hoc. Ordinary treasury bills are issued to public and RBI for enabling central government to meet temporary requirements of funds. Treasury bills were used to be sold to public at a fixed rate throughout the week to commercial banks and the public. They are repaid at par on maturity. The difference between the amount paid by the tenderer at the time of purchase and the amount received on maturity represents the interest earned and also known by discount.

182 Day T-bills: These bill were reintroduced in 1999 to enable the development a market for government securities. The Reserve Bank of India introduced 182 days Treasury Bills, as an active money market instrument with flexible interest rates. Its features include:

(a) These Treasury Bills are issued following the procedure of auction.

(b) 182 Days Treasury Bills are issued in minimum denomination of ₹1 lakh and in multiples thereof.

However, in the secondary market, the deals are presently transacted for a minimum amount of ₹25 lakhs and thereafter in multiples of ₹10 lakhs.

(c) RBI does not purchase 182 Days Treasury Bills before maturity but the investors (holders of these Treasury Bills) can sell them in the secondary market.

(d) These bills are also eligible for Repo Transactions.

364 Day T-bills: In April 1992, the 364-day T-bills were introduced to replace the 182-day T-bills. These T-bills are issued to generate market loans. The auction of these bills is done fortnightly, as their issue has become a regular activity by the Central Government. These bills offer short-term investment offer for investors and created good response. RBI offers these bills periodically and auctions by giving an opportunity to Banks and other financial institutions. The Government of India has now floated Treasury bills of varying maturities upto 364 days on an auction basis which are identical to that for the 182 days treasury bills. They contain varying period of maturities help the short term investors to decide on the period of investment of their funds.

Treasury Bill Market in India:

The market that deals in treasury bills is the Treasury bill market. These bills are short-term (91 days) liability of the Government of India. Treasury bills are claims against the central government and so they do not require any grading or further endorsement or acceptance.

The important qualities of treasury bills are: the high liquidity, absence of risk of default, ready availability, assured yield, low transactions costs, eligibility for inclusion in statutory liquidity ratio and negligible capital depreciation.

Treasury bills are of two kinds: adhoc and ordinary.

Adhoc means for the particular end. Thus, adhoc treasury bills are issued for providing investment funds to the State Government, semi government departments. The ordinary treasury bills are sold to the public or banks which are freely marketable.

Treasury bills are bought and sold on discounted basis. This price is lower than its face value by the amount of interest due on the bill. When the RBI buys back bills, it is said to rediscount them i.e., discount them all over again for their remaining maturity period.

India has experimented with 91-day treasury bills. In November 1986 the Government of India introduced a new 182 day treasury bills. The 182-day Treasury bill is eligible for borrowing Standby refinance facility. In April 1992, 364-day Treasury bill is introduced.

The Treasury bill market in India is highly undeveloped. The RBI is the sole dealer in them. There are no dealers outside the RBI who may be willing to buy and sell of such bills, because treasury bill discount rate in India had been kept at very low level of 4.6% p.a. Regarding the size of the treasury bill market outstanding amount at the end of each year may be highlighted. The amount increased from ₹ 2,518 crore in 1970-71 to ₹ 56,517 crore in 1996-97. The size of the Treasury bill market has been narrow for different reasons. First, RBI freely rediscounts treasury bills. As a result banks take this opportunity frequently. Secondly, the difference between Treasury bill rate and deposit rates has been wide enough to discourage people from investing in treasury bills. Thirdly, RBI policy of requiring banks to invest in treasury bills to fulfill SLR obligation and stable condition in the government securities market make treasury bills an unattractive investment.

Many observers think that treasury bills being short term instruments should be used to meet only the temporary needs of the government. They should not be used as a cheap source of long-term funds and RBI should not extend help in this regard.

2.2.3 Commercial Bills

The working capital requirement of business firms is provided by banks through cash-credits / overdraft and purchase/discounting of commercial bills.

Commercial bill is a short term, negotiable, and self-liquidating instrument with low risk. It enhances the liability to make payment in a fixed date when goods are bought on credit. The bill of exchange is a written unconditional order signed by the drawer requiring the party to whom it is addressed to pay on demand or at a future time, a definite sum of money to the payee. It is negotiable and self-liquidating money market instrument which evidences the liquidity to make a payment on a fixed date when goods are bought on credit. It is an asset with a high degree of liquidity and a low degree of risk. Such bills of exchange are discounted by the commercial banks to lend credit to the bill holder or to borrow from the Central bank. The bank pays an amount equal to face value of the bill minus collection charges and interest on the amount for the remaining maturity period. The writer of the bill (debtor) is drawer, who accept the bill is drawee and who gets the amount of bill is payee.

Types of Commercial Bills:

Commercial bills can be inland bills or foreign bills.

Inland bills must:

(1) be drawn or made in India and must be payable in India: or

(2) drawn upon any person resident in India.

Foreign bills, on the other hand, are:

(1) drawn outside India and may be payable and by a party outside India, or may be payable in India or

drawn on a party in India or

(2) it may be drawn in India and made payable outside India. A related classification of bills is export bills and import bills. While export bills are drawn by exporters in any country outside India, import bills are drawn on importers in India by exporters abroad.

Purpose:

Commercial Bills may be used for financing the movement and storage of goods between countries, before export (pre-export credit), and also within the country. In India, the use of bill of exchange appears to be in vogue for financing agricultural operations, cottage and small scale industries, and other commercial and trade transactions.

The indigenous variety of bill of exchange for financing the movement of agricultural produce, called a 'hundi' has a long tradition of use in India. It is vogue among indigenous bankers for raising money or remitting funds or to finance inland trade. A hundi is an important instrument in India; so indigenous bankers dominate the bill market. However, with reforms in the financial system and lack of availability of funds from private sources, the role of indigenous bankers is declining.

Reasons for under-developed market in India:

The bills are a very important device for providing short-term finance to trade and industry. But bill market in India is under developed. Market for bills is limited, because:

(i) The practice of borrowing against commercial bills is not well-established. Only exception is the market created by the RBI for accommodation. The share of bill finance in the total bank credit is quite small. It has varied 8% to 22% during 1950-51 to 1995-96.

(ii) The supply of bills is neither continuous nor substantial. In fact borrowing against bills, purchasing on credit is not a common practice in India. The culture of depending on bills is yet to develop.

(iii) Commercial banks do not make much use of bills of exchange while granting loans.

(iv) Lack of uniformity throughout the country and high stamp duty are also responsible.

(v) In India, the cash credits and overdrafts are cheaper & safer than bill financing.

(vi) In India, the number of branches of commercial banks has increased tremendously. This development must have facilitated the direct discounting & collection of bills by branches of banks and it slow downed the development of the bill market.

(vii) Bill markets were mostly established for the purpose of financing foreign trade. But in India, the volume of foreign trade has remained very small.

(viii) The absence of specialized credit information agencies.

Initiative to develop bill market:

With a view to eliminating movement of papers and facilitating multiple rediscounting, RBI introduced an innovation instruments known as 'Derivative Usance Promissory Notes (DUPN)' backed by such eligible commercial bills for required amounts and usance period (up to 90 days). Government has exempted stamp duty on derivative usance promissory notes. This has simplified and streamlined bill rediscounting by institutions and made the commercial bill an active instrument in the secondary money market. This instrument, being a negotiable instrument issued by banks, is a sound investment for rediscounting institutions. Moreover rediscounting institutions can further discount the bills any time prior to the date of maturity. Since some banks were using the facility of rediscounting commercial bills and derivative usance promissory notes of as short a period as one day, the Reserve Bank restricted such rediscounting to a minimum period of 15 days. The eligibility criteria prescribed by the Reserve Bank for rediscounting commercial bills are that the bill should arise out of a genuine commercial transaction showing evidence of sale of goods and the maturity date of the bill should to exceed 90 days from the date of rediscounting.

So far, the RBI has introduced two bill market schemes – one in 1952 another in 1970, to develop the bill market. According to scheme of 1952, advances were granted to scheduled banks by way of demand loans on the security of 'usance bills.' The 1952 scheme aimed at encouraging commercial banks accepts more bills. It did not try to promote creation of bills as such. Naturally the scheme did not make much of an impact.

RBI introduced the new bill in November 1970 with the object of promoting a genuine bill market in India. According to scheme of 1970, all commercial banks are eligible for offering bills of exchange to the RBI for rediscount. It has been modified from time to time. Its main features are: (a) The bills covered under the scheme must be genuine trade bills – with evidence of sale or dispatch of goods. (b) The RBI rediscounts these bills. So it is often called 'Bills Rediscounting Scheme'. (c) All commercial banks will be eligible to offer bill of exchange. (d) The bill should bear at least two good signatures, one of which scheduled bank. From May, 1990, more than 25 institutions (Like LIC, GIC, UTI, ICICI etc) have been permitted to rediscount commercial bills. DFHI was set up to develop money market including the market for commercial bills. Remission of stamp duty on bills of exchange was also permitted by the government.

Important changes have taken place in the structure of bill finance. From around 1991-1992, the supply of foreign bills has exceeded that of inland bills and the amount of bills discounted has exceeded that of bills purchased in respect of inland bills.

2.2.4 Commercial Paper

Commercial paper (CP) is an unsecured short-term promissory note, negotiable and transferable by endorsement and delivery with a fixed maturity period. It is issued only by large, well known, creditworthy companies and is typically unsecured, issued at a discount on face value, and redeemable at its face value. The aim of its issuance is to provide liquidity or finance company's investments, e.g. in inventory and accounts receivable.

The major issuers of commercial papers are financial institutions, such as finance companies, bank holding companies, insurance companies. Financial companies tend to use CPs as a regular source of finance. Non-financial companies tend to issue CPs on an irregular basis to meet special financing needs.

Commercial paper was introduced in 1990 to enable highly rated investors to diversify their sources, of their short-term borrowings and also to produce an additional instrument in the market. Guidelines issued by RBI are applicable to issuers of CP like Non-banking finance companies and non- financial companies. Primary dealers are also permitted to issue commercial paper. CP should be issued for a minimum period of 7 days to a maximum period of one year. No grace period is allowed for payment and if the maturity date falls on a holiday it should be paid on the previous working day. Commercial paper can be permitted to be issued by the companies whose tangible net worth is not less than ` 4 crore. And fund based working capital limits are not less than Rs4 crore. It must be a listed company on a stock exchange and should have given credit rating by CRISIL.

The difference between the initial investment and the maturity value, constitutes the income of the investor.

e.g. A Company issues a Commercial Paper each having maturity value of ₹ 5,00,000. The Investor pays (say) ₹4,82,850 at the time of his investment. On maturity, the Company pays ₹ 5,00,000 (maturity value or redemption value) to the Investor. The Commercial Paper is said to be issued at a discount of ₹5,00,000 - ₹4,82,850 = ₹17,150. This constitutes the interest income of the investor.

Commercial Paper- Salient Features

- CPs are issued by companies in the form of usance promissory note, redeemable at par to the holder on maturity.
- The tangible net worth of the issuing company should be not less than Rs4 crores.
- Working capital (fund based) limit of the company should not be less than Rs4 crores.
- Credit rating should be at least equivalent of P-2 of CRISIL/P2/PP2/D2 or higher from any approved rating agencies and should be more than 2 months old on the date of issue of CP.
- Corporates are allowed to issue CP up to 100% of their fund based working capital limits.
- It is issued at a discount to face value.
- CP attracts stamp duty.
- CP can be issued for maturities between 15 days and less than one year from the date of issue.
- CP may be issued in the multiples of Rs5 lakh.

- ❖ No prior approval of RBI is needed to issue CP and underwriting the issue is not mandatory.
- ❖ All expenses (such as dealers' fees, rating agency fee and charges for provision of stand-by facilities) for issue of CP are to be borne by the issuing company.

Commercial Paper- Advantages

(1) Simplicity: Documentation involved in issue of Commercial Paper is simple and minimum.

(2) Cash Flow Management: The Issuer Company can issue Commercial Paper with suitable maturity periods (not exceeding one year), tailored to match the cash flows of the Company.

(3) Alternative for bank finance: A well-rated Company can diversify its sources of finance from Banks, to short-term money markets, at relatively cheaper cost.

(4) Returns to Investors: CP's provide investors with higher returns than the banking system.

(5) Incentive for financial strength: Companies which raise funds through CP become well-known in the financial world for their strengths. They are placed in a more favourable position for raising long-term capital also. So, there is an inbuilt incentive for Companies to remain financially strong.

RBI Guidelines in respect of issue of "Commercial Paper"

(1) Eligible issuers of CP: (a) Corporates, (b) Primary Dealers (PDs), and (c) All-India Financial Institutions (FIs) that have been permitted to raise short-term resources under the umbrella limit fixed by RBI are eligible to issue CP.

- ❖ **All-India Financial Institutions** (FIs) mean those financial institutions which have been permitted specifically by the RBI to raise resources by way of Term Money, Term Deposits, Certificates of Deposit, Commercial Paper and Inter-Corporate Deposits, where applicable, within umbrella limit.
- ❖ **Primary Dealer** means a non-banking financial company which holds a valid letter of authorization as a Primary Dealer issued by the RBI.

(2) Investors for CP: CP may be issued to and held by —

(a) Individuals

(b) Banking Companies

(c) Other Corporate Bodies registered/ incorporated in India

(d) Unincorporated Bodies

(e) Non-Resident Indians (NRIs) and

(f) Foreign Institutional Investors (FIIs)

(3) Maturity: CP can be issued for maturities between a minimum of 7 days and a maximum up to one year from the date of issue. Maturity date of CP should not go beyond the date up to which the credit rating of the issuer is valid.

(4) Denominations: CP can be issued in denominations of `5 lakh or multiples thereof. Amount invested by a single investor should not be less than `5 lakh (face value).

(5) Basic issue conditions for a Corporate: A Corporate would be eligible to issue CP provided –

(a) Its tangible Net Worth, as per the latest audited Balance Sheet, is not less than ₹4 Crores,

(b) It has been sanctioned working capital limit by bank/s or all-India financial institution/s,

(c) Its borrowal account is classified as a Standard Asset by the financing bank(s)/ institution(s).

(6) Credit Rating: All eligible participants shall obtain the credit rating for issuance of CP from –

(a) Credit Rating Information Services of India Ltd. (CRISIL) or

(b) Investment Information and Credit Rating Agency of India Ltd. (ICRA) or

(c) Credit Analysis and Research Ltd. (CARE) or

(d) FITCH Ratings India Pvt. Ltd. or

(e) Such other credit rating agencies as may be specified by the RBI.

Minimum credit rating shall be P-2 of CRISIL or such equivalent rating by other agencies. At the time of issuance of CP, the rating so obtained should be current and not fallen due for review.

(7) Amount of CP

(a) The aggregate amount of CP from an issuer shall be the least of—

- ❖ limit as approved by its Board of Directors, or
- ❖ quantum indicated by the Credit Rating Agency for the specified rating.

(b) An FI can issue CP within the overall umbrella limit fixed by the RBI, i.e. issue of CP together with Term Money Borrowings (TMB), Term Deposits (TD), Certificates of Deposit (CD) and Inter-

Corporate Deposits (ICD) should not exceed 100% of its Net Owned Funds, as per the latest audited Balance Sheet.

(8) Time Period: The total amount of CP proposed to be issued should be raised within two weeks from the date on which the issue is open for subscription. Every CP issue shall be reported to the RBI, through the Issuing and Paying Agent (IPA) within three days from the date of completion of the issue.

(9) Mode of Issuance: The following points are relevant –

(a) CP can be issued either in the form of a promissory note (physical form) or in a dematerialized form (demat form) through any of the depositories approved by and registered with SEBI.

(b) CP will be issued at a discount to face value as may be determined by the issuer.

(c) No issuer shall have the issue of CP underwritten or co-accepted.

(10) Issuing and Paying Agent (IPA): Only a Scheduled Bank can act as an IPA for issuance of CP. Every issuer must appoint an IPA for issuance of CP.

(11) Procedure for Issuance: Issuer should disclose its financial position to the potential investors. After the exchange of deal confirmation, issuing Company shall issue physical certificates to the investor or arrange for crediting the CP to the investor's account with a depository. Investors shall be given a copy of IPA certificate to the effect that the issuer has a valid agreement with the IPA and documents are in order.

(12) Mode of Investment in CP: The investor in CP shall pay the discounted value (issue price) of the CP by means of a crossed account payee cheque to the account of the issuer through IPA.

(13) Repayment of CP on maturity: On maturity of CP, when the CP is held in physical form, the holder of the CP shall present the instrument for payment to the issuer through the IPA. When the CP is held in demat form, the holder of the CP will get it redeemed through the depository and receive payment from the IPA.

(14) Defaults in CP market: In order to monitor defaults in redemption of CP, Scheduled Banks which act as IPAs, shall immediately report, on occurrence, full particulars of defaults in repayment of CPs to the RBI.

(15) Stand-by Facility: Non-bank entities including corporates may provide unconditional and irrevocable guarantee for credit enhancement for CP issue provided –

(a) the issuer fulfils the eligibility criteria prescribed for issuance of CP,

(b) the guarantor has a credit rating at least one notch higher than the issuer given by an approved credit rating agency, and

(c) the offer document for CP properly discloses the net worth of the guarantor Company, the names of the Companies to which the guarantor has issued similar guarantees, the extent of the guarantees offered by the guarantor Company, and the conditions under which the guarantee will be invoked.

2.2.5 Certificate of Deposits

Certificates of Deposit (CDs) - introduced since June 1989 - are unsecured, negotiable, short-term instruments in bearer form, issued by a commercial bank(s)/Financial Institution(s) at discount to face value at market rates, with maturity ranging from 15 days to one year.

Being securities in the form of promissory notes, transfer of title is easy, by endorsement and delivery. Further, they are governed by the Negotiable Instruments Act. As these certificates are the liabilities of commercial banks/ financial institutions, they make sound investments.

DFHI trades in these instruments in the secondary market. The market for these instruments is not very deep, but quite often CDs are available in the secondary market. DFHI is always willing to buy these instruments thereby lending liquidity to the market.

CD is a negotiable money market instrument and issued in dematerialized form or as a Usance Promissory Note, for funds deposited at a Bank or other eligible Financial Institution for a specified time period.

Salient features:

- ❖ CDs can be issued to individuals, corporations, companies, trusts, funds, associates, etc.
- ❖ NRIs can subscribe to CDs on non-repatriable basis.
- ❖ CDs attract stamp duty as applicable to negotiable instruments.
- ❖ Banks have to maintain SLR and CRR on the issue price of CDs. No ceiling on the amount to be issued.
- ❖ The minimum issue size of CDs is Rs1 lakh and in multiples thereof.
- ❖ CDs are transferable by endorsement and delivery.
- ❖ The minimum lock-in-period for CDs is 15 days.

CDs are issued by Banks, when the deposit growth is sluggish and credit demand is high and a tightening trend in call rate is evident. CDs are generally considered high cost liabilities and banks have recourse to them only under tight liquidity conditions.

Eligible issuers of CD: CDs can be issued by - (a) Scheduled Commercial Banks excluding Regional Rural Banks (RRBs) and Local Area Banks (LABs), and (b) select All-India Financial Institutions that have been permitted by RBI to raise short-term resources within the umbrella limit fixed by RBI.

Investors in CD: CDs can be issued to Individuals, Corporations, Companies, Trusts, Funds, Associations, etc. Non-Resident Indians (NRIs) may subscribe to CDs, but only on non-repatriable basis which should be clearly stated on the Certificate. Such CDs cannot be endorsed to another NRI in the secondary market.

Maturity Period: The maturity period shall be as under —

(a) CD's issued by Banks: Not less than 7 days and not more than 1 year from the date of issue.

(b) CD's issued by FIs: Not less than 1 year and not exceeding 3 years from the date of issue.

Repayment: There will be no grace period for repayment of CDs. If the maturity date happens to be holiday, the issuing bank should make payment on the immediate preceding working day. Banks/FIs may, therefore, so fix the period of deposit that the maturity date does not coincide with a holiday to avoid loss of discount/ interest rate.

Minimum Size of Issue and Denominations: Minimum amount of a CD should be Rs1 lakh i.e., the minimum deposit that could be accepted from a single subscriber should not be less than `1 lakh and in the multiples of Rs1 lakh thereafter.

Aggregate Amount of CD: Banks have the freedom to issue CDs depending on their requirements. An FI may issue CDs within the overall umbrella limit fixed by RBI, i.e., issue of CD together with Term Money Borrowings (TMB), Term Deposits (TD), Commercial Papers (CP) and Inter-Corporate Deposits should not exceed 100% of its Net Owned Funds, as per the latest audited Balance Sheet.

Format of CDs: Issuance of CD will attract stamp duty. Banks / FIs should issue CDs only in the dematerialized form. However, under the Depositories Act, 1996, investors have the option to seek certificate in physical form.

Such requests should be reported to RBI separately.

Transferability: Physical CDs are freely transferable by endorsement and delivery. Dematted CDs can be transferred as per the procedure applicable to other demat securities. There is no lock-in period for CDs.

Security Aspect: Physical CDs are freely transferable by endorsement and delivery. So, the CD certificates should be printed on good quality security paper and necessary precautions are taken to guard against tampering with the document. The CD should be signed by two or more authorized signatories.

Duplicate Certificates: In case of the loss of physical CD certificates, duplicate certificates can be issued after compliance of the following: (a) Public Notice in at least one local newspaper, (b) Lapse of a reasonable period (say 15 days) from the date of the notice in newspaper, and (c) Execution of an indemnity bond by the investor to the satisfaction of the issuer of CD. Duplicate Certificate should state so and should only be issued in physical form. No fresh stamping is required.

Discount/ Coupon Rate: CDs may be issued at a discount on face value. Banks/FIs are also allowed to issue CDs on floating rate basis provided the methodology of compiling the floating rate is objective, transparent and market based. The issuing bank/FI is free to determine the discount/coupon rate. The interest rate on floating rate CDs would have to be reset periodically in accordance with a pre- determined formula that indicates the spread over a transparent benchmark.

Reserve Requirements: Banks have to maintain the appropriate reserve requirements, i.e., Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR), on the issue price of the CDs.

Loans/Buy-backs: Banks / FIs cannot grant loans against CDs. They cannot buy-back their own CDs before maturity.

Payment of Certificate: Since CDs are transferable, the physical certificate may be presented for payment by the last holder and payment shall be made only by a crossed cheque. The holders of dematted CDs will claim the payment through their respective depository participants (DPs) and give transfer/delivery instructions to transfer the demat security. The holder should also communicate to the issuer by a letter/fax enclosing the copy of the delivery instruction it had given to its DP and intimate the place at which the payment is requested to facilitate prompt payment.

2.2.6 Collateralised borrowing and Lending Obligation (CBLO)

The Clearing Corporation of India Ltd. (CCIL) launched a new product- CBLO- on January 20, 2003 to provide liquidity to non-bank entities hit by restrictions on access to the call money market. CBLO is a discounted instrument available in electronic book entry for the maturity period ranging from 1 day to 19 days. The maturity period can range up to one year as per the RBI guidelines. The CBLO is an obligation by the borrower to return the borrowed money, at a specified future date, and an authority to the lender to receive money lent, at a specified future date with an option/privilege to transfer the authority to another person for value received. The eligible securities are central government securities including treasury bills with a residual maturity period of more than six months. There are no restrictions on the minimum denomination as well as lock-in period for its secondary market transactions.

Banks, Cooperative Banks, Financial Institutions, Insurance Companies, Mutual funds, and Primary Dealers who are members of negotiated dealing system (NDS) are allowed to participate in CBLO transactions. Non-members like corporate, NBFCs, pension/provident funds, and trusts are allowed to participate by obtaining associate membership to CBLO segment.

There are two types of markets available for trading in CBLO: the normal market and the auction market. Under normal market, there are two settlement cycles available to members, viz, T+0 and T+1. Normal market is available for all members including associate members. Auction market is available only to NDS members for overnight borrowing and settlement on T+0 basis. Associate members are not allowed to borrow and lend funds in auction market. Currently, the minimum order lot for auction market is fixed at ₹50 lakh and in multiples of ₹5 lakh thereof. The minimum order lot for normal market is fixed at ₹5 lakh and in multiples of ₹5 lakh thereof. Order lot refers to the minimum amount that is required to constitute a successful trade in the auction and normal market.

As the repayment of borrowing under CBLO segment is guaranteed by CCIL, all CBLO members have to maintain

collateral or cash margin with the CCIL as cover. CCIL sets up borrowing limits for the members against their deposits of government securities as collaterals.

In order to increase the depth and liquidity in the CBLO market, CCIL is planning to introduce an internet- based trading platform for its CBLO product which would provide access to corporate and other non- banking entities to the institutional lending and borrowing segment of money markets.

2.3 REPO AND REVERSE REPO

Repo or ready forward contact is an instrument for borrowing funds by selling securities with an agreement to repurchase the said securities on a mutually agreed future date at an agreed price which includes interest for the funds borrowed. Repo rate is the return earned on a repo transaction expressed as an annual interest rate.

The reverse of the repo transaction is called 'reverse repo' which is lending of funds against buying of securities with an agreement to resell the said securities on a mutually agreed future date at an agreed price which includes interest for the funds lent.

It can be seen from the definition above that there are two legs to the same transaction in a repo/ reverse repo. The duration between the two legs is called the 'repo period'. Predominantly, repos are undertaken on overnight basis, i.e., for one day period. Settlement of repo transactions happens along with the outright trades in government securities.

Features of Repo:

(1) Banks and primary dealers are allowed to undertake both repo and reverse repo transactions.

(2) It is a collateralized short term lending and borrowing agreement.

(3) It serves as an outlet for deploying funds on short-term basis.

(4) The interest rates depend on the demand and supply of the short-term surplus/deficit amongst the interbank players.

(5) In addition to T-Bills all Central and State Government securities are eligible for repo.

(6) No sale of securities should be affected unless the securities are actually held by the seller in his own investment portfolio.

(7) Immediately on sale, the corresponding amount should be reduced from the investment account of the seller.

(8) The securities under repo should be marked to market on the balance sheet.

Participants: Buyer in a Repo is usually a Bank which requires approved securities in its investment portfolio to meet the Statutory Liquidity Ratio (SLR).

Types of Repo:

- **Overnight Repo:** When the term of the loan is for one day, it is known as an overnight repo. Most repos are overnight transactions, with the purchase and sale taking place one day and being reversed the next day.
- **Term Repo:** When the term of the loan is for more than one day it is called a term repo. Long-term repos which are as such can be extended for a month or more.
- **Open Repo:** Open repo simply has no end date. Usually, repos are for a fixed period of time, but open-ended deals are also possible.

Interest:

(a) Computation: Interest for the period of Repo is the difference between Sale Price and Purchase Price.

(b) Recognition: Interest should be recognized on a time-proportion basis, both in the books of the buyer and seller.

RBI Guidelines:

(a) Accounting for Repo / Reverse Repo transactions should reflect their legal form, viz., an outright purchase and outright sale.

(b) Thus securities sold under Repo would not be included in the Investment Account of the seller, instead, these would be included by the Buyer in its Investment Account.

(c) The buyer can consider the approved securities acquired under Reverse Repo Transactions for the purpose of SLR during the period of the Repo.

Sale Price of Securities: Sale of Securities should be recognized by the Seller at prevailing market rate comprising of accrued interest to date and the clean price. Repurchase of Securities by the Seller, would be at the above Market Rate plus Interest for the period of Repo.

Consider a situation where Bank X wants to raise funds from Bank Y for fifteen days at a repo rate of 9.00% p. a. The securities for this transaction is an 8% semi-annual coupon (Coupon date 25th April and 25th October) of face value ₹500 million which is presently trading at 98.2 for ₹100 face value. Hence the amount that Bank X will borrow from Bank Y = Ex-interest price of the security + accrued interest based on 30/360 day count convention.

Ex-interest price = 98.2% of 500 million = ₹ 491 million

Add : Accrued interest for 25th October to 12th February i.e. 107 days = 8% of 500 x 107/360 = ₹ 11.89 million

∴ Amount borrowed = 491 + 11.89 = ₹ 502.89 million

Repo interest based on actual 360 days count convention = 9% of 502.89 x 15/365 = ₹1.86 million Amount to be repaid by Bank X after 15 days = 502.89 + 1.86 = ₹ 504.75 million.

This includes accrued interest for 107 + 15 i.e. 122 days = 11.89/107 x 122 = ₹13.56 million Ex-interest re-purchase price = 504.75 – 13.56 = ₹ 491.19 million.

2.4 PROMISSORY NOTES

A written, dated and signed two-party instrument containing an unconditional promise by the maker to pay a definite sum of money to a payee on demand or at a specified future date.

Essentials of a Promissory Note:

- ❖ It must be in writing.
- ❖ It must not be a bank note or a currency note.
- ❖ It must contain unconditional undertaking.
- ❖ It must be signed by the maker.
- ❖ The undertaking must be to pay on demand or at a fixed or determinable future time.
- ❖ The undertaking must be to pay a certain sum of money.
- ❖ The money must be payable to a certain person or to his order, or to the bearer of the instrument.

"Derivative Usance Promissory Notes" (DUPN)

Derivative Usance Promissory Notes is an innovative instrument issued by the RBI to eliminate movement of papers and facilitating easy multiple rediscounting.

Features:

(a) Backing: DUPN is backed by up to 90 days Usance Commercial bills.

(b) Stamp Duty: Government has exempted stamp duty on DUPN to simplify and stream line the instrument and to make it an active instrument in the secondary market.

(c) Period: The minimum rediscounting period is 15 days.

(d) Transfer: DUPN is transferable by endorsement and delivery and hence is liquid.

(e) Regulated Entry: RBI has widened the entry regulation for bill market by selectively allowing, besides banks and PDs, Co-operative Banks, Mutual Funds and financial institutions.

(f) Rediscounting: DFHI trades in these instruments by rediscounting DUPNs drawn by commercial banks. DUPNs which are sold to investors may also be purchased by DFHI.

2.5 GOVERNMENT SECURITIES AND BONDS

Government Securities

A Government security is a tradable instrument issued by the Central Government or the State Governments. It acknowledges the Government's debt obligation. Such securities are short term (usually called treasury bills, with original maturities of less than one year) or long term (usually called Government bonds or dated securities with original maturity of one year or more). In India, the Central Government issues both, treasury bills and bonds or dated securities while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDLs). Government securities carry practically no risk of default and, hence, are called risk-free gilt-edged instruments. Government of India also issues savings instruments (Savings Bonds, National Saving Certificates (NSCs), etc.) or special securities (oil bonds, Food Corporation of India bonds, fertilizer bonds, power bonds, etc.). They are, usually not fully tradable and are, therefore, not eligible to be SLR securities.

Government Securities are mostly interest bearing dated securities issued by RBI on behalf of the Government of India. GOI uses these funds to meet its expenditure commitments. These securities are generally fixed maturity and fixed coupon securities carrying semi-annual coupon. Since the date of maturity is specified in the securities, these are known as dated Government Securities, e.g. 8.24% GOI 2018 is a Central Government Security maturing in 2018, which carries a coupon of 8.24% payable half yearly.

Features of Government Securities

1) Issued at face value.
2) No default risk as the securities carry sovereign guarantee.
3) Ample liquidity as the investor can sell the security in the secondary market.
4) Interest payment on a half yearly basis on face value.
5) No tax deducted at source.
6) Can be held in demat form.
7) Rate of interest and tenor of the security is fixed at the time of issuance and is not subject to change (unless intrinsic to the security like FRBs - Floating Rate Bonds).
8) Redeemed at face value on maturity.
9) Maturity ranges from 91 days-30 years.
10) Government Securities qualify as SLR (Statutory Liquidity Ratio) investments, unless otherwise stated.

Government Securities- Types

1) Treasury Bills.
2) Government Bonds or Dated Securities.
3) State Development Loans.
4) Any other security created and issued by the Government in such form and for such of the purposes of the Act as may be prescribed.

Government Securities- Issuers

Government securities are issued by the following agencies:

1) Central Government.

2) State Government.

3) Semi-government Authorities.

4) Public sector undertakings.

Government Securities- Issue Procedure

Government securities are issued through auctions conducted by the RBI. Auctions are conducted on the electronic platform called the NDS – Auction platform. Commercial banks, scheduled urban co-operative banks, Primary Dealers, insurance companies and provident funds, who maintain funds account (current account) and securities accounts (SGL account) with RBI, are members of this electronic platform. All members of PDO-NDS can place their bids in the auction through this electronic platform. All non-NDS members including non-scheduled urban co-operative banks can participate in the primary auction through scheduled commercial banks or Primary Dealers. For this purpose, the urban co-operative banks need to open a securities account with a bank / Primary Dealer – such an account is called a Gilt Account. A Gilt Account is a dematerialized account maintained by a scheduled commercial bank or Primary Dealer for its constituent (e.g., a non-scheduled urban co-operative bank).

The RBI, in consultation with the Government of India, issues an indicative half-yearly auction calendar which contains information about the amount of borrowing, the tenor of security and the likely period during which auctions will be held. A Notification and a Press Communique giving exact particulars of the securities, viz., name, amount, type of issue and procedure of auction are issued by the Government of India about a week prior to the actual date of auction. RBI places the notification and a Press Release on its website (www.rbi.org.in) and also issues an advertisement in leading English and Hindi newspapers. Information about auctions is also available with the select branches of public and private sector banks and the Primary Dealers.

Risks involved in holding Government securities:

Government securities are generally referred to as risk free instruments as sovereigns are not expected to default on their payments. However, as is the case with any financial instrument, there are risks associated with holding the Government securities. Hence, it is important to identify and understand such risks and take appropriate measures for mitigation of the same. The following are the major risks associated with holding Government securities.

(i) **Market risk** – Market risk arises out of adverse movement of prices of the securities that are held by an investor due to changes in interest rates. This will result in booking losses on marking to market or realizing a loss if the securities are sold at the adverse prices. Small investors, to some extent, can mitigate market risk by holding the bonds till maturity so that they can realize the yield at which the securities were actually bought.

(ii) **Reinvestment risk** – Cash flows on a Government security includes fixed coupon every half year and repayment of principal at maturity. These cash flows need to be reinvested whenever they are paid. Hence there is a risk that the investor may not be able to reinvest these proceeds at profitable rates due to changes in interest rate scenario.

(iii) **Liquidity risk** – Liquidity risk refers to the inability of an investor to liquidate (sell) his holdings due to non availability of buyers for the security, i.e., no trading activity in that particular security. Usually, when a liquid bond of fixed maturity is bought, its tenor gets reduced due to time decay. For example, a 10 year security will become 8 year security after 2 years due to which it may become illiquid. Due to illiquidity, the investor may need to sell at adverse prices in case of urgent funds requirement. However, in such cases, eligible investors can participate in market repo and borrow the money against the collateral of the securities.

Technique for Mitigating the Risks:

Risk Mitigation

Holding securities till maturity could be a strategy through which one could avoid market risk. Rebalancing the portfolio wherein the securities are sold once they become short term and new securities of longer tenor are

bought could be followed to manage the portfolio risk. However, rebalancing involves transaction and other costs and hence needs to be used judiciously. Market risk and reinvestment risk could also be managed through Asset Liability Management (ALM) by matching the cash flows with liabilities. ALM could also be undertaken by matching the duration of the cash flows.

Advanced risk management techniques involve use of derivatives like Interest Rate Swaps (IRS) through which the nature of cash flows could be altered. However, these are complex instruments requiring advanced level of expertise for proper understanding. Adequate caution, therefore, need to be observed for undertaking the derivatives transactions and such transactions should be undertaken only after having complete understanding of the associated risks and complexities.

Dated Government Securities

Dated Government securities are long term securities and carry a fixed or floating coupon (interest rate) which is paid on the face value, payable at fixed time periods (usually half-yearly). The tenor of dated securities can be up to 30 years.

The Public Debt Office (PDO) of the Reserve Bank of India acts as the registry / depository of Government securities and deals with the issue, interest payment and repayment of principal at maturity. Most of the dated securities are fixed coupon securities.

The nomenclature of a typical dated fixed coupon Government security contains the following features - coupon, name of the issuer, maturity and face value. For example, 7.49% GS 2017 would mean:

Coupon	:	7.49% paid on face value
Name of Issuer	:	Government of India
Date of Issue	:	April 16, 2007
Maturity	:	April 16, 2017
Coupon Payment Dates	:	Half-yearly (October 16 and April 16) every year
Minimum Amount of issue/sale	:	₹10,000

In case there are two securities with the same coupon and are maturing in the same year, then one of the securities will have the month attached as suffix in the nomenclature. For example, 6.05% GS 2019 FEB, would mean that Government security having coupon 6.05 % that mature in February 2019 along with the other security with the same coupon, namely, 6.05% 2019 which is maturing in June 2019.

If the coupon payment date falls on a Sunday or a holiday, the coupon payment is made on the next working day. However, if the maturity date falls on a Sunday or a holiday, the redemption proceeds are paid on the previous working day itself.

The dated Government securities market in India has two segments:

1) **Primary Market**: The Primary Market consists of the issuers of the securities, viz., Central and Sate Government and buyers include Commercial Banks, Primary Dealers, Financial Institutions, Insurance Companies & Co-operative Banks. RBI also has a scheme of non-competitive bidding for small investors.

2) **Secondary Market**: The Secondary Market includes Commercial banks, Financial Institutions, Insurance Companies, Provident Funds, Trusts, Mutual Funds, Primary Dealers and Reserve Bank of India. Even Corporates and Individuals can invest in Government Securities. The eligibility criteria are specified in the relative Government notification.

Auctions: Auctions for government securities are either multiple- price auctions or uniform price auction - either yield based or price based.

Yield Based: In this type of auction, RBI announces the issue size or notified amount and the tenor of the paper to be auctioned. The bidders submit bids in term of the yield at which they are ready to buy the security. If the Bid is more than the cut-off yield then its rejected otherwise it is accepted.

Price Based: In this type of auction, RBI announces the issue size or notified amount and the tenor of the paper to

be auctioned, as well as the coupon rate. The bidders submit bids in terms of the price. This method of auction is normally used in case of reissue of existing Government Securities. Bids at price lower than the cut off price are rejected and bids higher than the cut off price are accepted. Price Based auction leads to a better price discovery then the Yield based auction.

Underwriting in Auction: One day prior to the auction, bids are received from the Primary Dealers (PD) indicating the amount they are willing to underwrite and the fee expected. The auction committee of RBI then examines the bid on the basis of the market condition and takes a decision on the amount to be underwritten and the fee to be paid. In case of devolvement, the bids put in by the PD's are set off against the amount underwritten while deciding the amount of devolvement and in case the auction is fully subscribed, the PD need not subscribe to the issue unless they have bid for it.

G-Secs, State Development Loans & T-Bills are regularly sold by RBI through periodic public auctions. SBI DFHI Ltd. is a leading Primary Dealer in Government Securities. SBI DFHI Ltd gives investors an opportunity to buy G-Sec / SDLs / T-Bills at primary market auctions of RBI through its SBI DFHI Invest scheme. Investors may also invest in high yielding Government Securities through "SBI DFHI Trade" where "buy and sell price" and a buy and sell facility for select liquid scrips in the secondary markets is offered.

Open Market Operations (OMOs)

OMOs are the market operations conducted by the Reserve Bank of India by way of sale/ purchase of Government securities to/ from the market with an objective to adjust the rupee liquidity conditions in the market on a durable basis. When the RBI feels there is excess liquidity in the market, it resorts to sale of securities thereby sucking out the rupee liquidity. Similarly, when the liquidity conditions are tight, the RBI will buy securities from the market, thereby releasing liquidity into the market.

Buyback of Government securities

Buyback of Government securities is a process whereby the Government of India and State Governments buy back their existing securities from the holders. The objectives of buyback can be reduction of cost (by buying back high coupon securities), reduction in the number of outstanding securities and improving liquidity in the Government securities market (by buying back illiquid securities) and infusion of liquidity in the system. Governments make provisions in their budget for buying back of existing securities. Buyback can be done through an auction process or through the secondary market route, i.e., NDS/NDS-OM.

Liquidity Adjustment Facility (LAF)

LAF is a facility extended by the Reserve Bank of India to the scheduled commercial banks (excluding RRBs) and primary dealers to avail of liquidity in case of requirement or park excess funds with the RBI in case of excess liquidity on an overnight basis against the collateral of Government securities including State Government securities. Basically LAF enables liquidity management on a day to day basis. The operations of LAF are conducted by way of repurchase agreements with RBI being the counter-party to all the transactions. The interest rate in LAF is fixed by the RBI from time to time. Currently the rate of interest on repo under LAF (borrowing by the participants) is 6.25% and that of reverse repo (placing funds with RBI) is 5.25%. LAF is an important tool of monetary policy and enables RBI to transmit interest rate signals to the market.

Government Securities- Form in which held

The Public Debt Office (PDO) of the Reserve Bank of India, Mumbai acts as the registry and central depository for the Government securities. Government securities may be held by investors either as physical stock or in dematerialized form. From May 20, 2002, it is mandatory for all the RBI regulated entities to hold and transact in Government securities only in dematerialized (SGL) form. Accordingly, UCBs are required to hold all Government securities in demat form.

(a) Physical form: Government securities may be held in the form of stock certificates. A stock certificate is registered in the books of PDO. Ownership in stock certificates cannot be transferred by way of endorsement and delivery. They are transferred by executing a transfer form as the ownership and transfer details are recorded in the books of PDO. The transfer of a stock certificate is final and valid only when the same is registered in the books of PDO.

(b) Demat form: Holding government securities in the dematerialized or scripless form is the safest and the most

convenient alternative as it eliminates the problems relating to custody, viz., loss of security. Besides, transfers and servicing are electronic and hassle free. The holders can maintain their securities in dematerialsed form in either of the two ways:

(i) SGL Account: Reserve Bank of India offers Subsidiary General Ledger Account (SGL) facility to select entities who can maintain their securities in SGL accounts maintained with the Public Debt Offices of the Reserve Bank of India.

(ii) Gilt Account: As the eligibility to open and maintain an SGL account with the RBI is restricted, an investor has the option of opening a Gilt Account with a bank or a Primary Dealer which is eligible to open a Constituents' Subsidiary General Ledger Account (CSGL) with the RBI. Under this arrangement, the bank or the Primary Dealer, as a custodian of the Gilt Account holders, would maintain the holdings of its constituents in a CSGL account (which is also known as SGL II account) with the RBI. The servicing of securities held in the Gilt Accounts is done electronically, facilitating hassle free trading and maintenance of the securities. Receipt of maturity proceeds and periodic interest is also faster as the proceeds are credited to the current account of the custodian bank / PD with the RBI and the custodian (CSGL account holder) immediately passes on the credit to the Gilt Account Holders (GAH).

Investors also have the option of holding Government securities in a dematerialized account with a depository (NSDL / CDSL, etc.). This facilitates trading of Government securities on the stock exchanges.

Government securities- Trading Mechanism

There is an active secondary market in Government securities. The securities can be bought / sold in the secondary market either (i) Over the Counter (OTC) or (ii) through the Negotiated Dealing System (NDS) or (iii) the Negotiated Dealing System-Order Matching (NDS-OM).

(i) Over the Counter (OTC)/ Telephone Market: In this market, a participant, who wants to buy or sell a government security, may contact a bank / Primary Dealer / financial institution either directly or through a broker registered with SEBI and negotiate for a certain amount of a particular security at a certain price. Such negotiations are usually done on telephone and a deal may be struck if both counterparties agree on the amount and rate. In the case of a buyer, like an urban co- operative bank wishing to buy a security, the bank's dealer (who is authorized by the bank to undertake transactions in Government Securities) may get in touch with other market participants over telephone and obtain quotes. Should a deal be struck, the bank should record the details of the trade in a deal slip and send a trade confirmation to the counterparty. The dealer must exercise due diligence with regard to the price quoted by verifying with available sources. All trades undertaken in OTC market are reported on the secondary market module of the NDS.

(ii) Negotiated Dealing System: The Negotiated Dealing System (NDS) for electronic dealing and reporting of transactions in government securities was introduced in February 2002. It facilitates the members to submit electronically, bids or applications for primary issuance of Government Securities when auctions are conducted. NDS also provides an interface to the Securities Settlement System (SSS) of the Public Debt Office, RBI, Mumbai thereby facilitating settlement of transactions in Government Securities (both outright and repos) conducted in the secondary market. Membership to the NDS is restricted to members holding SGL and/or Current Account with the RBI, Mumbai.

In August, 2005, RBI introduced an anonymous screen based order matching module on NDS, called NDS-OM. This is an order driven electronic system, where the participants can trade anonymously by placing their orders on the system or accepting the orders already placed by other participants. NDS-OM is operated by the Clearing Corporation of India Ltd. (CCIL) on behalf of the RBI. Direct access to the NDS-OM system is currently available only to select financial institutions like Commercial Banks, Primary Dealers, Insurance Companies, Mutual Funds, etc. Other participants can access this system through their custodians, i.e., with whom they maintain Gilt Accounts. The custodians place the orders on behalf of their customers like the urban co- operative banks. The advantages of NDS-OM are price transparency and better price discovery.

Gilt Account holders have been given indirect access to NDS through custodian institutions. A member

(who has the direct access) can report on the NDS the transaction of a Gilt Account holder in government securities. Similarly, Gilt Account holders have also been given indirect access to NDS-OM through the custodians. However, currently two gilt account holders of the same custodian are not permitted to undertake repo transactions between themselves.

(iii) Stock Exchanges: Facilities are also available for trading in Government securities on stock exchanges (NSE, BSE) which cater to the needs of retail investors.

Government Securities market- Major Players

Major players in the Government securities market include commercial banks and primary dealers besides institutional investors like insurance companies. Primary Dealers play an important role as market makers in Government securities market. Other participants include co-operative banks, regional rural banks, mutual funds, provident and pension funds. Foreign Institutional Investors (FIIs) are allowed to participate in the Government securities market within the quantitative limits prescribed from time to time. Corporates also buy/ sell the government securities to manage their overall portfolio risk.

3 CAPITAL MARKETS

3.1 CAPITAL MARKET

Capital market is a market for equity shares and long-term debt. In this market, the capital funds comprising of both equity and debt are issued and traded. This also includes private placement sources of debt and equity as well as organized markets like stock exchanges. Capital market includes financial instruments with more than one year maturity. It is defined as a market in which money is provided for periods longer than a year, as the raising of short-term funds takes place on other markets (e.g., the money market). The capital market is characterized by a large variety of financial instruments: equity and preference shares, fully convertible debentures (FCDs), non-convertible debentures (NCDs) and partly convertible debentures (PCDs) currently dominate the capital market, however new instruments are being introduced such as debentures bundled with warrants, participating preference shares, zero-coupon bonds, secured premium notes, etc.

Functions of a Capital Market:

The capital market is an important constituent of the financial system. The functions of an efficient capital market are as follows:

- Mobilises long-term savings to finance long-term investments.
- Provide risk capital in the form of equity or quasi-equity to entrepreneurs.
- Encourage broader ownership of productive assets.
- Provide liquidity with a mechanism enabling the investor to sell financial assets.
- Lower the costs of transactions and information.
- Improve the efficiency of capital allocation through a competitive pricing mechanism.
- Enable quick valuation of financial instruments-both equity and debt.
- Provide insurance against market risk or price risk through derivative trading and default risk through investment protection fund.
- Provide operational efficiency through:
  - Simplified transaction procedures;
  - Lowering settlement timings; and
  - Lowering transaction costs.
- Develop integration among:
  - Real and financial sectors;

- Equity and debt instruments;
- Long-term and short-term funds;
- Long-term and short-term interest costs;
- Private and government sectors; and
- Domestic and external funds.

- Direct the flow of funds into efficient channels through investment, disinvestment, and reinvestment.
- Enable wider participation by enhancing the width of the market by encouraging participation through networking institutions and associating individuals.

Constituents of Capital Market-

The following are the constituents of capital market:

- Investment Trust- Financial Institutions which collects savings from public and invest that amount in industrial securities. Example- Tata Investment Trust Pvt Ltd.
- Specalised Financial Institutions- These type of financial institutions provides long term finance to industries. Example- Industrial Financial Corporation of India (IFCI) Ltd.
- Insurance Company- Insurance companies collect premium from policy holders and invest the amount in different industrial securities. Example- Life Insurance Corporation of India (LICI).
- Securities Market- Securities is a broader term which encompasses shares, debentures, bonds etc. The market where securities transactions are held is known as securities market. Securities market can be further classified into primary or new issue market and secondary or share market.

Classification of Capital Market:

3.2 PRIMARY AND SECONDARY MARKETS AND ITS INSTRUMENTS

Primary Market:

The primary market is a market for new issues. Hence it is also known as new issue market. This refers to the long-term flow of funds from the surplus sector to the government and corporate sector through primary issues and to banks and non-bank financial intermediaries through secondary issues. Funds are mobilised in the primary market through prospectus, rights issues, and private placement.

Types of Issues or Methods of rising funds in Primary Market:

Public Issue	Rights Issue	Bonus Issue	Private Placement	Bought out deals	Depository Receipts
Initial Public offering (IPO)- This is the offer of sale of securities of an unlisted company for the first time.	If a company issues share in the market to raise additional capital, the existing members are given the first preference to apply for new shares in proportion to their existing share holdings. This is known as right issue mentioned in Sec 62(1) of Companies Act 2013.	Bonus Issues are made by the company when it has huge amount of accumulated reserves and wants to capitalize the reserves. Bonus shares are issued on fully paid up shares only, to the existing shareholders free of cost. Sec 63 of Companies Act states this.	1) Private Placement (Unlisted Companies)- It is direct sale of securities to some specified individuals or financial institutions. 2) Preferential Issue- allotment of shares to selected persons 3) Qualified Institutions Placement (for Listed Companies)- allotment of securities to qualified institutional buyers.	When the new issued shares of an unlisted company is bought t large by n investor or by small investors in group it is known as the bought out deal.	Issue of negotiable equity instruments by Indian companies for rising capital from the international capital market. Example- ADRs, GDRs.
Follow-on Public Offering (FPO)-This is the offer of sale of securities by listed company					

Participants in the Primary Market:

- Merchant Bankers
- Bankers to an Issue
- Registrar to an Issue
- Underwriters to the Issue
- Debenture Trustees
- Investment Banks
- Depositories
- Portfolio Managers
- Custodians

Procedure of selling securities:

- Direct Sale
- Through Broker
- Through Underwriter
- Through intermediary financial institutions

Secondary Market:

The secondary market is a market in which existing securities are resold or traded. This market is also known as the stock market. It is a market where buying, selling of those securities which have been granted the stock exchange quotation takes place. In India, the secondary market consists of recognized stock exchanges operating under rules, by-laws and regulations duly approved by the government.

Bombay Stock Exchange (BSE) was established in 1875, it is the oldest stock exchange in Indi. Subsequently

other stock exchanges like in Ahmedabad, Kolkata were established. At present, in India there are 23 stock exchanges, out of which 19 are regional stock exchanges and rest 4 are- BSE, National Stock Exchange (NSE), Over the Counter Exchange of India (OTECI) and Interconnected Stock Exchange of India (ICSE).

Functions of the Secondary Market:

- To contribute to economic growth through allocation of funds to the most efficient channel through the process of disinvestment to reinvestment.
- To facilitate liquidity and marketability of the outstanding equity and debt instruments.
- To ensure a measure of safety and fair dealing to protect investors' interests.
- To induce companies to improve performance since the market price at the stock exchanges reflects the performance and this market price is readily available to investors.
- To provide instant valuation of securities caused by changes in the internal environment.

The Indian secondary market can be segregated into two:

1. **The secondary market for corporate and financial intermediaries**. The participants in this market are registered brokers - both individuals and institutions. They operate through a network of sub- brokers and sub-dealers and are connected through an electronic networking system.
2. **The secondary market for government securities and public sector undertaking bonds**. The trading in government securities is basically divided into the short-term money market instruments such as treasury bills and long-term government bonds ranging in maturity from 5 to 20 years.

The main participants in the secondary market for government securities are entities like primary dealers, banks, financial institutions, and mutual funds.

Difference between Primary and Secondary Market:

Basis	Primary Market	Secondary Market
Nature of Securities	It deals with new securities, i.e. securities which were not previously available, and are offered for the first time to the investors.	It is a market for old securities which have been issued already and granted stock exchange quotation.
Sale/Purchase	Securities are acquired from issuing companies themselves.	Securities are purchased and sold by the investors without any involvement of the companies.
Nature of Financing	It provides funds to new enterprises & also for expansion and diversification of the existing one and its contribution to company financing is direct.	It does not supply additional funds to company since the company is not involved in transaction.
Liquidity	It does not lend any liquidity to the securities.	The secondary market provides facilities for the continuous purchase and sale of securities, thus lending liquidity and marketability to the securities.
Organisational Difference	It is not rooted in any particular spot and has no geographical existence. It has neither any tangible form nor any administrative organisational set up.	Secondary markets have physical existence in the form of stock exchange and are located in a particular geographical area having an administrative organisation.
Requirement	Helps in creating new capital.	Helps in maintenance of existing capital.
Volume	Volume of transaction is low as compared to secondary market.	Volume of transaction is high as compared to primary market.

Similarities between Primary and Secondary Market:

1. **Listing**: One aspect of inseparable connection between them is that the securities issued in the primary market are invariably listed on a secondary market (recognized stock exchange) for dealings in them. The practice of listing of new issues on the stock market is of immense utility to the potential investors who can be sure that when they receive an allotment of new issues, they will subsequently be able to dispose them off any time in the Stock Exchange.
2. **Control**: The stock exchanges exercise considerable control over the organization of new issues. The new issues of securities which seek stock quotation/listing have to comply with statutory rules as well as regulations framed by the stock exchanges. If the new issues do not conform to the prescribed stipulations, the stock exchanges would refuse listing facilities to them. This requirement obviously enables the stock exchange to exercise considerable control over the new issues market and is indicative of close relationship between the two.
3. **Mutual Interdependence**: The markets for new and old securities are, economically, an integral part of a single market- the capital market. Their mutual interdependence from the economic point of view has two dimensions. When value of share increases, the volume of new issue increases and vice-versa. The functioning of secondary market has direct influence on the activities of new issue market. If stock market performs well then it also inspires the new issue market.

Basic Capital Market Instruments:

A. Equity Securities	B. Debt Securities
Equity Shares	Debentures
Preference Shares	Bonds

These two types of securities are traded in separate markets in stock exchanges. They are briefly outlined as under:

A. Equity Securities:

(i) Equity Shares: Equity Share represents the form of fractional ownership in which a Shareholder, as a fractional owner, undertakes the maximum entrepreneurial risk associated with a business venture. A company may issue such shares with differential rights as to voting, payment of dividend, etc.

(ii) Preferred Stock/Preference Shares: Preference Shareholders are entitled to a fixed dividend or dividend calculated at a fixed rate to be paid regularly before dividend is paid in respect of Equity Share. They also enjoy priority over the Equity Shareholders in payment of surplus. There are various types of Preference Shares viz. Cumulative and Non-Cumulative Preference Shares, Convertible and Non-Convertible Preference Shares, Participating and Non-Participating Preference Shares, Redeemable and Non-Redeemable Preference Shares etc.

B. Debt Securities:

(i) Debentures: A Debenture is a document issued by a company under its common seal acknowledging a debt to the holders. It is a debt security issued by a company which offers to pay interest for the money it borrows for a certain period. Debenture holders are treated as creditors of the company. As per SEBI guidelines, no public or rights issue of convertible or non-convertible debentures shall be made unless a credit rating from a credit rating agency has been obtained and disclosed in the offer document. Where the public or rights issue of debt security of issue greater than ₹100 crore or its equivalent are issued, two ratings from two different agencies shall be obtained. In case of issue of debentures with maturity of more than 18 months, the issuer shall also appoint a debenture trustee. The names of the debenture trustees must be stated in the offer document. A company issuing debentures with a maturity of more than 18 months should create a debenture redemption reserve.

Some of the prominent types of debentures are: a) Based on Security- Secured and Unsecured Debentures, b) Based on Registration of the instrument- Registered and Bearer Debentures, c) Based

on Convertibility- Fully Convertible Debentures, Zero Interest Fully Convertible Debentures, Partly Convertible Debentures, Non-convertible Debentures, Non- convertible Debentures with Detachable Warrants, Optionally Convertible Debentures , d) Based on Redemption- Redeemable Debentures and Irredeemable Debentures, e) Other Types- Participating Debentures and Debentures with a Floating Rate of Interest.

(ii) Bonds: A bond is a negotiable certificate which entitles the holder for repayment of the principal sum plus interest. They are debt securities issued by a company, or Government agency whereby a bond investor lends money to the Issuer, and in exchange, the issuer promises to repay the loan amount on a specified maturity date. Features and the various types of Bonds have been discussed in study note 2.4 (Financial Market Instruments) already.

Other financial instruments that are traded in market:

1. **Secured Premium Notes (SPNs):**

   (a) Meaning: Secured Premium Notes are debt instruments issued along with a detachable warrant and is redeemable after a specified period (4 to 7Years).

   (b) Option to Convert: SPNs carry an option to convert into equity shares, i.e. the detachable warrant can be converted into Equity Shares.

   (c) Period for Conversion: Conversion of detachable warrant into equity shares should be done within a time period specified by the company.

2. **American Depository receipts (ADRs):** American Depository Receipts popularly known as ADRs were introduced in the American market in 1927. ADRs are negotiable instruments, denominated in dollars, and issued by the US Depository Bank. A non-US company that seeks to list in the US, deposits its shares with a bank and receives a receipt which enables the company to issue ADRs. These ADRs serve as stock certificates and are used interchangeably with ADRs which represent ownership of deposited shares. Among the Indian ADRs listed on the US markets, are Infy (the Infosys Technologies ADR), WIT (the Wipro ADR), Rdy(the Dr Reddy's Lab ADR), and Say (the Satyam Computer ADR). ADRs are listed in New York Stock Exchange (NYSE) and NASDAQ (National association of Securities Dealers automated quotations). Issue of ADR offers access to both institutional and retail market in US.

3. **Global Depository Receipts (GDRs):** GDRs are equity instruments issued abroad by authorized overseas corporate bodies against the shares/bonds of Indian companies held with nominated domestic custodian banks. An Indian company intending to issue GDRs will issue the corresponding number of shares to an overseas depository bank. GDRs are freely transferable outside India and dividend in respect of the share represented by the GDR is paid in Indian rupees only. They are listed and traded on a foreign stock exchange. GDRs are fungible, which means the holder of GDRs can instruct the depository to convert them into underlying shares and sell them in the domestic market. GDRs re traded on Over the Counter (OTC) basis. Most of the Indian companies have their GDR issues listed on the Luxembourg Stock Exchange and the London Stock Exchange. Indian GDRs are primarily sold to institutional investors and the major demand is in the UK, US, Hongkong, Singapore, France and Switzerland. There is no such difference between ADR and GDR from legal point of view.

4. **Derivatives:** A derivative is a financial instrument, whose value depends on the values of basic underlying variable. In the sense, derivatives is a financial instrument that offers return based on the return of some other underlying asset, i.e., the return is *derived* from another instrument. Derivatives are a mechanism to hedge market, interest rate, and exchange rate risks. Derivatives market is divided into two types- Financial market and Commodity market. Types of Financial Derivatives include: Forwards, Futures, Options, Warrants, Swaps, Swaptions. There are three types of traders in the derivatives market: Hedger, Speculator and arbitrageur.

5. **External Commercial Borrowings** (ECBs): ECBs re used by Indian companies to rise funds from foreign sources like bank, export credit agencies, foreign collaborators, foreign share holders etc. Indian companies rise funds through ECBs mainly for financing infrastructure projects.

6. **Foreign Currency Convertible Bonds** (FCCBs)- Foreign Currency Convertible Bonds (FCCBs) re issued by

Indian companies but are subscribed by non-residents. These bonds have a specified fixed interest rate and can be converted into ordinary shares at price preferred, either in part or in full.

3.3 OPTIONALLY CONVERTIBLE DEBENTURES AND DEEP DISCOUNT BONDS

Optionally Convertible Debentures (OCDs):

These are the debentures that include the option to get converted into equity. The investor has the option to either convert these debentures into shares at price decided by the issuer/agreed upon at the time of issue.

Advantages of OCD:

(a) Issuer

- **Quasi-Equity:** Dependence of Financial Institutions is reduced because of the inherent option for conversion (i.e. since these are converted into equity, they need not be repaid in the near future.)
- **High Equity Line:** It is possible to maintain Equity Price at a high level, by issuing odd-lot shares consequent to conversion of the debentures, and hence lower floating stocks.
- **Dispensing Ownership:** Optionally Convertible Debentures enable to achieve wide dispersal of equity ownership in small lots pursuant to conversion.
- **Marketability:** The marketability of the issue will become significantly easier, and issue expenses can be expected to come down with the amounts raised becoming more.

(b) Investor

- **Assured Interest:** Investor gets assured interest during gestation periods of the project, and starts receiving dividends once the project is functional and they choose to convert their debentures. Thereby, it brings down the effective gestation period at the investor's end to zero.
- **Secured Investment:** The investment is secured against the assets of the Company, as against Company deposits which are unsecured.
- **Capital Gains:** There is a possibility of Capital Gains associated with conversion, which compensates for the lower interest rate on debentures.

(b) Government

- Debentures helped in mobilizing significant resources from the public and help in spreading the Equity Investors, thereby reducing the pressure on Financial Institutions (which are managed by Government) for their resources.
- By making suitable tax amendments, benefits are extended to promote these instruments, to :-
  (i) safeguard the funds of Financial Institutions,
  (ii) encouraging more equity participation, which will also require a higher compliance under Corporate Laws, whereby organisations can be monitored more effectively.

Disadvantages of OCD:

(a) Issuer

- Ability to match the projected cash inflows and outflows by altering the terms and timing of conversion is diluted, and becomes a function of performance of the Company and hence its market price.
- The Company is not assured of hefty share premiums based on its past performance and an assured conversion of debentures.
- Planning of capital structure becomes difficult in view of the uncertainties associated with conversion.

(b) Investor: There are many regulatory requirements to be complied with for conversion.

Deep Discount Bonds (DDBs)

Deep Discount Bond is a form of zero-interest bonds, which are sold at a discounted value (i.e. below par) and on maturity, the face value is paid to investors. A bond that sells at a significant discount from par value and has

no coupon rate or lower coupon rate than the prevailing rates of fixed-income securities with a similar risk profile. They are designed to meet the long term funds requirements of the issuer and investors who are not looking for immediate return and can be sold with a long maturity of 25-30 years at a deep discount on the face value of debentures.

Example: Bond of a face value of ₹1Lakh may be issued for ₹5,000 for a maturity value of ₹1,00,000 after 20 Years.

Periodic Redemption: Issuing Company may also give options for redemption at periodical intervals such as 5 Years or 10 Years etc.

No Interest: There is no interest payment during the lock-in / holding period.

Market Trade: These bonds can be traded in the market. Hence, the investor can also sell the bonds in stock market and realize the difference between initial investment and market price.

3.4 ROLLING SETTLEMENT, CLEARING HOUSE OPERATIONS

Rolling Settlement:

Settlement refers to the process in which traders who have made purchases make payments while those who have sold shares, deliver them. The exchange ensures that buyers receive their shares and the sellers receive payment for the same. The process of settlement is managed by stock exchanges through Clearing Houses.

SEBI introduced a new settlement cycle known as the 'rolling settlement cycle'.

A Rolling Settlement is the settlement cycle of the Stock Exchange, where all trades outstanding at the end of the day have to be settled, i.e. the buyer has to make payments for securities purchased and seller has to deliver the securities sold.

Example: In case of T + 1 Settlement, transactions entered on a day should be settled within the next working day. In case of T + 2 Settlement, settlement should be made within two working days from the date of transaction. In India the rolling settlement process was Trading Day (T) +5 but now it is T+3, made effective from April 2002 i.e all transactions to be settled within 3 working days.

Process of Rolling Settlement

1.	Trading	Day of Trading	T
2.	Clearing	Confirmation of Custodial Delivery Generation	T+1 T+1
3.	Settlement	Securities & Funds Pay in Securities & Funds Pay-out	T+2 T+2

Benefits of Rolling Settlement:

(a) In rolling settlements, payments are quicker than in weekly settlements. Thus, investors benefit from increased liquidity,

(b) It keeps cash and forward markets separate,

(c) Rolling settlements provide for a higher degree of safety,

(d) From an investor's perspective, rolling settlement reduces delays. This also reduces the tendency for price trends to get exaggerated. Hence, investors not only get a better price but can also act at their leisure.

International Scenario: Internationally, most developed countries follow the rolling settlement system. For instance, both the US and the UK follow a rolling settlement (T+3) system, while the German stock exchanges follow a (T+2) settlement cycle.

Clearing House Operations (CHO):

Clearing House is a body either owned by or independently associated with an Exchange and charged with the function of ensuring the financial integrity of each trade. Orders entered into by Members are cleared by means of the Clearing House. Clearing Houses provide a range of services related to the Guarantee of Contracts, Clearance and Settlement of Trades, and Management of risk for their Members and Associated Exchanges.

Role of CHO:

(a) It ensures adherence to the system and procedures for smooth trading.

(b) It minimizes credit risks by being a counter party to all trades.

(c) It involves daily accounting of all gains or losses.

(d) It ensures delivery of payment for assets on the maturity dates for all outstanding contracts.

(e) It monitors the maintenance of speculation margins.

Working of CHO:

(a) The clearinghouse acts as the medium of transaction between the buyer and the seller. Every contract between a buyer and a seller is substituted by two contracts so that clearing house becomes the buyer to every seller and the seller to every buyer.

Example: In a transaction where P sells futures to R, R is replaced by the clearing house and the risk taken by P becomes insignificant. Similarly, the credit risk of R is taken over by the clearing house; thus, the credit risk is now assumed by the clearing house rather than by individuals.

(b) The credit risk of the clearing house is minimized by collecting Margins depending upon the volatility of the instrument and adjusted everyday for price movements.

3.5 DEMATERIALISATION, REMATERIALISATION

Dematerialisation:

Dematerialisation is the process of converting physical certificates to an equivalent number of securities in electronic form and credited into the investor's account with his / her Depository Participant. In simple terms, it refers to paperless trading. Dematerialised shares do not have any distinctive numbers. These shares are fungible, which means that all the holdings of a particular security will be identical and interchangeable.

Process of Dematerialisation:

In order to dematerialise physical securities one has to fill in a DRF (Demat Request Form) which is available with the DP and submit the same along with physical certificates that are to be dematerialised. Separate DRF has to be filled for each ISIN. The complete process of dematerialisation is outlined below:

- Surrender certificates for dematerialisation to your DP.
- DP intimates to the Depository regarding the request through the system.
- DP submits the certificates to the registrar of the Issuer Company.
- Registrar confirms the dematerialisation request from depository.
- After dematerialising the certificates, Registrar updates accounts and informs depository regarding completion of dematerialisation.
- Depository updates its accounts and informs the DP.
- DP updates the demat account of the investor.

Scheme:

(a) The Shareholder does not have a certificate to claim ownership of shares in a company. His interest is reflected by way of entries in the books of depository (an intermediary agent who maintains the share accounts of the shareholders)

(b) This is similar to bank account, where the account holder, and not the banker, is the true owner of the

money value of sum indicated against his name in the bank's books.

Depository Participant:

(a) A Depository is an organization, which holds securities of investors in electronic form at the request of the investor through a registered Depository Participant. Example: National Depository Securities Limited (NSDL), Central Depository Securities Limited (CSDL).

(b) It also provides services related to transactions in securities.

(c) A Depository Participant (DP) is an agent of the depository registered with SEBI through which it interfaces with the Investor.

Advantages: The advantages of holding securities in demat form are —

Investor's View Point	Issuer-Company's View Point
(a) It is speedier and avoids delay in transfers.	(a) Savings in printing certificates, postage expenses.
(b) Avoids lot of paper work.	(b) Stamp duty waiver.
(c) Saves on stamp duty.	(c) Easy monitoring of buying/selling patterns in securities, increasing ability to spot takeover attempts and attempts at price rigging.

Rematerialisation:

Rematerialisation is the process by which a Client/ Shareholder can get his electronic holdings converted into physical certificates.

Features of Rematerialisation:

(a) A client can rematerialise his dematerialised holdings at any point of time.

(b) The rematerialisation process is completed within 30 days.

(c) The securities sent for rematerialisation cannot be traded.

Process of Rematerialisation:

The process is called rematerialisation. If one wishes to get back his securities in the physical form he has to fill in the RRF (Remat Request Form) and request his DP for rematerialisation of the balances in his securities account. The process of rematerialisation is outlined below:

- Make a request for rematerialisation.
- Depository participant intimates depository regarding the request through the system.
- Depository confirms rematerialisation request to the registrar.
- Registrar updates accounts and prints certificates.
- Depository updates accounts and downloads details to depository participant.
- Registrar dispatches certificates to investor.

3.6 DEPOSITORY SYSTEM

A depository is an organisation which holds securities (like shares, debentures, bonds, government securities, mutual fund units etc.) of investors in electronic form at the request of the investors through a registered Depository Participant. It also provides services related to transactions in securities. At present two Depositories viz. National Securities Depository Limited (NSDL) and Central Depository Services (India) Limited (CDSL) are registered with SEBI.

The increase in the volume of activity on stock exchanges with the advent of on-screen trading coupled with operational inefficiencies of the former settlement and clearing system led to the emergence of a new system called the depository system. The SEBI mandated compulsory trading and settlement of select securities in

dematerialized form.

Need for Setting-up a Depository in India:

The need was realized in the 1990s due to various reasons as under:

- A lot of time was consumed in the process of allotment and transfer of shares
- Increase in volume of transactions
- Large scale irregularities in the securities scam of 1992 exposed the limitations of the prevailing settlement system
- Problems associated with dealing in physical shares, such as
  - problems of theft, fake and/or forged transfers,
  - share transfer delays particularly due to signature mismatches; and
  - paper work involved in buying, selling, and transfer leading to costs of handling, storage, transportation, and other back office costs.

To overcome these problems, the Government of India, in 1996, enacted the Depositories Act, 1996 to start depository services in India.

Trading of securities held in Physical and Dematerialised form- Difference

Aspect	Trading of Physical Shares	Trading of Dematerialised Shares
Actual Delivery	Actual Delivery of Share to be exchanged.	No Actual Delivery of shares is needed.
Open Delivery	Open Delivery can be kept.	Not possible to keep Delivery Open.
Time	Processing Time is long.	Processing Time is less.
Stamp Charges	Stamp Charges @0.5% are levied for transfer.	No Stamp Charges are required for transfer.
Sales Transactions	For sales transaction, no charges other than brokerage are levied.	Sales transactions are also charged.
Registration	For buy transaction, document is to be sent to company for Registration.	No need to send the document to the company for Registration.

Depository Process:

There are four parties in a demat transaction: the customer, the depository participant (DP), the depository, and the share registrar and transfer agent (R&T). A Depository Participant (DP) is an agent of the depository through which it interfaces with the investor and provides depository services. Public financial institutions, scheduled commercial banks, foreign banks operating in India with the approval of the Reserve Bank of India, state financial corporations, custodians, stock-brokers, clearing corporations /clearing houses, NBFCs and Registrar to an Issue or Share Transfer Agent complying with the requirements prescribed by SEBI can be registered as DP. Banking services can be availed through a branch whereas depository services can be availed through a DP. The investor has to enter into an agreement with the DP after which he is issued a client account number or client ID number. PAN Card is now mandatory to operate a demat account.

To become a qualified Depository Participant, a SEBI registered DP shall fulfill the following:

- DP shall have net worth of ₹50 crore or more;
- DP shall be either a clearing bank or clearing member of any of the clearing corporations;
- DP shall have appropriate arrangements for receipt and remittance of money with a designated Authorised Dealer (AD) Category - I bank;
- DP shall demonstrate that it has systems and procedures to comply with the FATF Standards, Prevention of Money Laundering (PML) Act, Rules and SEBI circulars issued from time to time; and
- DP shall obtain prior approval of SEBI before commencing the activities relating to opening of accounts of QFI.

Merits and Demerits of Depository system of recording shares and trading in shares and securities:

(A) Advantages:

1) Immediate Transfer and Registration: In the depository environment, once the securities are credited to the investors account on payout, he becomes the legal owner of the securities, without any requirement to register with the Company's Registrar. Securities are held in a safe and convenient manner.

2) Short Settlement cycle: The exclusive demat segments follow rolling settlement cycle of T + 2, i.e. the settlement of trades will be on the 2nd working day from the trade day. This will enable faster turnover of stock, faster disbursement of non-cash corporate benefits like rights, bonus, etc. and also more liquidity with the investor.

3) Low Transaction Cost:

(a) No Stamp Duty: No stamp duty attached to any kind of securities in the depository. This waiver extends to Equity Shares, Debt Instruments and Units of Mutual Funds, thereby lowering the transaction cost / charges.

(b) Lower Operating Cost: Depository System provides the benefit of dealing in dematerialized securities and hence reduces the cost of back office cost of handling paper and also eliminates the risk of introducing the Broker.

4) Reporting: Depository System facilitates obtaining periodic status reports to investors on their holdings and transactions, leading to better controls.

5) Elimination of bad deliveries: In a depository environment, once holdings of an investor are dematerialized, the question of bad delivery does not arise, i.e. they cannot be held "under objection".

6) Elimination of Risks: The risk of theft of stocks, mutilation of certificates, loss of certificates during movements, etc. does not arise in case of dealing in Securities through Depository System.

7) Single Point Interface:

(a) Depository System eliminates the cumbersome procedure in connection with change of address or transmission of demat shares. Investors have to only inform their Depository Participant (DP) with all relevant documents and the required changes are effected in the database of all the companies, where the investor is a registered holder of securities.

(b) There is automatic credit into the demat account of shares, arising out of bonus / split / consolidation/ merger etc.

(c) There is ease in portfolio monitoring, since statement of account gives a consolidated position of investments in all instruments.

(B) Disadvantages:

1) System Failure: Input control, process control and output control apply equally to the dematerialization process as they do to any computerized environment. Unforeseen Errors and Frauds, on the part of the individuals entrusted with protecting data integrity, could lead to chaos and Heavy Financial Losses.

2) Additional record keeping: In built provisions for rematerialisation exist to take care of the needs of individuals who wish to hold securities in physical form. Companies will invariably need to maintain records on a continuous basis for securities held in physical form. Periodical reconciliation between DEMAT segment and physical segment becomes necessary.

3) Additional Costs: For transacting business, investors have to deal not only with brokers but also with Depository Participant which thus adding to the list of intermediaries. A onetime fee is levied by the Depository Participant which small investors consider to be an avoidable cost.

4) Fraud: Dematerialization is not a remedy for all ills. Unlawful transfers by individuals against whom insolvency proceedings are pending or transfers by attorney holders with specific or limited powers are possible as in any physical transaction.

3.7 INITIAL PUBLIC OFFER (IPO)/FOLLOW ON PUBLIC OFFER (FPO); BOOK BUILDING

Initial Public Offer (IPO):

An initial public offering (IPO) or stock market launch is a type of public offering where shares of stock in a company are sold to the general public, on a securities exchange, for the first time. Through this process, a private company transforms into a public company. It is an offering of either a fresh issue of securities or an offer for sale of existing securities, or both by an unlisted company for the first time to the public. Initial public offerings are used by companies to raise expansion capital, to possibly monetize the investments of early private investors, and to become publicly traded enterprises. A company selling shares is never required to repay the capital to its public investors. After the IPO, when shares trade freely in the open market, money passes between public investors. Although an IPO offers many advantages, there are also significant disadvantages. Chief among these are the costs associated with the process, and the requirement to disclose certain information that could prove helpful to competitors, or create difficulties with vendors. Details of the proposed offering are disclosed to potential purchasers in the form of a lengthy document known as a prospectus. Most companies undertaking an IPO do so with the assistance of an investment banking firm acting in the capacity of an underwriter. Underwriters provide a valuable service, which includes help with correctly assessing the value of shares (share price), and establishing a public market for shares (initial sale). Alternative methods such as the dutch auction have also been explored. In terms of size and public participation, the most notable example of this method is the Google IPO. China has recently emerged as a major IPO market, with several of the largest IPOs taking place in that country.

The SEBI has laid down eligibility norms for entities raising funds through an IPO and an FPO. The entry norms for making an IPO of equity shares or any other security which may be converted into or exchanged with equity shares at a later date are as follows:

- Entry Norm I- Profitability Route
- Entry Norm II- QIB Route
- Entry Norm III- Appraisal Route

However, the SEBI has exempted the following entities from entry norms:

- Private sector banks.
- Public sector banks.
- An infrastructure company whose project has been appraised by a PFI or IDFC or IL&FS or a bank which was earlier a PFI and not less than 5 per cent of the project cost is financed by any of these institutions.
- Rights issue by a listed company.

A company cannot make a public or rights issue of debt instruments unless it fulfills the following two conditions: credit rating of not less than investment grade is obtained from not less than two SEBI registered credit rating agencies and it should not be in the list of willful defaulters of the Reserve Bank. Moreover, it should not have defaulted payment of interest or repayment of principal, if any, for a period of more than six months.

The IPO process in India consists of the following steps:

- Appointment of merchant banker and other intermediaries
- Registration of offer document
- Marketing of the issue
- Post- issue activities

Follow On Public Offer (FPO):

A follow-on offering (often but incorrectly called secondary offering) is an offer of sale of securities by a listed company. A follow-on offering can be either of two types (or a mixture of both): dilutive and non-dilutive. A

secondary offering is an offering of securities by a shareholder of the company (as opposed to the company itself, which is a primary offering). A follow on offering is preceded by release of prospectus similar to IPO: a Follow-on Public Offer (FPO).

For example, Google's initial public offering (IPO) included both a primary offering (issuance of Google stock by Google) and a secondary offering (sale of Google stock held by shareholders, including the founders).

In the case of the dilutive offering, the company's board of directors agrees to increase the share float for the purpose of selling more equity in the company. This new inflow of cash might be used to pay off some debt or used for needed company expansion. When new shares are created and then sold by the company, the number of shares outstanding increases and this causes dilution of earnings on a per share basis. Usually the gain of cash inflow from the sale is strategic and is considered positive for the longer term goals of the company and its shareholders. Some owners of the stock however may not view the event as favorably over a more short term valuation horizon.

One example of a type of follow-on offering is an at-the-market offering (ATM offering), which is sometimes called a controlled equity distribution. In an ATM offering, exchange-listed companies incrementally sell newly issued shares into the secondary trading market through a designated broker- dealer at prevailing market prices. The issuing company is able to raise capital on an as-needed basis with the option to refrain from offering shares if unsatisfied with the available price on a particular day.

The non-dilutive type of follow-on offering is when privately held shares are offered for sale by company directors or other insiders (such as venture capitalists) who may be looking to diversify their holdings. Because no new shares are created, the offering is not dilutive to existing shareholders, but the proceeds from the sale do not benefit the company in any way. Usually however, the increase in available shares allows more institutions to take non-trivial positions in the company.

As with an IPO, the investment banks who are serving as underwriters of the follow-on offering will often be offered the use of a green shoe or over-allotment option by the selling company.

A non-dilutive offering is also called a secondary market offering. Follow on Public offering is different from initial public offering.

- ❖ IPO is made when company seeks to raise capital via public investment while FPO is subsequent public contribution.
- ❖ First issue of shares by the company is made through IPO when company first becoming a publicly traded company on a national exchange while Follow on Public Offering is the public issue of shares for an already listed company.

SEBI has introduced fast track issues (FTI) in order to enable well-established and compliant listed companies satisfying certain specific entry norms/conditions to raise equity through follow-on and rights issues. These norms reduce the process of issue and thereby the time period thus enabling issuers a quick access to primary capital market. Such companies can proceed with follow-on public offers (FPOs)/right issues by filing a copy of Red Herring Prospectus (RHP)/prospectus with the registrar of companies (RoC) or the letter of offer with designated stock exchange (SE), SEBI and stock exchanges. Moreover, such companies are not required to file draft offer document for SEBI comments and to stock exchanges as the relevant information is already in the public domain.

Book Building:

Book-building means a process by which a demand for the securities proposed to be issued by a body corporate is elicited and built up and the price for such securities is assessed for the determination of the quantum of such securities to be issued by means of notice/ circular / advertisement/ document or information memoranda or offer document. It is a mechanism where, during the period for which the book for the offer is open, the bids are collected from investors at various prices, which are within the price band specified by the issuer. The process is directed towards both the institutional as well as the retail investors. The issue price is determined after the bid closure based on the demand generated in the process.

The book-building system is part of Initial Public Offer (IPO) of Indian Capital Market. It was introduced by SEBI on recommendations of Mr. Y.H. Malegam in October 1995. It is most practical, fast and efficient management of Mega Issues. Book Building involves sale of securities to the public and the institutional bidders on the basis of predetermined price range.

- ❖ Book Building is a price discovery mechanism and is becoming increasingly popular as a method of issuing capital. The idea behind this process is to find a better price for the issue.

- ❖ The issue price is not determined in advance. Book Building is a process wherein the issue price of a security is determined by the demand and supply forces in the capital market.
- ❖ Book building is a process used for marketing a public offer of equity shares of a company and is a common practice in most developed countries.
- ❖ Book building is called so because it refers to the collection of bids from investors, which is based on an indicative price range. The issue price is fixed after the bid closing date. The various bids received from the investors are recorded in a book that is why the process is called Book Building.
- ❖ Unlike international markets, India has a large number of retail investors who actively participate in Initial Public Offer (IPOs) by companies. Internationally, the most active investors are the mutual funds and other institutional investors, hence the entire issue is book built. But in India, 25 per cent of the issue has to be offered to the general public. Here there are two options with the company.
- ❖ An issuer company may make an issue of securities to the public through a prospectus in the following manner :
- ➢ 100% of the net offer to the public through the book building process, or
- ➢ 75% of the net offer to the public through the book building process and 25% at the price determined through the book building.

Book Building Process:

1. The issuer company shall appoint an eligible Merchant Banker(s) as book runner(s) and their name(s) shall be mentioned in the draft prospectus submitted to SEBI.
2. The issuer company shall enter into an agreement with one or more of the Stock Exchange(s) which have the requisite system of online offer of securities.
3. The draft prospectus shall be filed with SEBI by the Lead Merchant Banker as per the SEBI Regulations containing all the disclosures except that of price and the number of securities to be offered to the public.
4.
   (a) The Book Runner(s)/syndicate members shall appoint brokers of the exchange, who are registered with SEBI, for the purpose of accepting bids, applications and placing orders with the company and ensure that the brokers so appointed are financially capable of honouring their commitments arising out of defaults of their clients/investors, if any.

   (b) The brokers so appointed, accepting applications and application monies, shall be considered as 'bidding/collection centres.

   (c) The brokers so appointed, shall collect the money from his/their client for every order placed by him/ them and in case the client/investor fails to pay for shares allocated as per the Regulations, the broker shall pay such amount.

   (d) The company shall pay to the broker(s) a commission/fee for the services rendered by him/ them.

   (e) The Red herring prospectus shall disclose, either the floor price of the securities offered through it or a price band along with the range within which the price can move, if any. However, the issuer may not disclose the floor price or price band in the red herring prospectus if the same is disclosed in case of an IPO, at least two working days before the opening of the bid and in case of an FPO, at least one working day before the opening of the bid, by way of an announcement in all the newspapers in which the pre-issue advertisement was released by the issuer or the merchant banker.

   (f) In case the red herring prospectus discloses the price band, the lead book runner shall ensure compliance with the following conditions:

      (i) The cap of the price band should not be more than 20% of the floor of the band; i.e., cap of the price band shall be less than or equal to 120% of the floor of the price band.

      (ii) The price band can be revised during the bidding period in which case the maximum revision on either side shall not exceed 20% i.e., floor of the price band can move up or down to the extent of 20% of floor of the price band disclosed in the red herring prospectus and the cap of the revised price band will be fixed in accordance with clause (i) above.

(iii) Any revision in the price band shall be widely disseminated by informing the stock exchanges, by issuing press release and also indicating the change on the relevant website and the terminals of the syndicate members.

(iv) In case the price band is revised, the bidding period shall be extended for a further period of three days, subject to the total bidding period not exceeding thirteen days.

5. The issuer company shall after receiving the final observations, if any, on the offer document from SEBI make an advertisement in an English National daily with wide circulation, one Hindi National newspaper and Regional language newspaper with wide circulation at the place where the registered office of the Issuer company is situated.

6. Bids shall be open for at least 3 working days and not more than 7 working days, which may be extended to a maximum of 10 working days in case the price band is revised.

7. RIIs may bid at 'cut-off' price instead of their writing the specific bid prices in the bid forms.

8. Once the final price is determined, all those bidders whose bids have been found to be successful shall become entitled for allotment of securities.

9. The broker may collect an amount to the extent of 100% of the application money as margin money from the clients/investors before he places an order on their behalf.

10. Additional Disclosures:

(a) The particulars of syndicate members, brokers, registrars, bankers to the issue, etc.

(b) Statement to be given under the 'basis for issue price'

'The issue price has been determined by the Issuer in consultation with the Book Runner(s), on the basis of assessment of market demand for the offered securities by way of book-building.'

(c) The following accounting ratios shall be given under the basis for issue price for each of the accounting periods for which the financial information is given:

(i) EPS, pre-issue, for the last three years.

(ii) P/E pre-issue.

(iii) Average return on net worth in the last three years.

(iv) Comparison of all the accounting ratios of the issuer company as mentioned above with the industry average and with the accounting ratios of the peer group.

11. On determination of the entitlement under clause 6 , the information regarding the same (i.e., the number of securities to which the investor becomes entitled) shall be intimated immediately to the investors.

12. The final prospectus containing all disclosures as per SEBI Guidelines including the price and the number of securities proposed to be issued shall be filed with the ROC.

13. The investors who had not participated in the bidding process or have not received intimation of entitlement of securities under clause 8 may also make an application.

14. In case an issuer company makes an issue of 100% of the net offer to public through 100% Book Building process:

- 50% of shares offered are reserved for QIBs, not less than 35% for small investors and the balance (not less than 15%) for all other investors (i.e., non-institutional investors).

Provided that, 50% of the issue size shall be mandatorily allotted to the QIBs in case of compulsorily book built issues, failing which the full subscription monies shall be refunded.

In case the book built issues are made pursuant to the requirement of mandatory allocation of 60% to QIBs in terms of Rule 19(2)(b) of Securities Contract (Regulation) Rules, 1957, the respective figures are 30% for RIIs and 10% for NIIs.

15. The company, Lead Manager/Book Runner shall announce the pay-in day and intimate the same to brokers and stock exchange. It shall be responsibility of the broker to deposit the amount in the Escrow Account to the extent of allocation to his clients on the pay-in date.

16. On receipt of the basis of allocation data, the brokers shall immediately intimate the fact of allocation to their client/applicant.
17. The broker shall refund the margin money collected earlier, within 3days of receipt of basis of allocation, to the applicants who did not receive allocation.
18. The brokers shall give details of the amount received from each client/investor and the names of clients/ investors who have not paid the application money to Registrar/Book Runner and to the exchange.
19. Trading shall commence within 6 days from the closure of the issue failing which interest @ 15% p.a. shall be paid to the investors.

Advantages of Book Building:

1. The book building process helps in discovery of price & demand.
2. The costs of the public issue are much reduced.
3. The time taken for the completion of the entire process is much less than that in the normal public issue.
4. In book building, the demand for the share is known before the issue closes. Infact, if there is not much demand, the issue may be deferred.
5. It inspires investors' confidence leading to a large investor universe.
6. Issuers can choose investors by quality.
7. The issue price is market determined.

Disadvantages of Book Building:

1. There is a possibility of price rigging on listing as promoters may try to bail out syndicate members.
2. The book building system works very efficiently in matured market conditions. But, such conditions are not commonly found in practice.
3. It is appropriate for the mega issues only.
4. The company should be fundamentally strong & well known to the investors without it book building process will be unsuccessful.

Recent Example: Recent example of a book building process in Indian context is the IPO of Reliance Power. The issue was made through 100 % book building process. The price band for the book building process was between ₹405 and ₹450 with ₹20 discount for retail investors.

Reverse Book Building:

It is method of buy-back of securities. It is an efficient price discovery mechanism adopted when the company aims to buy the Shares from the public and other Shareholders. This is generally done when the company wishes to delist itself from the trading exchanges.

Process for Reverse Book Building:

- ❖ The acquiring company secures board and shareholders' approval to delist the shares.
- ❖ The acquirer shall appoint a designated BRLM to execute the process.
- ❖ The BRLM decides the floor price and the dates for inviting bids from the shareholders. The floor price shall not be less than the following:

  (a) where the equity shares are frequently traded in all the recognised stock exchanges where they are listed, the average of the weekly high and low of the closing prices of the equity shares of the company during the 26 weeks or 2 weeks preceding the date on which the recognised stock exchanges were notified of the board meeting in which the delisting proposal was considered, whichever is higher, as quoted on the recognised stock exchange where the equity shares of the company are most frequently traded;

  (b) where the equity shares of the company are infrequently traded in all or some of the recognised stock exchanges, the floor price shall be determined by the BRLM (Book Running Lead Manager) taking into account the following factors: (i) the highest price paid by the promoter for acquisitions, if any, of equity shares of the class sought to be delisted, including by way of allotment in a public or rights issue or preferential allotment, during the 26 weeks period prior to the date on which the recognised stock exchanges were notified of the board meeting in which the delisting proposal was considered and

after that date upto the date of the public announcement; and, (ii) other parameters including return on net worth, book value of the shares of the company, earning per share, price earning multiple vis-a-vis the industry average.

- The acquiring company shall, upon receipt of in principle approval for delisting from the recognised stock exchange, make a public announcement in at least one English national daily with wide circulation, one Hindi national daily with wide circulation, and one regional language newspaper of the region where the concerned recognised stock exchange is located.
- Before making the public announcement, the acquiring company shall open an escrow account and deposit therein the total estimated amount of consideration calculated on the basis of floor price and number of equity shares outstanding with public shareholders. The escrow account shall consist of either cash deposited with a scheduled commercial bank, or a bank guarantee in favour of the merchant banker, or a combination of both.
- The acquiring company shall despatch the letter of offer to the public shareholders of equity shares, not later than 45 working days from the date of the public announcement, so as to reach them at least 5 working days before the opening of the bidding period. The letter of offer shall be sent to all public shareholders holding equity shares of the class sought to be delisted whose names appear on the register of the company or depository as on the date specified in the public announcement.
- The date of opening of the offer shall not be later than 55 working days from the date of the public announcement. The offer shall remain open for a minimum period of three working days and a maximum period of five working days, during which the public shareholders may tender their bids.
- Bidding will be done only in the electronic form and through the stock exchanges trading mechanism.
- The holders of physical equity shares may send their bidding form together with the share certificate and transfer deed to the trading member appointed for the purpose, who shall immediately after entering their bids on the system send them to the company or the share transfer agent for confirming their genuineness. The company or the share transfer agent shall deliver the certificates which are found to be genuine to the merchant banker, who shall not make it over to promoter unless the bids in respect thereof are accepted and payment made. The bids in respect of the certificates which are found to be not genuine shall be deleted from the system.
- The BRLM will give the list of trading members who are eligible to participate in the reverse book building process to the stock exchange.
- Bids will be placed through trading members at the bidding centres, whom the public shareholders may approach for placing bids on the on-line electronic system and will have to be made at or above the floor price.
- There is no cap on the bid price and revision of bids is possible. The shareholders may withdraw or revise their bids upwards not later than one day before the closure of the bidding period. Downward revision of bids is not permitted.
- The acquiring company shall not be bound to accept the equity shares at the offer price determined by the book building process. Where the acquiring company decides not to accept the offer price so determined,
  - the company shall not acquire any equity shares tendered pursuant to the offer and the equity shares deposited or pledged by a shareholder shall be returned or released to him within ten working days of closure of the bidding period;
  - the company shall not make the final application to the exchange for delisting of the equity shares;
  - the promoter may close the escrow account;
  - in a case where the public shareholding at the opening of the bidding period was less than the minimum level of public shareholding required under the listing agreement, the acquiring company shall ensure that the public shareholding shall be brought up to such minimum level within a period of six months from the date of closure of the bidding.
- Within eight working days of closure of the offer, the BRLM shall make a public announcement in the same newspapers in which the public announcement was made regarding:

- the success of the offer along with the final price accepted by the acquirer; or
- the failure of the offer
- rejection of the final price discovered by the promoters.

❖ Where, pursuant to acceptance of equity shares tendered in terms of these regulations, the equity shares are delisted, any remaining public shareholder holding such equity shares may tender his shares to the promoter upto a period of at least one year from the date of delisting and, in such a case, the promoter shall accept the shares tendered at the same final price at which the earlier acceptance of shares was made. The payment of consideration for shares accepted shall be made out of the balance amount lying in the escrow account.

The reverse book building route is a difficult and costly process. Price discovery is a problem in case of small companies as their shares are thinly traded, making it difficult to delist through the reverse book building route. Unless the shares are delisted, the small companies have to pay all listing charges.

4 FNANCIAL INSTITUTIONS AND BANKS

The financial system plays the key role in the economy by stimulating economic growth, influencing economic performance of the actors, affecting economic welfare. This is achieved by financial infrastructure, in which entities with funds allocate those funds to those who have potentially more productive ways to invest those funds. A financial system makes it possible a more efficient transfer of funds. As one party of the transaction may possess superior information than the other party, it can lead to the information asymmetry problem and inefficient allocation of financial resources. By overcoming asymmetry problem the financial system facilitates balance between those with funds to invest and those needing funds.

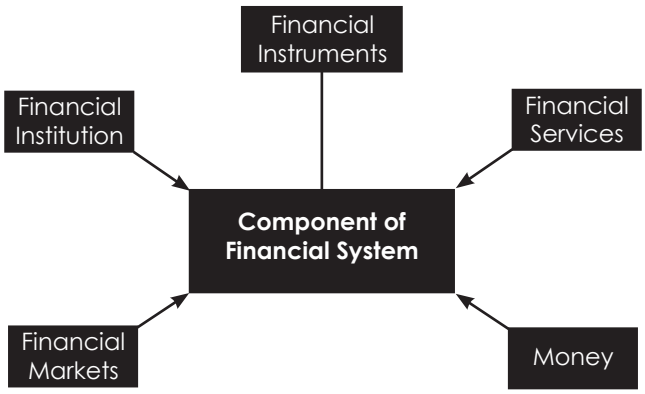
According to the **structural approach,** the financial system of an economy consists of three main components:

- Financial Institutions.
- Financial Markets.
- Financial Instruments (Assets or Securities).
- Financial Services.
- Money

Financial Institution :

Financial institution facilitates smooth working of the financial system by making investors and borrowers meet. They mobilize the savings of investors either directly or indirectly via financial markets, by making use of different financial instruments as well as in the process using the service of numberous financial services providers.

Five Basic components of financial System



Financial Markets:

Financial market is the place where financial assets are created or transferred. It can be broadly categorized into money market and capital market. Money market handles short term financial assets (less than 1 year) whereas capital markets take care of those financial assets that have maturity period of more than a year.

One more classification is possible i.e. Primary market and secondary market. Primary markets handle new issue of securities in contrast secondary markets take care of securities that are presently available in the stock market.

Financial markets catch the attention of investors and make it possible for companies to finance their operations and attain growth. Without financial markets, borrowers would have problems finding lenders. Intermediaries like Bank assist in this procedure.

Financial Instruments:

This is an important component of financial system. The Products which are trgdgdin a financial market are financial assets, securities or other type of financial instruments.

Financial Service:

Financial services consist of services provided by asset management and liability C management companies. They help to get the necessary funds and also make sure that they are \efficiently deployed. They assist to determine the financing combination and extend their >^.fr** professional service up to the stage of servicing of lenders.

The financial service sector offers a number of professional services like credit rating, venture capital financing, mutualfunds, merchantbanking, depositoryServices, book building, etc. Financial institutions and financial markets help in working of the financial system by means of financial instruments.

Money:

Money is understood to be anything that is accepted for payment of products and services or for the repayment of debt. It is a medium of exchange and acts as a store of value.

Functions of a Financial System

The following are the functions of a Financial System:

(i) **Mobilise and allocate savings** – linking the savers and investors to mobilise and allocate the savings efficiently and effectively.

(ii) **Monitor corporate performance** – apart from selection of projects to be funded, through an efficient financial system, the operators are motivated to monitor the performance of the investment.

(iii) **Provide payment and settlement systems** – for exchange of goods and services and transfer of economic resources through time and across geographic regions and industries. The clearing and settlement mechanism of the stock markets is done through depositories and clearing operations.

(iv) **Optimum allocation of risk-bearing and reduction** - by framing rules to reduce risk by laying down the rules governing the operation of the system. This is also achieved through holding of diversified portfolios.

(v) **Disseminate price-related information** – which acts as an important tool for taking economic and financial decisions and take an informed opinion about investment, disinvestment, reinvestment or holding of any particular asset.

(vi) **Offer portfolio adjustment facility** – which includes services of providing quick, cheap and reliable way of buying and selling a wide variety of financial assets.

(vii) **Lower the cost of transactions** – when operations are through and within the financial structure.

(viii) **Promote the process of financial deepening and broadening** – through a well-functional financial system. Financial deepening refers to an increase of financial assets as a percentage of GDP. Financial depth is an important measure of financial system development as it measures the size of the financial intermediary sector. Financial broadening refers to building an increasing number of varieties of participants and instruments.

Key elements of a well-functioning Financial System

The basic elements of a well-functional financial system are:

(i) a strong legal and regulatory environment;

(ii) stable money;

(iii) sound public finances and public debt management;

(iv) a central bank;

(v) a sound banking system;

(vi) an information system; and

(vii) well functioning securities market.

Designing a Financial System

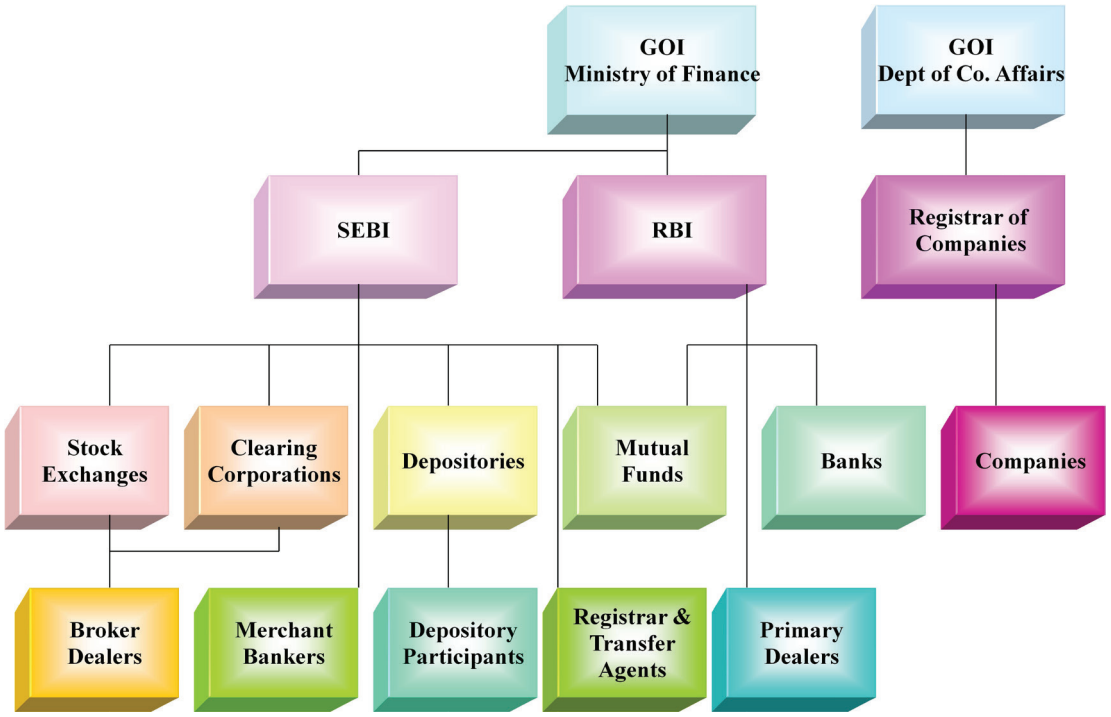
A well-functioning financial system allows individuals, households, firms and entire nations to:

1. Think long-term and make investments both personal (e.g. advanced education) and financial (e.g. municipal finance) that have long horizons.
2. Assume risks that they are in the best position to beneficially manage (e.g. building hydro-electric power plants in the Himalayas) and shed the risks that they are unable to (e.g. credit exposure to vendors, wholesale price index).
3. Focus their attention on a few skill sets and activities (e.g. bio-medical engineering) and not be required to over-diversify physical skills to protect themselves against adverse shocks (e.g. shifts in the fortunes of the pharmaceutical industry).
4. To get resources at a "reasonable" price to build and grow high quality businesses (e.g. steel plants), should they have the skills and the desire to do so. If not, to have the ability to invest their resources in other businesses or in the larger economy at a level of risk that they are comfortable taking (e.g. participations in shipping insurance).
5. Ensure that day-to-day lives of individuals are smooth and risk free so that children can go to school, mothers can live lives without stress and the entire family can sit together and plan for a better future without being beset by unexpected shocks (e.g. cost of a home or a medical education).
6. Receive good guidance on how they might best live their financial lives from well-trained specialists who have the patience to understand their particular circumstances and their plans, dreams, and fears and have the competence to provide them with a sound set of financial tools that modern financial systems have the ability to provide and to be protected from deliberate or accidental mis-selling by their financial product providers and advisors (e.g. inappropriate sale of interest rate derivate products to companies).
7. Grow as far as their capacities and human and technological resources would allow them to without being bound by the limitations and size of financial systems (e.g. power plants, mining companies).

Indian Financial System

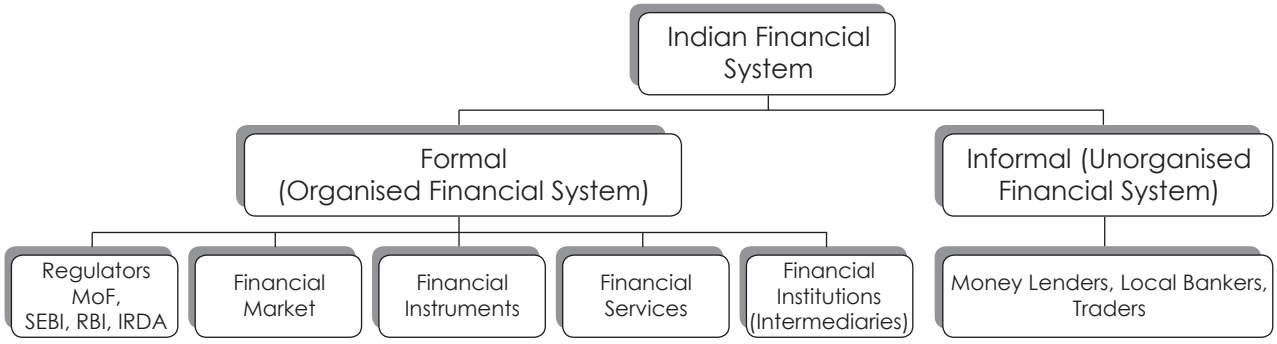
The Indian Financial System before independence closely resembled the model given by RL Benne in his theory of financial organization in a traditional economy. According to him in a traditional economy the per capita output is low and constant. Some principal features of the Indian Financial system before independence were: closed-circle character of industrial entrepreneurship; a narrow industrial securities market, absence of issuing institutions and no intermediaries in the long-term financing of the industry. Outside savings could not be invested in industry. That is, the savings of the financial system could not be channeled to investment opportunities in industrial sector. Indian Financial System to supply finance and credit was greatly strengthened in the post-1950. Significant diversification and innovations in the structure of the financial institutions, have accompanied the growth of Indian Financial System.

In the past 50 years the Indian financial system has shown tremendous growth in terms of quantity, diversity, sophistication, innovations and complexity of operation. Indicators like money supply, deposits and credit of banks, primary and secondary issues, and so on, have increased rapidly. India has witnessed all types of financial innovations like diversification, disintermediation, securitization, liberalization, and globalization etc. As a result, today the financial institutions and a large number of new financial instruments lead a fairly diversified portfolio of financial claims.



Regulatory Structure of Indian Financial System

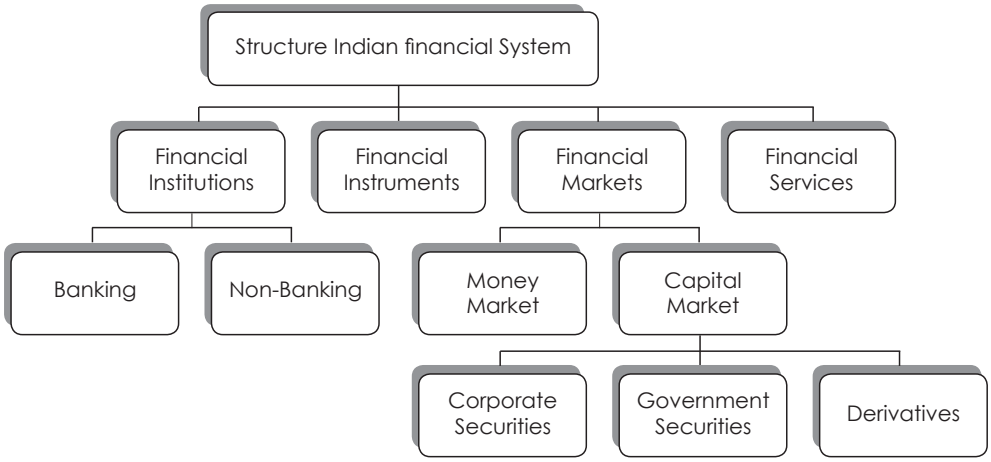
The Indian financial system consists of formal and informal financial system. Based on the financial system financial market, financial instruments and financial intermediation can be categorized depending upon functionality.



Structure of Indian Financial System

The financial structure refers to the shape, constituents and their order in the financial system. The financial system consists of specialized and unspecialized financial institutions, organized and unorganized financial markets, financial instruments and services which facilitate transfer of funds.

A financial system consists of financial institutions, financial markets, financial instruments and financial services which are all regulatory by regulators like Ministry of Finance, the Company Law Board, RBI, SEBI, IRDA, Department of Economic Affairs, Department of Company Affairs, etc., which facilitate the process of smooth and efficient transfer of funds.



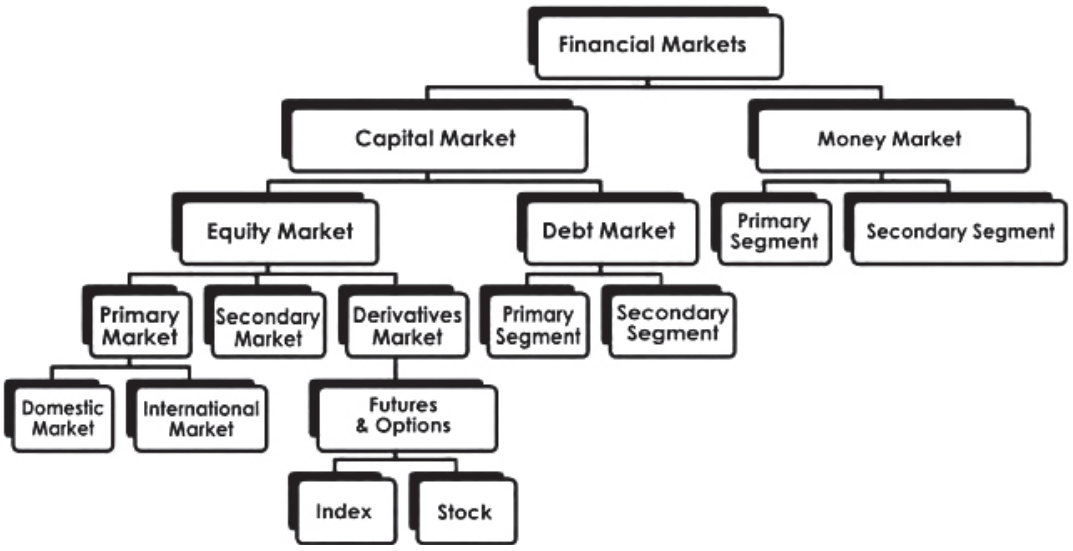
Structure of Indian Financial System

Each of the elements of financial system is detailed hereunder. The financial institutions may be business organizations or non-business organizations.

Classification of Financial Markets

There are different ways of classifying financial markets. One way of classifying the financial markets is by the type of financial claim into the debt market and the equity market. The debt market is the financial market for fixed claims like debt instruments. The equity market is the financial market for residual claims i.e. equity instruments.

A second way of classifying the financial markets into money market and capital market is on the basis of maturity of claims.



6.1 RESERVE BANK OF INDIA (RBI)

The Reserve Bank of India (RBI) is the nation's central bank. Since 1935, RBI began operations, and stood at the centre of India's financial system, with a fundamental commitment to maintaining the nation's monetary and financial stability.

From ensuring stability of interest and exchange rates to providing liquidity and an adequate supply of currency and credit for the real sector; from ensuring bank penetration and safety of depositors' funds to promoting and developing financial institutions and markets, and maintaining the stability of the financial system through

continued macro-financial surveillance, the Reserve Bank plays a crucial role in the economy. Decisions adopted by RBI touch the daily life of all Indians and help chart the country's current and future economic and financial course.

The origin of the Reserve Bank can be traced to 1926, when the Royal Commission on Indian Currency and Finance—also known as the Hilton-Young Commission— recommended the creation of a central bank to separate the control of currency and credit from the government and to augment banking facilities throughout the country. The Reserve Bank of India Act of 1934 established the Reserve Bank as the banker to the central government and set in motion a series of actions culminating in the start of operations in 1935. Since then, the Reserve Bank's role and functions have undergone numerous changes—as the nature of the Indian economy has changed.

Today's RBI bears some resemblance to the original institution, but the mission has expanded along with the deepened, broadened and increasingly globalised economy.

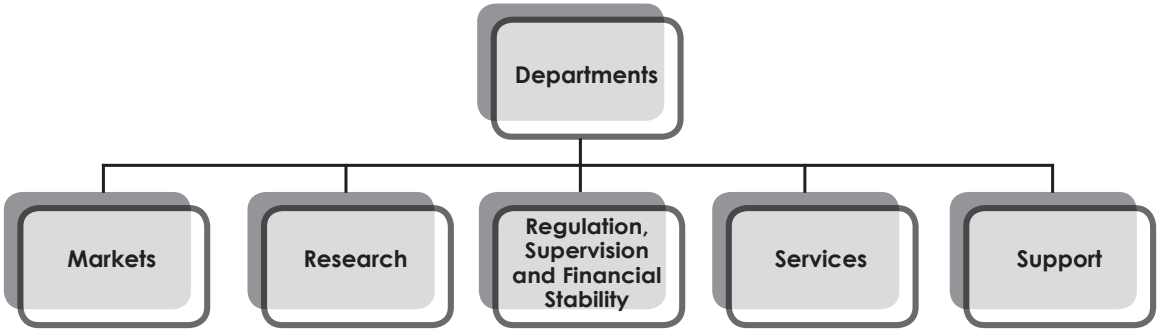
Over the years, RBI's specific roles and functions have evolved. However, there have been certain constants, such as the integrity and professionalism with which the Reserve Bank discharges its mandate.

RBI at a Glance

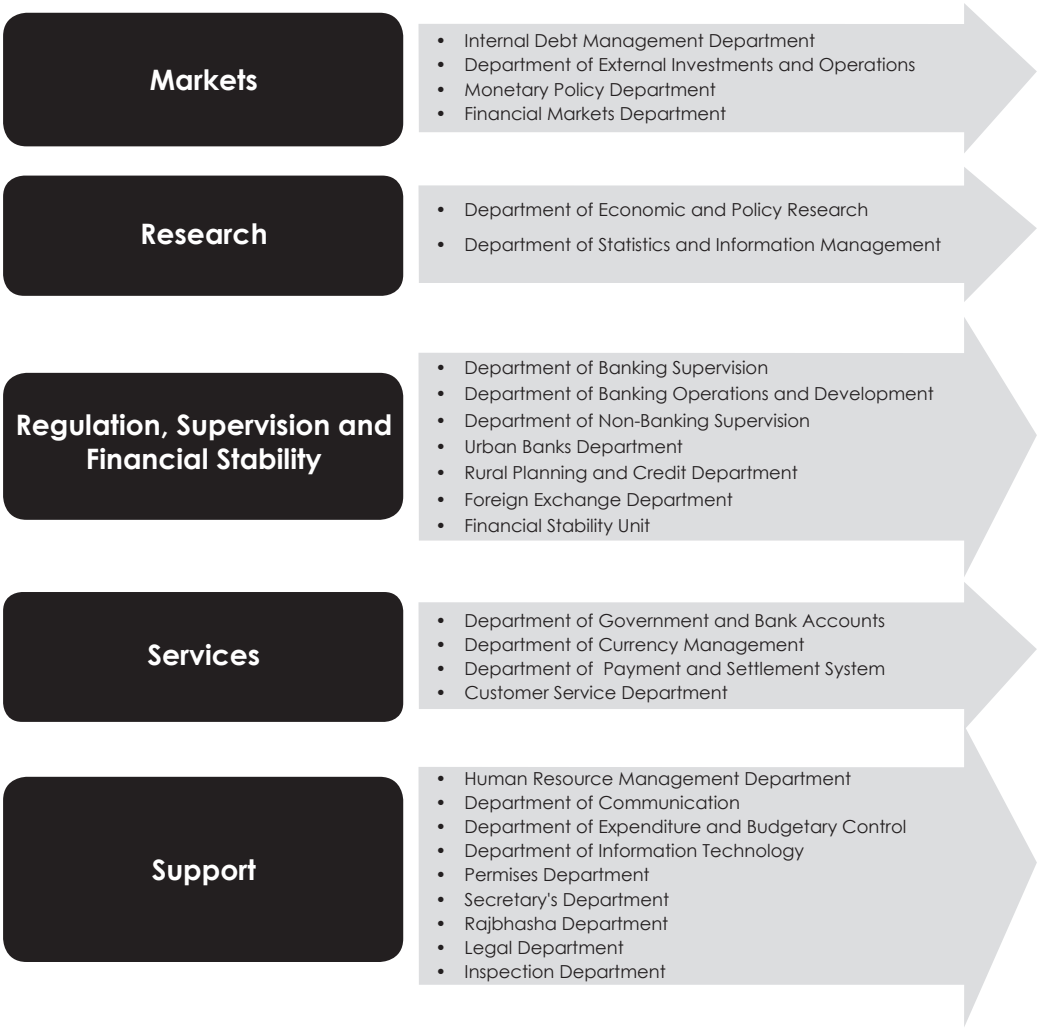
- Managed by Central Board of Directors
- India's monetary authority
- Supervisor of financial system
- Issuer of currency
- Manager of foreign exchange reserves
- Banker and debt manager to government'
- Supervisor of payment system
- Banker to banks
- Maintaining financial stability
- Developmental functions
- Research, data and knowledge sharing

Management and Structure

The Governor is the Reserve Bank's Chief Executive. The Governor supervises and directs the affairs and business of the Reserve Bank. The management team also includes Deputy Governors and Executive Directors.



The Departments has the following sub-departments:



Functions/Main Activities of RBI

The Reserve Bank is the umbrella network for numerous activities, all related to the nation's financial sector, encompassing and extending beyond the functions of a typical central bank. This section provides an overview of our primary activities:

- ❖ Monetary Authority
- ❖ Issuer of Currency
- ❖ Banker and Debt Manager to Government
- ❖ Banker to Banks
- ❖ Regulator of the Banking System
- ❖ Manager of Foreign Exchange
- ❖ Maintaining Financial Stability
- ❖ Regulator and Supervisor of the Payment and Settlement Systems
- ❖ Developmental Role

(i) Monetary Authority

Monetary policy refers to the use of instruments under the control of the central bank to regulate the availability, cost and use of money and credit. The goal: achieving specific economic objectives, such as low and stable inflation and promoting growth.

"The basic functions of the Reserve Bank of India are to regulate the issue of Bank notes and the keeping of reserves with a view to securing monetary stability in India and generally to operate the currency and credit system of the country to its advantage" – From the Preamble of the Reserve Bank of India Act,1934.

The main objectives of monetary policy in India are:

- ❖ Maintaining price stability
- ❖ Ensuring adequate flow of credit to the productive sectors of the economy to support economic growth
- ❖ Financial stability

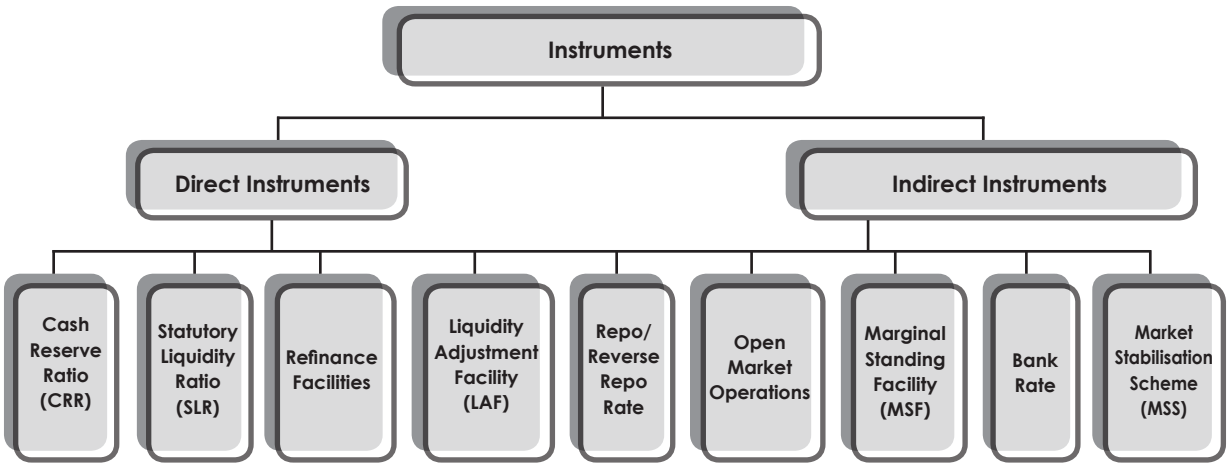
The relative emphasis among the objectives varies from time to time, depending on evolving macroeconomic developments.

Approach

The operating framework is based on a multiple indicator approach. This means that there is a close monitoring and analysis of the movement of a number of indicators including interest rates, inflation rate, money supply, credit, exchange rate, trade, capital flows and fiscal position, along with trends in output as we develop our policy perspectives.

Tools

The Reserve Bank's Monetary Policy Department (MPD) formulates monetary policy. The Financial Markets Department (FMD) handles day-to-day liquidity management operations. There are several direct and indirect instruments that are used in the formulation and implementation of monetary policy.



The instruments are discussed in details hereunder:

(A) Direct Instruments

(a) **Cash Reserve Ratio (CRR):** The share of net demand and time liabilities that banks must maintain as cash balance with the Reserve Bank. The Reserve Bank requires banks to maintain a certain amount of cash in reserve as percentage of their deposits to ensure that banks have sufficient cash to cover customer withdrawals. The adjustment of this ratio, is done as an instrument of monetary policy, depending on prevailing conditions. Our centralized and computerized system allows for efficient and accurate

monitoring of the balances maintained by banks with the Reserve Bank of India.

(b) **Statutory Liquidity Ratio (SLR):** The share of net demand and time liabilities that banks must maintain in safe and liquid assets, such as government securities, cash and gold.

(c) **Refinance facilities:** Sector-specific refinance facilities (e.g., against lending to export sector) provided to banks exchange or other commercial papers. It also signals the medium-term stance of monetary policy.

(B) Indirect Instruments

(a) **Liquidity Adjustment Facility (LAF):** Consists of daily infusion or absorption of liquidity on a repurchase basis, through repo (liquidity injection) and reverse repo (liquidity absorption) auction operations, using government securities as collateral.

(b) **Repo/Reverse Repo Rate:** These rates under the Liquidity Adjustment Facility (LAF) determine the corridor for short-term money market interest rates. In turn, this is expected to trigger movement in other segments of the financial market and the real economy.

(c) **Open Market Operations (OMO):** Outright sales/purchases of government securities, in addition to LAF, as a tool to determine the level of liquidity over the medium term.

(d) **Marginal Standing Facility (MSF):** was instituted under which scheduled commercial banks can borrow over night at their discretion up to one per cent of their respective NDTL at 100 basis points above the repo rate to provide a safety value against unanticipated liquidity shocks.

(d) **Bank Rate:** It is the rate at which the Reserve Bank is ready to buy or rediscount bills of exchange or other commercial papers. It also signals the medium-term stance of monetary policy.

(e) **Market Stabilization Scheme (MSS):** This instrument for monetary management was introduced in 2004. Liquidity of a more enduring nature arising from large capital flows is absorbed through sale of short-dated government securities and treasury bills. The mobilized cash is held in a separate government account with the Reserve Bank.

Current Policy Rates Reserve Ratios of RBI (31st August 2016)	
Repo Rate	6.50%
Reverse Repo Rate	6.00%
Marginal Standing Facility Rate	7.00%
Bank Rate	7.00%
SLR	21.00%
CRR	4.00%

(ii) Issuer of Currency

The Reserve Bank is the nation's sole note issuing authority. Along with the Government of India, RBI is responsible for the design and production and overall management of the nation's currency, with the goal of ensuring an adequate supply of clean and genuine notes. The Reserve Bank also makes sure there is an adequate supply of coins, produced by the government. In consultation with the government, RBI routinely addresses security issues and target ways to enhance security features to reduce the risk of counterfeiting or forgery.

Approach

- The Department of Currency Management in Mumbai, in co-operation with the Issue Departments in the Reserve Bank's regional offices, oversees the production and manages the distribution of currency.
- Currency chests at more than 4,000 bank branches – typically commercial banks – contain adequate quantity of notes and coins so that the currency is accessible to the public in all parts of the country.
- The Reserve Bank has the authority to issue notes upto the value of Rupees Ten Thousand.

Tools

Four printing presses actively print notes: Dewas in Madhya Pradesh, Nasik in Maharashtra, Mysore in Karnataka, and Salboni in West Bengal.

The presses in Madhya Pradesh and Maharashtra are owned by the Security Printing and Minting Corporation of India (SPMCIL), a wholly owned company of the Government of India. The presses in Karnataka and West Bengal are set up by Bharatiya Reserve Bank Note Mudran Private Limited (BRBNMPL), a wholly owned subsidiary of the Reserve Bank.

Coins are minted by the Government of India. RBI is the agent of the Government for distribution, issue and handling of coins. Four mints are in operation: Mumbai, Noida in Uttar Pradesh, Kolkata, and Hyderabad.

(iii) Banker and Debt Manager to Government

Managing the government's banking transactions is a key RBI role. Like individuals, businesses and banks, governments need a banker to carry out their financial transactions in an efficient and effective manner, including the raising of resources from the public. As a banker to the central government, the Reserve Bank maintains its accounts, receives money into and makes payments out of these accounts and facilitates the transfer of government funds. RBI also act as the banker to those state governments that has entered into an agreement.

Approach

The role as banker and debt manager to government includes several distinct functions:

- Undertaking banking transactions for the central and state governments to facilitate receipts and payments and maintaining their accounts.
- Managing the governments' domestic debt with the objective of raising the required amount of public debt in a cost-effective and timely manner.
- Developing the market for government securities to enable the government to raise debt at a reasonable cost, provide benchmarks for raising resources by other entities and facilitate transmission of monetary policy actions.

Tools

At the end of each day, RBI's electronic system automatically consolidates all of the government's transactions to determine the net final position. If the balance in the government's account shows a negative position, RBI extends a short-term, interest-bearing advance, called a Ways and Means Advance-WMA-the limit or amount for which is set at the beginning of each financial year in April.

The RBI's Government Finance Operating Structure

The Reserve Bank's Department of Government and Bank Accounts oversees governments' banking related activities. This department encompasses:

- **Public accounts departments:** manage the day-to-day aspects of Government's banking operations. The Reserve Bank also appoints commercial banks as its agents and uses their branches for greater access to the government's customers.
- **Public debt offices:** provide depository services for government securities for banks, institutions and service government loans.
- **Central Accounts Section at Nagpur:** consolidates the government's banking transactions.

The Internal Debt Management Department based in Mumbai raises the government's domestic debt and regulates and develops the government securities market. RBI plays a critical role managing the issuance of public debt. Part of this role includes informing potential investors about upcoming debt auctions through notices.

RBI as the Governments' Debt Manager

In this role, we set policies, in consultation with the government and determine the operational aspects of raising

money to help the government finance its requirements:

- Determine the size, tenure and nature (fixed or floating rate) of the loan
- Define the issuing process including holding of auctions
- Inform the public and potential investors about upcoming government loan auctions

The Reserve Bank also undertakes market development efforts, including enhanced secondary market trading and settlement mechanisms, authorization of primary dealers and improved transparency of issuing process to increase investor confidence, with the objective of broadening and deepening the government securities market.

(iv) Banker to Banks

Like individual consumers, businesses and organisations of all kinds, banks need their own mechanism to transfer funds and settle inter-bank transactions—such as borrowing from and lending to other banks— and customer transactions. As the banker to banks, the Reserve Bank fulfills this role. In effect, all banks operating in the country have accounts with the Reserve Bank, just as individuals and businesses have accounts with their banks.

Approach

As the banker to banks, RBI focuses on:

- Enabling smooth, swift and seamless clearing and settlement of inter-bank obligations.
- Providing an efficient means of funds transfer for banks.
- Enabling banks to maintain their accounts with us for purpose of statutory reserve requirements and maintain transaction balances.
- Acting as lender of the last resort.

Tools

The Reserve Bank provides products and services for the nation's banks similar to what banks offer their own customers. Here's a look at how RBI help:

Non-interest earning current accounts: Banks hold accounts with the Reserve Bank based on certain terms and conditions, such as, maintenance of minimum balances. They can hold accounts at each of our regional offices. Banks draw on these accounts to settle their obligations arising from inter-bank settlement systems. Banks can electronically transfer payments to other banks from this account, using the Real Time Gross Settlement System (RTGS).

Deposit Accounts Department: This department's computerized central monitoring system helps banks manage their funds position in real time to maintain the optimum balance between surplus and deficit centers.

Remittance facilities: Banks and government departments can use these facilities to transfer funds.

Lender of the last resort: The Reserve Bank provides liquidity to banks unable to raise short-term liquid resources from the inter-bank market. Like other central banks, the Reserve Bank considers this a critical function because it protects the interests of depositors, which in turn, has a stabilizing impact on the financial system and on the economy as a whole.

Loans and advances: The Reserve Bank provides short-term loans and advances to banks/ financial institutions, when necessary, to facilitate lending for specified purposes.

(v) Regulator of the Banking System

Banks are fundamental to the nation's financial system. The central bank has a critical role to play in ensuring the safety and soundness of the banking system—and in maintaining financial stability and public confidence in this system. As the regulator and supervisor of the banking system, the Reserve Bank protects the interests of depositors, ensures a framework for orderly development and conduct of banking operations conducive to customer interests and maintains overall financial stability through preventive and corrective measures.

Approach

The Reserve Bank regulates and supervises the nation's financial system. Different departments of the Reserve Bank oversee the various entities that comprise India's financial infrastructure. RBI oversees:

- **Commercial banks and all-India development financial institutions:** Regulated by the Department of Banking Operations and Development, supervised by the Department of Banking Supervision
- **Urban co-operative banks:** Regulated and supervised by the Urban Banks Department
- **Regional Rural Banks (RRB), District Central Cooperative Banks and State Co-operative Banks:** Regulated by the Rural Planning and Credit Department and supervised by NABARD
- **Non-Banking Financial Companies (NBFC):** Regulated and supervised by the Department of Non- Banking Supervision

Tools

The Reserve Bank makes use of several supervisory tools:

- On-site inspections
- Off-site surveillance, making use of required reporting by the regulated entities.
- Thematic inspections, scrutiny and periodic meetings

The Board for Financial Supervision oversees the Reserve Bank's regulatory and supervisory responsibilities.

Consumer confidence and trust are fundamental to the proper functioning of the banking system. RBI's supervision and regulation helps ensure that banks are stable and that the system functions smoothly.

The RBI's Regulatory Role

As the nation's financial regulator, the Reserve Bank handles a range of activities, including:

- Licensing
- Prescribing capital requirements
- Monitoring governance
- Setting prudential regulations to ensure solvency and liquidity of the banks
- Prescribing lending to certain priority sectors of the economy
- Regulating interest rates in specific areas
- Setting appropriate regulatory norms related to income recognition, asset classification, provisioning, investment valuation, exposure limits and the like
- Initiating new regulation

Looking Ahead

In the regulatory and supervisory arena, there are several challenges going forward.

- **For commercial banks:** Focus is on implementing Basel II norms, which will require improved capital planning and risk management skills.
- **For urban cooperative banks:** Focus is on profitability, professional management and technology enhancement.
- **For NBFCs:** Focus is on identifying the interconnections and the roles these institutions should play as the financial system deepens.
- **For regional rural banks:** Focus is on enhancing capability through IT and HR for serving the rural areas.
- **For rural cooperative banks:** Focus is on ensuring that they meet minimum prudential standards.

(vi) Manager of Foreign Exchange

With the transition to a market-based system for determining the external value of the Indian rupee, the foreign

exchange market in India gained importance in the early reform period. In recent years, with increasing integration of the Indian economy with the global economy arising from greater trade and capital flows, the foreign exchange market has evolved as a key segment of the Indian financial market.

Approach

The Reserve Bank plays a key role in the regulation and development of the foreign exchange market and assumes three broad roles relating to foreign exchange:

- Regulating transactions related to the external sector and facilitating the development of the foreign exchange market
- Ensuring smooth conduct and orderly conditions in the domestic foreign exchange market
- Managing the foreign currency assets and gold reserves of the country

Tools

The Reserve Bank is responsible for administration of the Foreign Exchange Management Act, 1999 and regulates the market by issuing licences to banks and other select institutions to act as Authorised Dealers in foreign exchange. The Foreign Exchange Department (FED) is responsible for the regulation and development of the market.

On a given day, the foreign exchange rate reflects the demand for and supply of foreign exchange arising from trade and capital transactions. The RBI's Financial Markets Department (FMD) participates in the foreign exchange market by undertaking sales / purchases of foreign currency to ease volatility in periods of excess demand for/supply of foreign currency.

The Department of External Investments and Operations (DEIO) invests the country's foreign exchange reserves built up by purchase of foreign currency from the market. In investing its foreign assets, the Reserve Bank is guided by three principles: safety, liquidity and return.

Looking Ahead

The challenge now is to liberalise and develop the foreign exchange market, with an eye toward ushering in greater market efficiency while ensuring financial stability in an increasingly global financial market environment. With current account convertibility achieved in 1994, the key focus is now on capital account management.

(vii) Regulator and Supervisor of Payment and Settlement Systems

Payment and settlement systems play an important role in improving overall economic efficiency. They consist of all the diverse arrangements that we use to systematically transfer money - currency, paper instruments such as cheques, and various electronic channels.

Approach

The Payment and Settlement Systems Act of 2007 (PSS Act) gives the Reserve Bank oversight authority, including regulation and supervision, for the payment and settlement systems in the country. In this role, RBI focus on the development and functioning of safe, secure and efficient payment and settlement mechanisms.

Tools

The Reserve Bank has a two-tiered structure. The first tier provides the basic framework for our payment systems. The second tier focuses on supervision of this framework. As part of the basic framework, the Reserve Bank's network of secure systems handles various types of payment and settlement activities. Most operate on the security platform of the Indian Financial Network (INFINET), using digital signatures for further security of transactions. The various systems used are as follows:

- **Retail payment systems:** Facilitating cheque clearing, electronic funds transfer, through National Electronic Funds Transfer (NEFT), settlement of card payments and bulk payments, such as electronic clearing services. Operated through local clearing houses throughout the country.

- **Large value systems:** Facilitating settlement of inter-bank transactions from financial markets.

  These include:

  - ✓ Real Time Gross Settlement System (RTGS): for funds transfers
  - ✓ Securities Settlement System: for the government securities market
  - ✓ Foreign Exchange Clearing: for transactions involving foreign currency

- **Department of Payment and Settlement Systems:** The Reserve Bank's payment and settlement systems regulatory arm.
- **Department of Information Technology:** Technology support for the payment systems and for the Reserve Bank's internal IT systems.

Looking Ahead

Going forward, we are proactively identifying and addressing issues that help mitigate the risks for large value systems. Efforts on the retail payment system side will focus on operational efficiencies, cost effectiveness, innovation and risk management.

(viii) Maintaining Financial Stability

Pursuit of financial stability has emerged as a key critical policy objective for the central banks in the wake of the recent global financial crisis. Central banks have a critical role to play in achieving this objective. Though financial stability is not an explicit objective of the Reserve Bank in terms of the Reserve Bank of India Act, 1935, it has been an explicit objective of the Reserve Bank since the early 2000s.

Approach

In 2009, the Reserve Bank set up a dedicated Financial Stability Unit mainly to, put in place a system of continuous monitoring of the macro financial system. The department's remit includes:

- Conduct of macro-prudential surveillance of the financial system on an ongoing basis
- Developing models for assessing financial stability in going forward
- Preparation of half yearly financial stability reports.
- Development of a database of key variables which could impact financial stability, in co-ordination with the supervisory wings of the Reserve Bank
- Development of a time series of a core set of financial indicators
- Conduct of systemic stress tests to assess resilience

Following the establishment of the Financial Stability Unit, the Reserve Bank started publishing periodic financial stability reports, with the first Financial Stability Report (FSR) being published in March 2010. FSRs are now being published on a half yearly basis - in June and December every year. Internally, quarterly Systemic Risk Monitors and monthly Market Monitors are prepared to place before the Bank's Top Management a more frequent assessment of the risks to systemic stability of the economy.

In the Union Budget for 2010-11, the Finance Minister announced the establishment of Financial Stability and Development Council (FSDC) to provide, among other things, a high level focus to financial stability. The Reserve Bank plays a critical role in the Council. The Governor, Reserve Bank, is the ex- officio chairperson of the Sub Committee of the FSDC – the Council's main operating arm. The Financial Stability Unit of the Reserve Bank of India acts as the Secretariat for the Sub Committee.

Tools

The Reserve Bank makes use of a variety of tools and techniques to assess the build-up of systemic risks in the economy and to provide critical inputs in this respect to its policy making departments. The tools include:

- A **Financial Stress Indicator** - a contemporaneous indicator of conditions in financial markets and in the banking sector;
- **Systemic Liquidity Indicator** for assessing stresses in availability of systemic liquidity;
- A **Fiscal Stress Indicator** for assessing build up of risks from the fiscal;
- A **Network Model** of the bilateral exposures in the financial system - for assessing the inter- connectedness in the system;
- A **Banking Stability Indicator** for assessing risk factors having a bearing on the stability of the banking sector; and
- A series of **Banking Stability Measures** for assessing the systemic importance of individual banks.

Looking Ahead

Launching a Systemic Risk Survey to more formally elicit market views on the possible sources of risk to systemic stability of the country - both, domestic and global.

(ix) Developmental Role

This role is, perhaps, the most unheralded aspect of our activities, yet it remains among the most critical. This includes ensuring credit availability to the productive sectors of the economy, establishing institutions designed to build the country's financial infrastructure, expanding access to affordable financial services and promoting financial education and literacy.

Approach

Over the years, the Reserve Bank has added new institutions as the economy has evolved. Some of the institutions established by the RBI include:

- Deposit Insurance and Credit Guarantee Corporation (1962), to provide protection to bank depositors and guarantee cover to credit facilities extended to certain categories of small borrowers
- Unit Trust of India (1964), the first mutual fund of the country
- Industrial Development Bank of India (1964), a development finance institution for industry
- National Bank for Agriculture and Rural Development (1982), for promoting rural and agricultural credit
- Discount and Finance House of India (1988), a money market intermediary and a primary dealer in government securities
- National Housing Bank (1989), an apex financial institution for promoting and regulating housing finance
- Securities and Trading Corporation of India (1994), a primary dealer

Tools

The Reserve Bank continues its developmental role, while specifically focusing on financial inclusion. Key tools in this on-going effort include:

- **Directed credit for lending to priority sector and weaker sections:** The goal here is to facilitate/ enhance credit flow to employment intensive sectors such as agriculture, micro and small enterprises (MSE), as well as for affordable housing and education loans.
- **Lead Bank Scheme:** A commercial bank is designated as a lead bank in each district in the country and this bank is responsible for ensuring banking development in the district through coordinated efforts between banks and government officials. The Reserve Bank has assigned a Lead District Manager for each district who acts as a catalytic force for promoting financial inclusion and smooth working between government and banks.
- **Sector specific refinance:** The Reserve Bank makes available refinance to banks against their credit to the

export sector. In exceptional circumstances, it can provide refinance against lending to other sectors.

- **Strengthening and supporting small local banks:** This includes regional rural banks and cooperative banks.
- **Financial inclusion:** Expanding access to finance and promoting financial literacy are a part of our outreach efforts.

Looking Ahead

The developmental role of the Reserve Bank will continue to evolve, along with the Indian Economy. Through the outreach efforts and emphasis on customer service, the Reserve Bank will continue to make efforts to fill the gaps to promote inclusive economic growth and stability.

Financial Inclusion and Literacy: Expanding Access; Encouraging Education

Expanding access to and knowledge about finance is a fundamental aspect of the Reserve Bank's operations. These efforts are critical to ensuring that the benefits of a growing and healthy economy reach all segments of the population. RBI's activities here include:

- Encouraging provision of affordable financial services like zero-balance, no-frills bank accounts, access to payments and remittance facilities, savings, loans and insurance services.
- Expanding banking outreach through use of technology, such as banking by cell phone, smart cards and the like
- Encouraging bank branch expansion in parts of the country with few banking facilities
- Facilitating use of specified persons to act as agents to perform banking functions in hard-to- reach parts of the country.

RBI's work to promote financial literacy focuses on educating people about responsible financial management. Efforts here include:

- Information and knowledge-sharing: User-friendly website includes easy-to-understand tips and guidance in multiple languages, brochures, advertisements and other marketing materials educate the public about banking services.
- Credit counseling: The Reserve Bank encourages commercial banks to set up financial literacy and credit counseling centres, to help people develop better financial planning skills.

6.2 BANKING INSTITUTIONS – COMMERCIAL BANKS

In recent years India's national economy has developed certain serious economic maladies. In the first instance the economy has become heavily dependent on foreign aid.

The proportion of foreign aid in the Plan Development Programme has been continuously rising since the First Five Year Plan. Since the prospects of the availability of foreign aid in the last two or three years have become very uncertain and rather dim, there has been a slack in the levels of economic activity and employment in the country.

Secondly, there has been the paradox of inflationary recession having come in the economy and tending to become all pervasive. The chief characteristic of the recession is that, while on the one hand there are large unutilised industrial capacities in the economic system, the supply of raw materials and other components for production of final goods is extremely deficient. The decline of agricultural production explains only a part of this phenomenon, while another part will have to be ascribed to the general shortages in the economy which have been generated as a result of the growing inter- sectoral imbalances caused by the functioning of the financial institutions and the economic system in a particular manner.

The most curious aspect of the present situation is that the price level of industrial and agricultural goods continues to be very high despite the slack in demand. Obviously, the financial system of the country seems to have acquired such characteristics that it is able to sustain a prolonged holding of goods in the economy without leading to the adjustments of the price level with the existing state of demand and supply.

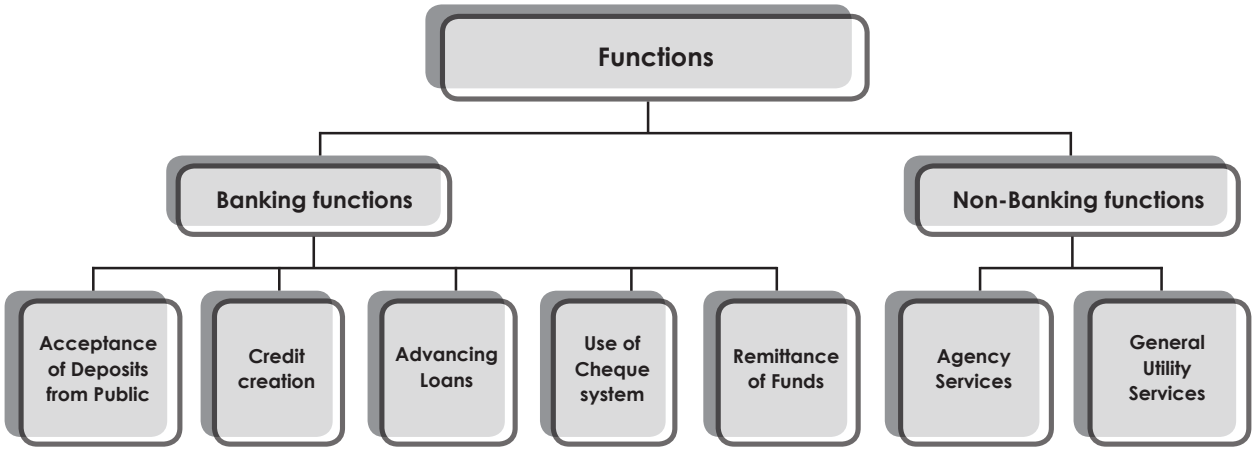
The role of bank credit in the situation is obviously an important factor to be examined in so far as it helps to create the present situation as well as to maintain it for a long period.

In addition, due to various political and economic reasons, both national and international, the perspective of long term development of the economy is tending to get blurred. The commitment to long term programmes of plan development has tended to become weak in recent years and greater attention is being given to measures of policy which seek to attain economic stability rather than economic growth. In this context too, it has become necessary to examine the role that the banking system of the country has played so far in promoting the long term growth of the economy as well as in creating conditions in which further growth of industry and agriculture has been halted in recent years.

Commercial Banks

Commercial banks are a part of an organized money market in India. Commercial banks are joint stock companies dealing in money and credit that accept demand deposits from public which are withdraw able by cheques and use these deposits for lending to others. Deposits are accepted from large group of people in forms of money and deposits are withdrawable on demand. Commercial banks mobilize savings in urban and rural areas and make them available to large & small industrial units and trading units mainly for working capital requirements. Commercial banks provide various types of financial services to customers in return of fees.

Functions: Functions of commercial banks can be divided in 2 groups–Banking functions (primary functions) and non-banking functions (secondary functions).



(i) Banking functions (primary functions): Most of banking functions are:–

(a) **Acceptance of deposits from public**:- Bank accepts following deposits from publics :-

(i) Demand deposits can be in the form of current account or savings account. These deposits are withdrawable any time by depositors by cheques. Current deposits have no interest or nominal interest. Such accounts are maintained by commercial firms and business man. Interest rate of saving deposits varies with time period. Savings accounts are maintained for encouraging savings of households.

(ii) Fixed deposits are those deposits which are withdrawable only after a specific period. It earns a higher rate of interest.

(iii) In recurring deposits, people deposit a fixed sum every month for a fixed period of time.

(b) **Advancing loans**: It extends loans and advances out of money deposited by public to various business units and to consumers against some approved .Usually banks grant short term or medium term loans to meet requirements of working capital of industrial units and trading units. Banks discourage loans for consumption purposes. Loans may be secured or unsecured. Banks do not give loan in form of cash. They make the customer open account and transfer loan amount in the customer's account.

Banks grant loan in following ways:–

(i) **Overdraft:** - Banks grant overdraft facilities to current account holder to draw amount in excess of balance held.

(ii) **Cash credit:** - Banks grant credit in cash to current account holder against hypothecation of goods.

(iii) **Discounting trade bills**:- The banks facilitate trade and commerce by discounting bills of exchange.

(iv) **Term loan**: - Banks grant term loan to traders and to agriculturists against some collateral securities.

(v) **Consumer credit**:- Banks grant credit to households in a limited amount to buy durable goods.

(vi) **Money at call or short term advances**:- Banks grant loan for a very short period not exceeding 7 days to dealers / brokers in stock exchange against collateral securities.

(c) **Credit Creation**: Credit creation is another banking function of commercial bank. i,e. it manufactures money.

(d) **Use of cheque system**: - Banks have introduced the cheque system for withdrawal of deposits. There are two types of cheques – bearer & cross cheque. A bearer cheque is encashable immediately at the bank by its possessor. A crossed cheque is not encashable immediately. It has to be deposited only in the payee's account. It is not negotiable.

(e) **Remittance of funds**:- Banks provides facilities to remit funds from one place to another for their customers by issuing bank drafts, mail transfer etc.

(ii) Non Banking functions (secondary functions): Non banking functions are (a) Agency services (b)

General utility services

(a) **Agency services**:- Banks perform following functions on behalf of their customers: -

(i) It makes periodic payments of subscription, rent, insurance premium etc as per standing orders from customers.

(ii) It collects bill, cheques, demand drafts, etc on behalf of their customers

(iii) It acts as a trustee for property of its customers.

(iv) It acts as attorney. It can help in clearing and forwarding goods of its customers.

(v) It acts as correspondents, agents of their clients.

(b) **General utility services**:- General utility services of commercial banks are as follows:-

(i) Lockers are provided by bank to its customers at nominal rate.

(ii) Shares, wills, other valuables documents are kept in safe custody. Banks return them when demanded by its customers.

(iii) It provides travelers cheque and ATM facilities.

(iv) Banks maintain foreign exchange department and deal in foreign exchange.

(v) Banks underwrites issue of shares and debentures of concerns.

(vi) It compiles statistics and business information relating to trade & commerce.

(vii) It accepts public provident fund deposits.

Classification:

Commercial banks are classified into (a) scheduled banks and (b) non-scheduled banks.

A scheduled bank is so called because it has been included in the second schedule of the Reserve Bank of India Act, 1934. To be eligible for this inclusion, a bank must satisfy the following three conditions:-

(i) it must have a paid-up capital and reserves of an aggregate value of at least ₹ 5.00 lakh.

(ii) it must satisfy the RBI that its affairs are not conducted in a manner damaging to the interests of its depositors; and

(iii) it must be a corporation and not a partnership or a single-owner firm.

Scheduled banks enjoy certain advantages :- (i) Free / concessional remittance facilities through the offices of the RBI and its agents. (ii) Borrowings facilities from the RBI by depositing necessary documents. In return, the scheduled banks are under obligation to:-

(i) maintain an average daily balance of cash reserves with the RBI at rates stipulated by it; and

(ii) submit periodical returns to the RBI under various provisions of the Reserve Bank of India Act, 1934 and the Banking Regulation Act, 1949 (as amended from time to time).

All commercial banks such as Indian, foreign, regional rural banks and state co-operative banks are scheduled banks.

Non-scheduled banks are also subject to the statutory cash reserve requirement. But they are not required to keep them with the RBI; they may keep these balances with themselves. They are not entitled to borrow from the RBI for normal banking purposes, though they may approach the RBI for accommodation under abnormal circumstances.

Commercial banks may be classified as (a) Indian and (b) foreign bank.

(a) Indian banks are those banks which are incorporated in India and whose head offices are in India.

(b) Foreign banks are those banks which are incorporated outside of India and whose head offices are in outside of India.

Both types of bank will have to maintain cash reserves with the RBI at rates stipulated by it. Besides, RBI can supervise over working of foreign banks operating in India.

Commercial banks may also be classified as (a) Private and (b) Public sector bank.

(a) Private sector banks are those banks whose at least 51% shares are holding by private sectors.

(b) Public sector banks are those banks which are not private sectors.

6.3 NON-BANKING FINANCIAL COMPANY (NBFC)

The Reserve Bank of India is entrusted with the responsibility of regulating and supervising the Non- Banking Financial Companies by virtue of powers vested in Chapter III B of the Reserve Bank of India Act, 1934. The regulatory and supervisory objective is to:

(a) ensure healthy growth of the financial companies;

(b) ensure that these companies function as a part of the financial system within the policy framework, in such a manner that their existence and functioning do not lead to systemic aberrations; and that

(c) the quality of surveillance and supervision exercised by the Bank over the NBFCs is sustained by keeping pace with the developments that take place in this sector of the financial system.

It has been felt necessary to explain the rationale underlying the regulatory changes and provide clarification on certain operational matters for the benefit of the NBFCs, members of public, rating agencies, Chartered Accountants etc. To meet this need, the clarifications in the form of questions and answers, is being brought out by the Reserve Bank of India (Department of Non-Banking Supervision) with the hope that it will provide better understanding of the regulatory framework.

The information given below is of general nature for the benefit of depositors/public and the clarifications given do not substitute the extant regulatory directions/instructions issued by the Bank to the NBFCs.

Definition

A Non-Banking Financial Company (NBFC) is a company registered under the Companies Act, 1956 engaged in the business of loans and advances, acquisition of shares/stocks/bonds/debentures/ securities issued by Government or local authority or other marketable securities of a like nature, leasing, hire-purchase, insurance business, chit business but does not include any institution whose principal business is that of agriculture activity, industrial activity, purchase or sale of any goods (other than securities) or providing any services and sale/ purchase/construction of immovable property. A non-banking institution which is a company and has principal business of receiving deposits under any scheme or arrangement in one lump sum or in installments by way of contributions or in any other manner, is also a non-banking financial company (Residuary non-banking company).

Difference between banks & NBFCs

NBFCs lend and make investments and hence their activities are akin to that of banks; however there are a few differences as given below:

(i) NBFC cannot accept demand deposits;

(ii) NBFCs do not form part of the payment and settlement system and cannot issue cheques drawn on itself;

(iii) Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs, unlike in case of banks.

Registration requirement of NBFCs

In terms of Section 45-IA of the RBI Act, 1934, no Non-banking Financial company can commence or carry on business of a non-banking financial institution without a) obtaining a certificate of registration from the Bank and without having a Net Owned Funds of ₹ 25 lakhs (₹ two crore since April 1999). However, in terms of the powers given to the Bank to obviate dual regulation, certain categories of NBFCs which are regulated by other regulators are exempted from the requirement of registration with RBI viz. Venture Capital Fund/Merchant Banking companies/Stock broking companies registered with SEBI, Insurance Company holding a valid Certificate of Registration issued by IRDA, Nidhi companies as notified under Section 620A of the Companies Act, 1956, Chit companies as defined in clause (b) of Section 2 of the Chit Funds Act, 1982, Housing Finance Companies regulated by National Housing Bank, Stock Exchange or a Mutual Benefit company.

Different types/categories of NBFCs registered with RBI

NBFCs are categorized a) in terms of the type of liabilities into Deposit and Non-Deposit accepting NBFCs, b) non deposit taking NBFCs by their size into systemically important and other non-deposit holding companies (NBFC-NDSI and NBFC-ND) and c) by the kind of activity they conduct. Within this broad categorization the different types of NBFCs are as follows:

(i) Asset Finance Company (AFC) : An AFC is a company which is a financial institution carrying on as its principal business the financing of physical assets supporting productive/economic activity, such as automobiles, tractors, lathe machines, generator sets, earth moving and material handling equipments, moving on own power and general purpose industrial machines. Principal business for this purpose is defined as aggregate of financing real/physical assets supporting economic activity and income arising there from is not less than 60% of its total assets and total income respectively.

(ii) Investment Company (IC) : IC means any company which is a financial institution carrying on as its principal business the acquisition of securities,

(iii) Loan Company (LC): LC means any company which is a financial institution carrying on as its principal business the providing of finance whether by making loans or advances or otherwise for any activity other than its own but does not include an Asset Finance Company.

(iv) Infrastructure Finance Company (IFC): IFC is a non-banking finance company (a) which deploys at least 75 per cent of its total assets in infrastructure loans, (b) has a minimum Net Owned Funds of ₹ 300 crores, (c) has a minimum credit rating of 'A 'or equivalent (d) and a CRAR of 15%.

(v) Systemically Important Core Investment Company (CIC-ND-SI): CIC-ND-SI is an NBFC carrying on the business of acquisition of shares and securities which satisfies the following conditions:-

(a) it holds not less than 90% of its Total Assets in the form of investment in equity shares, preference shares, debt or loans in group companies;

(b) its investments in the equity shares (including instruments compulsorily convertible into equity shares within a period not exceeding 10 years from the date of issue) in group companies constitutes not less than 60% of its Total Assets;

(c) it does not trade in its investments in shares, debt or loans in group companies except through block sale for the purpose of dilution or disinvestment;

(d) it does not carry on any other financial activity referred to in Section 45I(c) and 45I(f) of the RBI act, 1934 except investment in bank deposits, money market instruments, government securities, loans to and investments in debt issuances of group companies or guarantees issued on behalf of group companies

(e) Its asset size is ₹ 100 crores or above and

(f) It accepts public funds

(vi) Infrastructure Debt Fund: Non- Banking Financial Company (IDF-NBFC): IDF-NBFC is a company registered as NBFC to facilitate the flow of long term debt into infrastructure projects. IDF-NBFC raise resources through

issue of Rupee or Dollar denominated bonds of minimum 5 year maturity. Only Infrastructure Finance Companies (IFC) can sponsor IDF-NBFCs.

(vii) Non-Banking Financial Company - Micro Finance Institution (NBFC-MFI): NBFC-MFI is a non-deposit taking NBFC having not less than 85% of its assets in the nature of qualifying assets which satisfy the following criteria:

(a) loan disbursed by an NBFC-MFI to a borrower with a rural household annual income not exceeding ₹60,000 or urban and semi-urban household income not exceeding ₹ 1,20,000;

(b) loan amount does not exceed ₹ 35,000 in the first cycle and ₹ 50,000 in subsequent cycles;

(c) total indebtedness of the borrower does not exceed ₹ 50,000;

(d) tenure of the loan not to be less than 24 months for loan amount in excess of ₹ 15,000 with prepayment without penalty;

(e) loan to be extended without collateral;

(f) aggregate amount of loans, given for income generation, is not less than 75 per cent of the total loans given by the MFIs;

(g) loan is repayable on weekly, fortnightly or monthly installments at the choice of the borrower.

(viii) Non-Banking Financial Company – Factors (NBFC-Factors): NBFC-Factor is a non-deposit taking NBFC engaged in the principal business of factoring. The financial assets in the factoring business should constitute at least 75 percent of its total assets and its income derived from factoring business should not be less than 75 percent of its gross income.

Requirements for registration with RBI

A company incorporated under the Companies Act, 1956 and desirous of commencing business of non-banking financial institution as defined under Section 45 I (a) of the RBI Act, 1934 should comply with the following:

(i) it should be a company registered under Section 3 of the companies Act, 1954

(ii) It should have a minimum net owned fund of ₹ 200 lakh. (The minimum net owned fund (NOF) required for specialized NBFCs like NBFC-MFIs, NBFC-Factors, CICs.

Acceptance of Public Deposit

All NBFCs are not entitled to accept public deposits. Only those NBFCs to which the Bank had given a specific authorisation are allowed to accept/hold public deposits.

Ceiling on acceptance of Public Deposits and the rate of interest and period of deposit which NBFCs can accept
The ceiling on acceptance of Public Deposits by NBFCs authorized to accept deposits. An NBFC maintaining required minimum NOF/Capital to Risk Assets Ratio (CRAR) and complying with the prudential norms can accept public deposits as follows:

Category of NBFC having minimum NOF of ₹200 lakhs	**Ceiling on public deposit**
AFC* maintaining CRAR of 15% without credit rating	1.5 times of NOF or ₹ 10 crore whichever is less
AFC with CRAR of 12% and having minimum investment grade credit rating	4 times of NOF
LC/IC** with CRAR of 15% and having minimum investment grade credit rating	1.5 times of NOF
* AFC = Asset Finance Company ** LC/IC = Loan company/Investment Company	

As has been notified on June 17, 2008 the ceiling on level of public deposits for NBFCs accepting deposits but not having minimum Net Owned Fund of ₹ 200 lakh is revised as under:

Category of NBFC having NOF more than ₹25 lakh but less than ₹200 lakh	**Revised Ceiling on public deposits**
AFCs maintaining CRAR of 15% without credit rating	Equal to NOF
AFCs with CRAR of 12% and having minimum investment grade credit rating	1.5 times of NOF

LCs/ICs with CRAR of 15% and having minimum investment grade credit rat- ing	Equal to NOF

Presently, the maximum rate of interest an NBFC can offer is 12.5%. The interest may be paid or compounded at rests not shorter than monthly rests.

The NBFCs are allowed to accept/renew public deposits for a minimum period of 12 months and maximum period of 60 months. They cannot accept deposits repayable on demand.

Salient features of NBFCs regulations which the depositor may note at the time of investment

Some of the important regulations relating to acceptance of deposits by NBFCs are as under:

(i) The NBFCs are allowed to accept/renew public deposits for a minimum period of 12 months and maximum period of 60 months. They cannot accept deposits repayable on demand.

(ii) NBFCs cannot offer interest rates higher than the ceiling rate prescribed by RBI from time to time.

The present ceiling is 12.5 per cent per annum. The interest may be paid or compounded at rests not shorter than monthly rests.

(iii) NBFCs cannot offer gifts/incentives or any other additional benefit to the depositors.

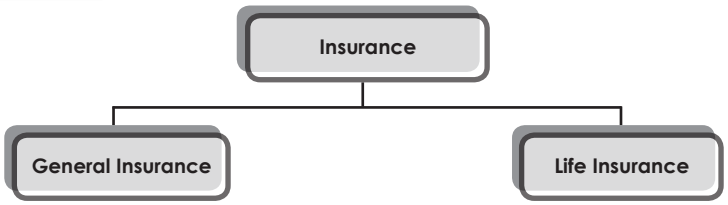
(iv) NBFCs (except certain AFCs) should have minimum investment grade credit rating.

(v) The deposits with NBFCs are not insured.

(vi) The repayment of deposits by NBFCs is not guaranteed by RBI.

(vii) Certain mandatory disclosures are to be made about the company in the Application Form issued by the company soliciting deposits.

6.4 INSURANCE COMPANIES



General Nature of Insurance Companies

The insurance industry has both economic and social purpose and relevance. It provides social security and promotes individual welfare. It reduces risk and helps to raise productivity in the economy. The **actual premium** of insurance companies comprises the pure premium and administrative as well as marketing cost. The pure premium is the present value of the expected cost of an insurance claim. Since there is a lag between payment of premiums and payment of claims, there is generation of investible funds known as **insurance reserves**. Insurance companies may be organised as either corporations or mutual associations. A **corporation** is owned by its stock holders. In mutual association form, the customers are the owners, and management is formally subject to their control. There are various parts of insurance industry: life insurance, health insurance, general (property liability/property casualty) insurance, etc. While the **cash flow of insurance companies** is constant, their payout is deferred and contingency related. But general insurance, suffers from underwriting cycles i.e. wide swings in premiums, profitability, funds availability, etc. Generally, the insurance companies are big investors in long-gestation infrastructure development projects; they are major mobilisers of funds. But it has been found that restrictions on permitted investments have put insurance companies at a competitive disadvantage, which has led them to enter into retirement related products.

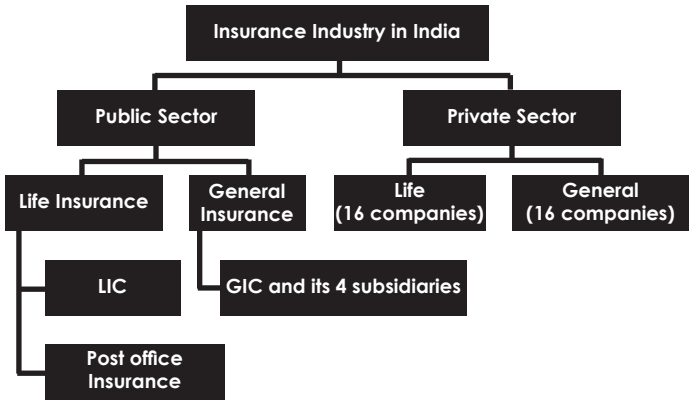
The insurance companies are financial intermediaries as they collect and invest large amounts of premiums. They offer protection to the investors, provide means for accumulating savings, and channelise funds to the government, and other sectors. They are contractual saving agencies which receive, mostly without fail, steady inflow of funds in the form of premiums or regular contributions to pension plans. They are also in a position to predict, relatively accurately, when what amounts of insurance or pension benefits have to be paid. Further, their liabilities in most cases are long-term liabilities, for many life policies are held for 30 or 40, or 50 or even more years. As a result, the liquidity is not a problem for them, and their major activity is in the field of long-term investments. Since they offer life-cover to the investors, the guaranteed rate of return specified in insurance policies is relatively low. Therefore, they do not need to seek high rates of return on their investments.

The insurance companies are active in the following fields among other—life, health, and general, and they

have begun to operate the pension schemes and mutual funds also. Insurance business consists of spreading risks over time and sharing them between persons and organisations. The major part of insurance business is life insurance, the operations of which depend on the laws of mortality. The distinction between life and general insurance business is that with regard to the former, the claim is fixed and certain, but in the case of the latter, the claim is uncertain i.e., the amount of claim is variable and it is ascertainable only sometime after the event. Pension business is a specialised form of life assurance.

Insurance Sector Reforms

The insurance sector in India has gone through the process of reforms following these recommendations. The Insurance Regulatory & Development Authority (IRDA) Bill was passed by the Indian Parliament in December 1999. The IRDA became a statutory body in April, 2000 and has been framing regulations and registering the private sector insurance companies. The insurance sector was opened upto the private sector in August 2000. Consequently, some Indian and foreign private companies have entered the insurance business now. There are about seven general insurance and eleven life insurance companies operating in the private sector in India, early in 2004.



The Structure of Insurance Industry in India

Statutory functions of IRDA are as follows:

- Issue to the applicant a certificate of registration, renew, modify, withdraw, suspend or cancel such registration
- Protection of the interests of the policyholders in matters concerning assigning of policy, nomination by policy holders, insurable interest, settlement of insurance claim, surrender value of policy and other terms and conditions of contracts of insurance
- Specifying requisite qualifications, code of conduct and practical training for intermediaries or insurance intermediaries and agents
- Specifying the code of conduct for surveyors and loss assessors
- Promoting efficiency in the conduct of insurance business
- Promoting and regulating professional organisations connected with insurance and reinsurance business
- Levying fees and other charges for carrying out the purposes of the Act
- Calling for information from, undertaking inspection of, conducting enquiries and investigations including audit of the insurers, intermediaries, insurance intermediaries and other organisations connected with the insurance business
- Control and regulation of rates, advantages, terms and conditions that may be offered by the insurers in respect of general insurance business not so controlled and regulated by the Tariff Advisory Committee under Section 64 U of the Insurance Act 1938 (4 of 1938)
- Specifying the form and manner in which books of accounts shall be maintained and statements of accounts shall be rendered by insurers and other insurance intermediaries
- Regulating investment of funds by insurance companies
- Regulating maintenance of margin of solvency
- Adjudication of disputes between insurers and intermediaries or insurance intermediaries
- Supervising the functioning of the Tariff Advisory Committee
- Specifying the percentage of the premium income of the insurer to finance schemes for promoting and

regulating professional organisations referred to in clause (f)

- Specifying the percentage of life insurance business and general insurance business to be undertaken by the insurers in the rural and social sector
- Exercising such other powers as may be prescribed.

6.5 PENSION FUNDS

Pension Funds (PNFs) have grown rapidly to become the primary vehicle of retirement benefit or retirement saving, and retirement income in many countries. A Pension Plan (PP) is an arrangement to provide income to participants in the Plan when they retire. PPs are generally sponsored by private employers, government as an employer, and labour unions. They may be Funded Pension Plans (FPPs) or Unfunded Pension Plans (UPPs). If the benefits promised by the PP are secured by assets specifically dedicated for that purpose, it is called a FPP. If the fulfillment of the promised benefits by the sponsor depends on the general credit and not by any specific contribution to be made year after year, it is called an UPP. There may also be Individual Retirement Pension Plans (IRPPs)

Pension Funds

In other countries, pension funds are a powerful financial intermediary. It was estimated that at the world level, pension funds controlled $6,700 billion in 1995. In India, private pension funds still do not exist but many people have begun to stress the need for setting up such funds; and a small beginning was recently made in this respect. The setting up of the first investment-based pension fund proposed by the UTI was approved by the government in October 1994. This retirement benefit plan is meant to enable self-employed people to contribute to a pension fund so as to provide security in their old age. It is an open-ended plan in which anyone between the age of 18-52 years can contribute and receive regular monthly income from 58 years onwards. The subscriptions to the fund are expected to grow by investment in equities and debt in the ratio of 40:60. The minimum subscription is to be ₹10,000 to be paid in not more than 20 instalments of a minimum of ₹ 500 each. The withdrawal is permitted after 70 years of age, and even a premature withdrawal is allowed at a discount.

Classification of Pension Plans - The financial intermediary, or an organisation, or an institution, or a trust that manages the assets and pays the benefits to the old and retirees is called a Pension Fund (PNF). Some pension plans are said to be insured i.e. in such cases, the sponsor pays premiums to a life insurance company in exchange for a group annuity that would pay retirement benefits to the participants.

Another classification of PPs is:

(a) Defined Benefits Pension Plan (DBPP),

(b) Defined Contribution Pension Plan (DCPP) or Money Purchase Pension Plan (MPPP),

(c) Pay-as-you-go Pension Plan (PAYGPP)

(i) Defined Benefits Pension Plan (DBPP)

Under DBPP, the final pension is pre-defined based on the final salary and the period of service. Most of the pension plans offered by public sector enterprises and the government as employer in India are of DBPP variety. This type ensures a predictable amount of pension to the employees for all the years after their retirement and it is guaranteed by the State. DBPPs involve considerable cost to the employer. The firms with DBPP typically establish a legally separate trust fund, and the trustees invest employers' contributions in shares and bonds.

(ii) Defined Contribution Pension Plan (DCPPs)

It is popular in US, do not guarantee the amount of final benefit which the employees would get after they retire. In DCPP, the employee and employer make a predetermined contribution each year, and these funds are invested over the period of time till the retirement of employee. Whatever the value of these investments at the time of retirement, the employee will get a certain amount which he would use to purchase an annuity. From the point of view of the employer, DCPP is also known as "money purchase pension plan".

(iii) Pay-As-You-Go-Pension Plan (PAYGPP)

In most European countries, including France and Germany, pensions are paid through PAYGPP, under which the current employees pay a percentage of their income to provide for the old, and, this, along with the contribution of the State, goes as a pension that sustains the older generation. In US, there has been a

trend towards a decline in DBPPs and an increase in DCPPs.

Management of Pension Funds Some sponsors of pension plans manage their pension funds themselves, but most of the sponsors appoint a trustee to do so on their behalf. This trustee is usually a trust department of a commercial bank, or an insurance company, or a mutual fund. The trustee- manager invests contributions provided by the sponsor and pays benefits to the retired persons. In the case of DBPPs, the assets of the PNF remain the property of the sponsor, who sets general investment policy in respect of portfolio composition, target return, quality of securities, etc. The fund manager takes day-today decisions on buying or selling specific assets. Some large sponsors may divide the management of their PNFs among several trustee-managers.

There are certain advantages in managing PNFs by outside trustees: (a) Transaction costs are lower. The trustee has greater expertise and he possesses all the necessary personnel, equipment, and expertise in regulatory requirements, (b) It enhances the credibility of the pension plan.

Pension System in India

In India, the pension system coverage is very small at present. The pension market in India is highly unorganised which covers hardly three per cent of the Indian population. The Employees' Provident Fund (EPF), Employees' Pension Scheme (EPS), and the PPF are the only schemes, which cover the pension market in India. The regular salaried employees in the organised sector have been relatively better off in that public policy provided vehicles for compulsory savings and old age provisions. It is estimated that by the year 2000, around 23 per cent of people employed in the government sector were the beneficiaries of the government's 'defined benefit pension scheme', and 49 per cent of people employed in the private sector were covered by the mandatory employee provident fund.

The pension schemes in operation in India currently can broadly be divided into the following categories:

(1) Civil Services Pension Schemes (Pay as- you-go), (2) Employees' Provident Fund (EPF), (3) Employees' Pension Scheme (EPS). (4) New Pension Scheme (NPS), (5) Voluntary Pension Schemes under which two schemes are in operation such as (i) Personal / Group Pension Plans, (ii) Public Provident Fund.

Current Pension Schemes

Some of the pension schemes available in India at present are:

(i) Government Employees' Pension Scheme: The Government Employees' Pension Scheme (GEPS), which has been made mandatory from 1995. It is a subset of Employees' Provident Fund (EPF). It provides (a) superannuation pension, (b) retirement pension, (c) permanent total disability pension, (d) widow or widower's pension, and (e) orphan pension. It is essentially a defined-contribution and defined benefit pay-as-you-go scheme, which is financed by diverting 8.33 per cent of the employers' existing share of PF contributions.

The Central government contributes an amount equivalent to 1.16 percent of a worker's salary. The scheme provides a minimum pension of ₹ 500 per month and a maximum pension of 60 per cent of the salary. All assets and liabilities of the erstwhile Family Pension Fund Scheme, 1971 have been transferred to this GEPS, 1995 scheme. After the introduction of this scheme, the employees who had enrolled in the LIC pension schemes will also obtain pension benefits from GEPS, which is also known as Employees Pension Scheme (EPS), 1995. However, only the scheme (Pension and Provident Fund Scheme for employees of establishments covered under the Employees Provident Fund Act, 1952) run by Central Provident Fund Commissioner (CPFC) is eligible for the government contribution of 1.16 per cent of salary, thereby discouraging establishments to seek exemption from running their own schemes. The employers who want to be exempted have to contribute the balance 1.16 per cent of the salary, thereby ensuring that a contribution rate of 9.5 per cent is maintained for both exempted and non-exempted schemes. All benefits from exempted schemes have to be at least equal to those provided under the EPS 1995. Employers who do not wish to contribute to centrally administered EPF can set up their own trustee managed funds and seek the same exemption from Employees' Provident Fund Organisation.

The EPF and EPS funds are invested mainly in government securities and government special deposit schemes, and individual employees do not have any say in the choice of investments. Investments of privately managed "exempted Provident Funds" are governed by guidelines which are at present as given below:

Security	Minimum % to be invested
1. Central Govt. Securities	25%
2. Govt. Securities and State Govt. Securities or guaranteed by them	15%
3. Public sector units and financial institutions bonds	30%
4. Any of the above 3 categories	30%

(ii) BEPS and IEPS

Bank Employees Pension Scheme (BEPS), 1993, and Insurance Employees Pension Scheme (IEPS), 1993 are for the benefit of the employees of public sector banks, and government owned insurance companies respectively. They are financed by the entire employer's portion of the PF contribution which is 10% of the basic salary. The main benefit under these schemes (after superannuation at 60 years of age or after 33 years of service) is in the form of a pension of 50% of the average basic salary during the last 10 months of employment. An additional benefit of 50% of the average of the allowances which rank for the PF but not for DA during the last 10 months of service is also provided to the employees, and this amounts to 2-4% of the employee's salary.

(iii) Privately Administered Superannuation Fund

So far, the private sector has been kept out in respect of setting up and running of pension funds; they have been run by the government or semi-government organisations. If any employer sets up a privately administrated superannuation fund, it is stipulated that he can accumulate funds in the form of an irrevocable trust fund during the employment period of the employee concerned, but when the pension becomes payable, suitable annuities have to be purchased from the LIC. Alternatively, the employer can have a superannuation scheme with the LIC and pay suitable contributions for the employees in service.

LIC has introduced 4 pension plans in the recent past:

(i) Varistha Pension Bima Yojana (VPBY)

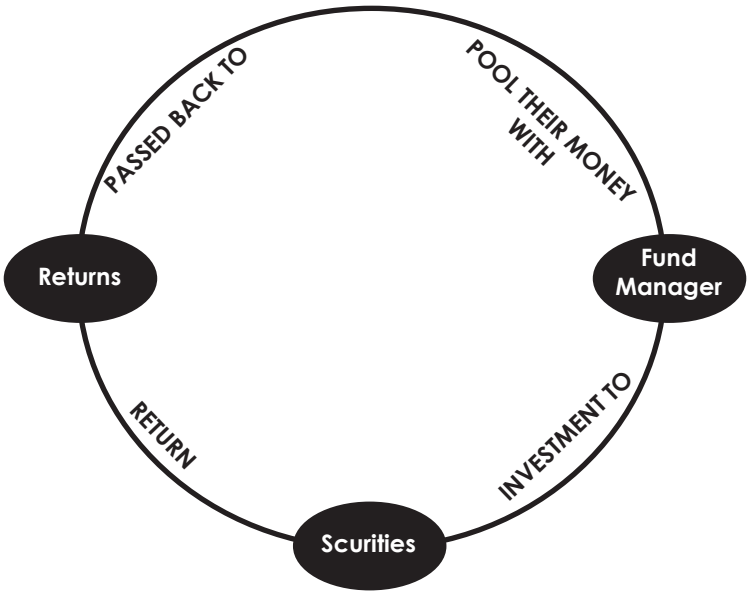
(ii) New Jeevan Akshay (NJA)

(iii) New Jeevan Dhara (NJD)

(iv) New Jeevan Suraksha (NJS)

5 MUTUAL FUNDS

A mutual Fund is a professionally managed investment scheme, usually run by an asset management company that brings together a group of people and invests their money in stock, bonds and other securities.



Mutual Fund Operation

The investors in mutual fund are given the share in its total funds which is proportionate to their investments, and which is evidenced by the unit certificates.

Mutual Fund (MF) is a fund established in the form of a Trust, to raise monies through sale of units to the public or a section of the public under one or more schemes for investing in Securities, including Money Market Instruments. [Trust Deed should be duly registered under the Indian Registration Act, 1908.]

However unlike share holders in a company, the share holders in mutual funds do not have any voting rights.

Mutual fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost.

In India, a mutual fund is required to be registered with Securities and Exchange Board of India which regulates securities markets before it can collect funds from public.

Mutual Funds are required to get registered with the Securities and Exchange Board of India (SEBI).

Activities involved:

(i) Formulation of Scheme: A Mutual Fund formulates a scheme with a specified objective to meet the investment needs of various investors i.e. High Return Scheme, Fixed Return Scheme etc. The Scheme should be approved by the Trustees and filed with SEBI.

(ii) Sale of Units: Units under the scheme are sold to the investors to collect funds from them.

(iii) Investment by AMC: An AMC can invest in any of the schemes of a MF only if full disclosure of its intention to invest has been made in the offer documents. An AMC shall not be entitled to charge any fees on its investment in that scheme.

(iv) Portfolio Creation: Resources so received from investors are pooled to create a diversified portfolio of securities by investing the money in instruments, which are in line with the objectives of respective schemes.

(v) Investment Pattern: The Investment Pattern of Mutual Funds is governed partly by Government Guidelines and partly by nature and objective of Mutual Fund.

(vi) Daily Operations: Daily operations are managed by professionals and Expert Fund Managers who take investment decisions regarding where, when and what to invest and disinvest to get the maximum return as well as higher capital appreciation.

(vii) Meeting of Expenses: Expenses like custodial fee, cost of dividend warrants, Registrar's Fee, Asset Management Fee etc, are borne by the respective scheme.

(viii) Purchase and Repurchase Price: The purchase and repurchase price of Mutual Funds are generally fixed and also vary in Stock Exchanges if the security is quoted on the basis of its Net Asset Value.

(ix) Maturity: Balance remaining in the scheme is returned to the investors upon its maturity on the basis of the Net Assets Value of the scheme on that date.

Role of Mutual Fund in Financial Market:

(i) Organized Investments: Due to participation of Mutual Funds in a large scale, it has transformed the Financial Market Transactions into a much more organized. Individual investors may speculate to the maximum, but under the collective investment scheme (i.e. Mutual Fund), the tendency to speculate greatly reduced at an individual level.

(ii) Evolution of Stock Markets: Large scale transactions entered into by Mutual Funds, headed by team professionals, have helped in the evolution of stock markets and financial markets.

(iii) Household Savings: They are the ideal route for many a household to invest their savings for a higher returns, than normal term deposits with banks.

The advantages of investing in Mutual Funds:

(i) Professional Management: Investors avail the services of experienced and skilled professionals who are backed by a dedicated investment research team which analyses the performance and prospects of companies and selects suitable investments to achieve the objectives of the scheme.

(ii) Diversification: MFs invest in a number of companies across a broad cross-section of industries and sectors. Investors achieve this diversification through a MF with less money and risk.

(iii) Convenient Administration: Investing in a MF reduces paper work and helps investors to avoid many problems such as bad deliveries, delayed payments and unnecessary follow up with brokers and companies.

(iv) Return Potential: Over a medium to long term, MF has the potential to provide a higher return as they invest in a diversified basket of selected securities.

(v) Low Costs: MFs are a relatively less expensive way to invest compared to directly investing in the capital markets because the benefits of scale in brokerage, custodial & other fees translate into lower costs for investors.

(vi) Liquidity: In open ended schemes, investors can get their money back promptly at Net Asset Value (NAV) related prices from the Mutual Fund. With close-ended schemes, investors can sell their units on a stock exchange at the prevailing market price, or avail of the facility of direct repurchase at NAV related prices which some close ended and interval schemes offer periodically.

(vii) Transparency: Investors get regular information on the value of their investment in addition to disclosure on the specific investments made by scheme, the proportion invested in each class of assets and the Fund Manager's investment strategy and outlook.

Limitations of taking the Mutual Fund route for investment:

(i) No Choice of Securities: Investors cannot choose the securities which they want to invest in.

(ii) Relying on Other's Performance:

- Investors face the risk of Fund Manager not performing well. Investors in Mutual Fund have to rely on

the Fund Manager for receiving any earning made by the fund, i.e. they are not automatic.

- ❖ If Fund Manager's pay is linked to performance of the fund, he may be tempted to perform only on short-term and neglect long-term performance of the fund.

(iii) **High Management Fee:** The Management Fees charged by the fund reduces the return available to the investors.

(iv) **Diversification:** Diversification minimizes risk but does not guarantee higher return.

(v) **Diversion of Funds:** There may be unethical practices e.g. diversion of Mutual Fund amounts by Mutual Fund/s to their sister concerns for making gains for them.

(vi) **Lock-In Period:** Many MF schemes are subject to lock in period and therefore, deny the investors market drawn benefits.

Functions of Asset Management Company and The Statutory Requirements for a Company to be Registered as AMC:

A. Functions:

(i) **Operations:** Asset Management Company (AMC) manages the affairs of the Mutual Fund in relation to the operation of Mutual Fund schemes. The Asset Management Company is a key link in the success of the scheme and the interests of the unit holders.

(ii) **Records:** It is expected to maintain a record in support of each investment decision.

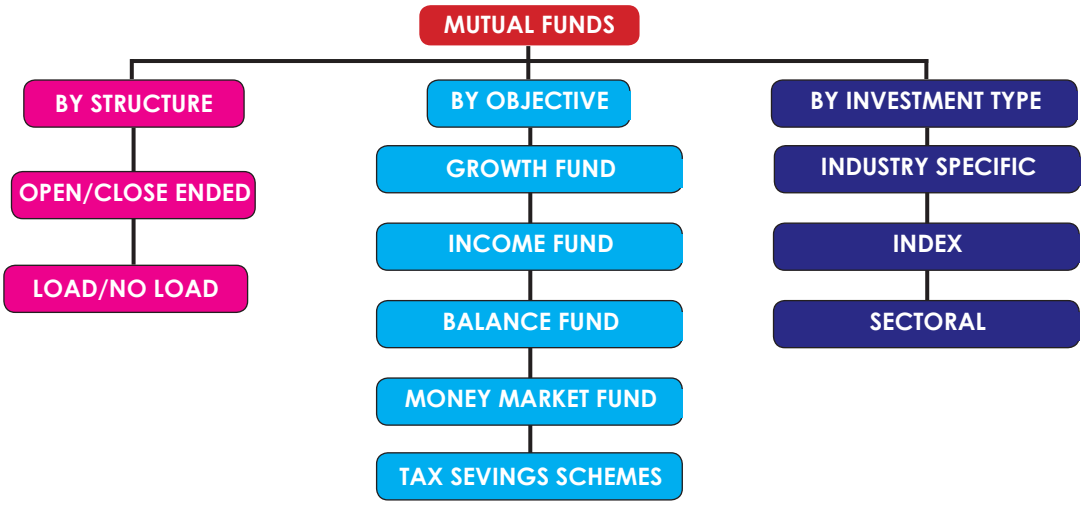
B. Statutory Requirements:

(i) **SEBI Approval:** AMC should be approved by SEBI and cannot be changed, except unless by a majority of the trustees or by 75% of the unit-holders.

(ii) **Other Conditions:**

- ❖ AMC's Directors should be persons of standing and suitable professionals.
- ❖ Chairman of the AMC should not be the trustee of any Mutual Fund.
- ❖ AMC should have a minimum Net Worth of ₹10 Crores.

Different types of Mutual Fund schemes



Now the different Types of Mutual Fund Schemes are detailed as under:

(A) By Structure

I. Open End and Closed End Funds:

Aspect	Open End Funds	Closed End Funds
Initial Subscription	Open-End Fund is one which is available for subscription all through the year.	Fund is open for subscription only during a specified period.
Maturity	Do not have a fixed maturity.	Stipulated maturity period (3 to 15 Years)

Subsequent Transactions	Investors can buy and sell units at Net Asset Value related prices.	Investors can invest at the time of the initial public issue and thereafter they can buy or sell the units of the scheme on the stock exchanges where they are listed.
Repurchase	Any time.	Based on terms of the fund. Periodic repurchase at NAV related price.

Interval Funds: Interval funds combine the features of open-ended and close ended schemes. They are open for sale or redemption during pre-determined intervals at NAV related prices.

II. Load Funds and No-Load Funds:

(a) Load Funds: MF can recover the initial marketing expenses (loads) in any of the following ways —

- **Entry Load:** Deducting these expenses at the joining time (suitably adding to the existing NAV, thus allotting less units).
- **Deferred Load:** By deducting deferred load, where the expenses are charged over a specified period.
- **Exit Load:** By deducting these expense when investors exit the scheme (suitable reducing from the existing NAV while making payment)

(b) No Load Funds: Investor in a No-Load fund enters and exits the fund at the NAV, i.e. they do not bear the initial marketing expenses.

Note: Load / No—Load Funds are differentiated on the basis of initial marketing expenses and not on the basis of other running/ management expenses.

(B) By Investment Objectives:

(I) Growth Funds:

(a) Object: To provide capital appreciation over the medium to long term.

(b) Investment Pattern: Such schemes invest a majority of their corpus in equities. It has been proved that returns from stocks, have outperformed most other kind of investments held over the long term.

(c) For Whom? Growth Schemes are meant for investors who have a long-term outlook, and seek growth over a period.

(II) Income Funds:

(a) Object: To provide regular and steady income to investors.

(b) Investment Pattern: Fixed income securities such as Bond, Corporate Debentures and Government Securities.

(c) For Whom? Income Funds are ideal for capital stability and regular income.

(d) Variants:

- **Gilt Fund:** Fund that invests its proceeds only in Government Securities and Treasury Bills.
- **Bond Fund:** Fund that invests its proceeds only in Bonds and Corporate Debt Instruments.

(III) Balance Funds:

(a) Object: Provide both growth and regular income. Such schemes periodically distribute a part of their earning.

(b) Investment Pattern: Both in Equities and Fixed Income Securities, in the proportion indicated in their offer documents.

(c) For Whom? For investors looking for a combination of income and moderate growth.

(d) Less Sensitive to Market Movements: In a rising stock market, the NAV of these schemes may not normally keep pace, or fall equally when the market falls.

(IV) Money Market Funds:

(a) Object: Provide easy liquidity, preservation of capital and moderate income.

(b) Investment Pattern: Safer Short-Term Instruments such as Treasury Bills, Certificates of Deposit, Commercial Paper and Inter-Bank Call Money. Returns on these schemes may fluctuate depending upon the interest rates prevailing in the market.

(c) For Whom? For corporate and individual investors, who wish to invest their surplus funds for short period.

(V) Tax Saving Schemes:

(a) Object: Provide tax rebates to the investors under specific provisions of the Indian Income Tax laws as the Government offers tax incentives for investment in specified avenues.

(b) For Whom? For persons who seek to park their otherwise taxable income in funds for a moderate income, to reduce their tax liability.

(VI) BY INVESTMENT TYPES:

(a) Industry Specific Schemes: Industry-Specific Schemes invest only in the industries specified in the offer document. The investment of these fund is limited to specific industries like Infotech, FMCG, Pharmaceuticals, etc.

(b) Index Schemes: Index Funds attempt to replicate the performance of a particular index such as the BSE Sensex or the NSE 50

(c) Sectoral Schemes: Invest exclusively in a specified sector. This could be an industry or a group of industries or various segments such as "A" Group shares or initial public offerings.

An overview of new types of Mutual Funds that are in vogue today:

(A) Exchange Traded Fund (ETF) :

(i) Nature: An ETF is a hybrid product having features of both an Open-Ended Mutual Fund and an exchange-listed security. It is a fund that tracks an index, but can be traded like a stock.

(ii) Scheme/Structure: In this type of fund, money is invested in the stocks of the index in the same proportion. ETF are traded on stock exchanges, and hence can be traded any time during the day.

(iii) Features:

- Prices fluctuate from moment to moment. The difference in price is due to the forces of demand and supply for ETF in the market at that point of time.
- Investor needs a broker to purchase units of ETF.
- They have very low operating and transaction costs, since there are no loads or investment minimums required to purchase and ETF.
- ETFs can be traded any time during the day, as against conventional index funds which can be traded only at the end of the day.
- ETF units can be traded at a premium or discount to the underlying Net Asset Value.

(B) Fund of Funds:

(i) Nature: It is a Mutual Fund Scheme, where the subscription proceeds are invested in other Mutual Funds, instead of investing in Equity or Debt Instruments.

(ii) Features:

- These funds offer and achieve a greater diversification than traditional mutual funds.
- Expense/Fees on such funds are higher than those on regular funds because they include part of the expense fees charged by the underlying funds.

- ❖ Indirectly, the proceeds of Fund of Funds may be invested in its own funds, and can be difficult to keep track of overall holdings.

(C) Systematic Withdrawal Plan (SWP):

(i) Nature: SWP permits the investor to make an investment at one go and systematically withdraw at periodic intervals, at the same time permitting the balance funds to be re-invested.

(ii) Features:

- ❖ Investors can receive regular income while still maintaining their investment's growth potential.
- ❖ SWP includes convenient payout options and has several tax advantages.
- ❖ Withdrawal can be done either on a monthly basis or on a quarterly basis, based on needs and investment goals of an investor.
- ❖ Tax is not deducted, & dividend distribution tax is not applicable. There are no entry or exit loads.

(D) Systematic Investment Plan (SIP):

(i) Nature: Under a SIP, an investor can invest in the units of Mutual Funds at periodic intervals (monthly or quarterly) prevailing unit price of that time. This fund is for those investors who do not want to accumulate their savings and invest in one go. This fund permits them to accumulate their savings by directly investing in the mutual fund.

(ii) Feature: Investors can save a fixed amount of rupees every month or quarter, for the purchase of additional units.

Factors Affecting selection of Mutual Funds:

1) **Past Performance:** The Net Asset Value is the yardstick for evaluating a Mutual Fund. An increase in NAV means a capital appreciation of the investor. While evaluating the performance of the fund, the dividends distributed is to be considered as the same signifies income to the investor. Dividends distributed during a period go on to reduce the Net Asset Value of the fund to the extent of such distribution.

2) **Timing:** The timing when the mutual fund is raising money from the market is vital. In a bullish market, investment in mutual fund falls significantly in value whereas in a bearish market, it is the other way round where it registers growth.

3) **Size of Fund:** Managing a small sized fund and managing a large sized fund is not the same as it is not dependent on the product of numbers. Purchase through large sized fund may by itself push prices up while sale may push prices down. Medium sized funds are generally preferred.

4) **Age of Fund:** Longevity of the fund in business needs to be determined and its performance in rising, falling and steady markets have to be checked for consistency.

5) **Largest Holding:** It is important to note where the largest holdings in mutual fund have been invested in order to identify diversion of funds to Group Concerns.

6) **Fund Manager:** One should have an idea of the person handling the fund management. A person of repute gives confidence to the investors. His performance across varying market scenarios should also be evaluated.

7) **Expense Ratio:** SEBI has laid down the upper ceiling for Expense Ratio. A lower Expense Ratio will give a higher return which is better for an investor.

8) **PE Ratio:** The ratio indicates the weighted average PE Ratio of the stocks that constitute the fund portfolio with weights being given to the market value of holdings. It helps to identify the risk levels in which the mutual fund operates.

9) **Portfolio Turnover:** The fund manager decides as to when he should enter or quit the market. A very low portfolio turnover indicates that he is neither entering nor quitting the market very frequently. A high ratio, on the other hand, may suggest that too frequent moves have lead the fund manager to miss out on the next big wave of investments. A simple average of the portfolio turnover ratio of a peer group updated by

mutual fund tracking agencies may serve as a benchmark. The ratio is annual purchase plus annual sale to average value of the portfolio.

Poorly Performing Fund used as Exit Criteria:

1) When the mutual fund consistently under performs the broad based index, it is high time, that it should get out of the scheme. It would be better to invest in the index itself either by investing in the constituents of the index or by buying into an index fund.

2) When the mutual fund consistently under performs its peer group instead of it being at the top.

   In such a case, it would have to pay to get out of the scheme and then invest in the winning schemes.

3) When the mutual fund changes its objectives e.g. instead of providing a regular income to the investor, the composition of the portfolio has changed to a growth fund mode which is not in tune with the investor's risk preferences.

4) When the investor changes his objective of investing in a mutual fund which no longer is beneficial to him.

5) When the fund manager, handling the mutual fund schemes, has been replaced by a new entrant whose image is not known.

Establishment of a Mutual Fund:

1) SEBI Regulations: Mutual Funds should be registered with SEBI, for collecting funds from the public. Mutual Funds are governed by SEBI Regulations, are subject to monitoring and inspection by SEBI.

2) Sponsor:

(a) Meaning: Sponsor is a Body Corporate who establishes a Mutual Fund after completing the formalities prescribed in the SEBI's Mutual Fund Regulations. A Mutual Fund has to be established through the medium of a sponsor.

(b) Conditions:

- ❖ Sponsor should have a sound track record and general reputation of fairness and integrity in all its business transactions.
- ❖ Sponsor should contribute at least 40% to the Net Worth of the Asset Management Company.
- ❖ A Deed shall be executed by the Sponsor, in favour of the trustees named in the instrument of trust.

3) Trust:

(a) Constitution: Mutual Fund should be established as either a Trustee Company or a Trust, under the Indian Trust Act and the instrument of trust shall be in the form of a deed.

(b) Registration: The Trust Deed shall be duly registered under the provisions of the Indian Registration Act, 1908.

(c) Contents: Deed should contain the clauses specified in the Third Schedule of SEBI Regulations.

Restrictions and Conditions for investments by Mutual Funds:

(I) Inter-Scheme Transfer: Transfers of Investments from one scheme to another scheme in the same Mutual Fund will be allowed only if—

(a) Market Price: Transfers are done at prevailing market price for quoted instruments on spot basis.

(b) Investment Objective: Securities transferred should be in conformity with the investment objective of the scheme to which such transfer has been made.

(II) Fees for Investment: A Scheme can invest in another scheme — (a) under the same AMC, (b) other Mutual Fund, without charging any fees.

(III) Issue Expenses: Initial Issue Expenses of any scheme should not exceed 6% of funds raised there under.

(IV) Delivery Based Transactions:

(a) Delivery: Mutual Fund should buy and sell securities only on the basis of deliveries. It should take, delivery of the securities for purchases, and deliver the securities in case of sale.

(b) Prohibition: Purchase and sale should not result in a position where the Mutual Fund has to make short sale or carry forward transaction.

(c) Derivative Transaction: Mutual Funds can enter into Derivatives Transactions in a Recognized Stock Exchange for the purpose of hedging and portfolio balancing, in accordance with the guidelines issued by SEBI.

(V) Title: Every MF should get the securities purchased or transferred in the name of Mutual Fund on account of the concerned scheme, wherever investments are intended to be of long-term nature.

(VI) Bank Deposits: Pending deployment of funds of a scheme as per the investment objective, Mutual Funds can invest the same in Short-term Deposits of Scheduled Commercial Banks.

(VII) Restriction on Investments: Investments made by Mutual Funds should confirm to the following limits :

Instrument / Investment in	**Quantum of Investment and**
(a) Debt instruments of a single issuer and Mortgaged backed Securitised Debt	15% of NAV of the Scheme 20% with approval of Board of Trustees and AMC Govt. Securities and Money Market Instruments.
(b) Unrated Debt Instruments (Approval of Board of Trustees and AMC required)	Individually (for each issuer) - 10% of NAV of Scheme Aggregate Investment - 25% of the NAV of Scheme
(c) Share Capital of a Company	10% of the Company's Paid Up Capital.
(d) Scheme under the same AMC or other Mutual Fund under the same management or schemes of other AMC	5% of the NAV of the Mutual Fund.
(e) Equity Shares or Equity Related instruments of a Company	10% of the NAV of the Scheme Not applicable to investments in index fund or sector or industry specific scheme
(f) Unlisted Equity Shares/Equity Related instrument Open Ended Scheme Close Ended Scheme	5% of the NAV of the scheme 10% of the NAV of the scheme

(VIII) Prohibited Investments: A Mutual Fund should not invest in -

(a) any unlisted security of an Associate or Group Company of the Sponsor,

(b) any security issued by way of private placement by an Associate or Group Company of the Sponsor,

(c) listed securities of Group Companies of the Sponsor which is in excess of 25% of the Net Assets,

(d) any Fund of a Fund Scheme.

Net Asset Value (Nav) in Relation to a Mutual Fund:

Net Asset Value (NAV) of a Mutual Fund (MF) Scheme is the Market Value per unit of all the assets of the scheme. It is the value of each unit of the scheme. It includes dividends, interest accruals and reduction of liabilities and expenses.

(A) Ascertainment:

(i) The investors' subscription is treated as the capital in the Balance Sheet of the Fund, and the investments on their behalf are treated as assets.

(ii) NAV per Unit = Net Asset Value of the Fund ÷ No. of Units Outstanding.

(iii) It reflects the realizable value that the investor will get for each unit that he is holding if the scheme is liquidated on that date.

(iv) Net Assets = Market Value of Investments + Receivables + Accrued Income + Other Assets - Accrued Expenses - Payables - Other Liabilities

(B) Utility:

(i) The performance of a particular scheme of a mutual fund is denoted by NAV.

(ii) NAV plays an important part in investors' decisions to enter or to exit the Scheme.

(iii) Analysts use the NAV to determine the yield on the schemes. Investors' Rights & Obligations under the Mutual Fund Regulations:

(A) Rights:

(i) Unit holder has proportionate right in the beneficial ownership of the scheme assets, as well as any dividend or income declared under the scheme.

(ii) Unit holder is entitled to receive dividend warrant within 42 days.

(iii) AMC can be terminated by 75% of the unit holders.

(iv) Unit Holder has the right to inspect major documents i.e. material contracts, Memorandum of Association and Articles of Association of the AMC, Offer Document, etc.

(v) 75% of the unit holders have the right to approve any changes in the close-ended scheme.

(vi) Every unit holder have right to receive copy of the annual statement.

(B) Limitations to Investors' Rights:

(i) **No right against Trust:** Unit holders cannot sue the Trust, but they can initiate proceedings against the Trustees, if they feel that they are being cheated.

(ii) **No right to sue for lower returns:** Except in certain circumstances, AMC cannot assure a specified level of return to the investors. AMC cannot be sued to make good any shortfall in such schemes.

(C) Investors' Obligations:

(i) **Study of risk factors:** An investor should carefully study the risk factors and other information provided in the Offer Document. Failure to study will not entitle him for any rights thereafter.

(ii) **Monitoring schemes:** It is the responsibility of the investor to monitor his schemes, by studying the Reports and other Financial Statements of the Funds.

The steps taken for improvement and compliance of standards of Mutual Fund:

(A) Disclosure of Schemes:

(i) Disclosure: Mutual Funds should disclose the full portfolio of their schemes in the annual report within 1 month of the close of each financial year.

(ii) Mode of Disclosure: Mutual Fund should either send it to each unit holder or publish it by way of an advertisement in one english daily and one in regional language.

(B) Committee:

(i) AMC should prepare a compliance manual and design internal audit systems, before the launch of

any schemes.

(ii) The Trustees should constitute an Audit Committee, which will review the internal audit systems and the recommendation of the internal and statutory audit reports and ensure their rectification.

(D) Valuation Committee: The AMC shall constitute an in-house valuation committee consisting of senior executives including personnel from accounts, fund management and compliance departments. The Committee would review the system practice of valuation of securities on a regular basis.

(E) Transactions with Associates: The Trustees shall review all transactions of the Mutual Fund with the associates, on a regular basis.

Trustees with regard to setting up of a Mutual Fund and their eligibility for appointment:

(A) Meaning: Trustees means Board of Trustees or the Trustee Company who hold the property of the Mutual Fund in trust, for the benefit of the unit holders.

(B) Regulations: Mutual Fund shall appoint trustees in accordance with Mutual Fund regulations.

(C) Eligibility Conditions: A person can be appointed as a Trustee, only if he—

(a) is a person of ability, integrity and standing,

(b) Has not been found guilty of moral turpitude, and

(c) Has not been convicted of any economic offence or violation of any securities laws, and

(d) Has furnished the required particulars and information.

(D) Not Eligible for appointment as Trustee:

(a) Asset Management Company

(b) Officers or Employees of AMC

(E) Restriction on Further Appointment: A person who is appointed as a Trustee of a Mutual fund, cannot be appointed as a Trustee of any other Mutual Fund unless —

(a) He is an independent trustee.

(b) Prior approval of the Mutual Fund of which he is a trustee has been obtained for such an appointment.

(F) Independent Trustees: At least 2/3rd of the trustees should be independent persons and shall not be associated with the sponsors or be associated with them in any manner whatsoever.

(G) Company as Trustee: In case a Company is appointed as a Trustee, then its Directors can act as trustees of any other trust, provided that the object of the trust is not in conflict with the object of the Mutual Fund.

Rights and Obligations of the Trustees of a Mutual Fund, with reference to the operations of the Trust and the decisions they can take with reference to a fund:

1) Agreement: Trustees and the AMC should enter into an Investment Management Agreement. The Trustees have a right to obtain all information considered necessary from the AMC.

2) Obligations before Launch of Scheme: Before the launch of any new scheme, the Trustees should ensure that the AMC has —

(i) Proper infrastructure for handling the data, records, and to take care of accounting and dealing room requirements.

(ii) Appointed all key personnel including Fund Manager, and submitted their bio-data with the Trustees, within 45 days of their appointment.

(iii) Appointed Auditors to audit its accounts.

(iv) Appointed a Compliance Officer, for compliance with regulatory requirement and to redress investor grievances.

(v) Appointed registrars and laid down parameters for their supervision.

(vi) Prepared a Compliance Manual & designed internal control mechanisms including internal audit systems.

(vii) Specified norms for empanelment of Brokers and Marketing Agents.

3) Diligence and Integrity of AMC: Trustees should ensure that the AMC —

(i) Has been diligent in empanelling the brokers, in monitoring securities transactions with brokers and avoiding undue concentration of business with any brokers.

(ii) Has not given any undue or unfair advantage to any associates or dealt with any of the associates of the AMC in any manner detrimental to interest of the unit holders.

(iii) Has entered into transactions in accordance with SEBI regulations and the scheme and the Trust Deed.

(iv) Has been managing the Mutual Fund Schemes independently of other activities, and have taken adequate steps to ensure that the interest of investors of one scheme are not being compromised with those of any other scheme or of other activities of the AMC.

4) Intimation to SEBI: If the Trustees believe that Mutual Fund Scheme is not being conducted in accordance with regulations, they should immediately inform SEBI of the violation and the action taken by them.

5) Submission of Details: Each Trustee should file details of his transactions of dealing in securities with the Mutual Fund on a quarterly basis.

6) Custodian of Assets: Trustees are accountable for and are the custodian of, the funds and property of the respective schemes.

7) Calling for Information: Trustees should call for the details of transactions in securities by the key personnel of the AMC in his own name/on behalf of the AMC & should report to SEBI, as & when required.

8) Review Activities: Trustees should review

(i) **Related Party Transactions:** All transactions carried out between the Mutual Funds, AMC & its associates.

(ii) **Net Worth:** Net Worth of the AMC and in case of any shortfall, ensure that the AMC make up for the shortfall as per SEBI Regulations.

(iii) **Service Contracts:** All service contracts such as custody arrangements, transfer agency of the securities and satisfy itself that such contracts are executed in the interest of the unit holders.

(iv) **Investor Complaints:** Investor complaints received and the redressal of the same.

9) No Conflict of Interest: Trustees should ensure that there are no conflict of interest between the manner of deployment of its Net worth by the AMC and the interest of the unit holders.

10) Furnishing of Information to SEBI: Trustees should furnish to the SEBI on a half yearly basis-

(i) **Activity Report:** Report on the activities of the Mutual Fund.

(ii) **Certificate on Transaction by Related Parties**: Certificate stating that the Trustees have satisfied themselves that there have been no instances of self dealing or front running by any of the Trustees, directors and key personnel of the AMC.

(iii) **Certificate on Management of Fund:** Certificate that the AMC has been managing the schemes independently of any other activities, by ensuring that the interest of the unit holders are protected.

11) Consent of Unit holders: The trustees shall obtain the consent of the unit holders when —

(i) Required to do so by the Board in the interest of the unit holders; or

(ii) Required to do so on the requisition made by 3/4ths of the unit holders of any scheme; or

(iii) When the majority of the trustees decide to wind up or prematurely redeem the units; or

(iv) When any change in the fundamental attributes of any scheme or the trust or fees and expenses payable or any other change which would modify the scheme or affect the interest of the unit holders is proposed to be carried out unless the consent of not less than 3/4ths of the unit holders is obtained.

Criteria for appointment of AMC and other conditions to be satisfied by an AMC:

(A) Eligibility Criterion:

(i) Financial Performance:

Sound Track Record (Net Worth and Profitability), good reputation and fairness in transaction.

Minimum Net Worth = ₹10 Crores.

(ii) Directors / Key Personnel

Qualification and Experience: Directors of AMC to have adequate professional experience in finance and financial services related field.

Clean Records: Should not have been found guilty of moral turpitude or convicted of any economic offence or violation of any securities laws / economic laws.

Previous Employment: They should not have worked for any AMC / Mutual Fund / Intermediary during the period when such AMC / MF / Intermediary were suspended by SEBI.

(iii) Independent Directors: Board of Directors of AMC to have atleast 50% Independent Directors, i.e. not associated with, the sponsor or any of its subsidiaries or the Trustees.

(iv) Chairman: Chairman of the AMC should not be Trustee of any Mutual Fund.

(B) Other Terms and Conditions: Approval granted shall be subject to the following conditions —

(i) Restriction on Directorship: Director of the AMC shall not be Director in another AMC. Independent Directors are excluded from this restriction.

(ii) Furnishing of Particulars: In case of any material change in the information/ particulars previously furnished, AMC should immediately inform the SEBI.

(iii) Appointment of Directors: Appointment of Director of an AMC will require the prior approval of the Trustees.

(iv) Compliance with Regulations: AMC should comply with SEBI Regulations.

(v) Change in Controlling Interest: Change in controlling interest of the AMC will require the prior approval of Trustees, SEBI and the Unit Holders.

(vi) Furnishing of Documents / Information to Trustees: AMC should furnish information and documents to the Trustees as and when required by the Trustees.

(C) Restriction on Activities of AMC:

(i) Not to be Trustee: AMC should not act as a Trustee of any Mutual Fund.

(ii) Business Activities: Without the approval of SEBI, an AMC cannot undertake any other business activities except :-

Portfolio Management Services,

Management and advisory services to Offshore Funds, Pension Funds, Provident Funds, Venture Capital Funds, etc.

(iii) Not to Invest in Schemes: AMC should not invest in any of its schemes, unless full disclosure of such intention has been made in the offer document.

Duties and obligations of an AMC with reference to management of Mutual Fund Scheme:

1) Regulations: AMC should ensure that the Scheme Funds are invested only in accordance with SEBI Regulations and the Trust Deed.

2) **Investment Decisions:** It should take all its investment decisions with care and diligence, in the same manner as any other person in the same business would have taken.

   (a) **Liability for Acts of Persons:** AMC is responsible for the acts of commission or omissions by its Employees, or

   (b) Persons whose services have been procured by the AMC.

3) **Non-Exclusion from Liability:** AMC or its Directors or other Officers shall not be absolved of liability to the Mutual Fund for their acts of commission or omission, while holding such position or office.

4) **Activity Report to Trustees:** AMC should submit a report on its activities and the compliance with the SEBI regulations. Such a report should be furnished every quarter.

5) **Related Party Transaction:**

   (a) AMC should not utilize the services of the — (i) Sponsor, or (ii) any of its Associates, or (iii) Employees or their relatives, for any securities transaction and distribution and sale of securities without proper disclosure.

   (b) Report to SEBI/Trustees: Transactions entered into with any of the associates should be reported to SEBI and the Board of Trustees.

   (c) Transactions by Key-Management Personnel: AMC should furnish the details of transactions in securities by the key personnel of the AMC in their own name or on behalf of the AMC and shall also report to SEBI, as and when required by SEBI.

6) **Large Investor Particulars:**

   (a) **Situation:** Company has invested more than 5% of the NAV of a Scheme.

   (b) **Reportable Information:** Investment made by the Mutual Fund in that Company/ Subsidiaries.

   (c) **Reporting and Disclosure:** The above information should be brought to the notice of the Trustees by the AMC, and disclosed in the half yearly and annual accounts of the respective schemes.

7) **Personnel Related Information:** Detailed bio-data of all its Directors along with their interest in other Companies, within 15 days of their appointment, should be submitted to the Trustees.

8) **Restriction on Appointment of Personnel:** AMC should not appoint any person as key personnel who has been found guilty of any economic offence or involved in violation of securities laws.

9) **Appointment of Registrar/Agents:** AMC shall appoint Registrars and Share Transfer Agents who are registered with SEBI.

Regulatory requirements with regard to Money Market Funds and the issues that act as hurdles for the success of Money Market Mutual Funds:

1) **Regulatory Framework:** Instructions based on recommendations of the Task force constituted under the chairmanship of Shri D. Basu on MMMFs were as follows -

   (a) No minimum amount of investments prescribed.

   (b) Minimum lock-in-period is 46 days.

   (c) Minimum of 25 percent of funds (20 percent earlier) shall be invested in treasury bills and dated Government securities having an unexpired maturity upto one year.

   (d) Maximum of 30 percent of funds (20 percent earlier) shall be diverted to call money market.

   (e) Investment in Commercial Papers restricted to 15 percent.

   (f) Maximum of 20 percent of funds may be invested in commercial transactions and accepted/ co-accepted by banks.

   (g) Investments in Capital Market Instruments have been barred so as to avoid undue risks.

   (h) Borrowing and Lending between schemes of the Money Market Mutual Funds and between sponsoring bank and the Money Market Mutual Funds are also prohibited. Switching of assets between Schemes will have to be at market rates and based on conscious investment decisions.

2) **Regulatory impediments for the success of Money Market Funds:**

(a) The Lock-in period hampers the liquidity of the fund. Money Market Fund should ideally operate like a savings account.

(b) Investors expect to get more than what they would get on bank fixed deposits. Considering the administrative expenses involved, the yield on Money Market Funds should be relatively higher.

(c) Retail investors have to be educated about Money Market Funds. A huge network is needed to target such investors.

(d) A large corpus is needed to deal in the money market on a consistent basis.

(e) No regulatory body has been determined.

Methods for Evaluating the Performance of Mutual Fund:

1) Sharpe Ratio:

(a) Nature: Sharpe Ratio is a composite measure to evaluate the performance of Mutual Funds by comparing the reward to risk ratio of different funds. This formula uses the volatility of portfolio return.

(b) Basis: The reward, i.e. portfolio return in excess of the average risk free rate of return, is divided by standard deviation. Since it considers standard deviation as a measure of risk, it takes into account both Systematic and Unsystematic Risk.

(c) Risk Premium: This measure indicates the risk premium return per unit of total risk. Excess return earned over the risk free return on portfolio to the portfolio's total risk measured by the standard deviation.

(d) Computation:

Sharpe Ratio = $(R_P - R_F) \div \sigma_P$

Where,

P_P = Return on Portfolio

R_F = Risk Free Return

σ_P = Standard Deviation of Portfolio

(e) Use: Sharpe Ratio is an appropriate measure of performance for an overall portfolio when it is compared with another portfolio. The result on its own cannot lead to any comparison. It has to be compared with returns from other portfolio for making any meaningful conclusion.

2) Treynor's Ratio:

(a) Nature: Treynor Ratio is a measure to evaluate the performance of mutual funds by comparing the reward to volatility ratio of different funds. Risk considered here is only Systematic Risk, and not Total Risk.

(b) Assumption: It assumes a completely diversified portfolio, i.e. that the investor would have eliminated all the unsystematic risk by holding a diversified portfolio.

(c) Basis: Excess return earned over the risk free return on portfolio to the portfolio's total risk measured by the Beta of Portfolio. The ratio expresses the portfolio's risk premium per unit of beta.

(d) Computation:

Treynor's Ratio = $(R_P - R_F) \div \beta_P$

Where, R_P = Return on Portfolio

R_F = Risk Free Return

β_P = Beta of Portfolio

(d) Use: It is appropriate only in case of comparison with completely diversified portfolio. As in the case of Sharpe Ratio, Treynor's measure cannot be used in an isolated manner. It should be compared with such results of other portfolio to draw conclusions.

3) Jensen's Alpha:

(a) Nature: It is an absolute measure of evaluating a fund's performance. It compares desired performance

(based on benchmark portfolio) with actual performance.

(b) Benchmark Performance: Benchmark Performance is computed using Capital Asset Pricing Model (CAPM), i.e. by factoring the sensitivity of the portfolio return to that the Market Portfolio.

(c) Computation:

Jensen's Alpha [a] = Actual Return Less Return under CAPM

(d) Evaluation and Appropriateness:

- If Jensen's Alpha is positive, it reflects that the Mutual Fund has exceeded the expectations and outperformed the Market Portfolio and vice-versa.
- Alpha would give meaningful results only if its used to compare two portfolios of similar beta factors.
- It is used for measuring performance of a portfolio and to identify the part of the performance that can be attributed solely to the portfolio.
- This model considers only systematic risk and not the total risk.

Different kinds of expenditure incurred by a Mutual Fund and the way to treat them in computing the net asset value:

(A) Initial Issue Expenses: AMC incur some expenses when a scheme is launched. The benefits of these expenses accrue over many years. Therefore, they cannot be charged to any single year. SEBI permits amortization of initial expenses as follows —

i. Close End Scheme: Such schemes floated on a load basis, the initial issue expense shall be amortized on a weekly basis over the period of the scheme.

ii. Open Ended Scheme: Initial issue expenses may be amortized over a period not exceeding 5 years. Issue expenses incurred during the life of an open end scheme cannot be amortized.

(B) Recurring Expenses: It includes the followings :-

(i) Marketing and selling expenses including Agent's Commission.	(i) Cost of fund transfers from location to location.
(ii) Brokerage and Transaction Costs.	(ii) Cost of providing accounts statements and dividend/ redemption cheques and warrants.
(iii) Registrar Services for transfer of units sold or redeemed.	(iii) Insurance Premium paid by the Fund.
(iv) Audit Fees.	(iv) Winding up costs for terminating a fund or a scheme.
(v) Custodian Charges.	(v) Cots of Statutory Advertisements.
(vi) Costs related to investor communication.	(vi) Other costs as approved by SEBI.

(C) Total Expenses: Total Expenses of the scheme as charged by the AMC excluding issue or redemption expenses but including investment management and advisory fees, are subject to the following limits-

(i) On the first ₹100 Crores of the average weekly Net Assets - 1.5%
(ii) On the next ₹300 Crores of the average weekly Net Assets - 2.25%
(iii) On the next ₹300 Crores of the average weekly Net Assets - 2.0%
(iv) On the balance of the assets 1.75%

Value of Traded Securities and Non-Traded Securities of Mutual Fund:

1) Traded Securities:

(a) Last Quoted Closing Price: Traded Securities should be valued at the last quoted closing price on the Stock Exchange.

(b) More than One Stock Exchange: If the securities are traded on more than one Stock Exchange then the valuation should be as per the last quoted closing price on the Stock Exchange where the security is principally traded.

(c) No Trading on Principal Stock Exchange: When on a particular valuation day, a security has not been traded on the selected Stock Exchange, the value at which it is traded on another Stock Exchange

may be used.

2) Non-Traded Securities:

(a) Meaning: If a security is not traded on any Stock Exchange for a period of 60 days prior to the valuation date, the scrip must be valued as a non-trade scrip.

(b) Valuation: Non-Traded Scrips should be valued in good faith by the AMC on the basis of valuation methods approved by the AMC.

(c) General Principles in Valuation:

Equity Instruments: Valued on the basis of capitalization of earnings solely or in combination with the Net Asset Value. Price Earning Ratios of comparable traded securities, with an appropriate discount for lower liquidity, should be used for the purpose of capitalization.

Debt Instruments: Valued on YTM (Yield to Maturity) basis. Capitalization factor being determined for comparable traded securities with an appropriate discount for lower liquidity.

Government Securities: Valued at YTM based on the prevailing market rate.

Money Market Instruments: Valued at Cost Plus Accruals.

Convertible Debentures/Bonds: Non-convertible component should be valued as a debt Instrument, and Convertibles as any Equity Instrument.

Computation of the Time Weighted and Rupee Weighted Rate of Return:

1) Total Return (Investors' Perspective):

Total Return= Distributions + Capital Appreciation NAV at the beginning of the period

Where, Distributions = Dividend Distribution or Capital Distribution Capital Appreciation = Closing NAV Less Opening NAV

2) Time Weighted Rate of Return (TWROR):

(a) It is the rate of return earned per rupee invested over a period of time. It eliminates the effect of additional cash flows and the return on such cash flows.

(b) It seeks to measure the rate of return earned per rupee invested in the fund over a period of time, had there been no withdrawals from or further investments to that rupee.

3) Rupee Weighted Rate of Return (RWROR):

(a) This method seeks to measure the internal rate of return based on absolute movements in cash with reference to the Mutual Fund. The Fund Value at the beginning of the year is equated to investment and the dividend distribution and the year end fund value are equated to cash flows received.

(b) **Factors:** Factors affecting the RWROR are —

- Beginning and ending market values.
- Timing of the net contributions to the fund.

ILLUSTRATIONS

Computation of Net Asset Value (NAV)

Illustration1.

The following particulars relates to Gilt Fund Scheme :-

Particulars		Value
1.	Investment in Shares (at Cost)	
	• IT and ITES Companies	₹28 Crores
	• Infrastructure Companies	₹15 Crores
	• Aviation, Transport and Logistics	₹7 Crores
	• Automotive	₹32 Crores
	• Banking / Financial Services	₹8 Crores

2.	Cash and Other Assets in Hand (even throughout the fund period)	₹2 Crores
3.	Investment in Fixed Income Bearing Bonds	
	• Listed Bonds [10,000 10.50% Bonds of ₹1 0,000 each]	₹10 Crores
	• Unlisted Bonds	₹8 Crores
4	Expenses payable as on closure date	₹3 Crore
5	Market Expectation on Listed Bonds	8.40%
6	No. of Units Outstanding	5.50 Crores

The particulars relating to sectoral index are as follows —

Sector	Index on the date of purchase	Index on the valuation date
IT and ITES	1750	2950
Infrastructure	1375	2475
Aviation, Transport & Logistics	1540	2570
Automotive	1760	2860
Banking / Financial	1600	2300

Required :-

- Net Asset Value of the Fund
- Net Asset Value per Unit
- If the period under consideration is 2 Years, and the Fund has distributed ₹2 per unit per year as Cash Dividend
- Ascertain the Net Return (Annualized). Ascertain the Expense Ratio, if the Fund has incurred the following expenses —

Management and Advisory Fees	₹275 Lakhs
Administration Expenses (including Fund Manager Remuneration)	₹350 Lakhs
Publicity and Documentation	₹80 Lakhs
	₹705 Lakhs

Solution:

1. Net Asset Value of the Fund

Particulars	₹ in Crore
1. Market Value of Shares in —	
(a) IT and ITES [Cost ₹28 X Closing Sector Index 2950 ÷ Opening Sector Index 1750]	47.20
(b) Infrastructure[Cost ₹15 X Closing Sector Index 2475 ÷ Opening Sector Index 1375]	27.00
(c) Aviation [Cost ₹7 X Closing Sector Index 2570 ÷ Opening Sector Index 1540]	11.68
(d) Automotive [Cost ₹32 X Closing Sector Index 2860 ÷ Opening Sector Index 1760]	52.00
(e) Banking [Cost ₹8 X Closing Sector Index 2300 ÷ Opening Sector Index 1600]	11.50
2. Market Value of Investment in Listed Bonds [Face Value ₹10 Crores X Interest on Face Value 10.50% ÷ Market Expectation 8.40%]	12.50
3. Cost of Investment in Unlisted Bonds	8.00
4. Cash and Other Assets	2.00
Total Assets of the Fund	171.88
Less: Outstanding Expenses	(3.00)
Net Asset Value of the Fund	168.88

Note: It is assumed that Cash and other Assets existed from the beginning of the period at the same values.

2. Net Asset Value per Unit

NAV per Unit = Net Asset Value of the Fund ÷ No. of Units Outstanding = ₹168.88 Crores ÷ 5.50 Crore Units = ₹30.71

3. Annualized Return on Fund

(a) Computation of Opening NAV

	Particulars	₹ in Crore
1.	Investment in Shares (at Cost)	
	• IT and ITES Companies	28.00
	• Infrastructure Companies	15.00
	• Aviation, Transport and Logistics	7.00
	• Automotive	32.00
	• Banking /Financial Services	8.00
2.	Investment in Fixed Income Bearing Bonds	
	• Listed Bonds [10,000 10.50% Bonds of ₹10,000 each]	10.00
	• Unlisted Bonds	8.00
Net Asset Value		108.00

Note: Cash and Other Assets are not included because they arise out of investments made in the beginning.

(b) Computation of Opening NAV per Unit

NAV per Unit = Net Asset Value of the Fund ÷ No. of Units Outstanding = ₹108.00 Crores ÷ 5.50 Crore Units = ₹19.64

(c) Computation of Returns per Unit

- Capital Appreciation = Closing NAV per Unit - Opening NAV per Unit

= ₹30.71 Less ₹19.64 = ₹11.07

- Cash Dividend = ₹2 X 2 Years = ₹4
- Returns = [Cash Dividend + Capital Appreciation] ÷ Opening NAV

  = [₹4.00 + ₹11.07] ÷ ₹19.64 = ₹15.07 ÷ ₹19.64 = 77%
- Return p.a = Total Return/Period = 77% ÷ 2 Years = 38.50%

4. Expense Ratio

(a) Total Expense = Management Advisory Fee ₹2.75 Cr. + Administration Exp. ₹3.50 Cr. + Publicity and Documentation ₹0.80 Cr. = ₹7.05 Crores

(b) Average Value of Portfolio

= (Opening Net Asset Value + Closing Net Asset Value) ÷ 2

= (₹108 Crores + ₹168.88 Crores) ÷ 2 = ₹276.88 Crores ÷ 2

= ₹138.44 Crores

(c) Expense Ratio = Total Expenses ÷ Average Value of Portfolio

= (₹7.05 Crores ÷ ₹138.44 Crores) × 100 = 5.09%

(d) Expense Per Unit = Total Expenses ÷ No. of Units = ₹7.05 Crores ÷ 5.50 Crores = ₹1.282

Computation of Net Asset Value (NAV)

Illustration 2.

Find out NAV per unit from the following information of Scheme Money Plant

Name of the Scheme	Money Plant
Size of the scheme	₹100 Lakhs
Face value of the shares	₹100
Number of the outstanding shares	₹1 Lakhs
Market value of the fund's investments	₹180 Lakhs
Receivables	₹2 Lakhs
Liabilities	₹1 Lakh

Solution:

Particulars	Amount
Total Assets	Market Value of Fund's Investments = + Receivables ₹180 Lakhs +₹ 2 Lakhs = ₹182 Lakhs
Liabilities	₹ 1 Lakhs
No. of shares	1 Lakhs
Net Asset Value	(Total Assets – Liabilities) / No. of shares = ₹ (182 – 1) Lakhs/ 1 Lakhs = ₹ 181.00 Lakhs

Computation of Annualised Return

Illustration 3.

A Good luck Mutual Fund that had a Net Asset Value of ₹17 at the beginning of a month, made income and capital gain distribution of ₹0.04 and ₹0.03 respectively per unit during the month, and then ended the month with a Net Asset Value of ₹17.08. Calculate monthly and annual rate of return.

Solution:

Particulars	Amount (₹)
Opening NAV	17.00
Closing NAV	17.08
Capital Appreciation = Closing NAV- Opening NAV = 17.08 - 17.00	0.08
Dividend Distribution	0.04
Capital Gain Distribution	0.03
Total Return for the period = Capital Appreciation + Income + Capital Gains = ₹ (0.08 + 0.04 + 0.03)	0.15
Monthly Return = Total Return ÷ Opening NAV = ₹0.15 ÷ ₹17	0.8824% p.m.
Annual Return = Monthly Return × 12 = 0.8824 × 12	10.59% p.a.

Computation of Annualised Return

$$\text{Net Asset Value } (\text{NAV}) = \frac{\begin{array}{c}\text{Fair Market Value of Suchemes Investment +} \\ \text{Receivable+Accrued Income+Other Assets-} \\ \text{Accrued Expenses-Payable-Other liabilities}\end{array}}{\text{No of Units Outstanding}}$$

Computation of Net Asset Value (NAV)

Illustration 4.

A Mutual Fund made an issue of 10,00,000 units of ₹10 each on 01.01.2012. No entry load was charged. It made the following investments:

Particulars	₹
50,000 Equity Shares of ₹100 each @ ₹160	80,00,000
7% Government Securities	8,00,000
9% Debentures (Unlisted)	5,00,000
10% Debentures (Listed)	5,00,000
Total	98,00,000

During the year, dividends of ₹12,00,000 were received on equity shares. Interest on all types of debt securities was received as and when due. At the end of the year equity shares and 10% debentures are quoted at 175% and 90% respectively. Other investments are quoted at par.

Find out the Net Asset Value (NAV) per unit given that the operating expenses during the year amounted to ₹5,00,000. Also find out the NAV, if the Mutual Fund had distributed a dividend of ₹0.90 per unit during the year to the unit holders.

Solution:

Given the Total Initial Investments is ₹98,00,000, out of issue proceeds of ₹1,00,00,000. Therefore the balance of ₹2,00,000 is considered as Issue Expenses.

Computation of Closing Net Asset Value

Particulars	Opening Value of Investments (₹)	Capital Appreciation (₹)	Closing Value of Investments (₹)	Income (₹)
Equity Shares	80,00,000	7,50,000	87,50,000	12,00,000
7% Govt. Securities	8,00,000	Nil	8,00,000	56,000
9% Debentures (unlisted)	5,00,000	Nil	5,00,000	45,000
10% Debentures (Listed)	5,00,000	-50,000	4,50,000	50,000
Total	98,00,000	7,00,000	1,05,00,000	13,51,000
Less: Operating Expenses during the period				(5,00,000)
Net Income				8,51,000
Net Fund Balance = ₹ (1,05,00,000 + 8,51,000)				1,13,51,000

Less: Dividend = ₹ 9,00,000 (10,00,000 × 0.90)	(9,00,000)
Net Fund Balance (after Dividend)	1,04,51,000
Net Asset Value (Before Considering Dividends) = ₹ 1,13,51,000 ÷10,00,000	11.351
Net Asset Value (After Dividends) = ₹ 1,04,51,000 ÷ 10,00,000	10.45

Note: It has been assumed that the Closing Market Price of the investments have been quoted at a percentage of the Face Value.

Computation of Annualised Return

Illustration 5.

Ram invested in a Mutual Fund when the Net Asset Value was ₹12.65. 60 Days later the Asset Value per unit of the fund was ₹12.25. In the meantime, Ram had received a cash dividend of ₹0.50 and a Capital Gain distribution of ₹0.30. Compute the monthly return.

Solution:

(a) Dividend = ₹ 0.50

(b) Capital Gain Distribution = ₹ 0.30

(c) Capital Appreciation = (₹ 0.40) (Closing NAV ₹12.25 Less Opening NAV ₹12.65)

(d) Returns = [Dividend + Capital Gain Distribution + Capital Appreciation] ÷ Opening NAV

= [₹ 0.50 + ₹ 0.30 – ₹ 0.40] ÷ ₹12.65

= ₹0.40 ÷ ₹12.65= 3.16%

(e) Annualized Return = Return x 365 ÷ Period

= 3.16% X 365 Days ÷ 60 Days = 19.22% p.a

(f) Monthly Return = 19.22% ÷12 = 1.60% per month

Net Asset Value of Mutual Fund

Illustration 6.

Mr. Arun on 1.7.2009, during the initial offer of some Mutual Fund invested in 10,000 units having face value of ₹10 for each unit. On 31.3.2010 the dividend operated by the M.F. was 10% and Mr. Arun found that his annualized yield was 153.33%.0n 31.12.2011, 20% dividend was given. On 31.3.2012 Mr. Arun redeemed all his balance of 11,296.11 units when his annualized yield was 73.52%. What are the NAVs as on 31.3.2010, 31.12.2011 and 31.3.2012.

Solution:

1. NAV as at 31.03.2010

Particulars	₹
Annualised Yield Yield for 9 months [From 1.7.2009 till 31.03.2010] [153.33% X 9 ÷ 12]	153.33% 115%
Return for 9 Months [Investment ₹1,00,000 X 115%] Less: Dividends at 10% of Opening Value [10,000 Units X ₹10 X 10%]	₹ 1,15,000 (₹10,000)

Net Capital Appreciation	₹1,05,000
Closing NAV (Investment ₹1,00,000 + Capital Appreciation ₹1,05,000) No. of Units Outstanding NAV per Unit	₹2,05,000 10,000 ₹20.50
Dividends are Reinvested at ₹20.50. Therefore, Additional Units purchased as at 31.03.2010 [Dividends ₹10,000 ÷ NAV p.u. ₹20.50) Total No. of Units as at 31.03.2010 (after reinvestment of dividend)	487.80 10,487.80

2. NAV as at 31.12.2011

Particulars	₹
Units Outstanding as at 31.12.2011	10,487.80
Face Value at ₹10 (10,487.80 Units X ₹10 p.u.)	₹1,04,878
Dividend distributed at 20% (₹1,04,878 X 20%)	₹20,975.6
No. of Units as at 31.03.2012 (Given) Less: No. of Units as at 31.12.2011	11,296.11 10,487.80
No. of Units issued against reinvestment of dividend	808.31
Dividends will be reissued at the NAV as at 31.12.2011. Therefore, NAV = Dividends ÷ No. of Units reissued = ₹20,975.60 ÷ 808.31 Units =	₹25.95

3. NAV as at 31.03.2012

Particulars	₹
Annualized Yield as on 31.03.2012 Yield for 33 months [From 1.7.2009 till 31.03.2012] [73.52% × 33 ÷ 12]	73.52% 202.18
Return for 33 Months [Investment ₹1,00,000 X 202.18%]	₹2,02,180
Add: Opening Investment	₹1,00,000
Closing Fund Value (Dividends need not be excluded, since they are reinvested)	₹3,02,180
No. of Units Outstanding as at 31.03.2012 NAV per Unit (₹3,02,180 ÷ 11,296.11 Units)	11,296.11 ₹26.75

Return on Mutual Fund

Illustration 7

In case of an open ended Mutual Fund scheme the market price (ex-dividend) was ₹65. A dividend of ₹14 has just been paid and ex-divided price now is ₹81 what return has been earned over the past year.

Solution:

(a) Capital Appreciation = Closing NAV p.u. - Opening NAV p.u
= ₹81 - ₹65 = ₹16

(b) Returns = [Cash Dividend + Capital Appreciation + Capital Gains] ÷ Opening NAV
= ₹(14 +16) / ₹65 = 46.15 %

Return on Mutual Fund

Illustration 8.

(a) A mutual fund had a Net Asset Value (NAV) of ₹62 at the beginning of the year. During the year a sum of ₹5 was distributed as dividend besides ₹3 as capital gains distribution. At the end of the year NAV was ₹70. Calculate total return for the year.

(b) Suppose the aforesaid mutual fund in the next year gives a dividend of ₹5 and no capital gains distribution and NAV at the end of second year is ₹65. What is the return for the second year?

Solution:

Basic Data for Computation of Total Return

Particulars	Amount (₹)	
	Case (a)	Case (b)
Opening NAV	62	70
Dividend	5	5
Capital Gains	3	0
Closing NAV	70	65

Computation of Return

	Case (a)	Case(b)
Capital Appreciation = Closing NAV p.u. Less Opening NAV p.u.	70 - 62 = ₹8	65 - 70 = (₹5)
Returns = [Cash Dividend + Capital Appreciation + Capital Gains] ÷ Opening NAV	= [5.00+ 8.00+3.00] ÷ ₹62 = 16.00 ÷ 62.00 = 25.81%	= [(65-70) +5+0] ÷ 70 = 0

Effective Yield

Illustration 9.

A has invested in three mutual fund schemes as per details below:

	MF 1	MF 2	MF 3
Date of investment	01.12.2012	01.01.2013	01.03.2013
Amount of investment	₹50,000	₹1, 00,000	₹50,000
Net Asset Value (NAV) at entry date	₹10.50	₹10	₹10
Dividend received upto 31.03.2013	₹970	₹1,520	Nil
NAV as at 31.03.2013	₹10.40	₹10.10	₹9.80

What is the effective yield on per annum basis in respect of each of the three schemes to A upto 31.03.2013?

Solution:

1. Computation of Net Value Added during the year ended 31.03.2013

Schemes	Amount Invested (₹)	NAV as at entry date	No. of Units	NAV as at 31.03.2013 (₹)	Total NAV 31.03.2013 (₹)	Net NAV (₹)
[1]	[2]	[3]	[4] = [2] ÷[3]	[5]	[6] = [4]X[5]	[7] = [2]-[6]
MF 1	50,000	₹10.50	4761.905	10.40	49,523.812	(-)476.188
MF 2	1,00,000	₹10	10,000	10.10	1,01,000	(+)1,000
MF 3	50,000	₹10	5,000	9.80	49,000	(-) 1,000

2. Effective Yield in %

- Total Yield = Net NAV + Dividend
- Effective Yield in % = (Total Yield ÷ Amount Invested) × (365 ÷ No. of days of holding) × 100

Schemes	Dividend Received (₹)	Total Yield	No. of days	Effective yield % p.a
MF 1	970	493.812	121	2.98%
MF 2	1,520	2,520	90	10.22%
MF 3	—	(-) 1,000	31	(23.55)%

Mutual Fund and Equity Return — Indifference

Illustration 10.

Mr. Kiran can earn a return of 16 per cent by investing in equity shares on his own. Now he is considering a recently announced equity based mutual fund scheme in which initial expenses are 5.7 per cent and annual recurring expenses are 1.7 per cent. How much should the mutual fund earn to provide Mr. Kiran a return of 16 per cent?

Solution:

Let the Return on Mutual Funds be ₹ X

Investor's Expectation denotes the Return from the amount invested.

$$\text{Returns from Mutual Funds} = \frac{\text{Investors' Expectation}}{\text{100–Issue Expenses}} + \text{Annual Recurring Expenses}$$

$$X = \frac{16}{(100 - 5.7)\%} + 1.7 = 16.96 + 1.7 = 18.67\%$$

Return that the Mutual Fund should earn so as to provide a return of 16% = 18.67%

Monthly Return - Mutual Fund

Illustration 11.

A mutual fund that had a net asset value of ₹30 at the beginning of month and made income and capital gain distribution of ₹0.0375 and ₹ 0.03 per share respectively during the month, and then ended the month with a net asset value of ₹30.06. Calculate monthly return.

Solution:

Particulars	Amount (₹)
Opening NAV	30
Closing NAV	30.06
Capital Appreciation = Closing NAV - Opening NAV = 30.06 - 30.00	0.06
Capital Gain Distribution	0.03
Income during the period	0.0375
Total Return for the period Capital Appreciation + Income + Capital Gains = 0.06 + 0.0375 + 0.03	0.1275
Monthly Return =Total Return ÷ Opening NAV = 0.1275 ÷ 30	0.00425 / 0.425% p.m.
Annual Return = Monthly Return X 12 = 0.425 X 12	5.1% p.a.

Return — Annualized Return

Illustration 12.

From the following data relating to investment made by a Company for the past 5 years, ascertain the expected return for the 6th year —

Years	1	2	3	4	5

Closing Market Price (₹)	50.00	64.00	85.00	100.00	125.00
Dividend Yield (₹)	4.00	8.00	10.00	15.00	15.00

Opening Market Price in Year 1 was ₹45. Also ascertain the Compounded Annual Growth Rate. What would be the Capital Annual Growth Rate if there were no dividend payouts at all?

Solution:

1. Computation of Total Return and Return %

Year	Opening Price (₹)	Closing Price (₹)	Dividend (₹)	Capital Appreciation (₹)	Total Return (₹)	Return %
1	**2**	**3**	**4**	**5 = 3-2**	**6 = 4 + 5**	**7 = 6÷2**
1	45.00	50.00	4.00	5.00	9.00	20.00%
2	50.00	64.00	8.00	14.00	22.00	44.00%
3	64.00	85.00	10.00	21.00	31.00	48.44%
4	85.00	100.00	15.00	15.00	30.00	35.29%
5	100.00	125.00	15.00	25.00	40.00	40.00%
			52.00	**80.00**	**132.00**	

Expected Return = Average Return

= (20.00% + 44.00% + 48.44% + 35.29% + 40.00%) ÷ 5 = 187.73 ÷ 5 = 37.55%

2. Computation of Compounded Annual Growth Rate

CAGR

$$= \sqrt{\frac{\text{Total Return + Initial Investment}}{\text{Initial Investment}}} - 1 \text{ [Inverse of Compound Interest Formula]}$$

Or = [(Total Return + Initial Investment) ÷ Initial Investment]$^{1/n}$ – 1

Where, "n" represents the period of holding.

(a) CAGR with Dividend Payouts:	(b) CAGR without Dividend Payouts:
= [(Total Return + Initial Investment) ÷ Initial Investment]$^{1/n}$-1	= [(Capital Appreciation Return + Initial Investment)÷ Initial Investment]$^{1/n}$ - 1
=[(₹132+ ₹45)/₹45]$^{1/5}$- 1	= [(₹80 + ₹45) / ₹45]$^{1/5}$–1
=3.933$^{1/5}$-1=1.3151-1= 0.3151 or 31.51	= 2.778$^{1/5}$-1=1. 2267-1= 0.2267 or 22.67

Annual Recurring Expenses of a Mutual Fund

Illustration 13.

You can earn a return of 13 percent by investing in equity shares on your own. You are considering a recently announced equity mutual fund scheme where the initial issue expense is 7 percent. You believe that the mutual fund scheme will earn 16.5 percent. At what recurring expenses (in percentage terms) will you be indifferent between investing on your own and investing through the mutual fund.

Solution:

Let the annual Recurring expenses be ₹X

$$\text{Returns from Mutual funds} = \frac{\text{Investors' Expectation}}{100 - \text{Issue Expenses}} + \text{Annual recurring expenses}$$

$$16.5\% = \frac{13}{(100 - 7)\%} + X$$

16.5% = 13.97 + X

X = 16.5 – 13.97 = 2.53%

Therefore, the Amount of Recurring Expenses for which the return will be indifferent is 2.53%.

Distribution / Reinvestment of Mutual Fund Returns

Illustration 14.

A Mutual Fund having 200 units has shown in NAV of ₹8.75 and ₹9.45 at the beginning and at the end of the year respectively.

The Mutual Fund has given two options:

(a) Pay ₹0.75 per unit as dividend and ₹0.60 per unit as a capital gain, or

(b) These distributions are to be reinvested at an average NAV of ₹8.65 per unit.

What difference it would make in terms of return available and which option is preferable?

Solution:

Basic Data for Computation

Particulars	Value (₹)
Opening NAV	8.75
Closing NAV	9.45
Dividend	0.75
Capital Gain Appreciation [Closing NAV - Opening NAV]	0.70
Capital Gain Distribution	0.60
Price Paid at the year beginning [200 units X ₹8.75]	1,750

Option 1: Returns are distributed to Mutual Fund Holders

(a) Preparation of Fund Balance Sheet

Liabilities	₹	Assets	₹
NAV on Closing Date [9.45x200]	1,890	Fund Assets	2,160
Dividend Payable [0.75x200]	150		
Capital Gain Distribution [0.60x200]	120		
Total	2,160	Total	2,160

(b) $\text{Returns} = \left[\frac{\text{Closing Fund Assets – Opening Asset Value}}{\text{Opening Asset Value}}\right]$

= [2,160 – 1,750] ÷ ₹1,750

= 23.43%

Option 2: The Distributions are reinvested at an average NAV of ₹8.65 per unit

(a) Distributions Reinvested

Particulars	₹
Capital Gain [0.60x200]	120
Dividend [0.75X200]	150
Total Distributions	270
No. of Units [Total Distributions ÷ Average NAV p.u. = 270 ÷ 8.65]	31.21 units

(b) Preparation of Fund Balance Sheet after Reinvestment

Liabilities	₹	Assets	₹
NAV on Closing Date		Fund Assets	2,160
— 200 units @ 9.45 1890			
— 31.21 units @ 8.65 270	2,160		
Total	2,160	Total	2,160

(c) Returns

$$\text{Opening NAV} = \left[\frac{\text{Closing Fund Assets} - \text{Opening Asset Value}}{\text{Opening Asset Value}}\right]$$

= [2,160 – 1,750] ÷ ₹1,750

= 23.43%

Conclusion:

Holding period return is the same from Investor's view point irrespective of whether the return is reinvested or distributed in the form of Capital Gains or Dividends.

Computation of Sharpe Ratio – Risk Premium Approach

Illustration 15.

Chintamani Fund, a fund which invests exclusively in Public Sector Undertakings, yielded ₹3.75 per Unit for the year. The opening NAV was ₹21.20. Chintamani Fund has a risk factor of 3.50%.

Ascertain the Sharpe Ratio and evaluate the funds performance in juxtaposition with performance of the Sensex if —

(a) Risk Free Return is 5%, Return on Sensex is 15% with a standard deviation of 2.75%.

(b) Risk Free Return is 4%, Return on Sensex is 17% with a standard deviation of 3%.

(c) Risk Free Return is 7%, Return on Sensex is 18% with a standard deviation of 4%.

Solution:

1. Formula for Computing Sharpe Ratio.

Sharpe Ratio = $(R_P - R_F) \div \sigma_p$

Where, R_P= Return on portfolio

R_F= Risk Free Return

$\sigma_{P=}$ Standard Deviation of Portfolio

Particulars	Case A	Case B	Case C
Risk Free Return [R_F]	5%	4%	7%
Market Return [R_M]	15%	17%	18%
Standard Deviation of Market Return [σ_M]	2.75%	3.00%	4.00%
Sharpe Ratio for Chintamani Fund [$(R_P-R_F) \div \sigma_p$] [A]	3.63 [(17.69% - 5%)÷ 3.50%]	3.91 [(17.69% -4%) ÷ 3.50%]	3.05 [(17.69% -7%) ÷ 3.50%]
Sharpe Ratio for Market Return [$(R_M-R_F)- \sigma_M$] [B]	3.64 [(15% - 5%) ÷ 2.75%]	4.33 [(17%-4%) ÷ 3%]	2.75 [(18% -7%) ÷ 4%]

Sharpe Ratio is Higher for	Market Return	Market Return	Chintamani Fund
Inference / Evaluation	Market has outperformed Chintamani Fund's performance.	Market has outperformed Chintamani Fund's performance.	Chintamani Fund has outperformed Market's performance.

Note: Return on Chintamani Fund = Yield ₹ 3.75 ÷ Opening NAV ₹ 21.20 = 17.69%

Computation of Sharpe Ratio - Risk Premium Approach

Illustration16.

Soma Funds has a fund named "F3 Fund" (F3F), a fund which invests in 3 different funds— Fund X, Fund Y and Fund Z and the particulars of the Funds are -

Fund	Value Invested ₹	Return	Standard Deviation
X	2.5 Crores	15.50%	3.20%
Y	6.0 Crores	19.20%	4.50%
Z	1.5 Crores	12.80%	1.50%

Correlation between the Funds are as follows — XY 0.30; XZ 0.50; YZ 0.20

If the Risk Free Return is 5% and the return on Nifty is 17% with a standard deviation of 3%, ascertain the Sharpe's Index for F3F and evaluate its performance.

Solution:

1. Computation of Standard Deviation of F3F

(a) Basic Values of Factors for Determination of Portfolio Risk

Variance of Security X	σX^2	3.20^2 = **10.24**
Variance of Security Y	σY^2	4.50^2 = **20.25**
Variance of Security Z	σZ^2	1.50^2 = **2.25**
Covariance of Securities X and Y [ρ XY × σX × σY]	Cov_{XY}	0.30 × 3.20 × 4.50 = **4.32**
Covariance of Securities X and Z [ρ XZ × σX × σZ]	Cov_{XZ}	0.50 × 3.20 × 1.50 = **2.40**
Covariance of Securities Y and Z [ρ YZ × σY × σZ]	Cov_{YZ}	0.20 × 4.50 × 1.50 = **1.35**
Weight of Security X	W_x	₹2.5 Crore ÷ ₹10.0 Crore = **0.25**
Weight of Security Y	W_y	₹6.0 Crore ÷ ₹10.0 Crore = **0.60**
Weight of Security Z	W_z	₹1.5 Crore ÷ ₹10.0 Crore = **0.15**

(b) Matrix

Securities		X	Y	Z
	Weights	0.25 W_X	0.60 W_Y	0.15 W_Z
X	0.25 W_X	10.24 (σx^2)	4.32 (Cov_{xy})	2.40 (Cov_{xz})
Y	0.60 W_Y	4.32 (COV_{xy})	20.25 (σy^2)	1.35 (Cov_{yz})

Z	0.15 W_Z	2.40 (Cov_{xz})	1.35 (Cov_{yz})	2.25 (σz^2)

(b) Computation of Portfolio Variance (σXYZ^2)

	Description	Computation (W × W × Cov) or (W × W × σ^2)	Product
1	$W_x \times W_y \times \sigma x^2$	0.25 × 0.25 × 10.24	0.640
2	$W_x \times W_y \times Cov_{xy}$	0.25 × 0.60 × 4.32	0.648
3	$W_x \times W_z \times Cov_{xz}$	0.25 × 0.15 × 2.40	0.090
4	$W_y \times W_x \times Cov_{xy}$	0.60 × 0.25 × 4.32	0.648
5	$W_y \times W_y \times \sigma y^2$	0.60 × 0.60 × 20.25	7.290
6	$W_y \times W_z \times Cov_{yz}$	0.60 × 0.15 × 1.35	0.1215
7	$W_z \times W_x \times Cov_{xz}$	0.15 × 0.25 × 2.40	0.090
8	$W_z \times W_y \times Cov_{yz}$	0.15 × 0.60 × 1.35	0.1215
9	$W_z \times W_z \times \sigma z^2$	0.15 × 0.15 × 2.25	0.051
	Variance of the Portfolio (σxyz^2)		**9.70**
	Standard Deviation (Risk) of the Portfolio (σxyz) ie. F3F		**3.11%**

2. Return on F3F

Return on F3F = Weighted Average Return of Fund X Fund Y and Fund Z

= [0.25 x 15.50%] + [0.60 x 19.20%] + [0.15 x 12.80%]

= 3.875% + 11.52% + 1.92%

= **17.315%**

3. Computation of Sharpe Ratio for F3F and Evaluation

Sharpe Ratio =$(R_P-R_f) \div \sigma_P$

Where, R_P = Return on Portfolio

R_F = Risk Free Return

σ_P = Standard Deviation of Portfolio

Particulars	F3F	Market
Risk Free Return [R_F]	5%	5%
Return [R_P]	17.315%	17%
Standard Deviation of Market Return [σ_P]	3.11%	3%
Sharpe Ratio [$(R_P - R_F) \div \sigma_P$]	3.96 [(17.315% – 5%) ÷ 3.11%]	4.00 [(17% – 5%) ÷ 3%]
Sharpe Ratio is Higher for	Market Return	
Inference / Evaluation	Market has marginally outperformed F3F's performance.	

Evaluation of Fund Performance — Treynor Model

Illustration 17.

Four friends S, T, U, and V have invested equivalent amount of money in four different funds in tune with their attitude to risk, S prefers to play aggressive and is keen on equity-funds, T is moderately aggressive with a desire to invest upto 50% of his funds in Equity, whereas U does not invest anything beyond 20% in Equity. V, however, relies more on movement of market, and prefers any fund which replicates the market portfolio.

Their investment particulars, returns therefrom and Beta of the fund are given below —

Fund Invested	Return for the year	Beta Factor
Money Multiplier Fund (100% Equity)	23.50%	1.80
Balanced Growth Fund (50% Equity - 50% Debt)	16.50%	1.25
Safe Money Fund (20% Equity and 80% Debt Funds)	12.50%	0.60

If the Market Return was 16% and the Risk Free Return is measured at 7%, which of the four friends were rewarded better per unit of risk taken?

Solution:

Particulars	S	T	U	V
Risk Free Return [R_F]	7%	7%	7%	7%
Fund Invested	Money Multiplier Fund	Balanced Growth Fund	Safe Money Fund	Market Portfolio
Beta of the Portfolio [β_P]	1.80	1.25	0.60	1.00
Return on Portfolio [R_P]	23.50%	16.50%	12.50%	16.00%
Treynor Measure [$(R_P-R_F) \div \beta_P$]	9.17 [23.50–7] ÷1.80	7.60 [16.50–7] ÷ 1.25	9.17 [12.50–7] ÷ 0.60	9.00 [16–7] ÷ 1
Ranking	1	3	1	2

Evaluation: Both S and U have earned the same Reward per unit of risk taken, which is more than the Market Reward to Risk of 9.00.

Six Portfolios experienced the following results during a 7-year period

Illustration 18.

Portfolio	Average annual return	Standard Deviation	Correlation with market
P	18.6	27.0	0.81
Q	14.8	18.0	0.65
R	15.1	8.0	0.98
S	22.0	21.2	0.75
T	-9.0	4.0	0.45
U	26.5	19.3	0.63
Market Risk	12.0	12.0	
Free Rate	9.0		

(a) Rank these Portfolios using —

- Sharpe's method, and
- Treynor's Method.

(b) Compare the ranking in part (a) and explain the reasons behind the differences.

Solution:

Portfolio	Sharpe's Method [$(R_P– R_F) \div \sigma_P$]	Ranking on Sharpe	$\beta = \rho_{sm} \times \frac{\sigma_s}{\sigma_m}$	Treynor Method [$(R_P– R_F) \div \beta_P$]	Ranking on Treynor
P	0.3555 [(18.6 – 9) ÷ 27]	4	1.823 [27×0.81÷12]	5.266 [(18.6-9)÷1.823]	5
Q	0.3222 [(14.8 – 9)÷ 18]	5	0.975 [18×0.65÷12]	5.95 [(14.8-9)÷0.975]	4

R	0.7625 [(15.1 – 9) ÷ 8]	2	0.653 [8×0.98÷12]	9.342 [(15.1-9)÷0.653]	3
S	0.6132 [(22 – 9) ÷ 21.2]	3	1.325 [21.2×0.75÷12]	9.811 [(22-9)÷1.325]	2
T	– 4.5 [(– 9 – 9) ÷ 4]	6	0.15 [4×0.45÷12]	-120 [(-9-9)÷0.15]	6
U	0.9067 [(26.5 – 9) ÷ 19.3]	1	1.013 [19.3×0.63÷12]	17.27 [(26.5-9)÷1.013]	1

Reasons for Difference between Sharpe and Treynor's method:

(a) Sharpe Index considers only the Standard Deviation and leaves market Standard Deviation and the Correlation whereas Treynor considers market Standard Deviation and Correlation.

(b) Greater correlation result in greater value of Beta. This would reduce the points in Treynor.

(c) Portfolio R which is ranked '2' in Sharpe is pushed a position back in Treynor owing to the correlation effect. Also evident in Portfolio P and Q.

Illustration 19.

Following information is available regarding four mutual funds:

Mutual Fund	Return	Risk σ	β (Beta)	Risk free rate
P	13	16	0.90	10
Q	17	23	0.86	10
R	23	39	1.20	10
S	15	25	1.38	10

Evaluate performance of these mutual funds using Sharp Ratio and Treynor's Ratio. Comment on the evaluation after ranking the funds.

Solution:

Mutual Fund	Under Sharpe's Method $[(R_P-R_F) \div \sigma_P]$	Ranking	Under Treynor Method $[(R_P-R_F) \div \beta_P]$	Ranking
P	[(13-10) ÷ 16] = 0.19	4	[(13-10) ÷ 0.90] = 3.33	4
Q	[(17-10) ÷ 23] = 0.31	2	[(17-10) ÷ 0.86] = 8.14	2
R	[(23-10) ÷ 39] = 0.33	1	[(23-10) ÷ 1.20] = 10.83	1
S	[(15-10) ÷ 25] = 0.2	3	[(15-10) ÷ 1.38] = 3.63	3

Inference: Ranks obtained as per Sharpe Ratio as well as Treynor's Ratio is same. This indicates that all the mutual funds seem to be reasonably well diversified.

Reward to Variability / Volatility Ratio

Illustration 20.

The following are the data on Five mutual funds—

Fund	Return	Standard deviation	Beta
Raksha	16	8	1.50
Varsha	12	6	0.98
Vredhi	14	5	1.40
Mitra	18	10	0.75
Laheri	15	7	1.25

What is the reward-to-variability / volatility ratio and the ranking if the risk - free rate is 6 %?

Solution:

Formula for computing Reward-to-Volatility/Volatility Ratio is —

- Treynor's Ratio = $[(R_P – R_F) \div \beta_P]$

Formula for computing reward-to-variability is

- Sharpe's Measure = $[(R_P - R_F) \div \sigma_P]$

Ranking based on Sharpe's Ratio and Treynor Method

Portfolio	Under Sharpe's Method $[(R_P-R_F) \div \sigma_P]$	Ranking	Under Treynor Method $[(R_P-R_F) \div = \beta_P]$	Ranking
Raksha	[(16-6) ÷ 8] = 1.25	3	[(16-6) ÷ 1.5]=6.67	3
Varsha	[(12-6) ÷ 6] = 1	5	[(12-6) ÷ 0.98] = 6.12	4
Vredhi	[(14-6) ÷ 5] = 1.60	1	[(14-6) ÷ 1.4] = 5.71	5
Mitra	[(18-6) ÷ 10] = 1. 20	4	[(18-6) ÷ 0.75] = 16	1
Laheri	[(15-6) ÷ 7].= 1.29	2	[(15-6) ÷ 1.25] = 7.2	2

Evaluation of Fund Performance — Jensen's Alpha

Illustration 21.

Somnath Investments have floated a equity based fund scheme called "X-Cube", the funds of which will be invested only in stocks and bonds of infrastructure and construction companies.

60% of the Fund Value is invested in Companies engaged Commercial Construction Services and the other 40% in companies engaged in developing Residential Colonies/Townships.

Average Beta of return from development of Residential Townships is measured at 1.9 and that from commercial construction is measured at 1.4.

The benchmark index yields 11.20% return and RBI Bonds carry an interest rate of 4.25%.

Ascertain Jensen's Alpha from the following monthly particulars relating to "X-Cube" —

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Closing NAV	18.60	17.80	18.20	18.00	17.80	16.80	17.20	17.80	17.90	18.10	18.80	18.50
Dividend Payout	—	0.75	—	—	—	1.20	—	—	—	—	—	—

Opening NAV for January was ₹17.75.

Solution:

1. Computation of Return on "X-Cube" Scheme

Months	Opening NAV ₹	Closing NAV ₹	Dividend Distributed ₹	Total Return ₹	Return %
(1)	(2)	(3)	(4)	(5) = (4) + (3)–(2)	(6) = (5)÷(2) × 100
January	17.75	18.60	-	0.85	4.79%
February	18.60	17.80	0.75	(0.05)	(0.27%)
March	17.80	18.20	-	0.40	2.25%
April	18.20	18.00	-	(0.20)	(1.10%)
May	18.00	17.80	-	(0.20)	(1.11%)
June	17.80	16.80	1.20	0.20	1.12%
July	16.80	17.20	-	0.40	2.38%
August	17.20	17.80	-	0.60	3.49%
September	17.80	17.90	-	0.10	0.56%
October	17.90	18.10	-	0.20	1.12%
November	18.10	18.80	-	0.70	3.87%
December	18.80	18.50	-	(0.30)	(1.60%)
Total	214.75	215.50	1.95	2.70	15.50%

Therefore, Actual Return from "X—Cube" Scheme is [$R_{X—CUBE}$] 15.50%.

2. Computation of Beta of "X-Cube" Scheme

   Beta of "X-Cube" = Weighted Average Beta of Commercial Construction and Residential Construction

   β_{X-CUBE}= 60% x 1.40 + 40% X 1.90 = 0.84 + 0.76 = 1.60

3. Computation of Return of "X-Cube" under CAPM

   Expected Return under CAPM [$E(R_{X-CUBE})$]

   $E(R_{X-CUBE}) = RF + [\beta_{X-CUBE} x (R_M - R_F)]$

   = 4.25% + [1.60 x (11.20% – 4.25%)]

   = 4.25% + [1.60 x 6.95%]

   = 4.25% + 11.12%

   = 15.37%

4. Computation of Return of "X-Cube" under Jensen's Alpha

   Jensen's Alpha [σ]= Actual Return Less Return under CAPM

   = R_{X-CUBE} Less $E(R_{X-CUBE})$

   = 15.50% -15.37% = 0.13%

Evaluation: Since, Jensen's Alpha is positive, it has exceeded the expectations and outperformed the Market Portfolio.

Evaluation of Fund Performance – Jensen's Alpha

Illustration 22.

The following particulars are furnished about three Mutual Fund Schemes, P, Q and R-

Particulars	Scheme P	Scheme Q	Scheme R
Dividend Distributed	₹1.75	—	₹1.30
Capital Appreciation	₹2.97	₹3.53	₹1.99
Opening NAV	₹32.00	₹27.15	₹23.50
Beta	1.46	1.10	1.40

Ascertain the Alpha of the three schemes and evaluate their performance, if Government of India Bonds carry an interest rate of 6.84% and the NIFTY has increased by 12; 13%.

Solution:

Particulars	Scheme P	Scheme Q	Scheme R
Dividend Distributed	₹1.75	-	₹1.30
Add: Capital Appreciation	₹2.97	₹3.53	₹1.99
Total Return [A]	₹4.72	₹3.53	₹3.29
Opening NAV [B]	₹32.00	₹27.15	₹23.50
Actual Return [A] ÷ [B] = [C]	14.75% [4.72 ÷32.00]	13.00% [3.53 ÷ 27.15]	14.00% [3.29 ÷ 23.50]
Beta [D]	1.46	1.10	1.40
Expected Return under CAPM [$E(R_P)$] [E] $R_F + \beta_P X (R_M – R_F)$ = 6.84 + [D] × (12.13 - 6.84)	14.56% [6.84 + 1.46 × (12.13 – 6.84]	12.66% [6.84 + 1.10 × 12.13 – 6.84]	14.25% [6.84 + 1.40 × (12.13 – 6.84]
Jensen's Alpha (σ_p) [C] – [E]	0.19% (14.75-14.56)	0.34% (13.00-12.66)	(0.25%) (14.00-14.25)
Ranking	2	1	3

Evaluation: Schemes P and Q have outperformed the Market Portfolio (NIFTY), whereas Scheme R has under—performed in comparison with the NIFTY.

Morning Star index — Evaluation of Fund and Market

Illustration 23.

The following are the monthly returns for "Advantage Fund" and the Market Portfolio —

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Advantage Fund (%)	2	3	(1)	2	4	1	1	2	0	2	(2)	1
Market Portfolio (%)	3	2	0	2	3	0	(1)	3	(2)	2	1	3

Ascertain the Excess Return under Morning Star Index and rate its performance in comparison with the Market Portfolio, if the Risk Free Return is 9% p.a.

Solution:

1. Computation of Factors

Month	Advantage Fund (%)	Risk of Loss	Market Portfolio (%)	Risk of Loss
(1)	(2)	(3) = (2) – 0.75 [if (2) < 0.75]	(4)	(5) = (4) – 0.75 [if (4) < 0.75]
Jan	2.00	—	3.00	—
Feb	3.00	—	2.00	—
Mar	(1.00)	1.75	0.00	0.75
Apr	2.00	—	2.00	—
May	4.00	—	3.00	—
Jun	1.00	—	0.00	0.75
Jul	1.00	—	(1.00)	1.75
Aug	2.00	—	3.00	—
Sep	0.00	0.75	(2.00)	2.75
Oct	2.00	—	2.00	—
Nov	(2.00)	2.75	1.00	—
Dec	1.00	—	3.00	
Total	15.00	5.25	16.00	6.00

Monthly Risk Free Return = 9% p.a.÷ 12 = 0.75% p.m.

2. Computation of Morning Star Index (MSI)

Particulars		Advantage Fund	Market Portfolio
Total Return for 12 Months		15.00%	16.00%
Average Monthly Return	[A]	15 ÷12 = 1.25%	16 ÷ 12 = 1.33%
Total Risk of Loss		5.25%	6.00%
Average Monthly Risk of Loss	[B]	5.25 ÷12 = 0.438%	6.00 ÷ 12 = 0.500%
Morning Star Index (i.e. Excess Return)	[A] – [B]	0.812% [1.25% – 0.438%]	0.83% [1.33% – 0.500%]

Evaluation: MSI of Advantage Fund is lesser than that of Market Portfolio. Therefore, Advantage Fund has underperformed.

Morning Star Index – Evaluation of Fund and Market

Illustration 24.

Evaluate performance of Funds M, N and the Market Portfolio from the following information available for the past six months —

Month (Return %)	Apr	May	Jun	Jul	Aug	Sep
Fund M	3.25	1.50	(1.00)	3.75	1.25	0
Fund N	2.50	(1.25)	0	2.75	2.25	1.25
Market Portfolio	1.00	(0.75)	2.00	1.75	0.25	3.25

The 6 Month Treasury Bills carry an interest rate of 6% p.a.

Solution:

1. Computation of Factors

Month	Fund M		Fund N		Market portfolio	
	Return	Risk of Loss	Return	Risk of Loss	Return	Risk of Loss
(1)	(2)	(3)=(2)- 0.50 [if (2)<0.50]	(4)	(5)=(4)- 0.50 [if (4)<0.50]	(6)	(7)=(6)- 0.50 [if (6)<0.50]
Apr	3.25	0.00	2.50	0.00	1.00	0.00
May	1.50	0.00	(1.25)	1.75	(0.75)	1.25
Jun	(1.00)	1.50	0.00	0.50	2.00	0.00
Jul	3.75	0.00	2.75	0.00	1.75	0.00
Aug	1.25	0.00	2.25	0.00	0.25	0.25
Sep	0.00	0.50	1.25	0.00	3.25	0.00
Total	8.75	2.00	7.50	2.25	7.50	1.50
Average	1.46 (8.75/6)	0.33 (2.00/6)	1.25 (7.50/6)	0.38 (2.25/6)	1.25 (7.50/6)	0.25 (1.50/6)

Monthly Risk Free Return = 6% p.a. ÷ 12 = 0.50% p.m.

2. Computation of Morning Star Index (MSI)

Particulars	Fund M	Fund N	Market Portfolio
Average Monthly Return [A]	1.46%	1.25%	1.25%
Average Monthly Risk of Loss [B]	0.33%	0.38%	0.25%
Morning Star Index (i.e. Excess Return) [A] - [B]	1.13% [1.46% -0.33%]	0.87% [1.25% -0.38%]	1% [1.25% -0.25%]
Ranking	1	3	2

Evaluation: Fund M has performed better than the Market Portfolio, while Fund N has not performed as good as the Market Portfolio despite having the equivalent average return during the period.

Fama's Net Selectivity — Evaluation of Fund and Market

Illustration 25.

You are given the following information about 3 funds, Tanni (All Equity Fund), Manni (Equal Debt and Equity Mix) and Danni (High Debt Low Equity Fund) -

Particulars	Tanni	Manni	Danni
Average Return	25%	18%	12%

Standard Deviation	10%	5%	3%
Correlation with Market	0.30	0.70	0.50

If Risk Free Return is 5%, Return on Market Portfolio is 16% with a standard deviation of 4%.

Ascertain —

1. Total Gain and the Net Gain under Fama's Net Selectivity.
2. Systematic Risk and Unsystematic Risk.

Solution:

Evaluation of Fund Tanni, Manni and Danni

Particulars	**Tanni**	**Manni**	**Danni**
Average Return [R_P]	25%	18%	12%
Standard Deviation [σ_P] [Total Risk]	10%	5%	3%
Correlation with Market [ρ_{PM}]	0.30	0.70	0.50
Portfolio Beta [β_P] = $\rho_{PM} \times \sigma_P \div \sigma_M$	[0.30 × 10 ÷4]	[0.70 × 5 ÷ 4]	[0.50 × 3 ÷ 4]
	0.75	0.875	0.375
Actual Risk Premium [$R_P - R_F$] [A]	[25 – 5] = 20%	[18 – 5] = 13%	[12 – 5] = 7%
Computation of Net Gain:			
Desired Risk Premium [(R_M - R_F) × $\sigma_P \div \sigma_M$] [B]	[11% × 10 ÷ 4]	[11% × 5 ÷ 4]	[11% × 3 ÷4]
	27.5%	13.75%	8.25%
Fama's Net Selectivity [Net Gain] [A] – [B]	(7.5%)	(0.75%)	(1.25%)
Computation of Total Gain = Jensen's Alpha			
Desired Risk Premium [(R_M - R_F) × $\rho_{PM} \times \sigma_P \div \sigma_M$]	[27.5% × 0.30]	[13.75% × 0.70]	[8.25% × 0.50]
Or [Risk Premium in [B] × ρ_{PM}] [C]	8.25%	9.63%	4.13%
Total Gain [A] - [C]	11.75%	3.37%	2.87%
	[20 – 8.25]	[13 – 9.63]	[7 – 4.13]
Systematic Risk and Unsystematic Risk:			
Systematic Risk [$\sigma_P \times \beta_P$]	7.50%	4.375%	1.125%
	[10% × 0.75]	[5 × 0.875]	[3 × 0.375]
Unsystematic Risk [Total Risk Less Systematic	2.50%	0.625%	1.875%
Risk]	[10 – 7.50]	[5 – 4.375]	[3 – 1.125]

Notes:

(1) Risk Free Return [R_F] = 5%;

(2) Market Return [R_M] = 16%;

(3) Market Standard Deviation [σM] = 4%;

(4) Market Risk Premium [$R_M - R_F$] = 16% – 5% = 11%.

Weighted Rate of Return

Illustration 26.

Ascertain the Time Weighted Rate of Return and Annual Compounded Rupee Weighted Rate of Return from the following information given relating to Som Fund.

- Fund Value at the beginning is ₹6 Crores.
- 3 Months hence, the value had increased by 15% of the opening value.
- 3 Months hence, the value had increased by12% of the value three months before. At that time, there was an outflow of ₹1Crore by way of dividends.
- 3 Months hence, the value had decreased by 10% of the value three months before.
- During the last three months of the year, value of the fund had increased by ₹1 Crore.

Solution:

1. Computation of Closing Value (as at the year end)

Time	Opening Value (₹ in crore)	Additions/ Appreciation (₹ in crore)	Distributions/ Depreciation	Closing Value (₹ in crore)
Months 1-3	6.0000	0.9000 [6.00 x 15%]	—	6.9000
Months 4-6	6.9000	0.8280 [6.90 x 12%]	1.0000	6.7280
Months 7-9	6.7280	—	0.6728 [6.7280 x 10%]	6.0552
Months 10-12	6.0552	1.0000	—	**7.0552**

2. Time Weighted Rate Return:

(a) Computation of Closing Value ignoring cash flows in between

Particulars			₹ Crores
	Opening Investment		**6.0000**
Add:	Value Appreciation for First Three Months	[₹6 Crores x 15%]	0.9000
	Value at the end of 3rd Month		6.9000
Add:	Appreciation for Months 4 to 6	[₹6.9 Crores X 12%]	0.8280
	Value at the end of 6th Month		7.7280
Less:	Depreciation for Months 7 to 9	[₹7.728 Crores X 10%]	(0.7728)
	Value at the end of 9th Month		6.9552
Add:	Appreciation for Months 10 to 12		1.0000
Value at the end of the Year			**7.9552**

(b) Computation of Return

Return in Value = Value at the end of the Year - Value at the beginning of the year

= ₹7.9552 Crores - ₹6 Crores = ₹1.9552 Crores

Return in % (Annual Compounding)

= Return in Value ÷ Value at the beginning of the year

= ₹1.9552 Crores ÷ ₹6 Crores = **32.59% (Annual Compounding)**

Return in % (Quarterly Compounding) =

Product of each quarter's Closing Value (before dividend) ÷ (Opening Value for the Quarter) - 1

$$= \frac{6.9000}{6.0000} \times \frac{7.7280}{6.9000} \times \frac{6.0552}{6.7280} \times \frac{7.0552}{6.0552} - 1 = 1.3506 - 1 = 0.3506 \text{ or } 35.06\%$$

3. Rupee Weighted Rate Return:

(Measured from the Investor's Perspective)

It is the rate at which the Net Present Value of Cash Flow will be equal to zero i.e. Internal Rate of Return presuming that the investor will receive equivalent to the closing value.

(a) Computation of Return in %

Return (Value) = Dividend + Capital Appreciation

= ₹1Crore + [Closing Value of ₹7. 0552 Crores **Less** Opening Value of ₹6 Crores]

= ₹1 Crore + ₹ 1. 0552 Crores = ₹2.0552 Crores

Return in % = Return in Value ÷ Opening Value = ₹2.0552 Crores ÷ ₹6 Crores = **34.253%** Average Quarterly Discount Rate = 34.253 ÷ 4 = 8.56%

(b) Computation of Net Present Value

Note: Since cash flows occur on a quarterly basis, Present Value factor is based on quarterly discount rate. The First Discount Rate chosen 9% (average quarterly discount rate rounded off to nearest %)

Time Period (Quarters)	Nature	Cash Flow	Discount Factor @ 9%	Discounted Cash Flow	Discount Factor @ 8%	Discounted Cash Flow
0	Investment (Opening NAV)	(6.000)	1.000	(6.000)	1.000	(6.000)
1	—	—	0.917	—	0.926	—
2	Dividend Distribution	1.000	0.842	0.842	0.857	0.857
3	—	—	0.772	—	0.794	—
4	Closing NAV	7.0552	0.708	4.993	0.735	5.186
				(0.165)		0.043

Since the NPV using Rate 1 is negative, Rate 2 should be lower than Rate 1 to get a positive NPV.

(c) Computation of Internal Rate of Return

Computation of Rupee Weighted Rate of Return (RWRR) = Internal Rate of Return:

Internal Rate of Return [IRR]

$$= R_2 \frac{[V_2 - V_M]}{[V_2 - V_1]} \times [R_1 - R_2]$$

$$= 8\% + \frac{[0.043 - V_M]}{[0.043 - (-0.165)]} \times [9\% - 8\%]$$

= 8% + [0.043 / 0.208] × 1% = 8.207%

= 8.207% per quarter

Therefore, RWRR per Quarter is 8.207% or 32.828% p.a.

(d) Rupee Weighted Rate of Return

Risk Weighted Rate of Return = Internal Rate of Return = **32.828%**

Illustration 27.

Gargi Ltd has promoted an open-ended equity oriented scheme in 2004 with two plans — Dividend Reinvestment Plan (Plan X) and Bonus Plan (Plan Y); the face value of the units was ₹10 each. P and Q invested ₹5 Lakhs each on 01.04.2006 respectively in Plan X and Plan Y, when the NAV was ₹42.18 for Plan X and P ₹35.02 for Plan Y. P and Q both redeemed their units on 31.03.2013. Particulars of dividend and bonus declared on the units over

the period were as follows —

Date	Dividend	Bonus Ratio	NAV for Plan X	NAV for Plan Y
15.09.2006	15	—	46.45	29.10
28.07.2007	_	1 : 6	42.18	30.05
31.03.2008	20	—	48.10	34.95
31.10.2008	—	1 : 8	49.60	36.00
15.03.2009	18	—	52.05	37.00
24.03.2010	—	1:11	53.05	38.10
27.03.2011	16	—	54.10	38.40
28.02.2012	12	1:12	55.20	39.10
31.03.2013	—	—	50.10	34.10

You are required to calculate the annual return for P and Q after taking into consideration the following information —

(a) Securities Transaction Tax at 2% on redemption

(b) Liability of Capital Gains to Income Tax —

(i) Long Term Capital Gains — Exempt

(ii) Short Term Capital Gains —10% Plus Education Cess at 3%.

Solution:

Note: Under Dividend Reinvestment Plan, dividend will be declared as percentage of the face value of units outstanding, and units will be allotted for the amount of dividend based on the NAV on the date of dividend declaration.

1. Plan X for Mr. P

(a) Units Purchased

Particulars		Value
Amount Invested		₹5,00,000
NAV per Unit on 01.04.2006		₹42.18
No. of Units Purchased	[₹5,00,000 ÷ ₹42.18]	11,853.96

(b) Units Allotted under Dividend Reinvestment

Date of Dividend	Units Outstanding	Dividend Rate	Dividend Amount	NAV on that date	Additional Units Allotted	Total Units
1	2	3	4 = 2 × ₹10 × 3	5	6 = 4 × 5	7
15.09.2006	11,853.96	15%	₹ 17,780.94 [11,853.96 x ₹10 x 0.15]	₹46.45	382.79 [17780.94 ÷ 46.45]	12,236.75
31.03.2008	12,236.75	20%	₹24,473.50 [12,236.75 X ₹10 X 0.20]	₹48.10	508.80 [24473.50 ÷ 48.10]	12,745.55
15.03.2009	12,745.55	18%	₹22,941.99 [12,745.55 x ₹10 X 0.18]	₹52.05	440.77 [22941.99 ÷ 52.05]	13,186.32
27.03.2011	13,186.32	16%	₹21,098.11 [13,186.32 x ₹10 x 0.16]	₹54.10	389.98 [21098.11 ÷ 54.10]	13,576.30
28.02.2012	13,576.30	12%	₹16,291.56 [13,576.30 x ₹10 X 0.12]	₹55.20	295.14 [13576.3 ÷ 55.20]	13,871.44

(c) Redemption Proceeds and Annual Return

Particulars		Value
Units Redeemed		13,871.44
NAV per Unit on 31.03.2013 (date of redemption)		₹50.10
Less:	Gross Redemption Proceeds [13,871.44 Units X ₹50.10] Securities Transaction Tax @ 2%	₹6,94,959.14 ₹13,899.18
Less:	Net Proceeds Initial Investment	₹6,81,059.96 ₹5,00,000.00
Total Return for 7 Years		₹1,81,059.96
Annual Return $= \frac{\text{Total Return}}{\text{Initial Investment}} \times \frac{1}{\text{Period of Investment}}$ $= \frac{1,81,059.96}{5,00,000} \times \frac{1}{7 \text{ Years}} = 5.17\%$		5.17%

Note:

Since all the units redeemed are held for more than 12 months, all the units are long term capital assets under the income tax, and therefore, gain on their redemption is exempt from income tax.

2. Plan Y for Mr. Q

(a) Units Purchased

Particulars		Value
Amount Invested		₹5,00,000
NAV per Unit on 01.04.2006		₹35.02
No. of Units Purchased	[₹5,00,000 - ₹35.02]	14,277.56

(b) Units Allotted under Bonus

Date	Description	Units
01.04.2006	Purchase of Units for ₹5,00,000 at ₹35.02 per Unit	14,277.56
28.07.2007	Add: Bonus Issue at 1 : 6 = 1/6 X 14,277.56	2,379.59
31.10.2008	Total Units after: First Bonus Issue	16,657.15
	Add: Bonus Issue at 1 : 8 = 1/8 X 16,657.15	2,082.14
24.03.2010	Total Units after Second Bonus Issue	18,739.29
	Add: Bonus Issue at 1 : 11 = 1/11 X 18,739.29	1,703.57
28.02.2012	Total Units after Third Bonus Issue	20,442.86
	Add: Bonus Issue at 1 : 12 = 1/12 X 20,442.86	1,703.57
31.03.2013	**Total Units after Fourth Bonus Issue** **= Units Outstanding on the date of redemption i.e. 31.03.2013**	**22,146.43**

(c) Redemption Proceeds and Annual Return

Particulars		Value
Units Redeemed		22,146.43
NAV per Unit on 31.03.2013 (date of redemption)		₹34.10
	Gross Redemption Proceeds [22,146.43 Units X ₹34.10]	₹7,55,193.26
Less:	Securities Transaction Tax @ 2%	₹15,103.87
	Net Proceeds	₹7,40,089.39
Less:	Initial Investment	₹5,00,000.00
Total Return for 7 Years		₹2,40,089.39
Annual Return $= \frac{\text{Total Return}}{\text{Initial Investment}} \times \frac{1}{\text{Period of Investment}}$ $= \frac{2,40,089.39}{5,00,000} \times \frac{1}{7 \text{ Years}} = 6.86\%$		6.86%

Note:

Since all the units (financial assets) redeemed are held for more than 12 months, all the capital assets under the income tax law, and therefore, gain on their redemption is exempt from units are long term income tax.

Illustration 28.

XXX Mutual Fund (approved Mutual Fund) sponsored open-ended equity oriented scheme "Chankya Opportunity Fund".

There were three plans viz., "S" Dividend Re-investment Plan, "T"-Bonus Plan & "U" - Growth Plan.

At the time of initial Public Offer on 1-4-2002, Mr.Gautam, Mr.Gaurav & Mrs.Ratna, three investors invested ₹1,00,000 each & chosen "T", "U" & "S" Plan respectively.

The history of the Fund is as follows:

Date	Dividend %	Bonus ratio	Net Asset Value per unit (F.V.₹ 10)		
			Plan S	Plan T	Plan U
28-07-2006	20	-	30.70	31.40	33.42
31-03-2007	70	5:4	58.42	31.05	70.05
31-10-2010	40	-	42.18	25.02	56.15
15-03-2011	25	-	46.45	29.10	64.28
31-03-2011	-	1: 3	42.18	20.05	60.12
24-03-20 12	40	1:4	48.10	19.95	72.40
31-07-2012	-	-	53.75	22.98	82.07

[Ignore Education Cess]

On 31st July all three investors redeemed all the balance units.

Calculate annual rate of return to each of the investors.

Consider:

(i) Long term capital gain is exempt from Income tax.

(ii) Short term capital gain is subject to 10% Income tax.

(iii) Security transaction tax 0.2 percent only on sale / redemption of units.

Solution:

1. Return from Plan S - Dividend Reinvestment for Mrs. Ratna

Under Dividend Reinvestment Plan, the amount of Dividend is reinvested in the business at the prevailing rate.

(a) Statement of Units, Value and Return on Investment

Date	Dividend %	Investment	Rate	Units	Cum. Units	Value (₹)
(1)	(2)	(3) = Div X Cum. Units	(4)	(5) = (3)÷ (4)	(6)	(7) = (6) × ₹10
01.04.2002	Initial Offer	1,00,000	10.00	10,000.00	10,000.00	1,00,000
28.07.2006	0.20	20,000 [2x10,000]	30.70	651.47	10,651.47	1,06,515
31.03.2007	0.70	74,560 [7X10,651.47]	58.42	1,276.28	11,927.75	1,19,278
31.10.2010	0.40	47,711 [4x11,927.75]	42.18	1,131.13	13,058.88	1,30,589
15.03.2011	0.25	32,647 [2.5X13,058.88]	46.45	702.85	13,761.73	1,37,617
24.03.2012	0.40	55,047 [4x13,761.73]	48.10	1,144.43	14,906.16	1,49,062
31.07.2012	-	-	53.75		14,906.16	1,49,062

(b) Return on Investment

Particulars	₹
Redemption value 14,906.16 X 53.75	8,01,206.10
Less: Short term capital gain tax @ 10% =1,144.43 units (53.75-48.10) X 10%	646.00
	8,00,560.10
Less: Securities Transaction Tax @ 0.2% [0.2% X 8,01,206.10]	1,602.41
Redemption Value net of Taxes	7,98,957.69
Less: Investment	1,00,000.00
Net Return from Investment	**6,98,957.69**
Period of Investment [1/4/02 to 31/07/12] in months	**124**
Annual Average Return $= \frac{[\text{Net Return} \times 12 \text{ months} \times 100]}{\text{Purchase Price} \times \text{Period of Investment (months)}}$ $= \frac{[6,98,957.69 \times 12 \times 100]}{1,00,000 \times 124}$	**67.64%**

- Short Term Capital Gains is only in respect of Investment made in 24/03/2012 where the period of holding is less than 1 year.
- Securities Transaction Tax is not to be considered for computation of Short term Capital Gains and hence deducted from the net amount to ascertain the Cash Flows.

2. Return from Plan T - Bonus Plan for Mr. Gautam

Under the Bonus Plan, Bonus units are issued in the specified ratio.

(a) Statement of Units, Bonus and Value per unit

Date	Bonus Ratio	Units	Cum. Units	NAV per unit
(1)	(2)	(3)	(4)	(5)
01.04.2002	Initial Issue	10,000	10,000	10
31.03.2007	5:4	12,500 [10,000 x 5 ÷ 4]	22,500	31.05
31.03.2011	1:3	7,500 [22,500 x 1 ÷ 3]	30,000	20.05
24.03.2012	1:4	7,500 [30,000 x 1 ÷ 4]	37,500	19.95

(b) Return on Investment

Particulars	₹
Redemption value 37,500 X 22.98	8,61,750.00
Less: Short term capital gain tax @ 10% = 7,500 X (22.98 - 0) X 10% (See Note (a) below)	17,235.00
	8,44,515.00
Less: Securities Transaction Tax @ 0.2%	1,723.50
Net of tax	8,42,791.50
Less: Investment	1,00,000.00
Net gain	7,42,791.50
Annual Average Return $= \frac{\text{[Net Return} \times \text{12 months} \times \text{100]}}{\text{Purchase Price} \times \text{Period of Investment (months)}}$ $= \frac{7,42,791.50 \times 12 \times 100}{1,00,000 \times 124}$	71.88%

Note:

(a) For Income tax purposes, Cost of Acquisition of Bonus Shares is considered as NIL.

(b) Short Term Capital Gains is only in respect of Bonus issued on 24/03/2012 as the period of holding is less than 1 year.

3. Return from Plan U - Growth Plan to Mr.Gaurav

Particulars	₹
Redemption value [10,000 X82.07]	8,20,700.00
Less: Security Transaction Tax (S.T.T) is 0.2%	1,641.40
Net amount received	8,19,058.60
Less: Investment	1,00,000.00
Net gain	7,19,058.60

There is no Short Term Capital Gains as the period of holding is more than '1 year.

Average Annual Return

$$= \frac{7,19,058.60 \times 12 \times 100}{1,00,000 \times 124} = 69.59\%$$

Illustration 29.

Equi-Stable, is a portfolio model where in 20% of Fund Value is invested in Fixed Income Bearing Instruments. The Balance of 80% is divided among Old Industry Stock (Iron and Steel), Automotive Industry Stock, Information Technology Stocks, Infrastructure Company Stocks and Financial Services Sector in the ratio of 4:2:6:3:5.

Three mutual funds X, Y and Z, offer a Fund Scheme based on the Equi-Stable Portfolio Model. The actual return on Equi-Stable portfolios of each of the three funds for the past 3 years is as follows —

Year	1	2	3
Portfolio X	17.35%	18.70%	21.60%
Portfolio Y	17.20%	18.25%	22.15%
Portfolio Z	17.10%	18.60%	22.00%

Beta factor of the Equi-Stable portfolio is measured at 1. 35. Return on Market Portfolio indicate that ₹1000 invested will fetch ₹153 in an year (including capital appreciation and dividend yield). RBI Bonds, guaranteed by the Central Government yields 4.50%.

Rate the fund managers of X, Y and Z.

Solution:

1. Computation of Expected Rate of Return under CAPM

$E(RX) = R_F + [B_X \times (R_M - R_F)]$ [Expected Return on portfolio X]

Risk Free Return R_F 4.50% [RBI Bonds]

Return on Market Portfolio R_M 15.30% $\left[\frac{\text{Annual Return}}{\text{Investment}} = \frac{₹153}{₹1,000}\right]$

Beta of Equi-Stable B_X 1.35 [Given]

Expected Return of Equi-Stable $E(R_E)$ = 4.50% + [1.35 × (15.30% -4.50%)] = **19.08%**

2. Computation of Alpha Factor of the 3 Funds

Year	Mutual Fund X		Mutual Fund Y		Mutual Fund Z	
	Actual Return	Abnormal Return [AR_X]	Actual Return	Abnormal Return [AR_Y]	Actual Return	Abnormal Return [AR_Z]
(1)	(2)	(3) = (2)- $E(R_E)$	(4)	(5) = (4) - $E(R_E)$	(6)	(7) = (6)- $E(R_E)$
1	17.35%	17.35 -19.08 = (1.73)	17.20%	17.20 -19.08 =(1.88)	17.10%	17.10 -19.08 = (1.98)
2	18.70%	18.70 -19.08 = (0.38)	18.25%	18.25 -19.08 = (0.83)	18.60%	18.60 -19.08 = (0.48)
3	21.60%	21.60 -19.08 = 2.52	22.15%	22.15 -19.08 = 3.07	22.00%	22.00 - 19.08 = 2.92
		0.41		**0.36**		**0.46**

Alpha Factor:

Fund X $\alpha_X = \Sigma AR_x \div n = 0.41 \div 3$ Years = **0.137%**

Fund Y $\alpha_Y = \Sigma AR_y \div n = 0.36 \div 3$ Years = **0.120%**

Fund Z $\alpha_Z = \Sigma AR_z \div n = 0.46 \div 3$ Years = **0.153%**

Evaluation: Equi-Stable Scheme of Mutual Fund Z has the highest Alpha i.e. it has yielded 0.153% return more than the market expectations, when compared to 0.137% and 0.12% of Fund X and Y. Therefore, Fund Manager of Mutual Fund Z has performed better. Ranking of the fund managers are as follows —

1. → Fund Manager of Z
2. → Fund Manager of X

3. → Fund Manager of Y

Illustration 30.

An aggressive mutual fund promises an expected return of 18% with a possible volatility (standard deviation) of 20 %. On the other hand, a conservative mutual fund promises an expected return of 17% and volatility of 19%.

(a) Which fund would you like to invest in?

(b) Would you like to invest in both if you have money?

(c) Assuming you can borrow money from your provident fund at an opportunity cost of 10 %, which fund you would invest your money in?

(d) Would you consider both funds if you could lend or borrow money at 10 %?

Solution:

(a) It depends on your preference and risk-taking attitude.

(b) You can achieve diversification gains if you invest in both.

(c) The slopes of the capital market line for two funds are:

- Aggressive fund = (18 - 10)/20 = 0.40; and
- Conservative fund: (17-10)/19 = 0.368. Aggressive fund is preferable.

(d) Benefits of diversification can be obtained if you invest in both funds and also lend and borrow at the NPV.

6 FOREX MANAGEMENT – AN OVERVIEW

International finance (also referred to as international monetary economics or international macroeconomics) is the branch of financial economics broadly concerned with monetary and macroeconomic interrelations between two or more countries. International finance examines the dynamics of the global financial system, international monetary systems, balance of payments, exchange rates, foregn direct investment, and how these topics relate to international trade.

Sometimes referred to as multinational finance, international finance is additionally concerned with matters of International financial management. Investors and multinational corporations must assess and manage international risks such as political risk and foreign exchange risk, including transaction exposure, economic exposure, and translation exposure.

Some examples of key concepts within international finance are the Mundell-Fteming model, the optimum currency area theory, purchasing power parity, interest rate parity, and the international Fisher effect. Whereas the study of international trade makes use of mostly mJcroeconomic concepts, international finance research investigates predominantly macroeconomic concepts.

8.1 FOREIGN EXCHANGE MARKET

The **Foreign Exchange Market** (**Forex**, **FX**, or **currency market**) is a form of exchange for the global decentralized trading of international currencies. Financial centers around the world function as anchors of trading between a wide range of different types of buyers and sellers around the clock, with the exception of weekends. The foreign exchange market determines the relative values of different currencies. The foreign exchange market assists international trade and investment by enabling currency conversion. For example, it permits a business in the United States to import goods from the European Union member states, especially Euro zone members, and pay Euros, even though its income is in United States dollars. It also supports direct speculation in the value of currencies, and the carry trade, speculation based on the interest rate differential between two currencies.

The foreign exchange market is unique because of the following characteristics:

- its huge trading volume representing the largest asset class in the world leading to high liquidity;
- its geographical dispersion;
- its continuous operation: 24 hours a day except weekends, i.e., trading from 20:15 GMT on Sunday until 22:00 GMT Friday;
- the variety of factors that affect exchange rates;
- the low margins of relative profit compared with other markets of fixed income; and
- the use of leverage to enhance profit and loss margins and with respect to account size.

Sectors: The Foreign Exchange Market has the following major sectors:

(a) Spot Market,

(b) Forward and Futures Market, and

(c) Currency Options Market.

Functions of the Foreign Exchange Market

The foreign exchange market is merely a part of the money market in the financial centers is a place where foreign currencies are bought and sold. The buyers and sellers of claims on foreign money and the intermediaries together constitute a foreign exchange market. It is not restricted to any given country or a geographical area.

Thus, the foreign exchange market is the market for a national currency (foreign money) anywhere in the world, as the financial centers of the world are united in a single market.

The foreign exchange market performs the following important functions:

(i) to effect transfer of purchasing power between countries- transfer function;

(ii) to provide credit for foreign trade - credit function; and

(iii) to furnish facilities for hedging foreign exchange risks - hedging function.

(i) Transfer Function:

The basic function of the foreign exchange market is to facilitate the conversion of one currency into another, i.e., to accomplish transfers of purchasing power between two countries. This transfer of purchasing power is effected through a variety of credit instruments, such as telegraphic transfers, bank drafts and foreign bills.

In performing the transfer function, the foreign exchange market carries out payments internationally by clearing debts in both directions simultaneously, analogous to domestic clearings.

(ii) Credit Function:

Another function of the foreign exchange market is to provide credit, both national and international so as to promote foreign trade. Obviously, when foreign bills of exchange are used in international payments, a credit for about 3 months, till their maturity, is required.

(iii) Hedging Function:

A third function of the foreign exchange market is to hedge foreign exchange risks. In a free exchange market when exchange rates, i.e., the price of one currency in terms of another currency change, there may be a gain or loss to the party concerned. Under this condition, a person or a firm undertakes exchange risk to a large extent if there are huge amounts of net claims or net liabilities which are to be met in foreign money.

Participants in Foreign Exchange Market

The following are the financial market participants :

1. Commercial companies

An important part of this market comes from the financial activities of companies seeking foreign exchange to pay for goods or services. Commercial companies often trade fairly small amounts compared to those of banks or speculators, and their trades often have little short term impact on market rates. Nevertheless, trade flows are an important factor in the long-term direction of a currency's exchange rate. Some multinational companies can have an unpredictable impact when very large positions are covered due to exposures that are not widely known by other market participants.

2. Central banks

National central banks play an important role in the foreign exchange markets. They try to control the money supply, inflation, and/or interest rates and often have official or unofficial target rates for their currencies. They can use their often substantial foreign exchange reserves to stabilize the market. Nevertheless, the effectiveness of central bank "stabilizing speculation" is doubtful because central banks do not go bankrupt if they make large losses, like other traders would, and there is no convincing evidence that they do make a profit trading.

3. Hedge funds as speculators

About 70% to 90%of the foreign exchange transactions are speculative. In other words, the person or institution that buys or sells the currency has no plan to actually take delivery of the currency in the end; rather, they are solely speculating on the movement of that particular currency. Hedge funds have gained a reputation for aggressive currency speculation since 1996. They control billions of dollars of equity and may borrow billions more, and thus may overwhelm intervention by central banks to support almost any currency, if the economic fundamentals are in the hedge funds' favor.

4. Investment management firms

Investment management firms (who typically manage large accounts on behalf of customers such as pension funds and endowments) use the foreign exchange market to facilitate transactions in foreign securities. For example, an investment manager holding an international equity portfolio needs to purchase and sell several pairs of foreign currencies to pay for foreign securities purchases.

Some investment management firms also have more speculative specialist currency overlay operations, which manage clients' currency exposures with the aim of generating profits as well as limiting risk. While the number of this type of specialist firms is quite small, many have a large value of assets under management and, hence, can generate large trades.

5. Retail foreign exchange traders

Individual Retail speculative traders constitute a growing segment of this market with the advent of retail foreign exchange platforms, both in size and importance. Currently, they participate indirectly through brokers or banks. There are two main types of retail FX brokers offering the opportunity for speculative currency trading: brokers and dealers or market makers. Brokers serve as an agent of the customer in the broader FX market, by seeking the best price in the market for a retail order and dealing on behalf of the retail customer. They charge a commission or mark-up in addition to the price obtained in the market. Dealers or market makers, by contrast, typically act as principal in the transaction versus the retail customer, and quote a price they are willing to deal at.

6. Non-bank Foreign Exchange Companies

Non-bank foreign exchange companies offer currency exchange and international payments to private individuals and companies. These are also known as foreign exchange brokers but are distinct in that they do not offer speculative trading but rather currency exchange with payments (i.e., there is usually a physical delivery of currency to a bank account).

These companies' selling point is usually that they will offer better exchange rates or cheaper payments than the customer's bank. These companies differ from Money Transfer/Remittance Companies in that they generally offer higher-value services.

7. Money transfer/remittance companies and bureaux de change

Money transfer companies/remittance companies perform high-volume low-value transfers generally by economic migrants back to their home country. The four largest markets receiving foreign remittances are India, China, Mexico and the Philippines. The largest and best known provider is Western Union with 345,000 agents globally followed by UAE Exchange.

Bureaux de change or currency transfer companies provide low value foreign exchange services for travelers. These are typically located at airports and stations or at tourist locations and allow physical notes to be exchanged from one currency to another. They access the foreign exchange markets via banks or non bank foreign exchange companies.

Different Terms Used in a Foreign Exchange Market

1. Exchange Rate	It is the price of one currency quoted in terms of another currency.

2. Spot Rate	It is the exchange rate applicable for an immediate settlement, i.e. the exchange rate prevailing now.
3. Forward Rate	It is the exchange rate contracted today for exchange of currencies at a future date.
4. Direct Quote	It refers to the expression of exchange rate where one unit of foreign currency is expressed in terms of number of units of local / domestic currency. **Example** $1 = ₹40.00 [in India]
5. Indirect Quote	It refers to quoting per unit of Local / Domestic Currency in terms of number of u n i t s of Foreign Currency. **Example**: ₹1 = $0.025.
6. Two Way Quote	Two Way Quote refers to quoting Exchange Rates by an Exchange Dealer in terms of Buying (Bid) Rate and Selling (Ask) Rate.
7. Bid Rate	Bid Rate is the price at which the Exchange Dealer will buy currency. It is also called as Buy Rate. [It is the rate at which a Customer can sell a Foreign Currency]
8. Offer Rate	Offer Rate is the rate at which the Exchange Dealer will sell currency. It is also called as Sell Rate or Ask Rate. [It is the rate at which a Customer can Buy a Foreign Currency]
9. American Quote	It refers to quoting per unit of any currency in terms of American Dollars.
10. European Quote	It refers to quoting per unit of American Dollars in terms of any other currency an indirect quotation whereby the value of foreign currency is stated as per unit measure of the U.S Dollar.

8.2 FOREIGN EXCHANGE RATE MANAGMENT

A foreign **exchange rate**, which is also called a forex rate or currency rate, represents the value of a specific currency compared to that of another country. For example, an interbank exchange rate of 91 Japanese yen (JPY, ¥) to the United States dollar (US$) means that ¥91 will be exchanged for each US$1 or that US$1 will be exchanged for each ¥91. Exchange rates are determined in the foreign exchange market, which is open to a wide range of different types of buyers and sellers where currency trading is continuous: 24 hours a day except weekends.

Currency rates are applicable only on currency pairs. The currency listed on the left is called the reference (or base) currency while the one listed to the right is the quote (or term) currency.

Exchange rates are always written in the form of quotations. A quotation reflects the number of quote currencies that can be bought by using a single unit of reference currency.

Foreign Exchange Rates – Determinants

1. **Interest Rate Differentials:** Higher rate of interest for an investment in a particular currency can push up the demand for that currency, which will increase the exchange rate in favour of that currency.
2. **Inflation Rate Differentials:** Different countries' have differing inflation rates, and as a result, purchasing power of one currency may depreciate faster than currency of some other country. This contributes to movement in exchange rate.
3. **Government Policies:** Government may impose restriction on currency transactions. Through RBI, the Government, may also buy or sell currencies in huge quantity to adjust the prevailing exchange rates.
4. **Market Expectations:** Expectations on changes in Government, changes in taxation policies, foreign trade, inflation, etc. contribute to demand for foreign currencies, thereby affecting the exchange rates.
5. **Investment Opportunities:** Increase in investment opportunities in one country leads to influx of foreign currency funds to that country. Such huge inflow will amount to huge supply of that currency, thereby bringing down the exchange rate.
6. **Speculations:** Speculators and Treasury Managers influence movement in exchange rates by buying and selling foreign currencies with expectations of gains by exploiting market inefficiencies. The quantum of their operations affects the exchange rates.

Equilibrium Exchange Rate

Equilibrium Exchange Rate is the one that balances the value of nation's imports and exports. It is based on the flow of goods and services. Equilibrium Exchange Rate is also called as Trade Approach or Elasticity's Approach to determination of exchange rate.

If the value of the nation's imports exceeds the value of the nation's exports, then domestic currency will depreciate against the importing currency. Import requires payment in Forex and therefore importers will sell home currency to buy foreign currency, pushing up the demand and price of the foreign currency. Since Foreign Currency appreciates, the nation's exports become cheaper to Foreign Countries. Imports become more expensive to domestic residents. This results in increase in exports and fall in imports, until trade is balanced. For above purposes, exchange rate should be market determined and not Government fixed.

The speed of adjustment depends on how responsive or elastic imports and exports are to Exchange Rate changes. Hence, this approach to exchange rate determination is called Elasticity Approach. If the nation is at or near full employment, a larger depreciation of home currency is essential, to shift domestic resources to the production of more exports. If the nation has huge amount of unemployed resources, then the production should look out for import substitutes, to bring about an realignment in the exchange rates. Government policies may be required to reduce domestic expenditure, and to release domestic resources to produce more exports and import substitutes, and thus allow the elasticities approach to operate.

Elasticities Approach stresses on trade and flow of goods and services to determine exchange rate. This theory explains the determination of exchange rate in the long run.

Bid-Ask Rate

The bid price is the highest price that someone is willing to pay for buying an asset at that moment. The foreign exchange market is nothing more than an ongoing auction to buy and sell. Just as with any auction, buyers place bids.

The asking price is the lowest price at which someone is willing to sell at that moment. Think of it as when you sell a house or other item, you are "asking" a certain price for it. Sellers place asking prices.

Therefore, if you are interested in buying dollars, you should look at the asking price of a seller. You would have a buyer matched with a seller and the trade could be executed.

Likewise, if you are interested in selling dollars, you should look at the bid price since of a buyer. Again, you'd have a buyer matched with a seller and the trade could get executed.

The bids and offers come from "limit" orders placed by buyers and sellers. For instance, assume that a rupee has a bid of $50 and an asking price of $50.30. If you place a limit order to buy 100 rupees at $50.10 that means your order could only get executed if you pay $50.10 or less. The bid would be raised to $50.10. The new quote would be bidding $50.10 and asking $50.30. You are now the highest bidder and get posted to the board.

Likewise, if someone placed a limit order to sell at $50.20 that means they will only sell their rupees if they can get that price or higher. The new quote would be bid $50.10 and asking $50.20. They are now the lowest offer so get posted to the board.

Spread

Spread is the difference between the dealer's Ask Rate and Bid Rate.

If the exchange rate is expected to be stable, the spread will be narrow. If the exchange rate is volatile, the spread will be wider.

Where volume of transactions is very high, the Bid-Offer Spread will be very low. In case of a thinly-traded currency, the spread will be wider.

Example: USD ₹40.00 - ₹40.25. Spread is ₹0.25 (Ask Rate **Less** Bid Rate]

Computation of forward Rates of a Currency based on rate of appreciation or depreciation or from swap points

Nature of Appreciation	Forward Rate is Ascertained By

Foreign Currency is appreciating	Multiply the value of home currency by (1+ Appreciation Percentage)
Foreign Currency is depreciating	Multiply the value of home currency by (1 - Depreciation Percentage)
Home Currency is appreciating	Divide the value of home currency by (1 + Appreciation Percentage)
Home Currency is depreciating	Divide the value of home currency by (1 - Depreciation Percentage)

1. Premium / Depreciation in Percentage

Example: In the spot market USD 1 = ₹40, if in the forward market (1 Year) —

If Dollar is appreciating by 10%, then USD 1 = ₹40 × (1 + 10%) = ₹40 × 1.1 = ₹44.00

If Dollar is depreciating by 10%, then USD 1 = ₹40 × (1 - 10%) = ₹40 × 0.9 = ₹36.00

If Rupee is appreciating by 10%, thenUSD 1 = ₹40 ÷ (1 + 10%) = ₹40 ÷ 1.1 = ₹36.36

If Rupee is depreciating by 10%, then USD 1 = ₹40 ÷(1 - 10%) = ₹40 ÷ 0.9 = ₹44.44

Note: Home Currency Depreciation Rate ≠ Foreign Currency Appreciation Rate. Home Currency Appreciation Rate ≠ Foreign Currency Appreciation Rate.

From Swap Points: Forward Rates are ascertained based on the nature of spread of Swap Points (in case of a Two Way Quote) –

Nature of Spread	**Forward Rate is Ascertained By**
Spread is Positive (i.e. Swap Points are increasing)	Add the Swap Points to the Spot Rate.
Spread is Negative (i.e. Swap Points are decreasing)	Reduce the Swap Points from the Spot Rate.

Swap Points are movement in Exchange Rate expressed in absolute terms, i.e. in value terms.

Note: Spread = Ask Swap **Less** Bid Swap

Example:

Spot Rate	**Swap Points**	**Forward Bid Rate**	**Forward Ask Rate**
USD 1 = ₹40/₹41	0.50 - 0.60	₹40 + 0.50 = ₹40.50	₹41 + 0.60 = ₹41.60
USD 1 = ₹40 /₹41	0.80 – 0.70	₹40 - 0.80 = ₹39.20	₹41 - 0.70 = ₹40.30

Ascertaining the Appreciation and Depreciation in the case of a Currency Appreciation:

Currency is said to have appreciated if its value has increased, i.e. an investor is required to pay more for purchasing that currency.

Example: USD 1 = ₹40 becomes USD 1 = ₹42. Here the value of USD has increased. An investor is required to pay more Rupees to acquire one USD.

Premium Quote: A currency is said to be at Premium, if it is appreciating relative to another currency. In the above example, USD is quoted at Premium.

Depreciation:

Currency is said to have depreciated if its value has decreased, i.e. an investor is required to pay less for purchasing that currency.

Example: USD 1 = ₹41 becomes USD 1 = ₹39. Here the value of USD has decreased. An investor is required to pay lesser amount in Rupees in acquire one USD.

Discount Quote: A Currency is said to be quoted at Discount, if it is depreciating relative to another currency. In the above example, USD is quoted at Discount.

Currency at premium or at discount?

Rule for ascertaining whether quoted at Premium / Discount [Based on Forward Rates]:

Foreign Currency is Expressed	**Premium**	**Discount**

Under Direct Quote	Forward Rate > Spot Rate	Forward Rate < Spot Rate
Under Indirect Quote	Forward Rate < Spot Rate	Forward Rate > Spot Rate

Forward Rates are Quoted in Terms of Swap Points:

Foreign Currency is Expressed	Premium	Discount
Under Direct Quote	Swap Points are increasing	Swap Points are decreasing
Under Indirect Quote	Swap Points are decreasing	Swap Points are increasing

Computation of Annualized Appreciation / Depreciation:

(a) For Direct Quotes: $\frac{(\text{Forward Rate} - \text{Spot Rate})}{\text{Spot Rate}} \times 100 \times \frac{\text{12 Months or 365 Days}}{\text{Period of Quote}}$

Positive Result = Appreciation in %; Negative Result = Depreciation in %

(b) For Indirect Quotes: $\frac{(\text{Spot Rate} - \text{Forward Rate})}{\text{Forward Rate}} \times 100 \times \frac{\text{12 Months or 365 Days}}{\text{Period of Quote}}$

Positive Result = Appreciation in %; Negative Result = Depreciation in %

Cross Rate

Cross Rate denotes an exchange rate that does not involve the home currency. It is an exchange rate between the currencies of two countries that are not quoted against each other, but are quoted against one common currency.

Example: From an Indian perspective, USD per GBP, FFr. Per Euro are cross rates.

Benefits: When a Foreign Currency (A) is not traded locally, or no exchange rates are available in terms of the local currency, but only in terms of some other Foreign Currency (B) and Currency B is traded locally, then Exchange Rate for Currency A can be obtained in terms of Local Currency.

Example: Exchange Rate for Peso is not available in terms of Rupee. However, quote for Peso is available per Euro (Euro 1 = Peso 17.50). Euro is traded in India at ₹57.50. Therefore, Rupee per Unit of Peso can be ascertained as follows —

Rupees/Peso = Rupee/Euro × Euro/Peso

= Rupee/Euro × [1 / (Peso/Euro)]

= ₹57.50 × (1 ÷ Peso 17.50 per Euro) = ₹57.50 x 0.0571 = ₹3.2833 per Peso.

Cross Currency using Two Way Quotes: In case of Two Way Quotes, Exchange Rate between two currencies A and B, using C should be determined as follows —

(a) Bid Rate (A per unit of B) = Bid Rate of A per unit of C × Bid Rate of C per unit B
= Bid A/C + Bid C/B

(b) Ask Rate (A per unit of B) = Ask Rate of A per unit of C × Ask Rate of C per unit B
= Ask A/C + Ask C/B

Rule for Ascertaining Bid from Ask Rates (Where Currencies are expressed in Direct Quote and Indirect Quote):

(a) Bid Rate (A per Unit of B) = 1 ÷ Ask Rate (B per Unit of A)
= 1 ÷ Ask B/A

(b) Ask Rate (A per Unit of B) = 1 ÷ Bid Rate (B per Unit of A)

= 1 ÷ Bid B/A

Arbitrage Operations

Business operation involving the purchase of foreign exchange, gold, financial securities, or commodities in one market and their almost simultaneous sale in another market, in order to profit from price differentials existing between the markets is known as arbitrage. Opportunities for arbitrage may keep recurring because of the working of market forces. Arbitrage generally tends to eliminate price differentials between markets. Whereas in less developed countries arbitrage can consist of the buying and selling of commodities in different villages within the country, in highly developed countries the term is generally used to refer to international operations involving foreign-exchange rates, short-term interest rates, prices of gold, and prices of securities.

Currency Arbitrage

A forex strategy in which a currency trader takes advantage of different spreads offered by brokers for a particular currency pair by making trades. Different spreads for a currency pair imply disparities between the bid and ask prices. Currency arbitrage involves buying and selling currency pairs from different brokers to take advantage of this disparity.

Currency arbitrage involves the exploitation of the differences in quotes rather than movements in the exchange rates of the currencies in the currency pair. Forex traders typically practice two-currency arbitrage, in which the differences between the spreads of two currencies are exploited. Traders can also practice three-currency arbitrage, also known as triangular arbitrage, which is a more complex strategy. Due to the use of computers and high-speed trading systems, large traders often catch differences in currency pair quotes and close the gap quickly.

In today's global economy, a multinational company must deal with currencies of the countries in which it operates. Currency arbitrage , or simultaneous purchase and sale of currencies in different markets, offers opportunities for advantageous movement of money from one currency to another.

For example, converting £1,000 to U.S. Dollars with an exchange rate of $ 1.60 to £1 will yield $ 1,600. Another way of making the conversion is to first change the British Pound to Japanese Yen and then convert the Yen to U.S. Dollars using the current exchange rates of £1 = ¥175 and $1 = ¥ 105. The dollar amount is

(£1,000 x ¥ 175)/¥105 = $1,666.67

This example demonstrates the advantage of converting British money first to Japanese Yen and then to dollars.

Two Point and Three Point Arbitrage

Exchange rate arbitrage is the practice of taking advantage of inconsistent exchange rates in different markets by selling in one market and simultaneously buying in another. Arbitrageurs do not take risks or, at least, it is not their intention to do so. In other words, they endeavour to maintain closed positions at all times. Rates of profit on arbitrage operations are necessarily low in competitive, well-informed markets, but since transactions are usually very large, absolute profits may also be large from successful arbitrage. Arbitrage performs the function for a market system of bringing prices in one market into line with those in other markets.

There are two types of arbitrage of relevance to forex markets: exchange rate arbitrage and interest rate arbitrage. In exchange rate arbitrage, advantage is taken of differentials in the price of a currency in different markets. Exchange rate arbitrage transactions may be classified in terms of the number of markets involved. Thus, we may have two-point and three-point arbitrage depending on whether it involves two or more exchange centres (two-point arbitrage or multiple- point arbitrage).

Two-point arbitrage

Two-point arbitrage concerns two currencies in two geographically separated markets. For example, let the spot exchange rate be £1 = $1.55 in London and £1 = $1.60 in New York. Here we are quoting both exchange rates against sterling. That is, we are quoting GBP/USD. This is the indirect quotation of sterling and the direct quotation of the dollar. Remember that the expression Currency A/Currency B gives you the amount of Currency B that exchanges for one unit of Currency A. In practice, most exchange rates are quoted against the US dollar. If we were to do this, we would quote:

In London: USD/GBP £0.645

In New York: USD/GBP £0.625.

Thus, in relative terms, sterling is undervalued in London and overvalued in New York. Provided that capital was free to flow between the two centres, arbitrageurs would attempt to exploit, and hence profit from the differential by selling dollars for pounds in London and reselling the pounds in New York. Assume the arbitrageur sold $1 million in London. For this, he would have received £645,161.29. Selling this in New York would have returned him £1,032,258.06 - a profit of 5 cents per £1. The sale of dollars in London would have strengthened sterling and pushed the value of the pound above $1.55. At the same time, the sale of sterling in New York would have caused sterling to weaken there, pushing its value below $1.60. The action of arbitrageurs would bring the rates of exchange in the two centres together.

In practice, the rates wouldn't come exactly into line because of the existence of transactions costs, but the rates should move to being 'transactions costs close'. There is another simplification in the above example since no regard is paid to the existence of bid and offer rates of exchange. In the real world, the rates may have been something like:

London: GBP/USD Bid 1.5495 Offer 1.5505

New York: GBP/USD Bid 1.5995 Offer 1.6005

Selling dollars in London, the arbitrageur would have been quoted the offer rate of 1.5505 and, thus, would have received £644,953.24. Buying dollars in New York, the arbitrageur would have been quoted the bid rate of 1.5995 and would have received £1,031,602.71. That is, the profits would have been lower because of the bid-offer spread.

Three-point (triangular) arbitrage

Exchange rates may be externally consistent but internally inconsistent. That is, exchange rates among different currencies may be mutually inconsistent. Arbitrageurs will then attempt to profit from these inconsistencies and in the process will eliminate discrepancies and establish mutually consistent cross- exchange rates. A cross-exchange rate is simply the price of a second currency expressed in terms of a third or an exchange rate calculated from two other rates. For example, the rate of the Euro against the Swedish krona derived as the cross rate from US$ - Krona and US$ against the Euro.

Example : Imagine you are a British arbitrageur, holding sterling, in the following example:

Actual exchange rates

GBP/USD £1 = $ 1.5715-721 USD/JPY $1 = ¥ 106.090-120 GBP/JPY £1 = ¥ 176.720-831

Start with £1,000,000.

(a) List the steps you need to take to make a profit.

(b) Calculate the rate of profit you will make.

Solution :

Implied cross rates are £1 = ¥ 176.720-831. Thus, in the actual market, sterling is overpriced in relation to yen and we must sell sterling for yen.

Thus:

Step A: Use £ to buy yen; Step B: Use yen to buy $; Step C: Use $ to buy £

Step B: Sell £ for yen; market-maker buys the foreign currency (¥) at the bid rate of ¥176.720. This gives ¥176,720,000.

Step C: Sell ¥ for $; market-maker sells dollars at the offer rate of ¥106.120. This gives $1,665,284.58

Step D: Sell $ for £. The market-maker buys dollars at the higher rate of $1.5721, which gives £1,059,273.95 or a profit of 5.9%.

This is, of course, a ridiculously high rate of profit, since it could be made in a matter of moments. In practice,

rates only have to get slightly out of line before the arbitrageurs step in.

8.3 PARITY CONDITIONS IN INTERNATIONAL FINANCE

Managers of multinational firms, international investors, importers and exporters, and government officials must deal with these fundamental issues:

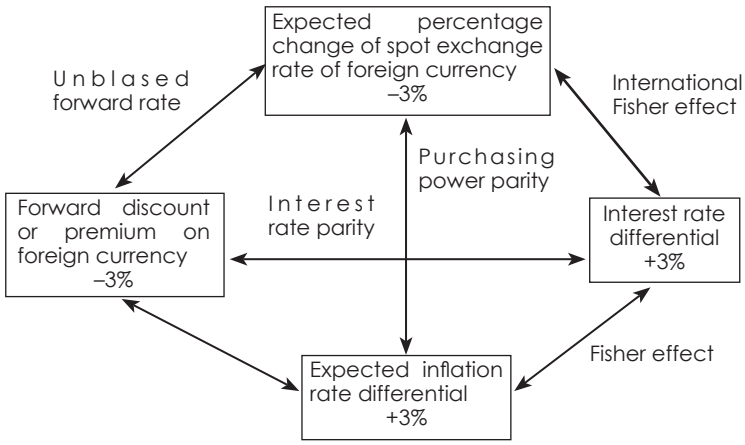
- Are changes in exchange rates predictable?
- How are exchange rates related to interest rates?
- What, at least theoretically, is the "proper" exchange rate?
- To answer these questions we need to first understand the economic fundamentals of international finance, known as parity conditions.
- Parity Conditions provide an intuitive explanation of the movement of prices and interest rates in different markets in relation to exchange rates.
- The derivation of these conditions requires the assumption of Perfect Capital Markets (PCM).
- no transaction costs
- no taxes
- complete certainty

Note – Parity Conditions are expected to hold in the long-run, but not always in the short term.

We shall now examine a simple yet elegant set of equilibrium (or parity) conditions that should apply to product prices, interest rates, and spot and forward exchange rates if the markets are not impeded. These parity conditions provide the foundation for much of the theory and practice of international finance.

In competitive markets, characterized by numerous buyers and sellers having low-cost access to information, exchange-adjusted prices of identical tradeable goods and financial assets must be within transactions costs of equality worldwide. This idea, referred to as the **law of one price**, is enforced by international arbitrageurs who follow the profit-guaranteeing dictum of "buy low, sell high" and prevent all but trivial deviations from equality. Similarly, in the absence of market imperfections, risk-adjusted expected returns on financial assets in different markets should be equal.

Five key theoretical economic relationships, which are depicted in the following figure, result from these arbitrage activities. This framework emphasizes the links among prices, spot exchange rates, interest rates, and forward exchange rates. According to the diagram, if inflation in, say, France is expected to exceed inflation in the United States by 3 percent for the coming year, then the French franc should decline in value by about 3 percent relative to the dollar. By the same token, the one-year forward French franc should sell at a 3 percent discount relative to the U.S. dollar. Similarly, one-year interest rates in France should be about 3 percent higher than one-year interest rates on securities of comparable risk in the United States.



Purchasing Power Parity (PPP) Theory

The first original reference of PPP Theory was made by David Ricardo. However, Gustav Cassel popularized this theory in 1918. According to PPP theory, when exchange rates are of a fluctuating nature, the rate of exchange between two currencies in the long run will be fixed by their respective purchasing powers in their own nations.

Foreign currency is demanded by the people because it has some purchasing power in its own nation. Also domestic currency has a certain purchasing power, because it can buy some amount of goods/ services in the domestic economy. Thus, when home currency is exchanged for any foreign currency, in fact the domestic purchasing power is being exchanged for the purchasing power of that foreign currency. This exchange of the purchasing power takes place at some specified rate where purchasing of two currencies nations gets equalized. Thus, the relative purchasing power of the two currencies determines the exchange rate. The exchange rate under this theory is in equilibrium when their domestic purchasing powers at that rate of exchanges are equivalent e.g., Suppose certain bundle of goods/ services in U.S.A. costs U.S. $ 10 and the same bundle in India costs, ₹ 450/- then the exchange rate between Indian Rupee and U.S. Dollar is $1 = ₹ 45. Because this is the exchange rate at which the parity between the purchasing power of two nations is maintained. A change in the purchasing power of any currency will reflect in the exchange rates also. Hence under this theory the external value of the currency depends on the domestic purchasing power of that currency relative to that of another currency.

In short, what this means is that a bundle of goods should cost the same in Canada and the United States once you take the exchange rate into account.

Purchasing Power Parity and Baseball Bats

First suppose that one U.S. Dollar (USD) is currently selling for ten Mexican Pesos (MXN) on the exchange rate market. In the United States wooden baseball bats sell for $40 while in Mexico they sell for 150 pesos. Since 1 USD = 10 MXN, then the bat costs $40 USD if we buy it in the U.S. but only 15 USD if we buy it in Mexico. Clearly there's an advantage of buying the bat in Mexico, so consumers are much better off going to Mexico to buy their bats. If consumers decide to do this, we should expect to see three things happen:

1. American consumers desire Mexico Pesos in order to buy baseball bats in Mexico. So they go to an exchange rate office and sell their American Dollars and buy Mexican Pesos. This will cause the Mexican Peso to become more valuable relative to the U.S. Dollar.
2. The demand for baseball bats sold in the United States decreases, so the price American retailers charge goes down.
3. The demand for baseball bats sold in Mexico increases, so the price Mexican retailers charge goes up.

Eventually these three factors should cause the exchange rates and the prices in the two countries to change such that we have purchasing power parity. If the U.S. Dollar declines in value to 1 USD = 8 MXN, the price of baseball bats in the United States goes down to $30 each and the price of baseball bats in Mexico goes up to 240 pesos each, we will have purchasing power parity. This is because a consumer can spend $30 in the United States for a baseball bat, or he can take his $30, exchange it for 240 pesos (since 1 USD = 8 MXN) and buy a

baseball bat in Mexico and be no better off.

Purchasing Power Parity and the Long Run

Purchasing-power parity theory tells us that price differentials between countries are not sustainable in the long run as market forces will equalize prices between countries and change exchange rates in doing so. You might think that my example of consumers crossing the border to buy baseball bats is unrealistic as the expense of the longer trip would wipe out any savings you get from buying the bat for a lower price. However it is not unrealistic to imagine an individual or company buying hundreds or thousands of the bats in Mexico then shipping them to the United States for sale. It is also not unrealistic to imagine a store like Walmart purchasing bats from the lower cost manufacturer in Mexico instead of the higher cost manufacturer in Mexico. In the long run having different prices in the United States and Mexico is not sustainable because an individual or company will be able to gain an arbitrage profit by buying the good cheaply in one market and selling it for a higher price in the other market.

Since the price for any one good should be equal across markets, the price for any combination or basket of goods should be equalized.

Mathematical Equation:

$$\Rightarrow \frac{\text{Forward Rate}}{\text{Spot Rate}} = \frac{(1+\ \text{Inflation Rate in Home Country})}{(1+\ \text{Inflation Rate in Foreign Country})}$$

$$\Rightarrow \text{Forward Rate} = \text{Spot Rate} \times \frac{(1+\ \text{Inflation Rate in Home Country})}{(1+\ \text{Inflation Rate in Foreign Country})}$$

Inferences Drawn out of Inflation Rate Differentials: If Home Country Inflation Rate is –

Greater than Foreign Country Inflation Rate	Lower than Foreign Country Inflation Rate
Foreign Currency should be traded at Premium	Foreign Currency should be traded at Discount.

Criticism of Purchasing Power Parity (PPP) Theory

1. **Limitations of the Price Index** : As seen above in the relative version the PPP theory uses the price index in order to measure the changes in the equilibrium rate of exchange. However, price indices suffer from various limitations and thus theory too.
2. **Neglect of the demand / supply Approach** : The theory fails to explain the demand for as well as the supply of foreign exchange. The PPP theory proves to be unsatisfactory due to this negligence. Because in actual practice the exchange rate is determined according to the market forces such as the demand for and supply of foreign currency.
3. **Unrealistic Approach** : Since the PPP theory uses price indices which itself proves to be unrealistic. The reason for this is that the quality of goods and services included in the indices differs from nation to nation. Thus, any comparison without due significance for the quality proves to be unrealistic.
4. **Unrealistic Assumptions** : It is yet another valid criticism that the PPP theory is based on the unrealistic assumptions such as absence of transport cost. Also it wrongly assumes that there is an absence of any barriers to the international trade.
5. **Neglects Impact of International Capital Flow** : The PPP theory neglects the impact of the international capital movements on the foreign exchange market. International capital flows may cause fluctuations in the existing exchange rate.
6. **Rare Occurrence** : According to critics, the PPP theory is in contrast to the Practical approach. Because, the rate of exchange between any two currencies based on the domestic price ratios is a very rare occurrence.

Despite these criticisms the theory focuses on the following major points.

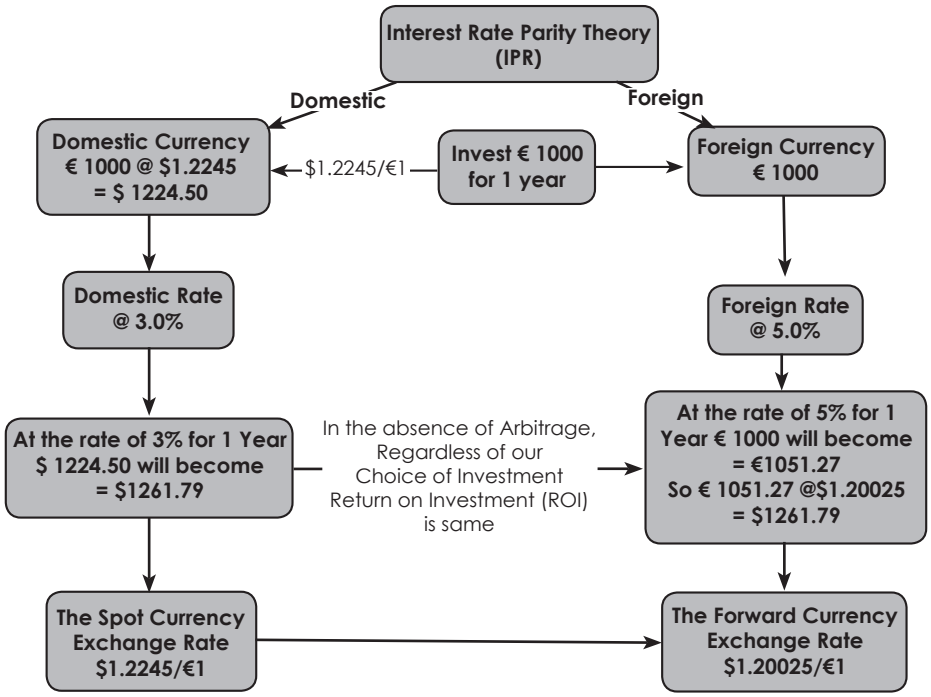
1. It tries to establish relationship between domestic price level and the exchange rates.
2. The theory explains the nature of trade as well as considers the BOP (Balance of Payments) of a nation.

Interest Rate Parity

Interest Rate Parity (IPR) theory is used to analyze the relationship between the spot rate and a corresponding forward (future) rate of currencies.

The IPR theory states interest rate differentials between two different currencies will be reflected in the premium or discount for the forward exchange rate on the foreign currency if there is **no arbitrage** - the activity of buying shares or currency in one financial market and selling it at a profit in another.

The theory further states size of the forward premium or discount on a foreign currency should be equal to the interest rate differentials between the countries in comparison.



Examples

For our illustration purpose consider investing € 1000 for 1 year.

We'll consider two investment cases viz:

Case I: Domestic Investment

In the U.S.A., consider the spot exchange rate of $1.2245/€ 1.

So we can exchange our € 1000 @ $1.2245 = $1224.50

Now we can invest $1224.50 @ 3.0% for 1 year which yields **$1261.79** at the end of the year.

Case II: Foreign Investment

Likewise we can invest € 1000 in a foreign European market, say at the rate of 5.0% for 1 year.

But we buy forward 1 year to lock in the future exchange rate at

$1.20025/€ 1 since we need to convert our € 1000 back to the domestic currency, i.e. the U.S. Dollar.

So € 1000 @ of 5.0% for 1 year = € 1051.27

Then we can convert € 1051.27 @ $1.20025 = **$1261.79**

Thus, in the absence of **arbitrage**, the Return on Investment (ROI) is same regardless of our choice of investment method.

Mathematical Equation:

Exchange Rate Differential = Interest Rate Differential

$$\Rightarrow \frac{\text{Forward Rate}}{\text{Spot Rate}} = \frac{(1+\text{ Interest Rate in Home Country})}{(1+\text{ Interest Rate in Foreign Country})}$$

$$\Rightarrow \text{Forward Rate} = \text{Spot rate} \times \frac{(1+\text{Interest Rate in Home Country})}{(1+\text{Interest Rate in Foreign Country})}$$

Greater than Foreign Currency Interest Rate	Lower than Foreign Currency Interest Rate
Foreign Currency should be traded at Premium	Foreign Currency should be traded at Discount.

Types of Interest Rate Parity

There are two types of IRP **:**

1. Covered Interest Rate Parity (CIRP)

Covered Interest Rate theory states that exchange rate forward premiums (discounts) offset interest rate differentials between two sovereigns.

In another words, covered interest rate theory holds that interest rate differentials between two countries are offset by the spot/forward currency premiums as otherwise investors could earn a pure arbitrage profit.

Covered Interest Rate Examples

Assume Google Inc., the U.S. based multi-national company, needs to pay it's European employees in Euro in a month's time.

Google Inc. can achieve this in several ways viz:

- Buy Euro forward 30 days to lock in the exchange rate. Then Google can invest in dollars for 30 days until it must convert dollars to Euro in a month. This is called covering because now Google Inc. has no exchange rate fluctuation risk.
- Convert dollars to Euro today at spot exchange rate. Invest Euro in a European bond (in Euro) for 30 days (equivalently loan out Euro for 30 days) then pay it's obligation in Euro at the end of the month.

Under this model Google Inc. is sure of the interest rate that it will earn, so it may convert fewer dollars to Euro today as it's Euro will grow via interest earned.

This is also called covering because by converting dollars to Euro at the spot, the risk of exchange rate fluctuation is eliminated.

2. Uncovered Interest Rate Parity (UIP)

Uncovered Interest Rate theory states that expected appreciation (depreciation) of a currency is offset by lower (higher) interest.

Uncovered Interest Rate Example

In the above example of covered interest rate, the other method that Google Inc. can implement is:

- Google Inc. can also invest the money in dollars today and change it for Euro at the end of the month.

This method is uncovered because the exchange rate risks persist in this transaction.

Covered Interest Rate Vs. Uncovered Interest Rate

Recent empirical research has identified that uncovered interest rate parity does not hold, although violations are not as large as previously thought and seems to be currency rather than time horizon dependent.

In contrast, covered interest rate parity is well established in recent decades amongst the OECD economies for short-term instruments. Any apparent deviations are credited to transaction costs.

Implications of Interest Rate Parity Theory

If IRP theory holds then arbitrage is not possible. No matter whether an investor invests in domestic country or foreign country, the rate of return will be the same as if an investor invested in the home country when measured

in domestic currency.

If domestic interest rates are less than foreign interest rates, foreign currency must trade at a forward discount to offset any benefit of higher interest rates in foreign country to prevent arbitrage.

If foreign currency does not trade at a forward discount or if the forward discount is not large enough to offset the interest rate advantage of foreign country, arbitrage opportunity exists for domestic investors. So domestic investors can benefit by investing in the foreign market.

If domestic interest rates are more than foreign interest rates, foreign currency must trade at a forward premium to offset any benefit of higher interest rates in domestic country to prevent arbitrage.

If foreign currency does not trade at a forward premium or if the forward premium is not large enough to offset the interest rate advantage of domestic country, arbitrage opportunity exists for foreign investors. So foreign investors can benefit by investing in the domestic market.

Limitations of Interest Rate Parity Model

In recent years the interest rate parity model has shown little proof of working.

In many cases, countries with higher interest rates often experience currency appreciation due to higher demands and higher yields and has nothing to do with risk-less arbitrage.

Fisher Effect

Interest rates and inflation are objects of financial fascination around the world. The Fisher effect is a theory about the relationship between the two, basically stating that when one rises, so does the other.

The **Fisher Effect** is an economic hypothesis stating that the real interest rate is equal to the nominal rate minus the expected rate of inflation. It states that, in response to a change in the money supply, the nominal interest rate changes in tandem with changes in the inflation rate in the long run. For example, if monetary policy were to cause inflation to increase by 5 percentage points, the nominal interest rate in the economy would eventually also increase by 5 percentage points.

In order to understand the Fisher effect, it's crucial to understand the concepts of nominal and real interest rates.

In the late 1930s, U.S. economist Irving Fisher wrote a paper which posited that a country's interest rate level rises and falls in direct relation to its inflation rates. Fisher mathematically expressed this theory in the following way:

R Nominal = R Real + R Inflation

The equation states that a country's current (nominal) interest rate is equal to a real interest rate adjusted for the rate of inflation. In this sense, Fisher conceived of interest rates, as the prices of lending, being adjusted for inflation in the same manner that prices of goods and services are adjusted for inflation. For instance, if a country's nominal interest rate is six percent and its inflation rate is two percent, the country's real interest rate is four percent (6% - 2% = 4%).

In simple terms: an increase in inflation will result in an increase in the nominal interest rate. For example, if the real interest rate is held at a constant 5.5% and inflation increased from 2% to 3%, the Fisher Effect indicates that the nominal interest rate would have to increase from 7.5% (5.5% real rate + 2% inflation rate) to 8.5% (5.5% real rate + 3% inflation rate).

The *Fisher effect* is an important tool by which lenders can gauge whether or not they are making money on a granted loan. Unless the rate charged is above and beyond the economy's inflation rate, a lender will not profit from the interest. Moreover, according to Fisher's theory, even if a loan is granted at no interest, a lending party would need to charge at least the inflation rate in order to retain purchasing power upon repayment.

International Fisher Effect

In foreign exchange terminology, the International Fisher Effect is based on the idea that a country with a higher interest rate will have a higher rate of inflation which, in turn, could cause its currency to depreciate. In theoretical terms, this relationship is expressed as an equality between the expected percentage exchange rate change and the difference between the two countries' interest rates, divided by one plus the second country's

interest rate. Because the divisor approximates 1, the expected percent exchange rate change roughly equals the interest rate differential.

It is based on present and future risk-free nominal interest rates rather than pure inflation, and is used to predict and understand present and future spot currency price movements. In order for this model to work in its purest form, it is assumed that the risk-free aspects of capital must be allowed to free flow between nations that comprise a particular currency pair.

International Fisher Effect Example:

Putting the International Fisher Effect or IFE into practice would mean that exchange rates change should be based on nominal interest rate differentials and independent of inflation rates. An example of using the IFE to forecast exchange rate shifts would be if the U.S. nominal interest rate was at 1%, but the Australian rate was at 3%, then the Aussie would be expected to rise by 2% against the U.S. Dollar.

Fisher Effect Background

The decision to use a pure interest rate model rather than an inflation model or some combination stems from the assumption by Fisher that real interest rates are not affected by changes in expected inflation rates because both will become equalized over time through market arbitrage; inflation is embedded within the interest rate and factored into market projections for a currency price. It is assumed that spot currency prices will naturally achieve parity with perfect ordering markets. This is known as the Fisher Effect and not to be confused with the International Fisher Effect.

Fisher believed the pure interest rate model was more of a leading indicator that predicts future spot currency prices 12 months in the future. The minor problem with this assumption is that we can't ever know with certainty over time the spot price or the exact interest rate. This is known as uncovered interest parity. The question for modern studies is: does the International Fisher Effect work now that currencies are allowed to free float. From the 1930s to the 1970s we didn't have an answer because nations controlled their currency price for economic and trade purposes. This begs the question: has credence been given to a model that hasn't really been fully tested? Yet the vast majority of studies only concentrated on one nation and compared that nation to the United States currency.

The Fisher Effect Vs. The IFE

The Fisher Effect model says nominal interest rates reflect the real rate of return and expected rate of inflation. So the difference between real and nominal rates of interest is determined by expected rates of inflation. The approximate nominal rate of return = real rate of return plus the expected rate of inflation. For example, if the real rate of return is 3.5% and expected inflation is 5.4 % then the approximate nominal rate of return is 0.035 + 0.054.= 0.089 or 8.9%. The precise formula is (1 + nominal rate) = (1 + real rate) x (1 + inflation rate), which would equal 9.1% in this example. The IFE takes this example one step further to assume appreciation or depreciation of currency prices is proportionally related to differences in nominal rates of interest. Nominal interest rates would automatically reflect differences in inflation by a purchasing power parity or no-arbitrage system.

The IFE in Action

For example, suppose the GBP/USD spot exchange rate is 1.5339 and the current interest rate in the U.S. is 5% and 7% in Great Britain. The IFE predicts that the country with the higher nominal interest rate (GBP in this case) will see its currency depreciate. The expected future spot rate is calculated by multiplying the spot rate by a ratio of the foreign interest rate to domestic interest rate: (1.5339 X (1.07/1.05) = 1.5631. The IFE expects the GBP/USD to appreciate to 1.5631 and the USD/GBP to depreciate to 0.6398 so that investors in either currency will achieve the same average return i.e. an investor in USD will earn a lower interest rate of 5% but will also gain from appreciation of the USD.

For the shorter term, the IFE is generally unreliable because of the numerous short-term factors that affect exchange rates and the predictions of nominal rates and inflation. Longer-term International Fisher Effects have proven a bit better, but not by very much. Exchange rates eventually offset interest rate differentials,

but prediction errors often occur. Remember that we are trying to predict the spot rate in the future. IFE fails particularly when the costs of borrowing or expected returns differ, or when purchasing power parity fails. This is defined when the cost of goods can't be exchanged in each nation on a one-for-one basis after adjusting for exchange rate changes and inflation.

Today, we don't normally see the big interest rate changes we have seen in the past. One point or even half point nominal interest rate changes rarely occur. Instead, the focus for central bankers in the modern day is not an interest rate target, but rather an inflation target where interest rates are determined by the expected rate of inflation. Central bankers focus on their nation's Consumer Price Index (CPI) to measure prices and adjust interest rates according to prices in an economy. To do otherwise may cause an economy to fall into deflation or stop a growing economy from further growth. The Fisher models may not be practical to implement in your daily currency trades, but their usefulness lies in their ability to illustrate the expected relationship between interest rates, inflation and exchange rates.

Interest Rate Arbitrage

Opportunities for interest arbitrage arise when the money rates differ among countries. Gold arbitrage and securities arbitrage operate in principle very much like commodity arbitrage in the domestic market, except that in the two former cases exchange rates are important, either because funds must be remitted abroad for the operation or because the proceeds must be brought home at the end of the operation.

Covered Interest Arbitrage

An arbitrage transaction that takes advantage of any instance when the forward premium or forward discount between two currencies does not equal the interest rate differential. When this occurs, arbitrageurs can use covered interest arbitrage to generate profits until the relationships return to equilibrium. This may be done by buying / selling one currency in the spot market and simultaneously selling / buying it in the forward market and using the sale proceeds to invest in an asset denominated in the spot currency; when the asset matures, the proceeds are used to fulfill the purchase and the arbitrage transaction concludes with a riskfree profit.

Steps in Covered Interest Arbitrage:

(a) Identify Future Spot Price based on Interest Rate Parity Theory.

(b) Compare Future Spot Price with Forward Rate available for the period.

(c) If Future Spot Price > Forward Rate, i.e. Forward Rate is Undervalued, **Buy Forward. Sell Spot.**

Action	Time	Activity
Borrow	Now	Borrow in Foreign Currency at its Borrowing Rate.
Contract	Now	Enter into Forward Contract for buying Foreign Currency at the maturity date.
Convert	Now	Sell Foreign Currency at Spot Rate and realize the proceeds in Home Currency.
Invest	Now	Invest the Home Currency available in Home Currency Deposits.
Realize	Maturity	Realize the maturity value of Home Currency Deposits.
Honour	Maturity	Honour the Forward Contract for buying Foreign Currency at Forward Rates using the Home Currency Deposit proceeds.
Repay	Maturity	Repay the Foreign Currency Liability using the Foreign Currency bought.
Gain	Maturity	Foreign Currency Bought **Less** Foreign Currency Settled.

(d) If Future Spot Price < Forward Rate i.e. Forward Rate is Overvalued. **Sell Forward. Buy Spot.**

Action	Time	Activity
Borrow	Now	Borrow in Home Currency at its Borrowing Rate.
Contract	Now	Enter into Forward Contract for selling Foreign Currency at the Maturity date.
Convert	Now	Buy Foreign Currency at Spot Rate, using the amount borrowed.
Invest	Now	Invest the Foreign Currency available in Foreign Currency Deposits.

Realize	Maturity	Realize the maturity value of Foreign Currency Deposits.
Honour	Maturity	Honour the Forward Contract for selling the maturity proceeds of Foreign Currency Deposits at Forward Contract Rates to realize Home Currency.
Repay	Maturity	Repay the Home Currency Liability using the proceeds of Forward Sale.
Gain	Maturity	Home Currency Proceeds on Forward Contract Sale **Less** Home Currency Liability Paid including interest.

8.4 EXCHANGE RATE RISK MANAGEMENT

Foreign exchange risk is the level of uncertainty that a company must manage for changes in foreign exchange rates, that will adversely affect the money the company receives for goods and services over a period of time.

For example, a company sells goods to a foreign company. They ship the goods today, but will not receive payment for several days, weeks or months. During this grace period, the exchange rates fluctuate. At the time of settlement, when the foreign company pays the domestic company for the goods, the rates may have traveled to a level that is less than what the company contemplated. As a result, the company may suffer a loss or the profits may erode.

To minimize or manage the risk, companies enter into contracts to buy foreign currency at a specified rate. This allows the companies to minimize the uncertainty of the rates, so that they can price their products accordingly.

A common definition of exchange rate risk relates to the effect of unexpected exchange rate changes on the value of the firm (Madura, 1989). In particular, it is defined as the possible direct loss (as a result of an unhedged exposure) or indirect loss in the firm's cash flows, assets and liabilities, net profit and, in turn, its stock market value from an exchange rate movement. To manage the exchange rate risk inherent in every multinational firm's operations, a firm needs to determine the specific type of current risk exposure, the hedging strategy and the available instruments to deal with these currency risks.

Multinational firms are participants in currency markets by virtue of their international transactions. To measure the impact of exchange rate movements on a firm that is involved in foreign-currency denominated operations, i.e., the implied value-at-risk (VaR) from exchange rate moves, we need to identify the type of risks that the firm is exposed to and the amount of risk encountered (Hakala and Wystup, 2002).

Types of Exchange Rate Risk

The three main types of exchange rate risk are-

1. **Transaction risk**, which is basically cash flow risk and deals with the effect of exchange rate moves on transactional account exposure related to receivables (export contracts), payables (import contracts) or repatriation of dividends. An exchange rate change in the currency of denomination of any such contract will result in a direct transaction exchange rate risk to the firm;
2. **Translation risk**, which is basically balance sheet exchange rate risk and relates exchange rate moves to the valuation of a foreign subsidiary and, in turn, to the consolidation of a foreign subsidiary to the parent company's balance sheet. Translation risk for a foreign subsidiary is usually measured by the exposure of net assets (assets less liabilities) to potential exchange rate moves. In consolidating financial statements, the translation could be done either at the end-of-the-period exchange rate or at the average exchange rate of the period, depending on the accounting regulations affecting the parent company. Thus, while income statements are usually translated at the average exchange rate over the period, balance sheet exposures of foreign subsidiaries are often translated at the prevailing current exchange rate at the time of consolidation; and
3. **Economic risk**, which reflects basically the risk to the firm's present value of future operating cash flows from exchange rate movements. In essence, economic risk concerns the effect of exchange rate changes on revenues (domestic sales and exports) and operating expenses (cost of domestic inputs and imports). Economic risk is usually applied to the present value of future cash flow operations of a firm's parent company and foreign subsidiaries. Identification of the various types of currency risk, along with their

measurement, is essential to develop a strategy for managing currency risk.

Measurement of Exchange Rate Risk

After defining the types of exchange rate risk that a firm is exposed to, a crucial aspect of a firm's exchange rate risk management decisions is the measurement of these risks. Measuring currency risk may prove difficult, at least with regards to translation and economic risk. At present, a widely-used method is the value-at-risk (VaR) model. Broadly, value at risk is defined as the maximum loss for a given exposure over a given time horizon with z% confidence.

The VaR methodology can be used to measure a variety of types of risk, helping firms in their risk management. However, the VaR does not define what happens to the exposure for the (100 – z) % point of confidence, i.e., the worst case scenario.

Since the VaR model does not define the maximum loss with 100% confidence, firms often set operational limits, such as nominal amounts or stop loss orders, in addition to VaR limits, to reach the highest possible coverage.

Value-at-Risk calculation

The VaR measure of exchange rate risk is used by firms to estimate the riskiness of a foreign exchange position resulting from a firm's activities, including the foreign exchange position of its treasury, over a certain time period under normal conditions (Holton, 2003). The VaR calculation depends on 3 parameters:

- The holding period, i.e., the length of time over which the foreign exchange position is planned to be held. The typical holding period is 1 day.
- The confidence level at which the estimate is planned to be made. The usual confidence levels are 99% and 95%.
- The unit of currency to be used for the denomination of the VaR.

Assuming a holding period of x days and a confidence level of y%, the VaR measures what will be the maximum loss (i.e., the decrease in the market value of a foreign exchange position) over x days, if the x-days period is not one of the (100-y)% x-days periods that are the worst under normal conditions. Thus, if the foreign exchange position has a 1-day VaR of $10 million at the 99% confidence level, the firm should expect that, with a probability of 99%, the value of this position will decrease by no more than $10 million during 1 day, provided that usual conditions will prevail over that 1 day. In other words, the firm should expect that the value of its foreign exchange rate position will decrease by no more than $10 million on 99 out of 100 usual trading days, or by more than $10 million on 1 out of every 100 usual trading days.

To calculate the VaR, there exists a variety of models. Among them, the more widely-used are: (1) the historical simulation, which assumes that currency returns on a firm's foreign exchange position will have the same distribution as they had in the past; (2) the variance-covariance model, which assumes that currency returns on a firm's total foreign exchange position are always (jointly) normally distributed and that the change in the value of the foreign exchange position is linearly dependent on all currency returns; and (3) Monte Carlo simulation, which assumes that future currency returns will be randomly distributed.

The historical simulation is the simplest method of calculation. This involves running the firm's current foreign exchange position across a set of historical exchange rate changes to yield a distribution of losses in the value of the foreign exchange position, say 1,000, and then computing a percentile (the VaR). Thus, assuming a 99% confidence level and a 1-day holding period, the VaR could be computed by sorting in ascending order the 1,000 daily losses and taking the 11th largest loss out of the 1,000 (since the confidence level implies that 1 percent of losses – 10 losses –should exceed the VaR). The main benefit of this method is that it does not assume a normal distribution of currency returns, as it is well documented that these returns are not normal but rather leptokurtic. Its shortcomings, however, are that this calculation requires a large database and is computationally intensive.

The variance – covariance model assumes that (1) the change in the value of a firm's total foreign exchange position is a linear combination of all the changes in the values of individual foreign exchange positions, so that also the total currency return is linearly dependent on all individual currency returns; and (2) the currency returns are jointly normally distributed. Thus, for a 99% confidence level, the VaR can be calculated as:

VaR = - Vp (Mp + 2.33 Sp)

where Vp is the initial value (in currency units) of the foreign exchange position.

Mp is the mean of the currency return on the firm's total foreign exchange position, which is a weighted average of individual foreign exchange positions.

Sp is the standard deviation of the currency return on the firm's total foreign exchange position, which is the standard deviation of the weighted transformation of the variance-covariance matrix of individual foreign exchange positions (note that the latter includes the correlations of individual foreign exchange positions).

While the variance-covariance model allows for a quick calculation, its drawbacks include the restrictive assumptions of a normal distribution of currency returns and a linear combination of the total foreign exchange position. Note, however, that the normality assumption could be relaxed (Longin, 2001). When a non-normal distribution is used instead, the computational cost would be higher due to the additional estimation of the confidence interval for the loss exceeding the VaR.

Monte Carlo simulation usually involves principal components analysis of the variance-covariance model, followed by random simulation of the components. While its main advantages include its ability to handle any underlying distribution and to more accurately assess the VaR when non-linear currency factors are present in the foreign exchange position (e.g., options), its serious drawback is the computationally intensive process.

Management of Exchange Rate Risk

After identifying the types of exchange rate risk and measuring the associated risk exposure, a firm needs to decide whether or not to hedge these risks. In international finance, the issue of the appropriate strategy to manage (hedge) the different types of exchange rate risk has yet to be settled (Jacque, 1996). In practice, however, corporate treasurers have used various currency risk management strategies depending, *ceteris paribus*, on the prevalence of a certain type of risk and the size of the firm (Allen, 2003).

Hedging strategies

Indicatively, transaction risk is often hedged tactically (selectively) or strategically to preserve cash flows and earnings, depending on the firm's treasury view on the future movements of the currencies involved. Tactical hedging is used by most firms to hedge their transaction currency risk relating to short-term receivable and payable transactions, while strategic hedging is used for longer-period transactions. However, some firms decide to use passive hedging, which involves the maintenance of the same hedging structure and execution over regular hedging periods, irrespective of currency expectations – that is, it does not require that a firm takes a currency view.

Translation, or balance sheet, risk is hedged very infrequently and non-systematically, often to avoid the impact of possible abrupt currency shocks on net assets. This risk involves mainly long-term foreign exposures, such as the firm's valuation of subsidiaries, its debt structure and international investments. However, the long-term nature of these items and the fact that currency translation affects the balance sheet rather than the income statement of a firm, make hedging of the translation risk less of a priority for management. For the translation of currency risk of a subsidiary's value, it is standard practice to hedge the net balance sheet exposures, i.e., the net assets (gross assets less liabilities) of the subsidiary that might be affected by an adverse exchange rate move.

Within the framework of hedging the exchange rate risk in a consolidated balance sheet, the issue of hedging a firm's debt profile is also of paramount importance (Marrison, 2002; Jorion and Khoury, 1996). The currency and maturity composition of a firm's debt determines the susceptibility of its net equity and earnings to exchange rate changes. To reduce the impact of exchange rates on the volatility of earnings, the firm may use an optimization model to devise an optimal set of hedging strategies to manage its currency risk. Hedging the remaining currency exposure after the optimization of the debt composition is a difficult task. A firm may use tactical hedging, in addition to optimization, to reduce the residual currency risk. Moreover, if exchange rates do not move in the anticipated direction, translation risk hedging may cause either cash flow or earnings volatility. Therefore, hedging translation risk often involves careful weighing of the costs of hedging against the potential cost of not hedging.

Economic risk is often hedged as a residual risk. Economic risk is difficult to quantify, as it reflects the potential impact of exchange rate moves on the present value of future cash flows. This may require measuring the potential impact of an exchange rate deviation from the benchmark rate used to forecast a firm's revenue and cost streams over a given period. In this case, the impact on each flow may be netted out over product

lines and across markets, with the net economic risk becoming small for firms that invest in many foreign markets because of offsetting effects. Also, if exchange rate changes follow inflation differentials (through PPP) and a firm has a subsidiary that faces cost inflation above the general inflation rate, the firm could find its competitiveness eroding and its original value deteriorating as a result of exchange rate adjustments that are not in line with PPP (Froot and Thaler, 1990). Under these circumstances, the firm could best hedge its economic exposure by creating payables (e.g., financing operations) in the currency in which the firm's subsidiary experiences the higher cost inflation (i.e., in the currency in which the firm's value is vulnerable).

Sophisticated corporate treasuries, however, are developing efficient frontiers of hedging strategies as a more integrated approach to hedge currency risk than buying a plain vanilla hedge to cover certain foreign exchange exposure (Kritzman, 1993). In effect, an efficient frontier measures the cost of the hedge against the degree of risk hedged. Thus, an efficient frontier determines the most efficient hedging strategy as that which is the cheapest for the most risk hedged. Given a currency view and exposure, hedging optimization models usually compare 100% unhedged strategies with 100% hedged using vanilla forwards and option strategies in order to find the optimal one. Although this approach to managing risk provides the least-cost hedging structure for a given risk profile, it critically depends on the corporate treasurer's view of the exchange rate. Note that such optimization can be used for transaction, translation or economic currency risk, provided that the firm has a specific currency view (i.e., a possible exchange rate forecast over a specified time period).

Methods of Managing Risk

(a) Exposure Netting, i.e. creating an offsetting borrowing or asset. Also called Money Market Operations.

(b) Forward Exchange Contracts.

(c) Currency Futures and Options.

(d) Appropriate Capital Structure (for long term risks) [Expectations on funds raised in Foreign Currency will also vary with exchange rate fluctuations, thereby leaving the Value of the Firm unaffected to a great extent).

(e) Diversified production, Marketing and Financing (for Economic Risk).

(f) Foreign Currency Bank Account, so that inflow and outflow are matched at different points time, and protecting the Firm against exchange rate fluctuations.

(g) Currency Swap Arrangement.

Foreign Exchange Risk Hedging Tools

Forward Contract

Hedging refers to managing risk to an extent that it is bearable. In international trade and dealings foreign exchange plays an important role. Fluctuations in foreign exchange rates can have significant implications on business decisions and outcomes. Many international trade and business dealings are shelved or become unworthy due to significant exchange rate risk embedded in them. Historically, the foremost instrument used for managing exchange rate risk is the forward rate. Forward rates are custom agreements between two parties to fix the exchange rate for a future transaction. This simple arrangement easily eliminates exchange rate risk, however, it has some shortcomings, particularly the difficulty in getting a counter party who would agree to fix the future rate for the amount and at the time period in question. By entering into a forward rate agreement with a bank, the businessman simply transfers the risk to the bank, which will now have to bear this risk. Of course, the bank, in turn, may have to make some other arrangement to manage this risk. Forward contracts are somewhat less familiar, probably because no formal trading facility, building or even regulating body exists.

Futures Contract

The futures market came into existence as an answer for the shortcomings inherent in the forward market. The futures market solves some of the shortcomings of the forward market, particularly the need and the difficulty in finding a counter party. A currency futures contract is an agreement between two parties to buy or sell a particular currency at a future date, at a particular exchange rate that is fixed or agreed upon upfront. This sounds a lot like the forward contract. In fact, the futures contract is similar to the forward contract but is much

more liquid. It is liquid because it is traded in an organized exchange —

i.e. the futures market. Futures contracts are standardized contracts and thus are bought and sold just like shares in a stock market. The futures contract is also a legal contract just like the forward, however, the obligation can be 'removed' prior to the expiry of the contract by making an opposite transaction,

i.e. if one had purchased a futures contract then one may exit by selling the same contract. When hedging with futures, if the risk is an appreciation in value, then one needs to buy futures, whereas if the risk is a depreciation then one needs to sell futures. Consider our earlier example, instead of using forwards, ABC could have thus sold rupee futures to hedge against a rupee depreciation. Let's assume accordingly that ABC sold rupee futures at the rate RM0.10 per rupee. Hence the size of the contract is RM1,000,000. Now assume that the rupee depreciates to RM0.07 per rupee — the very thing ABC was afraid of. ABC would then close the futures contract by buying back the contract at this new rate. Note that in essence ABC bought the contract for RM0.07 and sold it for RM0.10. This gives a futures profit of RM 3,00,000 [(RM0.10-RM0.07) x 1,00,00,000]. However, in the spot market ABC gets only RM 7,00,000 when it exchanges the 10,000,000 rupees at RM0.07. The total cash flow, however, is maintained at RM 10,00,000 (RM 7,00,000 from spot and RM300,000 profit from futures). With perfect hedging the cash flow would always be RM1 million no matter what happens to the exchange rate in the spot market. One advantage of using futures for hedging is that ABC can release itself from the futures obligation by buying back the contract anytime before the expiry of the contract. To enter into a futures contract a trader, however, needs to pay a deposit (called an initial margin) first. Then his position will be tracked on a daily basis so much so that whenever his account makes a loss for the day, the trader will receive a margin call (also known as variation margin), requiring him to pay up the losses.

Currency Options

A currency option may be defined as a contract between two parties — a buyer and a seller — whereby the buyer of the option has the right but not the obligation, to buy or sell a specified currency at a specified exchange rate, at or before a specified date, from the seller of the option. While the buyer of an option enjoys a right but not an obligation, the seller of the option, nevertheless, has an obligation in the event the buyer exercises the given right. There are two types of options:

- **Call option** — gives the buyer the right to buy a specified currency at a specified exchange rate, at or before a specified date.
- **Put option** — gives the buyer the right to sell a specified currency at a specified exchange rate, at or before a specified date.

The seller of the option, of course, needs to be compensated for giving the right. The compensation is called the price or the premium of the option. The seller thus has an obligation in the event the right is exercised by the buyer.

For example, assume that a trader buys a September RM0.10 rupee call option for RM0.01. This means that the trader has the right to buy rupees for RM0.10 per rupee at anytime until the contract expires in September. The trader pays a premium of RM0.01 for this right. The RM0.10 is called the strike price or the exercise price. If the rupee appreciates over RM0.10 anytime before expiry, the trader may exercise his right and buy it for only RM0.10 per rupee. If, however, the rupee were to depreciate below RM0.10, the trader may just let the contract expire without taking any action since he is not obligated to buy it at RM0.10. In this case, if he needs physical rupee, he may just buy it in the spot market at the new lower rate.

In hedging using options, calls are used if the risk is an upward trend in price, while puts are used if the risk is a downward trend. In our ABC example, since the risk is a depreciation of rupees, ABC would need to buy put options on rupees. If rupees were to depreciate at the time ABC receives its rupee revenue, then ABC would exercise its right and thereby effectively obtain a higher exchange rate. If, however, rupees were to appreciate instead, ABC would then just let the contract expire and exchange its rupees in the spot market at the higher exchange rate. Therefore, the options market allows traders to enjoy unlimited favourable movements while limiting losses. This feature is unique to options, unlike the forward or futures contracts where the trader has to forego favourable movements and there are also no limits to losses.

Options are particularly suited as a hedging tool for contingent cash flows, as is the case in bidding processes. When a firm bids for a project overseas, which involves foreign exchange risk, the options market allows it to

quote its bid price and at the same time protect itself from the exchange rate fluctuations in the event the bid is won. In the case of hedging with forwards or futures, the firm would be automatically placed in a speculative position in the event of an unsuccessful bid, without any limit to its downside losses.

Money Market Operations

Money Market Operations refers to creating; an equivalent asset or liability against a Foreign Currency Liability or Receivable. It involves a series of transactions for taking the opposite position. It involves creating an Foreign Currency Asset (Deposits) or Foreign Currency Liability (Borrowings), based on the respective positions. All markets are not open and all currencies are not fully convertible. Therefore, this option may have very little practical application.

Leading and Lagging

It refers to the adjustment of the times of payments that are made in foreign currencies. Leading is the payment of an obligation before due date while lagging is delaying the payment of an obligation past due date. The purpose of these techniques is for the company to take advantage of expected devaluation or revaluation of the appropriate currencies. Lead and lag payments are particularly useful when forward contracts are not possible.

It is more attractive to use for the payments between associate companies within a group. Leading and lagging are aggressive foreign exchange management tactics designed to take the advantage of expected exchange rate changes. Buckley (1988) supports the argument with the following example:

Subsidiary b in B country owes money to subsidiary a in country A with payment due in three months' time and with the debt denominated in US dollar. On the other side, country B's currency is expected to devalue within three months against US dollar moreover vis-à-vis country A's currency. Under these circumstances, if company b leads -pays early - it will have to part with less of country B's currency to buy US dollar to make payment to company A. Therefore, lead is attractive for the company. When we take reverse the example-revaluation expectation, it could be attractive for the lagging.

On the other hand, in case of lagging payment to an independent third party, there is always the possibility of upsetting the trading relationship, with possible loss of credit facilities or having prices increased to compensate for the delay in the receipt of funds. There is also the possibility of damage to the lagging company's external credit rating.

Currency Swaps

Currency Swap involves an exchange of cash payments in one currency for cash payments in another currency. It is an agreement to exchange principal and interest-rate obligations in different currencies at an agreed rate. Currency Swaps allows a Firm to re-denominate a loan from one currency into another currency.

Basis:

- An Indian Company will be able to get funds at a lower rate in India than abroad. Likewise, an American Company would be able to get funds at a lower rate in US than in India.
- If the American Company wants to make an investment in India and the Indian Company in the US, then the Companies would borrow in their respective countries, and exchange the interest obligations, for mutual benefit.

Example: Interest Rate offered by an American Bank and an Indian Bank are as follows-

Banks in ⇒	**India**	**USA**
Interest Rate for Indian Co.	10%	8%
Interest Rate for USA Co.	12.50%	7%

In the above case, the USA Company would borrow in the US and fund that for Indian Company's operations, and the Indian Company will borrow in India and find that for American Company's operations. The gain of 1.50% (difference in spread) will be shared among the Company. If the gain is shared in equal measure, then the effective interest rates would be —

— For Indian Company: USA Rate of 7% Less Share in Gain 0.75% = 6.25%

— For US Company: India Rate of 12.50% Less Share in Gain 0.75% = 11.75%

Exposure Netting

Exposure netting involves offsetting exposures in one currency with exposures in the same or another currency, where exchange rates are expected to move in such a way that losses(gains) on the first exposed position should be offset by gains (losses) on the second currency exposure.

The assumption underlying exposure netting is that the net gain or loss on the entire exposure portfolio is what matters, rather than the gain or loss on any individual monetary unit.

Settlement Risk: Settlement Netting/ Settlement Risk is the difference of the summed transactions between the parties which is actually transferred.

Example: A Bank is required to pay USD 1,00,000 and USD 2,75,000 to Mr. A, and collect from him USD 1,75,000, Euro 50,000, then the net payable is called the settlement netting or settlement risk.

Situation for Exposure Netting: Exposure netting occurs where outstanding positions are netted against one another in the event of counter party default.

Currency Forward Contract Agreement

Foreign currency forward contracts are used as a foreign currency hedge when an investor has an obligation to either make or take a foreign currency payment at some point in the future. If the date of the foreign currency payment and the last trading date of the foreign currency forwards contract are matched up, the investor has in effect "locked in" the exchange rate payment amount.

By locking into a forward contract to sell a currency, the seller sets a future exchange rate with no upfront cost. For example, a U.S. exporter signs a contract today to sell hardware to a French importer. The terms of the contract require the importer to pay euros in six months' time. The exporter now has a known euro receivable. Over the next six months, the dollar value of the euro receivable will rise or fall depending on fluctuations in the exchange rate. To mitigate his uncertainty about the direction of the exchange rate, the exporter may elect to lock in the rate at which he will sell the euros and buy dollars in six months. To accomplish this, he hedges the euro receivable by locking in a forward.

This arrangement leaves the exporter fully protected should the currency depreciate below the contract level. However, he gives up all benefits if the currency appreciates. In fact, the seller of a forward rate faces unlimited costs should the currency appreciate. This is a major drawback for many companies that consider this to be the true cost of a forward contract hedge. For companies that consider this to be only an opportunity cost, this aspect of a forward is an acceptable "cost". For this reason, forwards are one of the least forgiving hedging instruments because they require the buyer to accurately estimate the future value of the exposure amount.

Like other future and forward contracts, foreign currency futures contracts have standard contract sizes, time periods, settlement procedures and are traded on regulated exchanges throughout the world. Foreign currency forwards contracts may have different contract sizes, time periods and settlement procedures than futures contracts. Foreign currency forwards contracts are considered over-the-counter (OTC) because there is no centralized trading location and transactions are conducted directly between parties via telephone and online trading platforms at thousands of locations worldwide.

Key Points:

- Developed and grew in the late '70s when governments relaxed their control over their currencies
- Used mainly by banks and corporations to mange foreign exchange risk
- Allows the user to "lock in" or set a future exchange rate.
- Parties can deliver the currency or settle the difference in rates with cash.

Example: Currency Forward Contracts

Corporation A has a foreign sub in Italy that will be sending it 10 million euros in six months. Corp. A will need to

swap the euro for the euros it will be receiving from the sub. In other words, Corp. A is long euros and short dollars. It is short dollars because it will need to purchase them in the near future. Corp. A can wait six months and see what happens in the currency markets or enter into a currency forward contract. To accomplish this, Corp. A can short the forward contract, or euro, and go long the dollar.

Corp. A goes to Citigroup and receives a quote of .935 in six months. This allows Corp. A to buy dollars and sell euros. Now Corp. A will be able to turn its 10 million euros into 10 million * .935 = 935,000 dollars in six months.

Six months from now if rates are at .91, Corp. A will be ecstatic because it will have realized a higher exchange rate. If the rate has increased to .95, Corp. A would still receive the .935 it originally contracts to receive from Citigroup, but in this case, Corp. A will not have received the benefit of a more favorable exchange rate.

Extent of Forward Cover:

Aspect	Full Forward Cover	Partial Forward Cover
Meaning	Full cover refers to buying or selling (as appropriate) the foreign currency equivalent to that foreign currency liability or receivable.	It refers to buying or selling (as appropriate) the foreign currency at less than the corresponding foreign currency liability or receivable.
Example	Against a Dollar Receivable of USD 10,000, selling USD 10,000 in the Forward Cover market.	Against a Euro Receivable of 50,000, selling Euro 30,000 in the Forward Cover market.
Applicability	When the Firm is sure that the Foreign Currency will fall or rise.	Firm is not 100% sure that the Foreign Currency will fall or rise.

The differences between long and short positions in forward markets are as follows:

- The long position holder is the buyer of the contract and the short position holder is the seller of the contract.
- The long position will take the delivery of the asset and pay the seller of the asset the contract value, while the seller is obligated to deliver the asset versus the cash value of the contract at the origination date of this transaction.
- When it comes to default, both parties are at risk because typically no cash is exchanged at the beginning of the transaction. However, some transactions do require that one or both sides put up some form of collateral to protect them from the defaulted party.

Procedures for Settling a Forward Contract at Expiration

A forward contact at expiration can be settled in one of two ways:

1. **Physical Delivery** - Refers to an option or futures contract that requires the actual underlying asset to be delivered on the specified delivery date, rather than being traded out with offsetting contracts. Most derivatives are not actually exercised, but are traded out before their delivery dates. However, physical delivery still occurs with some trades: it is most common with commodities, but can also occur with other financial instruments. Settlement by physical delivery is carried out by clearing brokers or their agents. Promptly after the last day of trading, the regulated exchange's clearing organization will report a purchase and sale of the underlying asset at the previous day's settlement price (also referred to as the "invoice price"). Traders who hold a short position in a physically settled security futures contract to expiration are required to make delivery of the underlying asset. Those who already own the assets may tender them to the appropriate clearing organization. Traders who do not own assets are obligated to purchase them at the current price.

   Exchanges specify the conditions of delivery for the contracts they cover. Acceptable locations for delivery (in the case of commodities or energies) and requirements as to the quality, grade or nature of the underlying asset to be delivered are regulated by the exchanges. For example, only certain Treasury bonds may be delivered under the Chicago Board of Trade's Treasury bond future. Only certain growths of coffee may be delivered under the Coffee, Sugar and Cocoa Exchange's coffee future. In many commodity or energy markets, parties want to settle futures by delivery, but exchange rules are too restrictive for their

needs. For example, the New York Mercantile Exchange requires that natural gas be delivered only at the Henry Hub in Louisiana, a location that may not be convenient for all futures traders.

2. **Cash Settlement** - Refers to an option or futures contract that requires the counterparties to the contract to net out the cash difference in the value of their positions. The appropriate party receives the cash difference. In the case of cash settlement, no actual assets are delivered at the expiration of a futures contract. Instead, traders must settle any open positions by making or receiving a cash payment based on the difference between the final settlement price and the previous day's settlement price. Under normal circumstances, the final settlement price for a cash- settled contract will reflect the opening price for the underlying asset. Once this payment is made, neither the buyer nor the seller of the futures contract has any further obligations on the contract.

Terminating a Forward Contract Prior to Expiration

Parties to a futures contract may also terminate the contract prior to expiration through an offset. Offset is the transaction of a reversing trade on the exchange. If you are long 20 March soybean futures traded on the Chicago Board of Trade, you can close the position by taking an offsetting short position in 20 March soybean contracts on the same exchange. There will be a final margining at the end of the day, and then the position will be closed. In other words, if you buy a futures contract and subsequently sell a comparable contract, you have offset your position and the contract is extinguished. Offset trades must match in respect to the underlying asset, delivery dates, quantity, etc., or the original position will not be effectively terminated. In such cases, price movements in the original contract will continue to result in gains or losses.

Compare this to the forward market wherein if you buy a forward contract and then sell an identical forward contract you are left with obligations under two contracts - one long and one short

Default Risk and Early Termination

Default risk on early termination only applies to forward contracts because there is no default risk on futures. (As we stated earlier, futures trades made on a formal exchange are cleared through a clearing organization, which acts as the buyer to all sellers and the seller to all buyers. The clearing house acts as a counterparty, guaranteeing delivery and payment and nullifying any default risk.)

Forward contracts are negotiated agreements between buyer and seller. To enter into a forward contract, it is necessary to find someone who wants to buy exactly what you want to sell when and where you want to sell it. Without a formal exchange and clearing house to guarantee delivery and payment, there is always a chance that either the buyer or the seller will default on an obligation. If one of these counterparties fails, the other is still responsible for performing under the contract. Traders in forward contracts who re-enter the market to execute a reversing trade prior to the expiration date will effectively *increase* their default risk exposure because they will be dealing with two different counterparties, both of which have to live up to their ends of the bargain. To extinguish default risk on a forward contract, a trader must place the reversing position with *the same* counterparty and under the same terms as in the originally contract. Obviously, this makes it difficult to get out of a forward contract prior to termination.

Roll Over of Forward Contract

In the forex (FX) market, rollover is the process of extending the settlement date of an open position. In most currency trades, a trader is required to take delivery of the currency two days after the transaction date. However, by rolling over the position - simultaneously closing the existing position at the daily close rate and re-entering at the new opening rate the next trading day - the trader artificially extends the settlement period by one day.

Often referred to as tomorrow next, rollover is useful in FX because many traders have no intention of taking delivery of the currency they buy - rather, they want to profit from changes in the exchange rates. Since every forex trade is transacted by borrowing one country's currency to buy another, receiving and paying interest is a regular occurrence. At the close of every trading day, a trader who took a long position in a high yielding currency relative to the currency that he or she borrowed will receive an amount of interest in his or her account. Conversely, a trader will need to pay interest if the currency he or she borrowed has a higher interest rate relative to the currency that he or she purchased. Traders who do not want to collect or pay interest should close out of their positions by 5pm ET.

Note that the interest that is received or paid by a currency trader in the course of these forex trades is regarded by the IRS as ordinary interest income or expense. For tax purposes, the currency trader should keep track of interest received or paid, separate from regular trading gains and losses.

Cross-Currency Roll Over

Cross Currency Roll Over contacts are contracts to cover overseas leg of long term foreign exchange liabilities or assets. The cover is initially obtained for six months & later extended for further period of 6 months & so on.

Roll Over charge or benefit depends on forward premium or discount, which in turn, is a function of interest rate differential between US dollar & the other currency. There is no risk of currency appreciation or depreciation in the overseas leg.

Roll over for a maturity period exceeding 6 months is not possible because in the inter-bank market, quotations beyond 6 months are not available.

Under the Roll over contracts the basic rate of exchange is fixed but loss or gain arises at the time of each Roll over depending upon the market conditions.

Money Market Hedge

Money Market Operations refers to creating an equivalent asset or liability against a Foreign Currency Liability or Receivable. It involves a series of transactions for taking the opposite position. It involves creating an Foreign Currency Asset (Deposits) or Foreign Currency Liability (Borrowings), based on the position it is.

In hedging Foreign Currency risk under the Money Market Operations route, the following steps are involved —

Step	Process
1	Identification of Position, i.e. whether the Firm wants to hedge its position against a Foreign Currency Receivable [Asset] or a Foreign Currency Payable [Liability]
2	Creation of Foreign Currency Liability or Asset, such that at the time of maturity — (a) Foreign Currency Liability including Interest = Foreign Currency Receivable (b) Foreign Currency Asset including Interest = Foreign Currency Payable

(a) Hedging against Foreign Currency Receivable:

Facts: Firm will receive Foreign Currency at Maturity. To realize it in home currency, the Firm will **SELL** Foreign Currency at Maturity.

Inference: $\Rightarrow$ Foreign Currency Receivable is an Asset $\Rightarrow$ Under Money Market Hedge, Liability in Foreign Currency should be created $\Rightarrow$ Firm should borrow in Foreign Currency and Invest in Home Currency.

Action	Time	Activity
Borrow	Now	Borrow in Foreign currency, at its Borrowing Rate, which including the interest payable thereon till the maturity, will be equivalent to the Foreign Currency Receivable at the time of maturity. Amount Borrowed = $\frac{\text{Foreign Currency Receivable}}{1+\text{Borrowing Interest Rate for the Period Till Maturity}}$
Convert	Now	Convert the Foreign Currency Borrowings at Spot Rate to Local / Home Currency. Home Currency Realized = Borrowings x Bid Rate for the Foreign Currency in terms of Home Currency.
Invest	Now	Invest the home currency realized in Home Currency Deposits.
Realize	Maturity	Realize the maturity value of Home Currency Deposits.
Receive	Maturity	Receive the Foreign Currency Remittance from the Customer abroad.
Repay	Maturity	Repay the Foreign Currency Loan using the inward remittance from the Foreign Customer.

(b) Hedging Against Foreign Currency Payable:

Facts: Firm will pay Foreign Currency at Maturity. To repay the Liability, the Firm will **BUY** Foreign Currency at Maturity.

Inference: ⇒ Foreign Currency Payable is a Liability ⇒ Under Money Market Hedge, Asset in Foreign Currency should be created ⇒ Firm should borrow in Home Currency and Invest in Foreign Currency.

Action	Time	Activity
Borrow	Now	Borrow in Home Currency, sum equivalent to amount required for investing in Foreign Currency Deposits, which would yield at maturity, an amount equivalent to the Foreign Currency Liability. Amount Borrowed = $\frac{\text{Foreign Currency Payable}}{1+\text{Forex Deposit Rate for the Period Till Maturity}}$ × Spot Ask Rate
Convert	Now	Convert the Home Currency Borrowings into Foreign Currency at Spot Rate
Invest	Now	Invest the Foreign Currency purchased in Foreign Currency Deposits.
Realize	Maturity	Realize the maturity value Foreign Currency Deposits.
Settle	Maturity	Use the Maturity Value of Foreign Currency Deposits to settle the Foreign Currency Liability.
Repay	Maturity	Repay the amount borrowed in Home Currency along with interest.

Money Market Operations and Covered interest Arbitrage

Though the sequence of activities, for both Money Market Operations and Covered Interest Arbitrage is similar, the difference lies the purpose of entering into these actions —

Aspect	Covered Interest Arbitrage	Money Market Operations
Purpose	Covered Interest Arbitrage is undertaken with a view to make a gain out of inefficiency in fixing the Forward Quote.	Money Market Operations are done to hedge a Foreign Currency Risk associated with a future receivable or payable. The purpose is to eliminate the uncertainty and not to make gain.
Result	It will always result in gain.	It may not result in gain when compared with the spot rate prevailing on the maturity date.
Pre-Requisites	It does not require any future liability or receivable to be present before borrowing or investing.	To undertake money market operations, it is a prerequisite to have an ascertained future receivable or liability.

Asset & Liability Management

Asset and Liability- Management refers to creating the liability in the same currency as the asset. If Fixed Assets are acquired for Foreign Operations for use abroad, then the funding is done through Foreign Currency Liability. Asset Liability Management would be fruitful, only if operating cash flows are also denominated in the Foreign Currency i.e. only if an entity has operations abroad. A proper Asset Liability Management would result in proper tax planning and the financials will present a true or an unbiased picture of the state of operations.

Example: Purchase of Land in United Kingdom by a GBP denominated loan. Change in exchange rate would affect both the asset and liability values, and therefore, the consolidated results would also reflect proper picture.

Part-B

INSURANCE & RISK MANAGEMENT

1 INSURANCE CONCENPT

In this section, an examination of the characteristics of insurance contracts is undertaken. It defines the notion of insurable risks and insurable interest. Insurable risks are the raw materials for the existence of insurance contracts.

An insurance policy is a legal contract between the insurer and the insured. Although the direct advantages and related costs arising out of the existence of insurance contracts are obvious to most readers, there are other benefits and indirect costs generated by the existence of these contracts.

1.1 DEFINITION OF AN INSURANCE CONTRACT

A legal definition of insurance that appears in many insurance laws is the following: A contract of insurance is that whereby one party, the insurer, undertakes, for a premium or an assessment, to make a payment to another party, the policyholder or a third party, if an event that is the object of a risk occurs. It is often defined as a contract of indemnity. The insured is not to make any profit out of the insurance but should only be compensated to the extent of the pecuniary loss.

Although various definitions have been offered, one of the most helpful is to define insurance as a mechanism (or a service) for the transfer to someone called the insurer of certain risks of financial loss in exchange of the payment of an agreed fixed amount. The payment is due before the contingent claim is serviced by the insurer.

If from the insured's point of view, insurance is a "transfer," from the insurer's point of view, insurance as a "pooling" mechanism. It is possible for the insurer to reduce the risk which he faces by offering an "insurance service," by pooling together a large number of exposure units or risks.

1.2 INSURABLE RISKS

While the definition presented above indicates what insurance is from the point of view of the policyholder, there are many risks of economic loss that no insurance company is willing to accept. From a risk management perspective the ideally insurable risk is a pure, static and particular risk. From the viewpoint of the insurer, certain conditions must exist before insurance is possible (Table 8.1). The fundamental requirement for the existence of insurance contracts is the existence of a large number of similar loss exposures. What makes insurance feasible is the pooling of many loss exposures, homogeneous and independents, into classes (classes of business), according to the theory of probabilities (the law of large numbers). Even if the probability that an event will occur is accurately known, the statistics do not apply to an individual exposure or even a small group. Similarly, it may be difficult for an insurance company to cover catastrophic risks such as earthquakes, flood, or war damage, because it may affect a large number of insureds at once.

The pooling of loss exposures and the reduction of the risk of variation from the expected outcome is one reason insurance companies can issue insurance contracts to individuals unable to diversify themselves the risks. Another reason is that insurance companies can diversify the residual risk of each class of loss exposures by combining several classes of business into a portfolio. An insurance company cannot have all of its eggs in one basket.

The law of large numbers, though necessary for insurance, is not sufficient. A further condition is the possibility to determine exactly the nature of the loss exposure and to be able to calculate, either by estimating the underlying probabilities, or by judgment, the frequency and the severity of the possible loss. Moreover, even

if the cost of insurance can be calculated, insurance is not practical if the premium that is determined by the insurer is too high and as a consequence the individual (or firm) is unwilling to pay for it.

1.3 THE CHARACTERISTICS OF AN IDEALLY INSURABLE RISK

1. There should be a large number of independent, homogeneous loss exposures subject to the same peril.
2. The loss exposure should be definite in time, place, cause and amount.
3. The loss exposure should be calculable and the resulting premium should be economically feasible.
4. The loss should result from an accidental hazard not under the control of the insured.

To be insurable, the occurrence of a peril must be accidental. It is only possible to insure against perils that are certain to occur if there is uncertainty on the timing of the occurrence or the amount of the possible loss.[2]

An insurance contract is called an aleatory contract because there is an element of chance that is very much present in an insurance transaction. Several centuries ago, some kinds of insurance contracts were held to be illegal because they were considered as gambling contracts. For example life insurance was not authorized in some countries because the Catholic Church was considering it as a gambling act on the life of the people. Remember also that until the 16th century the Catholic Church prohibited usury. The essence of gambling is the creation of risk. Insurance does not create the risk but only transfers an existing risk to an insurer.

1.4 BENEFITS AND COSTS OF INSURANCE[3]

1.4.1 The Expected Benefits of Insurance Contracts

The direct advantage of an insurance contract is the exchange, for a fixed fee, of the uncertainty concerning a potential loss, for the certainty of indemnification in the case the insured suffer a loss.

- **Indemnification** or compensation is the primary reason why an individual or a firm would buy an insurance contract.
- **The reduction of uncertainty** is the other motivation because individuals are risk averse. The certainty concerning the outcome of a risky situation is, in the case of a pre-loss financing arrangement, one of the risk management objective of the firm,

1.4.2 The Costs Generated By Insurance Contracts

Insurance contracts also generate direct and indirect costs that may have an impact on the offer of optimal contracts and the efficient allocation of the risks to the insurer.

- **Transaction** costs are important and they reflect the costs of distributing and servicing the contracts to the insured. For property and liability insurance contracts, in terms of premium income, these expenses account on average for about 30 to 35 percent (excluding taxes) but vary greatly in different countries according to the organization of the market, as well as among the different types of insurance coverages and insurance companies. The percentages in the life insurance business are usually lower but vary also greatly according to the same kind of factors.
- **Moral Hazard** is a condition that increases the expected frequency or severity of a loss. It is an intentional act inspired by the possibility of recovering an amount of money from an insurance contract in force. Arson, for example, is a cause of fire. Increasing the amount of a loss by making a false claim (property insurance), by overutilizing the services (health insurance), by charging excessive costs to repair the damage (automobile insurance) or by granting excessive awards in a judgment (liability insurance), generate a higher cost than expected and must be taken into account in the premium that is paid by all insured for any kind of coverage. There is no doubt that the concept of moral hazard has its origin in marine insurance. An insurance contract is based on good faith and fair dealing between the underwriter and the insured. The concept is subjective and the discrimination sometimes associated with particular countries or flags of convenience. It is easy to find other examples. Moral hazard can clearly occur in any kind of insurance. In a paper on moral hazard, Professor Stiglitz stressed the importance of incentives, and argued that insurance contracts should be designed so that they induce the insured to take good care of his property.[4] Similarly, a **moralj; hazard** is a condition that causes an individual to be, consciously or unconsciously, less careful because

of the elimination of the uncertainty concerning the financial consequence of a risk. The probability and size of a loss is almost always influenced by an individual's actions. It is often recognized that insurance reduces the incentive for loss prevention and control. The importance of moral hazard extends beyond the context of insurance to the entire paradigm of agency theory. It includes any inefficiency in the decision of a contractual party that results from externalities whenever one party is not assigned the full costs and benefits of a decision that affects other parties to the contract.[5]

- **Utmost good faith** (Uberrima Fides), means that the parties to the contract would disclose to each other all the material facts about the risk and cover, fully, truly and faithfully. Any breach in the duty of disclosure whether by way of concealment, innocent misrepresentation or fraudulent misrepresentation, renders the contract voidable at the hands of the aggrieved party, usually the insurer.

1.5 THE BENEFITS OF AN INSURANCE MARKET

What explains the existence of organizations selling insurance contracts? Many of the reasons in the Mayers and Smith paper mentioned in a previous chapter can apply again.

Insurance organizations might outperform the individual because there are transactions costs that exist in identifying and matching the individuals that are willing to sell/buy insurance to/from each other. There are scale economies in monitoring information.[6] A place like the tavern of Mr. Lloyds in London explain why insurance started as an organized market.

An insurer also have a comparative advantage in providing services to individuals and corporate entities. Pre-loss services include the loss prevention activities developed by the insurer such as on-site inspections. Post-loss services are related to the administration of claims and include adjustment services, legal defense services.

The reduction of uncertainty is possible at the macroeconomic level (for the society as a whole) because there is a large number of insurance contracts and therefore a reduction of risk through pooling and diversification.

The payment to buy an insurance contract is made before the insured benefits from the potential indemnification. This is often referred to as an "inverse cycle of production". At the macroeconomic level, the premiums are collected by the insurer (or the market) during a budgetary year to cover immediately the claims incurred within that period or to cover for claims that will occur in an uncertain future. Although the purpose of insurance is not to save (at least in the usual meaning of that term, i.e. the transfer of purchasing power from one period to another), it is clear that insurance contracts generate funds that are available for investment.

Although insurance contracts generate transaction costs and also information costs, at the macroeconomic level, the insurance industry contributes to the formation of national income. The service offered by the insurer is that of an intermediary and the cost of insurance, which measures the effort made by the community to provide itself with an insurance system, generates the payment of salaries, commissions and dividends.

1.6 INSURANCE AND LOSS CONTROL

Because of the existence of indirect costs, like moral and morale hazards, generated by insurance contracts, insurers have created loss control devices or activities to offset these costs.

1.6.1 Pre-loss Control

Insurance is clearly limited only to pure risks although there are some examples of risks of a speculative nature that have been proposed in the recent past. Insurance contracts also contains limits that state the types of perils to be covered and the maximum amount of loss exposure.

The underwriting process (the underwriter) determines the eligibility of the insurance buyer, the types of risks to be covered, the amount at risk for insurance coverage and other informations affecting the insurability of the risks.

Most insurance contracts cover losses up to a stated maximum monetary amount that may differ depending upon the perils, persons, types of loss, or locations covered. Limits may be stated as a maximum amount that is payable per occurrence, regardless of the number of occurrence, or as an aggregate limit which state the maximum amount the insurer will pay because of occurrences during the period of coverage (usually one year). However in a liability coverage many contracts do not impose a limit on the maximum possible loss. In some countries, limits on some types of liability coverage are even illegal (automobile insurance is the most common

case).

A deductible is an example of insurance device that requires an insured to bear part of the potential loses covered under the contract (provisions for loss-sharing). Typically the insurer will pay only the losses exceeding a predetermined amount of money. For an individual fire insurance contract or automobile insurance contract, this amount will probably be less than 1 percent of the amount of coverage although the insured may have the choice of several deductible amounts.

For a contract covering the needs of a firm, the deductible may be much higher because the firm is willing (has the capacity) to retain a higher portion of the loss exposure. However, deductibles are often imposed by the insurer rather than selected by the insured.

Monetary deductibles are of two types. A per-occurence deductible applies to each loss. An aggregate deductible applies only up to a cumulated amount during the period of the contract (one year). Quite often the two deductibles are used together.

The deductible may require the insured to pay a fixed percentage of every loss that occurs, up to a given maximum annual amount defined in the contract (this is typically the case of health insurance contracts). The term "coinsurance" is often used (misused) to describe loss-sharing arrangements, especially in health insurance. The percentage of coverage, for example the contract will reimburse 80% of incurred losses, is usually in excess of any aggregate deductible.

In health insurance, the term "co-payment" is also used to define a fixed monetary deductible applying to each occurence in addition to the annual deductible. For example a $10 co-payment for a visit to a doctor instead of a reimbursement rate of 90%.

Besides the usual deductibles, the concept of **disappearing deductible** is often used for large business risks. Under a disappearing deductible, the size of the deductible decreases as the size of the loss increases. At a given level of loss

(L) the deductible is equal to zero (disappears). The formula to apply the reduction in the deductible (D) is the following:

Compensation by the insurer =(Amount of loss - Deductible) x (1+k) where k is the adjusting factor:

$k = D / (L^* - D)$ and $L^* = D/k + D$

If the adjusting factor is fixed at 5% and the deductible is $1,000, then the deductible will disappears when the loss equals or exceeds $21,000. All losses under $1,000 are absorbed by the insured. On a loss of $15,000 the insurer would pay $14,700 (a $300 deductible).

A franchise, often used in marine insurance contracts and engineering, is a limit expressed as a percentage of value or as a monetary amount under which no compensation is paid by the insurer. The difference with a deductible is that when the loss equals or exceeds the limit (amount), the insurer must pay the entire loss without any deductible. The purpose of a franchise is to avoid smaller losses to reduce administrative expenses.

In some cases, like health insurance contracts or unemployment insurance contracts, the deductible is not only a monetary deductible but also a **time deductible** called a **waiting period** or an **elimination period.** Coverage for the peril, accident, injury or illness will start only after a predetermined period of time defined in days or months. It is a limitation on benefits used to limit moral hazard or eliminate duplication of coverage. From this point of view, the suicide clause under a life insurance contract may be assimilated to a time deductible.[8] Similar to monetary deductibles, the longer the waiting period, the lower the premium, other things being equal.

Regardless of the form of the deductible, the obvious effect is also to make the insured more careful because he will have to pay his share of the loss. The secondary effect is that the administrative expenses faced by the insurance company to settle a claim will be reduced if there is a significant number of losses smaller than the deductible. The advantage for the insured is that the premium will be lower than for full coverage.

A coinsurance clause is another device, or clause of a contract, which protect the insurer against wrong evaluation (or declaration) by the insured of the value of the property at risk. It is often used in property damage to houses or buildings because in most cases the damage is only partial and it creates an incentive for the insurance buyer to undervaluate the coverage.

If the insured fails to carry an amount of insurance coverage at least equal to some specified percentage of the value of the property at the time of the loss, the insurer will not pay the full amount claimed. In all cases, the amount the insurer will pay is either the total loss up to the insurance coverage (eventually minus the deductible) or a lower amount determined by the following formula:

$$\frac{\text{Amount pof insurance coverage}}{(\text{Coinsurance \%}) \times (\textit{Valueattimeofloss})} \times \text{Loss}$$

1.6.2 Post-loss Control

The loss-adjustment process (loss adjusters) determines the amount of compensation to be paid under the contract. It is an administrative procedure requiring evidence of a loss, appraisal of the damage and the compensation to be paid by the insurer (the claim adjustment).

Moral hazard is being controlled through such measures as reporting services, claim adjustment services. In automobile insurance, in order to reduce fraud on the amount claimed, a typical examplejs the appointment of recognized garages by insurance companies.

Insurance is an age-old method of sharing of risk by way of economic cooperation. In this chapter, we will discuss various aspects of insurance and the services rendered by the insurance companies.

1.7 DEFINITION, CONCEPT AND FEATURES OF INSURANCE

Insurance is defined as a legal contract between two parties whereby one party called the *insurer* or the *insurance company* or *assurer* or *underwriter* undertakes to compensate the other party called the *insured* or *assured,* for any loss or damage suffered by the latter, in consideration of payment of certain sum of money called *premium* for a certain period of time. The document which embodies the contract is called the *insurance policy*.

Insurance has both economic and social purpose and relevance. It provides social security and individual welfare. It reduces risk and assists in raising productivity on the economy. The actual premium charged by the insurance companies consists of pure premium and administrative cost and marketing expenditure. The pure premium is the present value of the expected cost of an insurance claim. As there is time lag between payment of premium and payment of claim, an investible fund is generated which is called *insurance reserve*. Insurance companies are the large investors in long gestation projects, especially infrastructure development projects.

There are various compartments of the insurance industry, viz. (a) life insurance, (b) health insurance, and (c) general insurance comprising property liability or property casualty insurance, etc. They have commenced operation in the pension schemes and mutual funds. The main part of the insurance business is the life insurance which depends on the mortality.

The difference between life insurance and general insurance is that the claim is fixed and certain in the case of life insurance, whereas in the case of general insurance the claim is uncertain and not fixed, i.e. the amount of the claim is variable which can be ascertained *only* after occurrence of the event.

Therefore, while the sacrifice or premium is certain and immediate, the benefits or claims are distant and contingent for the insured. That makes it a unique financial product which needs a broader understanding of pure and speculative risks in order to take an informed buying decision.

1.7.1 Insurance has the following features:

It is a social device to reduce the risk of loss to life and property. It is a collective effort for bearing risk. It spreads the risks and losses of few people among the large number of people as they prefer to take fixed small liability instead of large uncertain liability. It is a scheme of economic cooperation in which members of the community share the unavoidable risks, viz. death, accidents, theft, fire and sea peril. It is a scheme that covers large risks by way of paying small amount of capital. It subscribes to a common pool or fund collected by the insurer to indemnify the losses arising out of risks. It is a means of savings and investment.

2 PRINCIPLES OF INSURANCE

An insurance contract is based on certain basic principles as stated:

- **Principle of 'Uberrimae Fidei', i.e. Principle of Utmost Good Faith:** A contract of insurance is a contract of 'uberrimae fidei', i.e. one based on good faith. This principle states that it is the duty of the insured to disclose all material facts concerning the subject matter of the insurance. The disclosure must be full and fair. If a material fact is not disclosed, or if there is misrepresentation or fraud, the insurer can avoid the contract. A material fact is one, which affects the nature or incidence of the risk. Any fact, which the insurer will take into account when considering whether to accept the risk or not and any fact which has a bearing on the amount of premium which the insurer will charge, must be considered as material fact to be disclosed.
- **Principle of Indemnity:** This principle is applicable only to the general insurance business which states that if the insured suffers a loss against which the policy has been made, he shall be fully indemnified only to the extent of loss. The insured is not entitled to make profit on his loss. The contract of insurance contained in a marine or fire policy is a contract of indemnity only which means that the assured, in case of a loss against which the policy has been made, shall be fully indemnified, but shall never be more than fully indemnified.
- **Principle of Insurable Interest:** This principle states that in each contract of insurance, the policy holder must possess an insurable interest. Insurable interest means some proprietary or pecuniary (monetary) interest. The object of insurance is to protect the insurable interest. If there is no insurable interest, there can be no insurance. In the case of life insurance, insurable interest must exist at the time when the insurance is affected. The policy remains good even if the insurable interest ceases to exist subsequently. In the case of fire and marine insurance, the insurable interest must exist at the time when the claim is made. If this condition is satisfied, the insurer shall pay the claim even if the policy-holder had no insurable interest at the time when the contract was entered into.
- **Principle of Commencement of Risk:** This principle states that the risk of insurer shall commence after the contract of insurance is entered into, i.e. after the proposal to insure is accepted.
- **Principle of Causa Proxima:** This principle states that the insurer shall be liable only for those losses which directly or reasonably follow from the event insured against. The insurer shall not be liable for remote consequences and remote causes. In other words, the risk cover is available to the insured, provided the loss has occurred directly from such events as specified in the insurance policy.
- **Principle of Payment of Premium:** This principle states that the policy-holder must pay the premium to the insurer according to the terms of the contract. Subject to certain conditions, the policy lapses if the premium is not paid.
- **Principle of Contribution:** This principle states that if a property is insured by several insurers against the same risk, the insurers must share the burden of payment in proportion to the amount assured by each. If any of the insurers pays the whole loss, he is entitled to contribution from the other insurers.
- **Principle of Subrogation:** This principle states that an insurer can step into the shoes of an insured, and become entitled to all rights and advantages of the insured in relation to the insured object, after making payment to the insured. According to this principle, the property in the object will pass on to the insurer after payment of insurance claims. In other words, the insurer is entitled to recover from a negligent third party any loss payments made to the insured.

- **Principle of Mitigation of Loss:** This principle states that in case of ar accident, it is the duty of the policy-holder to take steps for reducing the loss as much possible. For example, when fire occurs, the policy-holder must safeguard the remain property. Therefore, it is necessary that the insured take all the necessary steps t mitigate the risk of loss in the event that the contingency occurs against insured. The'x, insured shall act as a person of ordinary prudence and make all necessary efforts to minimise the loss.

2.1 REINSURANCE

Reinsurance is the business of insurance done between insurance companies. It is an arrangement by which one insurance company can transfer a part of its insurance business to the other insurance company. This arrangement helps an insurance company to reduce risks and minimise its share of claims. Two types of reinsurance are in vogue. They are:

(i) Reinsurance ceded, and (ii) Reinsurance accepted.

When one insurance company off-loads a portion of its insurance business to other insurance companies, it is a case of *reinsurance ceded.* On the other hand, when one insurance company accepts a portion of insurance business of other insurance companies, it is a case of *reinsurance accepted.*

2.2 GENESIS OF INSURANCE

The business of insurance started from ancient times about 5,000 years ago in Europe in which traders used to bear risk of the caravan by way of giving loans, which were repaid with interest later on safe arrival of the goods. With a view to safeguarding against the risk of loss of goods in transit as well as natural calamities, the trade associations set up a common pool of funds for utilisation in times of death, sickness, etc. Let us look at the following information to understand at a glance, the origin of insurance business and its development.

(a) In 1347, the first insurance contract was entered into by European maritime nations to accept marine insurance.

(b) In 1688, the insurance business started at a place called *Lloyd's Coffee House* in London. The risk bearers used to meet there in order to transact insurance business.

(c) In 1693, the first mortality table was constructed by an astronomer Edmund Haley. This table provided the link between the life insurance premium and average life spans on the basis of statistical laws of mortality and compound interest.

(d) In 1700, the 'Law of large numbers' was discovered by Jacob Bernoulli. This law forms the basis of modern day insurance. It assists the insurers to predict the total annual loss for the group which is distributed among all the insured and recovered in the form of premium.

(e) In 1756, the mortality table was reworked by Joseph Dodson, which linked rate of insurance premium to age.

(f) In 1756, the oldest life insurance company named, the *Society for the Equitable Assurance of Lives and Survivorship* (named in short as *Old Equitable)* was established in the UK.

(g) By the end of 18th century, marine insurance companies came into existence.

Lloyd's became one of the most famous modern insurance companies during the same period. These companies were allowed to do the business of life, fire and marine insurance, (h) In 1835 and 1871. fire broke out in New York and Chicago, which created awareness and need for the insurance, (i) In 1967, the first fire insurance company known as the *Fire Office* was set up by Nicholas Barbon with a view to providing fire insurance facilities, (j) By the end of 19th century, the concept of reinsurance emerged. Gradually, massive industrialisation and urbanisation popularised the concept of insurance and growth in insurance business.

2.3 INSURANCE IN INDIA

Insurance in India has a long history dating back to 1000 BC when some sort of community insurance was practised by the Aryans. Following is the brief history of insurance in India:

- In 1818, life insurance was brought into existence from England to India. The first insurance company named, the *Oriental Life Insurance Company* was set up in India in order to help the widows of the European

community.

- In 1870, the first Indian insurance company named, the *Bombay Mutual Life Assurance Society* was set up to cover Indian lives.
- In 1870, The Insurance Act, 1870 was enacted by the then British government.
- Between 1870 and 1900, three insurance companies, viz. (i) Bharat Insurance Company, (ii) Empire of India Life Insurance Company Ltd., and (hi) Oriental Government Security Life Assurance Company were established.
- In 1912, the Life Insurance Companies Act, 1912 was promulgated. It was the first legislation and regulation on insurance in India.
- In 1914, The Indian Insurance Year Book was first published.
- In 1938, The Insurance Act, 1870 was amended and the amended Act named, *The Insurance Act, 1938* was enacted. It was the first comprehensive legislation governing both life and non-life insurance in order to provide strict control on the insurance business, particularly in the matters of investment, expenditure and management of the insurance companies.
- In 1938, the Office of the Controller of Insurance was set up in order to provide wide powers relating to (a) direction, (b) advise, (c) prohibition, (d) inspection, (e) investigation, (f) search and seizure, (g) prosecution and penalisation, (h) authorisation, (i) registration, and (j) amalgamation and liquidation of insurance companies.
- By the mid-1950s, around 170 insurance companies—154 Indian insurance companies, and 16 foreign insurance companies, as well as about 75 to 80 provident fund societies were established to carry on the life insurance business in India.
- During the same period, there were rampant corruptions, irregularities, scams, and fraudulent investment practices by several insurance companies were unearthed. Thus, the government decided to nationalise the life insurance business.
- In 1956, The Life Insurance Corporation (LIC) of India was established. It took over 245 life insurance companies in the private sector.
- In 1972, the nationalisation also took place in general insurance business.
- In 1973, The General Insurance Corporation (GIG) of India and its subsidiaries were set up.
- Most of the powers of the controller of insurance were diverted to the LIC and GIC for operational convenience. These nationalised companies did a commendable performance in extending the distribution network and ably managed large volume of business. However, around 75 to 80% of the populations were untapped for the purpose of insurance.
- In 1993, the government decided to introduce reforms in the insurance sector in order to tap long-term funds by way of tapping large untapped populations.
- In 1993, the government set up a committee headed by R.N. Malhotra, the former insurance secretary and RBI governor to examine the present working of the insurance sector and recommend its future course of action.
- In 1994, the Malhotra Committee submitted report recommending re-opening of the insurance sector to private players.
- In 2000, Insurance sector was again thrown open to the private sector in India.
- In 2000, the Insurance Regulatory Development Authority (IRDA) was established to function as an autonomous insurance regulator in order to carry out the reforms process in the insurance sector.

3 REFORMS IN THE INSURANCE SECTOR

As mentioned earlier, the Indian insurance industry was run and governed by the two nationalised organisations till 2000. These organisations are: (i) Life Insurance Corporation (LIC) of India, and (ii) General Insurance Corporation (GIC) of India. These two organisations virtually enjoyed the monopoly over the entire market.

In spite of the fact that these organisations did perform exceedingly well in terms of growth in volume and distribution network, yet there were certain definite factors considered by the Government of India for the reforms decision and opening up of the insurance sector. These factors can be enumerated as follows:

1. Both LIC and GIC did not have a consumer-oriented approach, rather they adopted bureaucratic culture of managing the companies.
2. These companies were not interested to adopt modern practices and technology to upgrade their technical skills, resulting inefficiencies in operations.
3. The high growth in volume of business was mainly due to consideration of income tax benefit.
4. About 80% of the Indian population was totally untapped for the purpose of insurance. Only 20% of the population living in the urban and metropolitan cities could avail of the benefits of insurance.
5. There was a huge potential of growth of insurance business with population of more than a billion and rate of saving around 25% in India.
6. There was high external pressure for opening up of insurance sector for the foreign insurance companies.

3.1 MALHOTRA COMMITTEE RECOMMENDATIONS

In the year 1993, the Central Government set up a committee under the chairmanship of R.N. Malhotra, the former insurance secretary and RBI governor to examine the present working of the insurance sector and recommend its future course of action.

The committee submitted its report in 1994 with the following recommendations:

1. The central and zonal offices of LIC should be restructured and reorganised. The central office should concentrate on policy formulation, review, evaluation, product development and pricing, actuary valuation, investments, personnel policies, systems development, etc. The zonal offices should look after the insurance business and related matters.
2. The government should bring down its stake in the insurance companies to 50%.
3. GIG should cease to be a holding company. The government should take over holdings of GIG and its subsidiaries so that they can act as independent corporations. GIG should function exclusively as a reinsurance company.
4. Private companies with a minimum paid-up capital of ? 100 crore should be allowed to enter the insurance industry.
5. The promoters' holding in a private insurance company should not be less than 26% and more than 40% of the paid-up capital. However, if the promoters wish to start with a higher percentage of holding, they should be allowed to do so provided their holding is brought down to 40% within a specified period of time through public offering.

6. No person other than the promoter should be allowed to hold more than 1% of the equity.
7. No single company should be permitted to transact business in both the life and general insurance business. The number of entrants should be controlled.
8. Foreign companies may be allowed to enter the industry in collaboration with domestic companies. They should not be allowed to operate in India through branches.
9. Postal life insurance should be allowed to operate in the rural markets.
10. Regulatory and prudential norms should be finalised to ensure a level playing field for the insurers. These conditions and norms should aim to ensure that life insurers do not neglect the small man or the rural business and that the general insurers have balanced portfolios.
11. The office of the controller of insurance should be restored with its full functions under the Insurance Act. It should be set up as an independent office separated from the finance ministry.
12. A strong and effective insurance regulatory authority should be set up in line with the SEBI to function as a statutory autonomous board.
13. The capital of the LIC should be raised from the present ? 5 crore to ? 200 crore, 50% of which should be held by the government and the balance should be held by the public at large including the LIC employees for whom a suitable proportion should be reserved.
14. Mandatory investments of LIC in government securities should be reduced from 75% to 50%.
15. The capital of the GIG should be raised from the present ? 107.5 crore to ? 200 crore, and its holding distribution should be similar to that of LIC.
16. GIC and its subsidiaries should not hold more than 5% of capital in any company.
17. The capital of each of the GIC subsidiaries is ? 40 crore at present and it is held by the GIC. The government should acquire this capital of each subsidiary from the GIC and raise it to ? 100 crore, 50% of which should be held by the government and the balance should be held by the public at large.
18. LIC should pay interest on delays in payment beyond 30 days.
19. In order to face stiffer competition, it is essential that the nationalised insurance companies quickly upgrade their technology, reorganise themselves on more efficient lines, and are enabled to operate as board-run enterprises.
20. Legislation and government notifications through which LIC and GIC were exempted from several provisions of the Insurance Act should be withdrawn.
21. The state-level cooperatives should be allowed to set up cooperative societies for transacting life insurance business in the state. There should not be more than one society for each state which will be subject to the regulations of the insurance regulatory authority.
22. All insurance companies should be given greater freedom for their operations.
23. LIC and GIC should operate as board-run enterprises. The institution of ombudsman should be set up by the general insurance industry.

3.2 OPENING UP OF THE INSURANCE SECTOR

After giving due consideration of the fact of global market competition in insurance industry and recognition of the recommendations of Malhotra Committee, the Government of India opened up the insurance industry in August 2000. The following actions were taken:

1. The banks, FIs, and NBFCs have been allowed to enter the insurance sector.
2. Foreign insurers have been permitted to set up joint ventures with Indian companies.
3. The RBI has issued necessary guidelines regulating the degree of participation of banks, FIs, and NBFCs in the business of insurance on the basis of their financial strength.
4. The RBI has allowed NBFCs a blanket permission to take up insurance agency assignment on fee basis without risk participation. However, they need to obtain permission from the IRDA for the insurance agency assignment involving risks.

5. The Insurance (Amendment) Act, 2002, has permitted the cooperative societies to take up insurance business for the purpose of enhancing insurance cover in rural areas. This Act deals in four main areas, viz. (i) broker regulations, (ii) corporate agent regulations, (iii) dealing in payments to be made through credit cards and internet, and (iv) dealing with the distribution of actuarial surpluses between the shareholder and the policy holder.

As per the Act, the corporates acting as corporate agents will be required to surrender their licence as there would be a conflict of interest between the brokers and the corporates. The banks will be allowed to function as corporate agents and non-brokers.

The designated persons, acting on behalf of the corporate agent like a bank, after leaving their jobs, can be the agents without having to take further examinations mandated by the regulator.

The amended insurance Act would set up the legal base for the purpose of making the regulations on the intermediaries.

6. The Indian insurance industry is regulated and governed by the following Acts, viz.
   (a) The Insurance Act, 1978
   (b) The General Insurance Business (Nationalisation) Act, 1972
   (c) Life Insurance Corporation Act, 1956
   (d) Insurance Regulatory and Development Authority Act, 1999.

3.1 STRUCTURE AND PRESENT STATUS OF INSURANCE INDUSTRY IN INDIA

So far as the present status of Indian insurance industry is concerned, it may be stated that the size of the Indian insurance market—both life and non-life combined is estimated at over ? 2,50,000 crore (USD 55 billion approx.) as against the global insurance market at USD 4,100 billion (approx.). Presently, the annual growth in total premium in India is around 19% as compared to the annual growth in premium of around 5% and 1% in life and non-life insurance in the global insurance market. The structure of insurance industry in India is shown in Figure 3.1

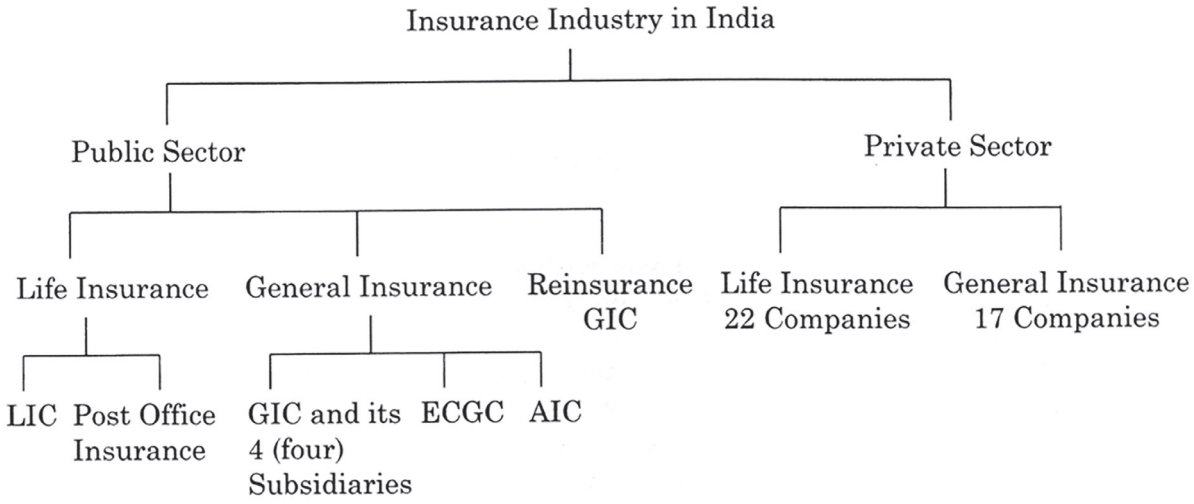


Figure 3.1 Structure of Insurance Industry in India

3.3.1 Names of the Registered Insurance Companies in India—Life Insurance

Public Sector: Life Insurance Corporation (LIC) of India **Private** Sector:

1. Aegon Religare Life Insurance Company Ltd.
2. Aviva Life Insurance Company Ltd.
3. Bajaj Allianz Life Insurance Company Ltd.
4. Birla Sun Life Insurance Company Ltd.

5. Bharti AXA Life Insurance Company Ltd.
6. Canara HSBC Oriental Bank of Commerce Life Insurance Company Ltd.
7. DLF Pramerica Life Insurance Company Ltd.
8. Future Generali India Life Insurance Company Ltd.
9. HDFC Standard Life Insurance Company Ltd.
10. ICICI Prudential Life Insurance Company Ltd.
11. IDBI Fortis Life Insurance Company Ltd.
12. ING Vysya Life Insurance Company Ltd.
13. India First Life Insurance Company Ltd.
14. Kotak Mahindra Old Mutual Life Insurance Ltd.
15. Max New York Life Insurance Company Ltd.
16. Metlife India Insurance Company Pvt. Ltd.
17. Reliance Life Insurance Company Ltd.
18. SBI Life Insurance Company Ltd.
19. Sahara India Life Insurance Company Ltd.
20. Shriram Life Insurance Company Ltd.
21. Star Union Dai-ichi Life.
22. TATA AIG Life Insurance Company Ltd.

3.3.2 Names of the Registered Insurance Companies in India—General Insurance

Public Sector:

1. New India Assurance Company Ltd.
2. National Insurance Company Ltd.
3. Oriental Insurance Company Ltd.
4. United India Insurance Company Ltd.
5. Export Credit Guarantee Corporation of India Ltd.
6. Agricultural Insurance Company of India Ltd.

Private Sector:

1. Apollo DKV Insurance Company Ltd.
2. Bajaj Allianz General Insurance Company Ltd.
3. Bharti AXA General Insurance Company Ltd.
4. Cholamandalam MS General Insurance Company Ltd.
5. Future General! India Insurance Company Ltd.
6. HDFC-ERGO General Insurance Company Ltd.
7. IFFCO Tokio General Insurance Company Ltd.
8. ICICI Lombard General Insurance Company Ltd.
9. Max Bupa Health Insurance Company Ltd.
10. Raheja QBE General Insurance Company Ltd.
11. Royal Sundaram Alliance Insurance Company Ltd.
12. Reliance General Insurance Company Ltd.
13. SBI General Insurance Company Ltd.

14. Shriram General Insurance Company Ltd.
15. Star Health and Allied Insurance Company Ltd.
16. TATA AIG General Insurance Company Ltd.
17. Universal Sompo General Insurance Company Ltd.

3.3.3 Name of the Registered Reinsurance Company in India

Public Sector:

General Insurance Corporation of India

3.4 INSURANCE REGULATORY AND DEVELOPMENT AUTHORITY (IRDA)

The Insurance Regulatory and Development Authority (IRDA) was constituted in April 2000, by an Act of Parliament in December 1999 (IRDA Act, 1999). It was constituted as an autonomous body to regulate, promote and to ensure an orderly growth and development of the business of insurance and reinsurance in India. The IRDA acts as the regulator of the Indian insurance industry. It is a 10-member team consisting of a chairman, 5 whole time members, and 4 part time members, all of whom are appointed by the Central Government.

IRDA has constituted the Insurance Advisory Committee. In consultation with the committee, it has brought out regulations on (a) registration of insurers, (b) their conduct of business, (c) solvency margins, (d) conduct of reinsurance business, (e) licencing, and (f) code of conduct of intermediaries. The representatives of consumers, industry, insurance agents, women's organisations, and other interest groups are a part of this committee. IRDA has also set up a Consumer Advisory Committee and a Surveyor and Loss Assessors Committee. Besides, it has a panel of qualified accountants to carry out inspection, investigation, etc.

3.4.1 Objectives and Missions of IRDA

The objectives of IRDA are as follows:

1. To protect the interest of insurance policy holders;
2. To regulate, promote and ensure orderly growth of insurance industry; and
3. To amend the Insurance Act, 1938, Life Insurance Corporation Act, 1956, and the General Insurance Business (Nationalisation) Act, 1972.

Thus, the objectives of IRDA are mainly two-fold viz. (i) protection of policy holders, and (ii) healthy growth of insurance market in India. Following are the missions of IRDA:

1. To protect the interest of and secure fair treatment to policy holders;
2. To bring about speedy and orderly growth of the insurance industry (including annuity and superannuation payments) for the benefit of the common man;
3. To provide long-term funds for accelerating growth of the economy;
4. To set, promote, monitor, and enforce high standards of integrity, financial soundness, fair dealing, and competence of those it regulates;
5. To ensure that insurance customers receive precise, clear, and correct information about products and services and make them aware of their responsibilities and duties in this regard;
6. To ensure speedy settlement of genuine claims, to prevent insurance frauds, and other malpractices and put in place effective grievance redressal machinery;
7. To promote, fairness, transparency, and orderly conduct in financial markets dealing with insurance;
8. To build a reliable management information system to enforce high standards of financial soundness amongst market players;
9. To take action where such standards are inadequate or ineffectively enforced; 10. To bring about optimum amount of self-regulation in day-to-day working of the industry, consistent with the requirements of prudential regulation.

The IRDA performs numerous roles for the development and growth of insurance industry. It frames and issues statutory and regulatory stipulations, guidelines, etc. It has also to perform a promotional and developmental

role that include

(a) facilitating the growth of the market by way of attracting a large number of participants,

(b) integrating the market of insurance with domestic financial services market, and

(c) synchronising the domestic insurance market with the global insurance market.

IRDA is *a* member of the International Association of Insurance Supervisors (IAIS). The LAIS has its registered office in Switzerland. It is an organisation formed by the regulators and supervisors of insurance industry, the objectives of which are to (i) bring in prudential regulations, (ii) prescribe guidelines and norms for the insurance supervisors to observe, (iii) promote international cooperation and understanding among the supervisors, and (iv) represent before world forums the cause of the insurance industry, its functioning and regulations. The IRDA is a member of the Emerging Markets and Technical Committees. Being the member of IAIS, IRDA is making serious endeavour to bring Indian insurance business to the international standards.

3.4.2 Statutory Powers and Functions of IRDA

Section 14 of the IRDA Act, 1999 provides for the duties, powers and functions of the IRDA. Subject to the provisions of this Act, and any other law for the time being in force, the Authority shall have the duty to regulate, promote, and ensure orderly growth of the business of insurance and reinsurance. Without prejudice to the generality of the provisions contained in Section 14(1) of the Act, the powers, and functions of the Authority shall include the following:

- Issuing to the applicant a certificate of registration, renew, modify, withdraw, suspend or cancel such registration
- Protection of the interests of the policy holders in matters concerning assigning of policy, nomination by policy holders, insurable interest, settlement of insurance claim, surrender value of policy, and other terms and conditions of contracts of insurance
- Specifying requisite qualifications, code of conduct, and practical training for intermediaries, or insurance intermediaries and agents
- Specifying the code of conduct for surveyors and loss assessors
- Promoting efficiency in the conduct of insurance business
- Promoting and regulating professional organisations connected with insurance and reinsurance business
- Levying fees and other charges for carrying out the purposes of the Act
- Calling for information from, undertaking inspection of, conducting enquiries and investigations including audit of the insurers, intermediaries, insurance intermediaries, and other organisations connected with the insurance business
- Control and regulation of the rates, advantages, terms and conditions that may be offered by the insurers in respect of general insurance business not so controlled and regulated by the Tariff Advisory Committee under Section 64 U of the Insurance Act, 1938 (4 of 1938)
- Specifying the form and manner in which books of accounts shall be maintained and statement of accounts shall be rendered by insurers and other insurance intermediaries
- Regular investment of funds by insurance companies
- Regulating maintenance of margin of solvency
- Adjudication of disputes between insurers and intermediaries or insurance intermediaries
- Supervising the functioning of the Tariff Advisory Committee
- Specifying the percentage of premium income of the insurer to finance schemes for promoting and regulating professional organisations referred to in clause (f)
- Specifying the percentage of life insurance business and general insurance business to be undertaken by the insurers in the rural and social sector
- Exercising such other powers as may be prescribed.

3.4.3 Regulations Framed Under the IRDA Act, 1999

Following regulations have been framed under the IRDA Act, 1999:

- IRDA (Member of Insurance Advisory Committee)
- IRDA Appointment of Insurance Advisory Committee Regulations, 2000
- IRDA (The Insurance Advisory Committee) (Meeting) Regulations, 2000
- IRDA (Appointed Actuary) Regulations, 2000
- IRDA (Actuarial Report and Abstract) Regulations, 2000
- IRDA (Licencing of Insurance Agents) Regulations, 2000
- IRDA (Assets, Liabilities and Solvency Margin of Insurers) Regulations, 2000
- IRDA (General Insurance-Reinsurance) Regulations, 2000
- IRDA (Registration of Indian Insurance Companies) Regulations, 2000
- IRDA (Insurance Advertisements and Disclosure) Regulations, 2000
- IRDA (Obligations of Insurers to Rural Social Sectors) Regulations, 2000
- IRDA (Meetings) Regulations, 2000
- IRDA (Investment) Regulations, 2000
- IRDA (Conditions of Service of Officers and other Employees) Regulations, 2000
- IRDA (Insurance Surveyors and Loss Assessors Licencing, Professional Requirements and Code of Conduct) Regulations, 2000
- IRDA (Life Insurance-Reinsurance) Regulations, 2000
- IRDA (Investment) (Amendment) Regulations, 2001
- IRDA (Third Party Administrators-Health Services) Regulations, 2001
- IRDA (Reinsurance Advisory Committee) Regulations, 2001
- IRDA (Investment) (Amendment) Regulations, 2002
- IRDA (Preparation of Financial Statements and Auditor's Report of Insurance Companies) Regulations, 2002
- IRDA (Protection of Policyholders' Interests) Regulations, 2002
- IRDA (Insurance Brokers) Regulations, 2002
- IRDA (Obligations of Insurers to Rural and Social Sectors) Regulations, 2002
- IRDA (Licencing of Corporate Agents) Regulations, 2002
- IRDA (Licencing of Insurance Agents) (Amendment) Regulations, 2002
- IRDA (Protection of Policyholders' Interests) (Amendment) Regulations, 2002
- IRDA (Manner of Receipt of Premium) Regulations, 2002
- IRDA (Distribution of Surplus) Regulations, 2002
- IRDA (Registration of Indian Insurance Companies) (Amendment) Regulations, 2003
- IRDA ((Investment) (Amendment) Regulations, 2004
- IRDA (Qualification of Actuary) Regulations, 2004
- IRDA (Obligations of Insurers to Rural and Social Sectors) (Amendment) Regulations, 2004
- IRDA (Insurance Advisory Committee) Regulations, 2005
- IRDA (Micro-Insurance) Regulations, 2005
- IRDA (Maternity Leave) Regulations, 2005
- IRDA (Obligations of Insurers to Rural and Social Sectors) (Amendment) Regulations, 2005
- IRDA (Reinsurance Cession) (Notification) Regulations, 2007

3.4.4 Operation of IRDA

IRDA has performed the following operations:

1. It has developed internal parameters to assess the credentials of the promoters. The preliminary assessment includes (a) long-term commitment of the promoters in the business of insurance, (b) ability to bring new techniques in insurance underwriting, and (c) administrative capabilities, etc. After completion of preliminary assessment, IRDA conducts a detailed assessment in-depth of the promoters' business plans.

2. IRDA is the only authority for issuing licences to the promoters on national basis. It issues licences separately for life insurance and non-life insurance business.

   According to the regulations, the new players should commence business within 15 to 18 months of getting the licence. They have to pay a registration fee of ? 50,000. The renewal of registration is required to be done every year with a fee of 0.20% of 1.0% of the gross premium or ? 50,000 whichever is higher, to be paid by the insurers operating the business of insurance in India.

3. IRDA has prescribed a file and use procedure whereby each insurer is required to file the product and pricing details along with the copies of standard terms and conditions, and literature before their launch in the market so that IRDA can verify that the interests of policy holders are protected in terms of the policy documents.

   The Tariff Advisory Committee (TAG) shall file product and pricing details with the IRDA in respect of tariff products.

4. All insurance intermediaries, viz. agents, and corporate agents are required to undergo mandatory training programme before obtaining licence. IRDA has specified minimum educational qualifications for these intermediaries.

5. IRDA conducts examinations and then issues licence to these intermediaries.

6. The licencing of Insurance Agents Regulations have prescribed the qualifications for an insurance agent which is 100 hours pre-licencing training followed by the examination. At the time of renewal of licence, 25 hours training has been prescribed for the new agents in order to keep up-to-date knowledge. Besides, continuous training has been stipulated to increase the efficiency of the intermediaries.

7. IRDA has revived the Insurance Association and Life Insurance and General Insurance Councils in February 2001. These associations are responsible for setting up norms in respect of market conduct, ethical behaviour of the insurers, and breach of regulations.

8. IRDA has recognised the Actuarial Society of India as well as the Insurance Institute of India as the nodal entities that are responsible for actuarial and insurance education. IRDA has taken appropriate actions in order to grant statutory status to the Actuarial Society of India and the Institute of Surveyors and Loss Assessors.

9. IRDA has entered into a Moll with the IIM, Bangalore to enhance its objectives of insurance research and education further. It has also set up a risk management resource centre in Bangalore.

10. IRDA has prescribed the insurance advertisement and disclosure regulations in order to ensure that the insurance companies adhere to fair trade practices and follow transparent disclosure norms at the time of dealing with the policy holders.

11. In order to strengthen the self-regulatory mechanism in the insurance sector, IRDA has laid down the requirements for appointment of (a) investment committee, (b) internal audit committee, and (c) joint statutory auditors for a specified period.

12. A code of conduct has been prescribed for the agents and insurance intermediaries to ensure that their affairs are conducted in a manner safeguarding the interest of various stakeholders.

13. In order to protect the interests of the policy holders, IRDA has notified the protection of Policy holders' Regulations in April 2002. The regulations include the following:

    (a) Providing for the policy proposal documents being made available in easily understandable language;

    (b) Outlining the claims procedure in both life and non-life segments;

    (c) Setting up of grievance redressal mechanism;

(d) Speedy settlement of claims and policy holders' servicing;

(e) Providing for interest on delayed payment of the claims and free lock-in period of 15 days by the prospects/policy holders.

14. IRDA has set up a cell headed by the executive director to receive and examine complaints or grievances from the policy holders.

15. Insurers are required to set up proper grievance redressal machinery at their head office and at other offices in the country.

16. For the information of the public, IRDA has made it mandatory for every life insurer to make available the premium rates with the facility of a premium calculator on its website.

17. In order to ensure that the opinions of the consumers are considered while taking policy decisions, the representatives of the Chambers of Commerce have been nominated on the Insurance Councils and the TAG.

18. IRDA has made it mandatory for every insurer to have a consumer representative on its board.

19. IRDA has made it mandatory for the insurance companies to disclose clearly the benefits, terms and conditions under the policy documents.

20. In order to provide better services to the insurance public, the insurance brokers have been provided licences to function as insurance intermediaries. They have to render advice on appropriate insurance cover and terms thereof.

They have to keep up-to-date knowledge themselves on the availability of various insurance products and also have to submit quotations received from the insurers for consideration of the prospective clients.

21. Third Party Administrators (TPAs) have been introduced by IRDA in the health sector in order to provide better insurance health services viz. cashless cover, other add-on facilities, etc.

3.5 POLICY HOLDERS' GRIEVANCE REDRESSAL SYSTEM

The grievances in insurance crop up when the services provided by the insurers do not match with the policy holders' expectations. Grievance may arise due to the following reasons:

1. Delay in settlement of claims;
2. Delay in issuance of policies;
3. Non-availability of policies (for example, refusal by health insurers to cover health risk of the aged persons);
4. Ambiguity in wording of policy;
5. Wrongful repudiation/rejection of claims;
6. Insufficient material information about the products sold.

The government has put in place a system for redressal of grievances of the policy holders, which is shown in Figure 3.2.

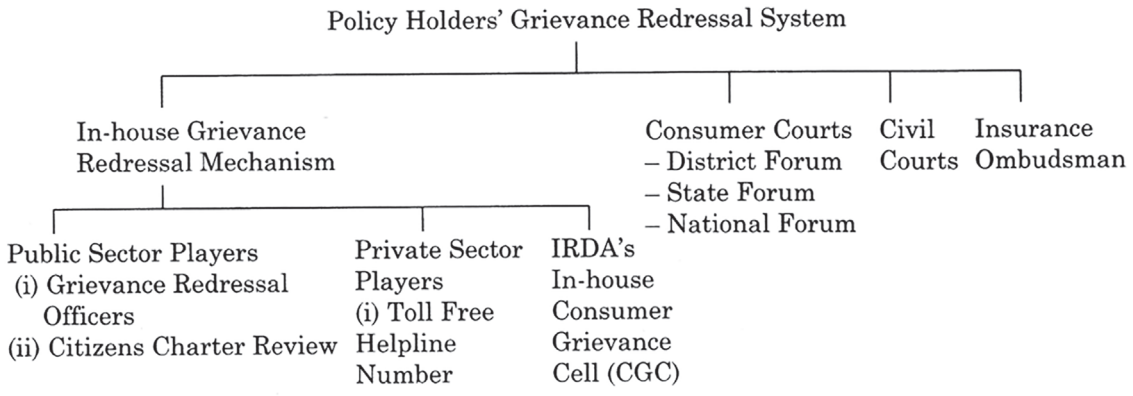


Figure 3.2

It may be observed from Figure 3.2 that the policy holders' grievance redressal system consists of:

(i) In-house grievance redressal cells of the insurers

(ii) Consumer courts ,

(iii) Civil courts, and

(iv) Insurance ombudsman

As the insurance business is based on mutual trust and long-term relationship between insurers and policy holders, it is imperative for the insurers to retain their customers and meet their grievances. That is why, insurers have set up internal grievance redressal cells to address and reduce consumer grievance.

Public sector players such as, LIC and GIG have formed their own internal grievance redressal mechanism by way of (a) nominating grievance redressal officers, (b) adopting a culture of customer relationship management, and (c) introducing a citizens charter for all public offices. LIC has set up review committees comprising retired judges to review the judgements delivered by the courts. Similarly, IRDA has also set up its own in-house Consumer Grievance Cell (CGC). The private sector insurers have provided a toll free helpline number to their policy holders.

A policy holder can take judicial route to address his grievance. The Consumer Protection Act, 1986, has been enacted to provide an easier and quicker means to address redressal of consumer grievance. According to the Act, a consumer can file his complaint against the erring supplier which shall be entertained by the consumer forum having special powers. The Act has provided three-tier courts or forums, viz. (i) District forum, (ii) State forum, and (iii) National forum for settlement of consumer disputes. The district forum is the lowest level court situated in the district headquarters. It can hear cases involving amounts up to ? 20 lakh. Above the district forum is the state level consumer court or state commission situated in the state capital. It can hear cases involving amounts more than ? 20 lakh and up to ? 1 crore. It can also hear appeal against the order of district forum. The national commission is on the top. hierarchy of consumer courts and is situated in Delhi. It can hear cases involving amounts more than ? 1 crore and can also hear appeal against the order of state commission.

The Act provides for three-tier system of civil courts, viz. (i) District court, (ii) State court, and (iii) National court for settlement of consumer disputes. At the lowest level are the district court presided by a district judge at a district level in the district headquarters. This court is under the administrative and judicial control of the high court of the state. The high courts are the principal civil courts of original jurisdiction in the state or a union territory. The Supreme Court of India is at the apex of the hierarchy of the judicial system in the country.

As the judicial process is a costly and time-consuming affair for settlement of consumer disputes, the government introduced a speedy and less costly grievance redressal system. The Central Government promulgated Redressal of Public Grievances (RPG) Rules, 1988 under the Insurance Act, 1938 in order to set up an institution of ombudsman with a view to building up the confidence of the policy holders. The Insurance Council is the administrative body of the institution of ombudsman. It has appointed 12 more ombudsmen across the country so far. The *main objective* of insurance ombudsman is to provide a forum to settle the disputes and grievances from the policy holders or their legal heirs against public and private sector insurance companies.

The insurance ombudsman is empowered to receive and examine written complaints in respect of insurance contracts on personal line in which insured amount is worth less than ? 20 lakh. Insurance on personal line means a policy taken in an individual capital capacity, viz. life insurance, personnel accident insurance, insurance of motor vehicle, mediclaim insurance, etc.

The complaints may be related to any or more of the following nature:

(a) Non-issue of insurance document to the clients after receipt of premium;

(b) Partial or total repudiation or rejection of claim by the insurer;

(c) Delay in settlement of claims;

(d) Grievance against insurer;

(e) Dispute in respect of premium paid or payable in terms of the insurance policy;

(f) Dispute on legal construction of the policy relating to claims, etc.

A complaint needs to be admissible as per the insurance law. Before a complaint becomes admissible it is imperative that:

1. The complainant, before approaching the ombudsman, should have made a representation to the insurer

who have either rejected the complaint or have not given any reply within 1 month of representation.

2. The complainant is not satisfied with the reply of the insurer.
3. The complaint has been made within 1 year after rejection of the complaint by the insurer or the insurer has sent final reply on the representation made by the complainant.
4. The subject matter of the complaint has not been pending or under consideration by any court or consumer forum or the arbitrator.
5. The relief or compensation has not exceeded ? 20 lakh.

The *duties and responsibilities* of an ombudsman are two-fold, viz. conciliation, and award making. The awards passed by an ombudsman are binding on insurers and are to be honoured within 3 months. The insurance ombudsman scheme is complementary to the regulatory functions of IRDA. A statistics shows that up to March 2008, the ombudsmen have dismissed more than 1,200 cases, disposed about 90% complaints by way of 2,700 awards, and recommended 350 cases to the insurance companies for settlement at their end.

3.6 RURAL AND SOCIAL SECTOR OBLIGATION FOR INSURERS

IRDA made it compulsory for each insurer to undertake insurance business in rural and social sectors with a view to spreading insurance in these sectors.

IRDA made it specific for definition of rural sector which was defined as the sector in which the population would be not exceeding 5,000, population density not more than 400 per sq. km., and minimum 75% of male working population engaged in agriculture.

Social sector comprises unorganised sector, informal sector, economically backward classes, and other categories of population both in rural and urban areas in respect of all insurers.

In September 2002, the IRDA relaxed stringent rural sector obligations and removed the strict rural sector definition as it was difficult for new private sector insurance companies to meet their mandatory rural sector obligations. Presently, the insurance companies have been allowed to follow the census of India for identification and penetration in the rural business market and therefore, anything which is not urban will be treated as rural.

- ***Every life insurer*** carrying on business of life insurance after the commencement of the IRDA Act, 1999 is required to ensure compliance of the obligations during the first 10 financial years:
- 5% in the 1st financial year; 7% in the 2nd financial year; 10% in the 3rd financial year; 12% in the 4th financial year; 15% in the 5th and 6th financial years; 18% in the 7th financial year; 19% in the 8th and 9th financial years; and 20% in the 10th financial year of total policies written direct in that year.
- ***Every general insurer*** carrying on business of general insurance after the commencement of the IRDA Act, 1999 is required to ensure compliance of the obligations during the first 10 financial years: 2% in the 1st financial year; 3% in the 2nd financial year; 5% in the 7th financial year; 6% in the 8th financial year; and 7% in the 9th and 10th financial years of total gross premium income written direct in that year.
- ***In social sector:*** 5,000 lives in the 1st financial year; 7,500 lives in the 2nd financial year; 10,000 lives in the 3rd financial year; 15,000 lives in the 4th financial year; 20,000 lives in the 5th and 6th financial years; 25,000 lives in the 7th financial year; 35,000 lives in the 8th financial year; 45,000 lives in the 9th financial year; and 55,000 lives in the 10th financial year.

The obligations of both life and general insurers towards rural and social sectors for the 10th financial year shall also be applicable for the financial years thereafter.

3.6.1 Obligations of Public Sector Insurance Companies

1. Life Insurance Corporation (LIC) of India
   (a) *Rural sector:* 24% in the financial year 2007—08, and 25% in the financial years 2008-09 and 2009-10 of the total policies written direct in that year.
   (b) *Social sector:* 20 lakh lives in the financial years 2007-08, 2008-09 and 2009-10.
2. General Insurance Company and its Subsidiaries
   (a) *Rural sector: 6%* in the financial year 2007-08; 7% in the financial years 2008-09 and 2009-10 of the total gross premium income written direct in that year.

(b) *Social sector:* For the financial year 2007—08, the average of the number of lives covered by the respective insurer in the social sector from the financial years 2002-03 to 2004-05 or 5.50 lakh lives, whichever is higher; For the financial year 2008-09, the obligations of existing insurers shall increase by 10% over the number of persons prescribed for the financial year 2007-08; For the financial year 2009-10, the obligations of existing insurers shall increase by 10% over the number of persons prescribed for the financial year 2008-09.

The obligations of both life and general insurers towards rural and social sectors for the financial year 2009-10 shall also be applicable for the financial years thereafter.

3.6.2 Obligations of New Insurance Companies

When an insurance company starts operations in the second-half of the financial year and is in operation for less than 6 months as on 31st March of the relevant financial year, no rural and social obligation shall be applicable for the said period, and the annual obligation as stipulated in the regulations shall be reckoned from the next financial year which shall be considered as the first year of operations for the purpose of compliance. When an insurance company starts operations in the first-half of the financial year, the obligations applicable shall be 50% of the obligations as stipulated in the regulations.

4 INSURANCE INTERMEDIARIES

The intermediaries associated with the insurance business are: (a) insurance agents, (b) surveyors and loss assessors, (c) insurance brokers, (d) Third Party Administrators (TPAs), (e) bancassurance, and (f) other channels.

4.1 INSURANCE AGENTS

An insurance agent is a person licenced by the controller of insurance to conduct insurance business. The agents are required to enroll with the insurance companies after getting the licence in order to be eligible to work as authorised agents. Agents set up the vital link between the insurer and the client. They are remunerated by way of commission on every policy sold by them. LIC has a network of around 12 lakh agents and the private sector insurance companies have network of about 13 lakh agents. Presently, there are over 26 lakh insurance agents and 2,500 corporate agents in this business. An agent is considered as the financial advisor of his client. He has the responsibility to understand the needs of his clients and recommends for the purchase of a policy by the customer. The IRDA has allowed companies, banks, and NBFCs to be insurance agents.

4.2 SURVEYORS AND LOSS ASSESSORS

Insurance surveyors and loss assessors are the independent professionals appointed by an insurance company in order to assess the loss or damage when a claim is notified under a policy issued by them. These independent professionals must be impartial and objective in their assessment. The insurance surveyor *is* required to obtain licence from IRDA. The IRDA has laid down a code of conduct for them. It has classified insurance surveyors into 3 categories, viz. A, B, and C, on the basis of their skill, expertise and experience. It has also laid down the financial limits for categorised surveyors to carry out survey.

The insurance companies' give them work based on their competence in the relevant fields. They select surveyors based on their qualification, experience and the estimated loss involved. At present, the total numbers of category A surveyors are around 2,200, category B surveyors 9,800, and category C surveyors 12,500.

4.3 INSURANCE BROKERS

The insurance brokers are the professionals retained by the insured. They sell policies of several life insurance companies as well as non-life insurance companies simultaneously. There are around 300 insurance brokers in the country who are registered with IRDA, of whom about 250 are direct brokers, 40 composite brokers and 10 reinsurance brokers.

The IRDA has permitted the brokers to enter the insurance industry. It has created 4 types of brokers and specified the minimum capital requirement for each category.

The IRDA has made it compulsory for every insurance broker to take a professional indemnity insurance cover with an insurer in India to indemnify him against (a) breach of duty, (b) libel, (c) slander, (d) loss of money or property for which he is legally liable in consequence of any financial or fraudulent act, (e) legal liability incurred due to loss of documents, (f) costs and expenses incurred for replacement of such documents, and (g) financial penalty imposed against the broker.

Difference between Insurance Brokers and Insurance Agents

The functions of insurance brokers are different from insurance agents in the following ways:

1. Insurance agents are the representatives of the insurers. Insurance brokers are the representatives of the insurance buyers.
2. Insurance agents cannot sell policies of several life and non-life insurers at time. Insurance buyers can sell policies of various life and non-life insurance companies at the same time.
3. Insurance brokers are free to source the best product, service, and price arrangement from any insurance company. They are also free to deal with multiple insurance companies. On the other hand, the functions of insurance agents are quite restricted as they are not free to source the best product, service, and price arrangement from any other insurance company except their principals. They are also not entitled to deal with multiple insurance companies.

The IRDA has permitted public sector insurance companies to avail of the services of insurance brokers. The brokerage or commission is payable to those insurance brokers who want to service the non-tariff business of public sector companies only. The remuneration of direct life and direct general insurance brokers shall not be more than 17.5% of the premium payable on a policy. The remuneration of reinsurance and composite brokers is determined by the market.

4.3.1 Channels of Distribution

Let us look into the statistics given in Table 4.1 to understand the extent of use of various channels of distribution by the life insurance companies.

TABLE 4.1 Statement Showing New Business Premium of Life Insurance Companies—Channel wise

(Period: 2008-09) (Figure in %)

Distibution Channel	Private Life Insurer	LIC	Industry Total
Individual agents	54.9	97.3	79.5
Corporate agents (Bank)	20.8	1.7	9.7
Corporate agents (Others)	10.9	0.5	4.9
Brokers	2.0	0.5	1.1
Direct selling	11.5	-	4.8
Industry Total Business	**4100.0**	**100.0**	**100.0**
New referrals	9.3	-	3.9

It may be observed from Table 24.1 that individual agents account for the maximum business in life insurance both in the case of private sector companies as well as LIC.

4.4 THIRD PARTY ADMINISTRATORS (TPAS)

Third Party Administrators (TPAs) are the intermediaries in the health care insurance delivery chains. They establish links with physicians, hospitals, clinics, nursing homes, pharmacies, etc. TPAs in India are the separate outside entities which serve more than one insurer at a time. TPAs are required to obtain licence from the IRDA for the provision of health cover for a period of 3 years which is renewable after completion of every 3 years. IRDA has prescribed following guidelines for the appointment of TPAs:

1. Only a company with a minimum paid-up capital of ? 1 crore and working capital of not less than ? 1 crore is entitled to function as a TPA.
2. At least one of the directors in the board of TPA shall be a qualified medical doctor.
3. A TPA shall have to obtain a licence from IRDA before starting operation as a TPA.
4. The licence obtained by a TPA is valid up to 3 years, which shall be renewed after every 3 years.

4.4.1 Benefit of Cashless Payment

TPAs are engaged for post-claims management. The TPAs have a wide network of hospitals and the nursing homes. Since 2002, they are facilitating the insured with cashless payment of claims when they settle claims with the hospitals. This cashless facility offers the policy holder a distinct privilege of not having to pay to the hospital. Instead, the policy holder is required to merely quote the policy number and show the health card which allows

him to become free from complicated reimbursement procedures. Enormous time and hazards are therefore saved by the policy holder in this process.

4.4.2 Operation and Performance of TPA Service

In October 2002, the 4 public sector non-life insurance companies viz. New India Assurance, National Insurance, Oriental Insurance and United India Insurance appointed TPAs to discharge responsibilities of networking with hospitals and screening health insurance claims. These insurers have empanelled around 30 TPAs for management of mediclaim policy. They have allocated divisions falling under each regional office to an external TPA. In respect of new policies, the data are provided to the TPAs who issue identity card and guide book detailing the claim procedure to each of the policy holders. The TPAs keep open call centres for 24 hours and advice the insured to a suitable hospital with which they have tie-up. The insurance companies provide working funds to TPAs in order to settle claims with hospitals. The insurers pay a fee of about 5.5% of the premium which is passed on to the insured.

There have been 28 TPAs empanelled with the public sector non-life insurance companies, of which 17 of them were functioning as TPAs as on 31st March 2008. A list of these TPAs are given in Table 4.2.

Table 4.2 List of Third Party Administration as on 31st March 2018

Sl. No.	Name of TPA	Hapilals added in ...	Number of officeal branchea ...	Manpower including doctor alporfes ...
1.	Alankit Heralthcare	1,322	-	29
2.	East West Assist (P) Ltd.	155	-	28
3.	Family Health Plan	-	(2)	(164)
4.	Genins India Ltd.	847	5	62
5.	Good Health Plan Ltd.	2,745	5	75
6.	Health India TPA Services (P) Ltd.	539	3	63
7.	Heritage Health TPA (P) Ltd.	574	2	47
8.	Medi Assist India (P) Ltd.	1,567	15	379
9.	Medicare TPA Services (I) (P) Ltd.	833	4	29
10.	Med Save Healthcare Ltd.	443	3	3
11.	MD India Healthcare Services (P) Ltd.	401	24	254
12.	Paramount Health Services	247	-	-
13.	Park Mediclaim Consultants (P) Ltd.	190	1	21
14.	Raksha TPA (P) Ltd.	655	5	92
15.	Rothshield Healthcare TPA Services Ltd.	976	4	11
16.	TTK Healthcare Services Ltd.	756	1	46
17.	Vipul Medicrop (P) Ltd.	97	2	86
	Total	**12,347**	**72**	**1,061**

At this stage, let us also examine the statistics on claims settled by the TPAs from Table 4.3.

TABLE 4.3 Statement Showing Data on Claims Settled by TPAs as on 2008-09

Year	Claims receved	Claims settled within 1 month		Claims settled within 1–3 Months		Claims settled within 3–6 Months		Claims settled more than 6 Months	
	No.	No.	(%)	No.	(%)	No.	(%)	No.	(%)
2003-04	4,74,939	2,54,823	53.6	1,20,846	25.4	39,975	8.4	9,160	2.0
2004-05	8,07,114	5,11,794	63.4	1,83,171	22.7	30.531	3.8	9,621	1.2
2005-06	11,26,895	7,30,269	64.8	2,91,766	25.9	39,051	3.2	1,04,740	9.3
2006-07	18,40,298	14,06,815	76.4	3,67,298	20.0	44,711	2.4	10,291	0.6
2007-08	19,86,859	15,13,375	76.2	3,02,830	15.2	49,908	2.5	12,660	0.6

2008-09	24,46,713	18,47,212	75.5	3,60,173	14.7	61,022	2.5	12,934	0.5

Source: IRDA Annual Report 2008-09.

It may be observed from Table 24.3 that there has been remarkable improvement in the time taken to settle claims by TPAs. More than 75% of the claims received have been settled within 1 month of the claim lodged in the year 2008-09. However, lots of complaints have been received by the insurance companies from the policy holders against the functioning of TPAs, resulting in sluggish growth in this particular line of business.

4.5 BANCASSURANCE

Bancassurance is an innovative distribution channel in India which involves banks to sell insurance products of the insurance companies. The RBI has identified 3 distinct routes of participation of banks in the insurance business, viz.

(a) Providing fee-based insurance services without risk participation;

(b) Investing in an insurance company to provide infrastructure and support services;

(c) Setting up of a separate joint venture insurance company with risk participation.

Bancassurance is considered to be one of the most preferred and popular routes for banks for improving their profits without using much of their capital. It has been observed that more than 20 commercial banks in India have already tied up with insurance companies in the public and private sector to market their products. Sometimes, the synergy between products of both organisations such as, insurance cover for housing loans provided by banks, has made banks the perfect partners of insurance companies. The newly born insurance companies can have an easy access over consumer data base and quick reach to the customers by way of this kind of partnership with banks.

There is tremendous potential of insurance business in rural areas by way of partnering with cooperative banks because at least 70% of the rural population is covered by these banks. In India, private banks and foreign banks are the dominant players partnering with the insurance companies for marketing insurance products as the commissions are lucrative to them. Of late, public sector banks have also started participating in this sector.

4.6 OTHER CHANNELS

Life insurance companies have started utilising various other distributional channels to expand their business such as: (a) Direct marketing, (b) Tie-up with automobile manufacturers, (c) Tie-up with forex dealers or tours and travel service organisations, (d) Tie-up with departmental stores or retailers of white goods, (e) Marine cargo insurance through C&F agents or transporter or carrier companies, (f) Business through internet and (g) Group insurance marketing, etc.

4 RISK MANAGEMENT IN INSURANCE

The term *risk* is usually used to indicate a probability of pecuniary or financial loss. Risk is an uncertainty about a situation or circumstance which may cause financial loss to a person or an entity. In insurance terminology, the term *risk* may be used to denote a probability or likelihood of a loss on assets, properties, or life of an individual. It is concerned with perils such as, flood, fire, earthquake, explosion, etc. Risk of loss may arise due to many reasons one of which is hazardous situation. On the other hand, risk management may be defined as the process of planning, organising, directing, and controlling the resources and the activities of an organisation with a view to reducing the adverse effects of probable losses at the minimum cost.

5.1 FACTORS AFFECTING RISK PROFILE OF INSURERS

There are various factors which affect or influence risk profile of the insurers such as: (i) Volatility in financial markets, (ii) Changes in rules and regulations, (iii) Increasing number of natural disasters, (iv) Changes in demographic structure, (v) Explosion of information, and (vi) De-tariffing of premium structure, etc.

Therefore, the insurance companies must have a proper and effective risk management system to deal with all the above factors in an efficient manner.

5.2 KINDS OF RISKS IN INSURANCE

Traditional risk management practices have always remained the foundation of any risk management activity. However, there are much more advanced and sophisticated approaches like, asset-liability management, cash flow test, capital adequacy test, and various capital models which are applied to analyse and manage the total risk exposure of the insurers in a holistic manner. Therefore, the first step towards risk management for an insurance company is to classify risks from the insurance perspective and develop a risk management framework.

There are various kinds of risks from insurance perspective, which are as follows:

5.2.1 Portfolio Risk

Portfolio for an insurance company is the mix of insurance business done by the company. In case of life insurance, portfolio comprises term policies, endowment policies, etc. In case of non-life insurance, portfolio consists of fire policies, marine policies, motor insurance policies, health policies, etc. It is the responsibility of an insurer to optimise profitability by way of keeping and maintaining a right balance in its business portfolio. In order to control the risk an insurer should make proper portfolio planning, continuous monitoring, and controlling over operations.

5.2.2 Solvency Risk

The risk exposure in terms of expected loss is bound to be higher with the increase in business of the insurer. A question may arise as to how much an insurer can bear loss on its own. Frankly speaking, it all depends on capital represented by the assets of the insurer and valuation of outstanding liability in terms of policies issued. The capital must be commensurate with the outstanding liability. In the case of life insurance, valuation is done by the actuaries.

IRDA has prescribed stringent norms in respect of capital adequacy to ensure that there is no risk of insolvency

for the insurer. Therefore, it will be prudent for the insurer either to increase the capital or transfer the extra risk exposure by way of reinsurance whenever its business increases.

5.2.3 Marketing Risk

Marketing risk arises out of change in demographic structure such as change in life style, decrease in death rate, new killer diseases, etc. and increased competition. In order to avoid these risks, the insurer should adopt a well-defined marketing strategy.

5.2.4 Market Risk

As we know, investment income is supposed to be the main source of revenue for an insurance company. In order to enhance profitability, the insurer generally invests funds in high risk, high return securities resulting in high market risk. However, market risk cannot be eliminated as volatility in financial markets is quite common. Hedging mechanism, viz. futures and options as well as prudent investment decision may help insurer in containing this risk.

5.2.5 Operational Risk

Operational risk has been defined by the Basel Committee as the risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events. With a view to improving the standards of services, the insurance companies use IT in their operations extensively. While enhancing the service standards, the centralised servers which store the entire data of the company and Wide Area Network (WAN) pose a definite operational risk for the insurer. Therefore, the risk management of the insurance company should take certain specific steps such as, business continuity planning, effective contingency plans, proper back-up of data, etc. in order to restrict losses arising out of operational risk.

5.3 RISK-BASED CAPITAL

The following types of risks are required to be recognised by the insurers under the risk-based capital regime:

5.3.1 Current Risks

1. **Risk of insufficient tariffs:** The risk that arises due to miscalculation.
2. **Deviation risk:** The risk factors which change subsequently frequency and extent of claims, mortality, price and wage levels, legislation, interest rates, etc.
3. **Evaluation risk:** The risk that arises due to insufficient technical provisions.
4. **Reinsurance risk:** The risk that arises due to non-payment by reinsurer and sub-standard quality of reinsurance.
5. **Operating expense risk:** The risk that arises due to insufficient amount for operating expenses.
6. **Major losses risk (for non-life):** The risk that arises due to the size and number of major losses.
7. **Accumulation or catastrophe risk:** The risk that arises due to single event, viz. earthquake, storm, etc.

5.3.2 Special Risks

1. **Growth risk:** The risk that arises due to uncoordinated growth, excessive growth, etc.
2. **Liquidation risk:** The risk that arises due to existence of insufficient funds to meet liabilities, and investment risk.
3. **Depreciation risk:** The risk that arises due to investments losing their value on account of non-payment, credit, and market risks.
4. **Liquidity risk:** The risk that arises due to non-liquidity of investments at the right time.
5. **Matching risk:** The risk that arises due to mismatch between assets and liabilities.
6. **Interest rate risk:** The risk that arises due to change in interest rates, including reinvestment risk.
7. **Evaluation risk:** The risk that arises due to improper valuation (either high or low) of an investment.
8. **Participation risk:** The risk that arises due to holding of shares in other weak or sick enterprise by the insurer.
9. **Derivative financial instruments risk:** The risk that arises due to use of derivative financial instruments.

5.3.3 Non-techmcal Risks

1. **Management risk:** The risk that arises due to incompetence or criminal intention of management.
2. **Third party guarantee risk:** The risk that arises due to provision of guarantees in favour of third parties.
3. **Insurance intermediaries risk:** The risk that arises due to inability of the insurance intermediaries to meet their obligations.
4. **General business risk:** The risk that arises due to change in general business and legal condition or change in regulation.

5.4 RISK MANAGEMENT PROCESS IN INSURANCE

Risk management process in insurance should follow the following processes as mentioned hereunder.

5.4.1 Risk Identification

Risk identification process involves identification of risk factors and evaluation of potential loss likely to take place. It involves an in-depth understanding of the industry, and the markets, activities, range of products, legal, social and economic environment in which the insurer operates and natural hazards associated with the operations of insurer.

5.4.2 Risk Assessment

After identification of the risks, the risks must be assessed as to their potential severity of loss or damage, and probability of occurrence. However, some difficulties are generally encountered while assessing the risks such as, (i) determination of rate of occurrence, (ii) frequency of loss or damage, etc. Proper risk assessment would assist the underwriter to apply judgement to the risk by way of (i) getting material information, (ii) determining the state of actual condition as compared to average, (iii) comparing quantum of hazards with average, and (iv) managing and controlling plant and equipment.

5.4.3 Risk Treatment

After identification and assessment of the risks, all techniques should be used to manage the risk which is known as *risk treatment*. The techniques adopted by an insurer for the purpose of risk treatment are: (i) Risk avoidance, (ii) Risk retention, and (iii) Risk transfer.

Risk avoidance means non-performance of an activity that could carry risk. For example, a risk of potential damage by flood to a chemical warehouse could be avoided by shifting the warehouse to a higher elevation. *Risk retention* means acceptance of loss. The risks that could not be avoided or transferred have to be retained by default. It includes risks that are so large that they either cannot be insured or the premiums would be prohibitive. For example, in times of war, risks of loss of all properties cannot be insured, and so, the loss attributed by war has to be retained by the insured. *Risk transfer* means causing another party to accept the risk through hedging or contract.

5.4.4 Risk Reduction

Risk reduction is an important responsibility of risk management. It involves methods to be applied to reduce the severity of loss. Therefore, there should be proper risk mitigation plan to clearly specify how a particular risk can be handled and the consequences can be reduced if it turns out to be a liability.

5.4.5 Risk Review and Monitoring

Risk review and monitoring is the most important task for the risk management. There should be a properly laid down periodic review system which must be practiced and monitored by the risk management team of the insurer in order to control and contain the risk of potential loss or damage. The insurer assumes risk exposure on the basis of estimates made by the risk management. The insurer should collect sufficient premium in order to have enough funds in hand, and ensure its financial solvency.

6 GENERAL INSURANCE

General insurance, also called *non-life insurance* is one of the two important parts of the insurance industry. It provides a short-term cover generally for 1 year. General insurance companies transact fire, marine, motor, and various miscellaneous insurance business. As motor vehicle insurance is mandatory in India, hence motor insurance premium dominates the total premium portfolio. It accounts for more than 40% of the total gross premium collected under general insurance. Besides, motor insurance on account of third party liability claims has substantially contributed to underwriting losses.

The general insurance sector is smaller than the life insurance sector in India. The total market size in terms of annual premium is about 50% of life insurance. While life insurance represents 80% of the insurance market in India, general insurance represents the balance 20% of the market. This sector has currently earned premium income around ? 20,000 crore with a 5-year compounded annual growth rate of 15%. The demand for the general insurance is still generated by way of mandatory regulations. The Central Government nationalised general insurance business in January 1973 by way of passing the General Insurance Business (Nationalisation) Act, 1972. The minimum paid-up capital of general insurance companies was raised to ? 100 crore under the amended Insurance Act. The 4 nationalised general insurance companies also enhanced their paid-up capital from ? 40 crore to ? 100 crore.

6.1 GENESIS OF GENERAL INSURANCE IN INDIA

The business of general insurance in India started with British traders long ago in the second-half of the 18th century. With a view to safeguarding against the risk of loss of goods in transit as well as natural calamities, the British and other foreign insurance companies were formed to transact general insurance business through their agents. Foreign companies had enjoyed monopoly business in insurance till 19th century. Let us look at the following information to understand at a glance, the origin of general insurance business and its development.

- In 1850: The first general insurance named, *The Triton Insurance Company Ltd.* was established in Calcutta.
- In 1907: The first Indian insurance company named, *Indian Mercantile Insurance Company Ltd.* was set up in Bombay to transact general insurance business.
- In 1919: The first Indian fully-owned private sector insurance company named, *The New India Assurance Company Ltd.* was established by Sir Dorab Tata. It was nationalised later.
- In 1956: The insurers floated a reinsurance company named, *India Reinsurance Corporation Ltd.* for retention of general insurance business in India.
- In 1957: The General Insurance Council framed a code of conduct to ensure fair and transparent transactions of general insurance business. A controller of insurance was appointed to implement the code of conduct.
- In 1961: The Indian Guarantee and General Insurance Company Ltd., a public sector company, along with India Reinsurance Corporation were notified as Indian reinsurers. The insurance companies voluntarily ceded to each of them 10% of their gross direct premium.
- In 1961: The GOI made it compulsory for each insurer to cede 20% in fire and marine cargo insurance, 10% in marine hull and miscellaneous insurance, and 5% in credit and solvency business to the reinsurers.
- In 1966: Reinsurance companies in India formed 'reinsurance pools' in fire and hull departments for retention

of higher premium in the country. The member companies ceded a specific percentage of premium to the respective pools managed by the two statutory reinsurers.

- In 1968: Unfair practices of some of the insurance companies were unearthed. Hence, The Insurance Act was amended to introduce regulations on investment of assets, setting up of Tariff Advisory Committee (TAG) under the chairmanship of the controller of insurance, minimum solvency margin, licencing of surveyors, payment of premium before commencement of risk, etc.
- In 1972: The GOI nationalised general insurance business by way of passing the General Insurance Business (Nationalisation) Act, 1972. 107 insurers and the branches of foreign insurance companies in India were amalgamated, and grouped into 4 nationalised companies, viz. The National Insurance Company Ltd., The New India Assurance Company Ltd., The Oriental Insurance Company Ltd., and The United India Assurance Company Ltd.
- In 1972: The General Insurance Corporation of India was incorporated as a holding company of these 4 companies.
- In 2000: The GOI notified The General Insurance Corporation of India (GIG) as an Indian reinsurer. At the same time, 4 public sector insurance companies which were subsidiaries of GIG were delinked from GIC and they were allowed to run as independent board-managed companies.

6.2 PUBLIC SECTOR COMPANIES IN GENERAL INSURANCE

There are 4 public sector companies in general insurance business. They are: (1) National Insurance Company Ltd., (2) New India Assurance Company Ltd., (3) Oriental Insurance Company Ltd., and (4) United India Insurance Company Ltd.

6.2.1 National Insurance Company Ltd. (NIC)

The National Insurance Company Ltd. (NIC) was incorporated in the year 1906. In 1972, 22 foreign companies and 11 Indian companies were amalgamated with NIC. Its head office is in Kolkata (previously Calcutta). NIC has a network of more than 960 offices with around 20,000 employees spread all over the country. It has strong presence in Eastern and Northern parts of the country. It has foreign operations through its branch offices in Hong Kong and Nepal. NIC serves more than 7.5 million policy holders for their various requirements by offering them policies. NIC ranks among the premier insurance companies all over the world.

6.2.2 New India Assurance Company Ltd. (NIAC)

The New India Assurance Company Ltd. (NIAC) was set up by Sir Dorab Tata in the year 1919. Its head office is in Mumbai (previously Bombay). It was the first fully-owned private sector insurance company in India set up to provide insurance protection to the Indian population. It was nationalised in 1973 with merger of 23 Indian companies. NIAC has a wide network of 26 regional offices, 400 divisional offices, about 700 branch offices. It started its foreign operations in 1920 and has overseas offices in 27 countries such as Australia, UK, Japan, Middle-East, etc. NIAC's total overseas premium income is around ? 1,000 crore representing 90% of the total overseas premium income in India. It has strong market share in India and abroad for its excellent operating performance. NIAC is the pioneer among other general insurance companies in India.

6.2.3 Oriental Insurance Company Ltd. (QIC)

The Oriental Insurance Company Ltd. (OIC) is one of the oldest general insurance company set up in the year 1947. It was previously known as the *Oriental Fire and General Insurance Company Ltd.* OIC has network of 23 regional offices, more than 300 divisional offices, and about 650 branch offices in different cities of the country. It also has overseas operations in Nepal, Dubai and Kuwait. It has designed special insurance covers for large projects, viz. power plants, petrochemicals, steel, and chemical plants.

6.2.4 United India Insurance Company Ltd. (UIIC)

The United India Insurance Company Ltd. (UIIC) is the second largest general insurance company in terms of size of premium and the market share. Its head office is in Chennai (previously Madras). UIIC has a network of 22 regional offices, more than 300 divisional offices, and around 800 branch offices all over the country. It has manpower of more than 20,000 employees. UIIC's main areas of business are fire, marine, motor, and other policies.

In addition to the above four companies, there are two more new public sector companies operating in the business of general insurance as mentioned:

6.2.5 Agriculture Insurance Company of India Ltd. (AIC)

The Agriculture Insurance Company of India Ltd. (AIC) was set up in December 2002 under the Companies Act, 1956 with a view to avoiding risks in agriculture covering all farmers and crops. It has an authorised capital of ? 1,500 crore and paid-up capital of ? 200 crore. AIC is the largest provider of crop insurance in the world in terms of the number of farmers insured.

AIC has been given licence in October 2003 to transact crop insurance business. It has implemented National Agricultural Insurance Scheme (NAIS) which is basically a group insurance scheme for the farmers who take crop loans from banks. It has also implemented National Crop Insurance Scheme (NCIS) in October 2003, which provides insurance cover and financial support to the farmers in the event of natural disasters, calamities, pests and diseases, etc. It also encourages the farmers to adopt developed farming practices, high value inputs, and modern technology in cultivation in order to help stabilise farm income particularly in the bad years. Currently, NAIS covers about 20% of all farmers and 25% of the cropped area. The Central Government has encouraged the all states to bring more crops under crop insurance and directed banks ro insure all crop loans under NAIS.

AIC underwrites two types of insurance products, viz. (i) government supported product, and (ii) customised product. *Government supported product* means National Agricultural Insurance Scheme (NAIS) which is implemented by AIC. The scheme provides insurance cover against the risk of yield loss on account of natural disaster such as, fire, storm, draught, and pest diseases. It covers food crops, viz. cereals, millets, pulses, etc., oilseeds, and annual commercial and horticultural crops, viz. cotton, sugarcane. potato, onion, ginger, coriander, chili, jute, etc. The total sum insured is ? 20.000 crore under the scheme and the premium income is 563 crore approximately.

Customised product means the need-based insurance product designed by AIC to serve specific need of the farmers. These products are (a) Weather and index insurance products, and (b) Traditional and named peril insurance products. *Weather and index insurance products* are: (i) Varsha Bima, (ii) Coffee insurance, (iii) Wheat insurance, and (iv) Mango insurance. Weather-based Crop Insurance Scheme (WBCIS) is a unique weather-based insurance product which provides protection against losses in crop yield that causes due to adverse weather conditions. It also provides protection against adverse rainfall during kharif and in adverse weather conditions like frost, heat, increased humidity, unseasonal rainfall during rabi. These products cover weather-based perils and operate on 'area approach' basis for the purpose of payment of compensation. *Traditional and named peril insurance products* are: (i) potato insurance, (ii) bio-fuel tree/plant insurance, and (iii) poppy insurance. The named peril insurance policy covers only those losses which arise out of perils specifically listed in the contract. It operates at individual farm level based on the individual losses.

6.2.5 Export Credit Guarantee Corporation Ltd. (ECGC)

Export Credit Guarantee Corporation Ltd. (ECGC) offers credit risk insurance covers to the exporters against loss in export of goods and services. It guarantees to banks/ FIs to help exporters obtain better facilities. ECGC also provides overseas investment insurance to Indian companies for investment in joint ventures abroad in the form of equity/loan. All these facilities assist exporters to develop their business, and explore new markets, and get adequate export finance in time. The RBI has now allowed banks to write off (in addition to the claims settled by ECGC) outstanding export bills settled by other insurance companies regulated by the IRDA. This directive of RBI has provided a large opportunity to the private insurance companies in the general insurance business and has placed them at par with ECGC.

6.3 PRIVATE SECTOR COMPANIES IN GENERAL INSURANCE

There are 17 private sector general insurance companies in India, the list of which has been given earlier. Let us discuss about one of these companies and its functioning at this stage.

6.3.1 Royal Sundaram Alliance Insurance Company Ltd.

Royal Sundaram Alliance Insurance Company Ltd. is a joint venture between Sundaram Finance and Royal & Sun Alliance of UK. It was established in 1954. It aims to offer customised non-life insurance products and high standards of service for the individuals in the area of (a) motor car, (b) health care, (c) travel, (d) personal accident, and (e) home and household.

Royal Sundaram Carshield is a comprehensive motorcar insurance package designed to cover losses arising out of impact damage, theft, earthquake, fire, flood, landslide, riot and strike. It also has a comprehensive health insurance package specially designed to offer complete protection to the insured and the family. The policy covers the spouse, children, and dependent parents for health problems. It also provides cashless treatment facility in listed hospitals.

Royal Sundaram's travel insurance package covers luggage money, passport, tickets, and all other travel related risks from the date of journey to the date of return such as, loss of baggage, delay in receiving baggage, flight delay, loss of travel documents, etc. Its accident insurance package takes care of the insured and the family in case of fatal accident or disability. It offers a range of benefits, viz. accidental death benefit, recovery benefits, and no claim benefits.

Royal Sundaram's home and household package covers both building insurance and content insurance. Building insurance provides complete cover for damage to the insured building. It is a comprehensive package designed to cover any type of damage caused by any peril such as, fire, lightning, explosion, riot, strike, storm, cyclone, flood, etc. The content insurance covers loss, damage, destruction of property, and home contents due to fire, lightning, explosion, any natural calamities, etc.

6.4 GENERAL INSURANCE PRODUCTS

General insurance products comprise: (1) Fire insurance, (2) Motor insurance, (3) Marine cargo insurance, (4) Marine hull insurance, (5) Rural insurance products, and (6) New products insurance.

6.4.1 Fire Insurance

Fire insurance covers: (a) house, building and flats, (b) fixed assets like furniture & fixture, etc, and (c) loss of profit. It is a comprehensive policy that generally covers loss due to fire, earthquake, riots, floods, strike, etc. This policy can be taken by the owner of the premises only. Usually, the banks, and other lending institutions and housing finance companies insist on the premises being insured against fire.

The fire rates have been revised by the government in two occasions in the years 1979 and 1987. Competition is very severe in this segment among insurance companies as maximum premium comes from corporate clients having large industrial assets. Fire insurance accounts for 20% of the total business of general insurance companies and brings most profits for them.

6.4.2 Motor Insurance

Motor insurance covers: (a) various types of passenger cars, (b) trucks, (c) three wheelers, and (d) two wheelers. There are two types of motor insurance, viz. (i) comprehensive insurance, and (ii) third party insurance. The *comprehensive insurance* covers and insures the owner as well as the third party affected. *Third party insurance* insures only the party or parties other than the owner in case of an accident. It is mandatory for all registered vehicles moving on the Indian roads under the provisions of the Motor Vehicles Act, 1988, to insure against third party risk.

Motor insurance rates have been revised twice by the government in the years 1982 and 1990. Motor insurance is the single largest and fast growing business segment for insurance companies. It accounts for 40% of the total premium income of the non-life insurance companies. With effect from January 2007, IRDA adopted a phased approach towards de-tariffing in motor insurance.

6.4.3 Marine Cargo Insurance

Marine cargo insurance covers: (a) cargo in transit, and (b) cargo declaration policy.

6.4.4 Marine Hull Insurance

Marine hull insurance covers: (i) Inland vessels, (ii) Ocean going vessels, (iii) Fishing and scaling vessels, (iv) Freight at risk, (v) Construction of ship, (vi) Voyage insurance of various vessels, (vii) Ship breaking insurance, and (viii) Oil and energy in respect of onshore and offshore risks.

With effect from April 2005, IRDA has removed the price control on insuring marine hull. Currently, marine cargos as well as marine hull insurance have come under the purview of 'file and use' regulations, as applicable to non-tariff products. The marine hull insurance represents a business of ? 400 crore. The competition in this sector is strong particularly after de-tariffing.

6.4.5 Rural Insurance Products

Rural insurance products cover: (a) insurance on cattle, crop, water pump for agriculture, livestock, and hut, (b) weather insurance, (c) farm income insurance, (d) Varsha Bima, and (e) farmers' package policy, etc.

6.4.6 New Products Insurance

New products insurance includes: (a) Mutual fund package policy, (b) Third party liability and asset protection, (c) Pollution liability package policy, (d) Event insurance policy, and (e) Weather insurance cover, etc.

Mutual fund package policy provides cover in respect of insured's legal liability to third parties for claims towards financial loss caused due to act of negligence, error, or negligent omission on the part of an employee. *Third party liability and asset protection* covers mutual funds including their business operations. *Pollution liability package policy* covers damage costs of insured due to slow and gradual pollution activities. *Event insurance policy* covers the insured against loss or damage due to cancellation of event. *Weather insurance cover* has been introduced for the farmers against who suffer high losses repeatedly due to natural calamities.

Besides the traditional products, the general insurance companies have launched longer term covers such as, (i) deferred health insurance, (ii) project insurance including contractor's all-risk cover, (iii) marine cum erection risk cover, (iv) turnkey project cover, and (v) credit insurance. Presently, only fire and motor insurance premium rates are governed by IRDA. In case of marine cargo, marine hull, engineering, and liability covers, the premium rates are determined through negotiation between insurer and the insured. The de-tariffing process has helped Indian shipping, and other concerned companies to negotiate and obtain attractive lower rates and select best terms and conditions for themselves. This has resulted in lower insurance costs, and improved efficiency for these companies to be successful in global competition.

6.5 TARIFF ADVISORY COMMITTEE (TAC)

Tariff Advisory Committee (TAC) is a statutory body set up under the Insurance Act, 1938. TAC looks into the pricing of non-life insurance products. It has been broad-based with representatives from various faculties apart from insurance sector. It has revised fire insurance and engineering tariffs.

TAC determines the tariffs of the insurance industry other than for marine cargo and marine hull covers. It provides floor rates for various insurance products. It assists in preventing uneconomic competition and facilitates classification of risks-based on their characteristics. It controls and regulates the rates, terms and conditions which may be offered by insurers in respect of fire, motor and other covers.

With effect from May 2000, a simplified fire tariff has been introduced with substantial reduction in premium rates. Large risks in which the threshold limit of probable maximum loss is ? 1,054 crore or above, at any one location, or in which the sum insured at any one location is ? 10,000 crore 01 above, have been de-tariffed. These risks have been considered as the risks beyond the tariff regime and would be guided as per the premium rates existing in international insurance markets which are substantially cheaper than the tariff rates in India. Moreover, these large risks require customisation of products which are not available in the Indian insurance market. Therefore, the insurers can issue comprehensive insurance package policy for large risk on reinsurance-based rates, terms and conditions.

As we have mentioned before that the tariff regime is getting phased out gradually, the IRDA has drafted a vision document for TAG mentioning its future role.

6.6 GENERAL INSURANCE COUNCIL

The General Insurance Council is an executive committee consisting of (a) nominees of IRDA [viz. member (non-life) as chairman and executive director (non-life) and the secretary general of the council], and (b) the CEOs of all non-life insurance companies licenced by IRDA. The council organises meetings of the executive committee, chief underwriters, heads of health insurance departments, etc. periodically.

The mission of the council are (a) Expanding and deepening penetration of non-life insurance in India, (b) Promoting a responsible and disciplined pro-consumer service regime, and (c) Imbibing best global practices by way of a self-regulatory mechanism.

As we have observed from the mission statement, the council concentrates on issues relating to (a) promotion of non-life insurance market, (b) promotion of consumer education and awareness of non-life insurance products, and (c) development of insurance intermediaries, viz. agents and brokers. The council puts forward its opinion about the industry to the government, IRDA, and other policy makers, problems existing in the industry, and cooperation needed. It also deliberates on necessity for level playing field between life and non-life insurers in health portfolio, and adopting best global practices in health management.

6.7 DE-TARIFFING IN GENERAL INSURANCE

Before taking up the issue of de-tariffing, it may be prudent to understand the meaning of 'tariffs'. Tariffs are the documents that prescribe the rates as well as policy coverage and conditions pertaining to a class of insurance.

Considering the ill-effects of tariffs in non-life insurance, the government in the first phase, decided to abolish price restrictions from all tariff classes of business, viz. motor, engineering, fire, and workman's compensation with effect from January 2007. However, uniform pricing continued third party motor risks for which a pool was created to be managed by the GIG. In other words, insurers were permitted to rate the risk as per their own perception and experience instead of following the rate fixed by the TAG.

De-tariffing has brought tremendous effects on insurers, and insured. It opened up the price war among the insurers and consequently, the premium rates for profitable classes of business, viz. fire, and engineering have fallen substantially. Currently, the discount rates on the tariffs have been 50% to 80% for these classes of business. This development has been a boon in disguise for the policy holders or insured, particularly the industrial customers. Naturally, the total expenditure on insurance premium of their assets has been drastically reduced. On the other hand, this has resulted in a lower margin for insurers and consequently lower commissions for the intermediaries. The insurers started feeling the heat of reduced price cushions reflected in bottom lines of their financial statements. As a result, claims servicing has come under pressure. Price de-tariffing has also opened up opportunities for public sector insurance companies to do their best in increasing profitability. These entities have substantial reserves and can absorb high risks at a relatively cheaper premium. Therefore, many corporate clients have now shifted back to the public sector insurers from the private sector.

The second phase of de-tariffing was related to liberalising insurance policy wordings. The previous tariffs, in addition to specifying the premium rates, also specified the coverage, exclusions, and conditions for each product. IRDA indicated that the full de-tariffing in regard to price and policy wordings would be effected since April, 2008. It was an important move by IRDA in the sense that henceforward, the insurers would have their own discretion to charge the price as well as to customise their products with own policy wordings as requirements of clients.

6.8 INVESTMENTS OF NON-LIFE INSURERS

It is the responsibility of insurers to invest the money received from the policy holders as premiums in judicial manner in order to ensure liquidity, safety and yield. Income received from investments is one of the main factors in the calculation of premium rates. It also compensates underwriting losses.

Every insurer in general insurance business is obliged to submit its investment policy to the IRDA before commencement of the accounting year. IRDA has specified the manner in which the general insurers and reinsurers have to invest at all times in the total assets/instruments. The investments in assets/instruments shall be rated by an independent recognised rating agency. Let us see the pattern of investment prescribed by IRDA for the non-life insurers and reinsurers given in Table 6.1

TABLE 6.1 Pattern of Investments Prescribed by IRDA for General Insurers and Reinsurers

Sl. No.	Types of Investment	In Percentage
1.	Centgral Governments securities	No less that 20%
2.	State Government securities and Other guaranteed securites (Including 1 above)	Not less than 30%
3.	Housing and Loans to the State Governments for Housing and Fire-fighting equipment	Not less that 5%
4.	Investments in Approved instruments	
	(a) Infrastructure and Social sector	Not less that 10%
	(b) Others (to be governed by exposure norms)	Not exceeding 55%

Note : *Investments other than in approved investments in no case shall exceed 25% of the assets.
Source : IRDA

Having seen the pattern of investment specified by IRDA, let us examine the investments made by the non-life insurers over the years, as shown in Table 6.2.

TABLE 6.2 Investments of Non-life Insurers—Fund wise (Period: 2004-05 to 2008-09)

Sl. No.	Pattern of Investments Years	2004-05		2005-06		2006-07		2007-08		2008-09	
		Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)

1.	Other approved securities (including Government Securities)	14,964	40	14,740	40	18,866	37	20,187	36	20,668	35
	Of which Central Government securities	10,366	28	11,670	28	13,231	26	14,054	25	14,591	25
2.	Housing and Fire fighting equipment	2,647	7	3,107	7	3,742	7	3,891	7	4,244	7
3.	Infrastructure and Social sector	4,389	12	4,980	12	6,102	12	7,660	14	8,980	15
4.	Investments subject to exposure norms	15,410	41	17,492	41	21,671	43	24,543	44	25,002	42
5.	Other than approved instruments	4,025	11	4,078	10	3,884	8	4,342	8	3,971	7

Note: % means % of funds.

AIC of India has not been included. *Source:* IRDA Annual Reports.

It may be observed from Table 6.2 that the share of investments in government securities and investments subject to exposure norms constituted around 80% of the total investments for general insurance companies in India during the period 2004—05 to 2008—09. In fact, investment in government securities has been marginally reduced from 28% in 2004-05 to 25% in 2008-09. Investments in housing and fire-fighting equipment as well as investments subject to exposure norms have remained constant throughout these years. Infrastructure and social sector investments have increased from 12% in 2004-05 to 15% in 2008-09.

6.9 IRDA'S EXPOSURE/PRUDENTIAL NORMS

IRDA has specified the exposure/prudential norms in regard to investment. Every insurer shall limit its investment on the basis of following exposure norms:

Social sector: For the financial year 2007—08, the average of the number of lives covered by the respective insurer in the social sector from the financial years 2002-03 to 2004-05 or 5.50 lakh lives, whichever is higher. For the financial year 2008—09, the obligations of the existing insurers shall increase by 10% over the number of persons prescribed for the financial year 2007—08. For the financial year 2009—10, the obligations of the existing insurers shall increase by 10% over the number of persons prescribed for the financial year 2008-09.

6.10 SOLVENCY MARGINS OF NON-LIFE INSURERS

Solvency margin is an amount in excess of the value of insurer's assets over the amount of liabilities. Solvency margin has been prescribed by IRDA in order to ensure that the insurance companies are able to discharge their liabilities to the clients in adequate measures in time. This margin can be explained as the ratio of free capital to the total business done by an insurance company. When the solvency margin of an insurer declines, the regulator can ask the company to infuse additional capital.

Every general insurer is required to maintain a minimum solvency margin calculated as follows:

(a) 50 crore (₹ 100 crore in the case of a reinsurer), or (b) A sum equivalent to 20% of net premium income, or (c) A sum equivalent to 30% of net claims incurred, whichever is the highest, subject to credit for reinsurance in computing net premiums and net incurred claims.

At the time of registration, all new insurers are required to maintain a solvency ratio of 1.5 times the normal requirements. Let us look now at the solvency ratios (See, Table 6.3) maintained by the Indian non-life insurance companies over the years.

TABLE 6.3 Solvency Ratios Maintained by the Indian Non-life Insurance Companies (Period 2005-06 to 2008-09)

Sl. No.	Insurance	2005-06	2006-07	2007-08	2008-09
Private Insurance					
1.	Bajaj Allianz	1.22	1.56	1.55	1.62
2.	Bharti AXA	NA	NA	NA	2.11

Sl. No.	Insurance	2005-06	2006-07	2007-08	2008-09
3.	Cholamandalam	2.51	2.63	2.00	1.02
4.	Future Generali	NA	NA	2.61	1.83
5.	HDFC ERGO	1.78	1.69	2.02	2.48
6.	ICIC Lombard	1.29	2.08	2.03	2.03
7.	IFFCO Tokyo	1.95	1.70	1.51	1.77
8.	Reliance	3.04	1.95	1.64	1.59
9.	Royal Sundaram	1.66	1.64	1.59	1.64
10.	Shriram	NA	NA	NA	1.94
11.	Tata AIG	1.68	1.85	1.91	1.97
12.	Universal Sompo	NA	NA	4.68	4.23
Public Insurance					
13.	New India	3.09	3.57	4.00	3.41
14.	United India	2.23	3.00	3.24	3.32
15.	Oriental Insurance	1.97	2.17	1.91	1.66
16.	National Insurance	1.08	1.76	2.22	1.56
Specialised Insurers					
17.	ECGC	9.39	11.41	18.90	16.42
18.	Star Health	NA	1.91	1.97	1.38
19.	Apollo DKV	NA	NA	1.39	1.82
20.	AIC	2.16	2.05	3.27	4.58
21.	GIC	3.41	4.10	3.36	3.67

Note : NA : Not Appliable

Source: IRDA, Annual Reports

It may be observed from Table 6.3 that all general insurers except Star Health and Cholamandalam complied with the prescribed solvency ratio of 1.5 in the year 2008-09.

6.11 PERFORMANCE OF NON-LIFE INSURANCE COMPANIES

As mentioned before, there are 23 companies in the business of non-life insurance, of which 17 companies are in private sector and 6 companies are in public sector. Out of 6 public sector companies, 4 companies, viz. New India Assurance, United India insurance, Oriental Insurance and National Insurance as well as 2 private sector companies, viz. ICICI Lombard, and Bajaj Allianz are the dominant players, representing more than 90% of the non-life insurance market.

Let us, at this stage, examine the volume of policies issued by non-life insurers over the years to understand the volume of business in terms of policies issued by these insurers, from the statistics provided in Table 6.4.

TABLE 6.4 Statement Showing Policies Issued by Non-life Insurers (Period: 2002-03 to 2008-09)

Insurers	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
Public Sector							
Number	4,18,85,005	3,84,27,204	4,46,34,047	4,21,93,079	3,39,72,092	3,85,47,040	4,51,37,181
(%)	(96)	(–8)	(16)	(–5)	(–19)	(13)	(17)
Private Sector							
Number	16,76,907	32,98,827	51,44,755	89,47,516	1,26,92,053	1,87,03,219	2,19,22,906
(%)	(4)	(97)	(56)	(74)	(42)	(47)	(17)
Total Number	**4,35,61,912**	**4,17,26,031**	**4,97,78,802**	**5,11,40,595**	**4,66,64,145**	**5,72,50,259**	**6,70,60,087**
(%)		(–4)	(19)	(3)	(–9)	(23)	(17)

It may be observed from Table 6.4 that the total number of policies issued by all general insurance companies has increased from 4,35,61,912 in 2002—03 to 6,70,60,087 in 2008—09. It is also observed that the volume of business in terms of policies issued in private sector has increased substantially over the years as compared to the public sector.

At this juncture, let us examine the gross premiums underwritten by non-life insurers both within and outside India over the years from the statistics given in Table 6.5.

TABLE 6.5 Gross Direct Premiums Underwritten by Non-life Insurers (within and outside India) (Period:2001-02 to 2008-09) (? in crore)

Insurers	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
Public Sector	10,491.88	11,917.59	13,520.44	14,284.65	14,948.82	15,976.44	17,283.45	17,813.71	19,107.31
(%)		(13.6)	(13.4)	(5.7)	(4.7)	(6.9)	(8.2)	(3.1)	(7.3)
Private Sector	7.14	467.65	1,349.81	2,257.84	3,507.63	5,362.66	8,646.57	1,0991.89	1,2321.09
(%)		(6,454.0)	(188.6)	(67.3)	(55.4)	(52.9)	(61.2)	(27.1)	(12.1)
Total	**10,499.02**	**12,385.24**	**14,870.25**	**16,542.49**	**18,456.45**	**21,339.10**	**25,930.02**	**28,805.60**	**31,428.40**
(%)		(18.0)	(20.1)	(11.2)	(11.6)	(15.6)	(21.5)	(11.1)	(9.1)
Specialised Institutions									
Credit Insurance									
ECGC	—	338.52	374.78	445.48	515.55	577.33	617.66	668.37	744.67
(%)			(10.7)	(18.9)	(15.7)	(12.0)	(7.0)	(8.2)	(11.4)
Health Insurance									
Star Health	—	—	—	—	—	—	22.51	168.19	509.86
(%)								(647.2)	(203.1)
Apollo DKV	—	—	—	—	—	—	—	2.98	48.14
(%)									(1515.4)
Total							**22.51**	**171.17**	**558.00**
(%)								(660.4)	(226.0)
Agricultural Insurance									
AIC	—	—	—	369.21	549.72	555.83	564.67	835.11	833.44
(%)					(48.9)	(1.1)	(1.6)	(47.9)	(–0.2)

It may be observed from Table 6.8 that the gross direct premium of general insurance companies have increased significantly from ? 10,499.02 crore in 2000—01 to ? 31,428.40 crore in 2008-09, i.e. a growth of about 200% from 2000-01 to 2008-09. The growth rate of the private general insurers has been much higher than the growth

rate of public sector general insurers. In the year 2008-09, the non-life insurers have underwritten a premium of ? 31,428.40 crore recording a growth of 9.1% over previous year 2007-08. The private non-life insurers have underwritten a premium of ? 12,321.09 crore and recorded a growth of 12.1% over 2007-08, whereas public sector non-life insurers have underwritten a premium of ? 19,107.31 crore and recorded a growth of 7.3% over 2007-08.

Let us also examine critically the segment-wise premium underwritten within India by non-life insurers from the statistics given in Table 6.6.

TABLE 6.6 Segment-wise Premium Underwritten within India by Non-life Insurers (Period 2001-02 to 2008-09) (? in crore)

Department	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
Fire	2,929	3,268	3,150	3,331	3,774	4,132	3,459	3,383
(%)	(23.0)	(21.5)	(20.2)	(19.1)	(18.5)	(16.6)	(12.4)	(11.1)
Marine	8,704	10,704	1,118	1,228	1,284	1,628	1,799	1,957
(%)	(68.4)	(70.2)	(7.2)	(7.0)	(6.3)	(6.5)	(6.5)	(6.5)
Misc.	1,090	1,264	11,327	12,922	15,301	19,146	22,565	25,012
(%)	(8.6)	(8.3)	(72.6)	(73.9)	(75.2)	(76.9)	(81.1)	(82.4)
Total Premium	**12,723**	**15,236**	**15,595**	**17,481**	**20,359**	**24,905**	**27,823**	**30,352**
(%)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Note: % in bracket indicates the percentage of the respective segment.

Misc. includes motor, health, and other business. *Source:* IRDA, Annual Reports.

It may be observed from Table 6.6 that the total premium underwritten within India by non—life insurance companies has increased substantially over the years from ? 12,723 crore in 2001-02 to ? 30,352 crore in 2008-09, i.e. a growth of 138%. On further analysis, it is observed that while premiums written for fire and marine insurance segments have declined, the miscellaneous insurance particularly motor insurance business have shown maximum growth in writing premiums over the years. At present, motor insurance business is the largest general insurance segment representing a share of 45% in the total non-life premium.

Let us now examine the aspects of underwriting experience and profitability of the general insurance companies both in public sector as well as in private sector. To start with, let us discuss the underwriting experience and profitability of the public sector non-life insurance companies in India from the statistics provided in Table 6.7.

TABLE 6.7 Statement Showing Underwriting Experience and Profits Earned by Public Sector Non-life Insurance Companies (Period: 2001-02 to 2008-09) (? in Lakhs)

Particulars	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
(A) Net Premium	8,74,492	9,63,813	10,32,800	11,11,795	11,75,197	13,01,640	13,86,159	15,89,946
(B) Incurred Claims (net)	7,88,900	7,69,114	8,25,330	9,07,539	10,56,985	10,53,875	12,12,481	13,63,778
(%)	(90.2)	(79.8)	(79.9)	(81.6)	(89.9)	(81.0)	(87.5)	(85.8)
(C) Commission, Mgt. exp.	2,59,167	2,97,461	4,05,154	4,22,112	4,70,113	4,27,906	4,58,406	5,52,669
(%)	(29.6)	(30.9)	(39.2)	(38.0)	(40.0)	(32.9)	(33.1)	(34.8)
(D) Increase in Reserve for unexpired risk	27,555	40,962	24,164	40,082	31,763	64,971	45,331	96,189
(%)	(3.1)	(4.3)	(2.3)	(3.6)	(2.7)	(5.0)	(3.3)	(6.0)
(E) Underwriting Profit/(Loss)								
(E)=(A)–(B+C+D)	(2,01,130)	(1,43,724)	(2,21,848)	(2,57,938)	(3,83,664)	(2,45,112)	(3,30,059)	(4,22,690)
(%)	(–23.0)	(–14.9)	(–21.5)	(–23.2)	(–33.6)	(–19.8)	(–24.6)	(–28.3)
(F) Gross Investment Income	2,18,848	2,51,988	3,81,820	4,33,018	5,61,062	5,78,423	6,24,751	4,79,916
(G) Other Income less Other outgo	(31,173)	(24,088)	(3,113)	(2,169)	(19,112)	(11,337)	(15,292)	592
(H) Profit before Tax								
(H) = (F+G)–(E)	(13,455)	84,176	1,56,859	1,72,911	1,58,286	3,21,974	2,79,400	57,818
(I) Income tax deducted at source and provision for tax	7,015	21,660	21,027	55,751	26,358	31,238	58,852	7,985
(J) **Net Profit after Tax** (J) = (H) – (I)	**(20,470)**	**62,516**	**1,35,832**	**1,17,160**	**1,31,928**	**2,90,736**	**2,20,548**	**49,833**

Note: Figure in bracket represents negative value. *Source:* IRDA, Annual Reports

It may be observed from Table 6.7 that the net profit after tax of the public sector non-life insurers has been fluctuating over the years. From a net loss of ? 20,470 crore in 2001-02 the net profit has been ? 49,833 crore in 2008-09. It is observed that around 80 to 90% of the premium income is spent for meeting expenditure on incurred claims. Taking into account commission, management expenses, and increase in reserves for unexpired risks, there have been underwriting losses which have increased from ? 2,01,130 crore to ? 4,22,690 crore during the periods 2001-02 to 2008-09. It is mainly the gross investment income which has contributed towards net profit of these companies.

The performance in terms of underwriting experience and profits earned by the private sector non-life insurance companies in India from the statistics are provided in Table 6.8.

TABLE 6.8 Statement Showing Underwriting Experience and Profits Earned by Private Sector Non-life Insurance Companies (Period: 2001-02 to 2008-09) (? in Lakhs)

Particulars	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
(A) Net Premium	18,333	56,145	1,06,603	1,78,202	2,84,226	4,67,316	7,15,871	8,51,199
(B) Incurred Claims (net)	4,224	29,225	54,336	91,173	1,54,822	2,50,289	4,24,631	6,07,967
(%)	(23.0)	(52.0)	(51.0)	(51.2)	(54.5)	(53.6)	(59.3)	(71.4)
(C) Commission, Mgt. Exp.	12,725	19,765	29,617	48,687	77,740	1,28,337	2,23,178	2,92,694
(%)	(69.4)	(35.2)	(27.8)	(27.3)	(27.4)	(27.5)	(31.2)	(34.4)
(D) Increase in Reserve for Unexpired Risk	14,140	16,987	29,023	38,092	56,651	99,333	1,27,952	60,459
(%)	(77.1)	(30.3)	(27.2)	(21.4)	(19.9)	(21.3)	(17.9)	(7.1)
(E) Underwriting Profit/(Loss)								
(E)=(A)–(B+C+D)	(12,756)	(9,832)	(6,373)	250	(4,987)	(10,643)	(59,890)	(1,09,921)
(%)	(–69.6)	(–17.5)	(–6.0)	(0.1)	(–2.2)	(–2.9)	(–10.2)	(–13.9)
(F) Gross Investment Income	6,747	11,694	15,432	18,442	26,947	41,505	74,205	1,09,120
(G) Other Income Less Other Outgo	(730)	54	(494)	(682)	123	975	1204	(4,109)
(H) Profit before Tax								
(H) = (F + G) – (E)	(6,739)	1,916	8,565	18,010	22,083	31,837	15,519	(4,910)
(I) Income Tax Deducted at Source and Provision for Tax	563	1,241	1,861	5,820	6,645	8,863	11,136	5,216
(J) Net Profit after Tax (J) = (H) – (I)	**(6,176)**	**675**	**6,704**	**12,190**	**15,438**	**22,974**	**4,383**	**(10,126)**

Note: Figure in bracket represents negative value. *Source:* IRDA, Annual Reports.

It has been observed from Table 6.8, that the net losses of the private sector non-life insurers has increased from ? 6,176 crore in 2001-02 to ? 10,126 crore in 2008-09. It is also observed that almost 72% of the premium income has been spent in meeting incurred claims. However, underwriting loss has been reduced from 70% in 2001-02 to around 14% in 2008-09. Although, gross investment income has increased from year to year, but it was not enough to mitigate the losses.

There is no denying the fact that competition has increased significantly among the non-life insurers over the years, for which the net profits/losses have been put under pressure. In order to sustain pressure of the market and profitability, the Indian general insurers have set up joint ventures with foreign insurance companies and introduced new innovative products. They are focusing on retail business in rural areas with rural sector products. For example, ICICI Lombard in association with the World Bank and a micro finance institution, viz. Basix has introduced a newly designed product called 'weather insurance' for the protection of Indian farmers against losses arising out of vagaries of weather relating to monsoon, humidity, or temperature. It is also easy for the insurer to transfer the risk to international financial markets through reinsurance.

All public sector general insurance companies have also shown fair results over the years. They have set up General Insurance Public Sector Association (GIPSA) to give advice for expansion of market.

6.12 HEALTH INSURANCE

The total health expenditure in India is abysmally low as compared to other developed and developing nations

in the world. India spends only 4.8% of GDP on health, out of which the public health expenditure is 1.2% of GDP and private health expenditure is 3.6% of GDP. On the contrary, the country like India has fallen into various communicable and non-communicable diseases due to very many reasons. In India, the health care costs have escalated so high that it has become difficult even for the urban middle class families to have an access to quality health care at reason cost. With this low spending of the government on health care, health insurance has become an alternative way to finance health care.

Health insurance in India has grown from ? 1,000 crore in 2002-03 to over ? 6,600 crore in 2008-09, i.e. a growth of 560% in all these years. The average premium per insured person has been ? 1,200 and the average claim size also has been the same amount. Both life as well as non-life insurers registered with IRDA are entitled to transact health insurance business. In fact, the IRDA has encouraged both types of insurance companies to introduce rider policies offering health cover. Riders are add-on benefits attached to the main life policy at a nominal price. The life insurance companies have no cap on health riders as per IRDA directive in order to attract players to health insurance.

The general insurance industry has also taken initiative in standardising a uniform definition of "pre-existing diseases" and its "exclusion" wording. With effect from June 2008, the uniform definition has come into effect in order to ensure clarity of insured's understanding in policy wordings and also to assist in comparing health insurance products offered by insurers.

In India, Star Health and Allied Insurance Company is the first company on health insurance that offers health insurance as a standalone product. It has a capital base of ? 105 crore. It has reinsurance arrangement with GIG and has a non-life insurance licence. Apollo DKV Insurance Company is the new entrant in the business of health insurance. Both these companies are entitled to carry on general insurance business to underwrite exclusively in the health, personal accident, and travel insurance segment.

6.13 TYPES OF HEALTH INSURANCE POLICIES

Health insurance policies in India can be classified in two groups, viz. (i) Indemnity-based policies such as, (a) mediclaim, (b) health guard, healthwise, etc. and (ii) Benefit type policies such as, (a) daily allowance, (b) hospital cash, (c) critical illness (standalone), or (d) as a rider with life insurance policy.

Indemnity-based policies provide for reimbursement of expenses incurred for hospitalisation necessitated by a covered diseases, illness, or injury. *Benefit type policies* provide for lumpsum payment on happening of an event insured against by the policy.

In India following types of policies are in vogue:

(1) Standard health insurance policy, (2) Reimbursement and cashless policy, (3) Floater policy, (4) Group mediclaim policy, (5) Cancer medical expenses insurance policy, (6) Health riders with life insurance, and (7) Other health insurance policies, viz. (a) Hospital cash policy, (b) Critical illness policy, (c) Jan arogya bima policy, (d) Community-based universal health insurance scheme, (e) Nagrik suraksha policy, (f) Personal accident policy, and (g) Overseas medical insurance policy.

Let us discuss these policies individually in some detail.

6.13.1 Standard *Health Insurance Policy*

The standard health policy provides cover against the risk of hospitalisation. The operative clause of this policy offers to indemnify the insured against hospitalisation expenses incurred by the insured at a hospital or nursing home on the advice of a duly qualified medical practitioner on account of illness, diseases, injury, etc. caused during the policy period.

6.13.2 Reimbursement and Cashless Policy

Reimbursement policy is the conventional method of indemnification in all non-life insurance policies. Here, the insured initially bear all expenses which is reimbursed later on by the insurance company, provided the claim is admissible as per the policy. Preliminary notice of claim has to be given by the insured to the insurance company within 7 days from the date of hospitalisation. The notice of claim shall provide particulars, viz. (a) policy number, (b) name of the insured in respect of whom claim has been made, (c) nature of illness/injury, and (d) name and address of attending medical practitioner/hospital/nursing home.

Since the reimbursement claim defeats the very purpose of insurance that is to provide financial support at the time of peril, the insurance companies have introduced an innovative concept called *cashless system* in the mediclaim policy. This system which is in vogue in many western countries has been introduced also in India

after opening up of insurance sector for private insurance companies. Cashless system of hospitalisation is an innovative concept in this country which permits a policy holder to avail of medical treatment at any of the network and listed hospitals of the insurer without any payment of cash. The insurers have a panel of Third Party Administrators (TPAs) who typically offer services in different cities. The TPAs are the contact parties for settlement of claims. They facilitate smooth operation of health cover by way of functioning as link among the insurance companies, their clients and the hospitals. They enable cashless payment of claims to the insured in which they settle claims with the hospitals. The hospital bills are paid by TPA directly to the hospital, and thereby provide a relief to the insured from the trouble of arranging funds for hospitalisation.

6.13.3 Floater Policy

This policy provides for a common sum insured for the entire family. The sum insured or the amount covered can be used for the principal insured or together for the family members. It implies that the entire family can claim up to the sum insured during the policy period. Technically speaking, this policy recognises the family as a single exposure unit as against the individual family members. Moreover, the premium chargeable for a family floater policy is much less as compared to a standard health insurance policy. More families nowadays prefer to take family floater policy due to reduced premium.

6.13.4 Group Mediclaim *Policy*

The group mediclaim policy is available to any group or association or institution, corporate body provided it has a central point of administration and subject to a minimum number of persons to be covered by this policy. This policy offers the same coverage as available in the individual mediclaim policy, but with the difference, that, in this policy, cumulative bonus and health checkup expenses are not payable. Group discount in premium is however, available. Renewal premium is subject to bonus clause and the maternity benefit is available at extra premium.

6.13.5 Cancer Medical Expenses Insurance Policy

Two types of policies are available to cover medical expenses for treatment of cancer. One such policy is available to the members of Indian Cancer Society and another one for the members of Cancer Patients Aids Association.

6.13.6 Health Riders with Life Insurance

The IRDA has encouraged both life as well as non-life insurance companies to introduce rider policies offering health cover. Riders are add-on benefits attached to the main policy. The salient features of health riders with life insurance policies are as follows:

The rider is added to a life policy in order to protect the insured in case of critical illness. The extra cover is equal to the sum assured on the base policy and is paid on diagnosis of the illness. It is renewable up to the age of 65 years, without any medical examination. The premium is increased once in every 5 years. The illness covered and the premiums vary among insurers. Most of the insurers cover cancer, coronary artery bypass, heart attack, kidney/renal failure, major organ transplant and paralytic stroke under health riders. Generally, the insurers do not terminate the base policy when a claim is made on the rider. The sum of insurance under a critical insurance policy is required to be selected by the insured from among 4 levels, viz. ? 5 lakh, ? 10 lakh, ? 20 lakh, and ? 25 lakh. The premium paid for the rider qualifies for deduction of tax under Section SOD of the Income Tax Act.

6.13.7 Other Health Insurance Policies

The health insurance products provide only for the expenses incurred due to disease, injury or illness covered under the policy. The cover however, excludes pre-existing diseases and conditions, and limit or restrict the cover for payment of pre-hospitalisation expenses up to 30 days and post-hospitalisation expenses up to 60 days. Even congenital diseases are excluded from the scope of the cover. In order to reduce the gap in expectations of the insured, there are very many other health insurance covers offered by the insurers. We shall mention some of such health insurance policies now.

1. **Hospital Cash Policy:** The policy provides cover against additional expenses such as, transport, board and lodging, hiring of personal attendant, etc. It provides for cash allowance ranging from ? 500 to ? 5,000 per day in case of hospitalisation on account of disease, injury, or illness suffered by the insured. For the purpose of the policy, hospitalisation means a continuous stay in the hospital as an in-patient for 24 hours. Some policies have the provisions for paying twice the daily limit per day in case of admission in ICU or ICCU for a period not exceeding 7 days. This policy can be taken for covering entire family, i.e. the proposer, spouse and dependent children in the age bracket of 3 months up to 21 years.
2. **Critical Illness Policy:** Critical illness policy provides for a lumpsum payment against the listed diseases. The

number of diseases covered varies as per the market. Depending on the type of policy the number of diseases covered may vary from 5 to 35 in the policies.

Besides, there are disease specific policies, viz. (a) cancer insurance, (b) diabetes insurance, etc. available in the market. The basic critical illness policy covers the listed diseases such as: (i) cancer, (ii) coronary artery bypass surgery, (iii) first heart attack, (iv) kidney failure, (v) major organ transplant, and (vi) stroke. The critical illness policy can be taken either on standalone basis or as a rider to the life insurance policy. The standalone critical illness policy is a one year policy, whereas a rider to the life insurance policy is a long-term policy.

3. **Jan Arogya Bima Policy:** The general insurance companies introduced jan arogya bima policy in the year 1998. It is a lower version of mediclaim policy. The terms, conditions, and exclusions of this policy is similar to the mediclaim policy. The policy however, does not provide for either the cumulative bonus or the free health checkup feature which are usually available in the mediclaim policy. The policy covers the individual or the entire family on the line of basic policy. The sum insured per person is limited to ? 5,000. There is no agency commission payable. Hence, the policy is generally sold through the NGOs, government agencies, self-help groups, etc. The premium charged for this policy is ? 70 per adult person and ? 50 per dependent son/ daughter up to the age of 25 years.

4. **Community-based Universal Health Insurance Scheme:** The community-based universal health insurance scheme was announced in the Union budget 2003—04. It provides health protection and good health services to the weaker sections of the society. The responsibility for implementation of this scheme has been given to the New India Assurance Company Ltd., a public sector insurance company.

   Under this scheme, a premium has been fixed in order to be entitled for reimbursement of medical expenses such as: (i) ? 1 per day for an individual, (ii) ? 1.50 per day for a family of 5 (including the first 3 children), and (iii) ? 2 per day for a family of 7 (including the first 3 children and dependent parents)

   The pattern of medical expenses reimbursement is as follows:

   (a) Up to ? 30,000 for hospitalisation; (b) Up to ? 25,000 for death due to accident; and (c) Compensation on account of loss of earnings @ ? 50 per day up to a maximum of 15 days, after a waiting period of 3 days. The government contributes ? 100 per year towards annual premium for the benefit of the family living below poverty line.

5. **Nagrik Suraksha Policy:** Nagrik suraksha policy is an accident insurance cover that provides compensation for injuries due to accident and/or reimbursement of expenses incurred in a hospital due to accidental injuries, subject to certain limits.

6. **Personal Accident Policy:** Personal accident policy provides compensation in case of death, or bodily injury to the insured, directly and exclusively due to accident, by way of external, visible and violent means. It is a 24 hours cover operating all over the world. It provides comprehensive cover of death, permanent disablement, and temporary total disablement. This policy is available in family package in which the proposer, spouse and dependent children are covered under a single policy. Group personal accident policy is also available for specified groups.

7. **Overseas Medical Insurance Policy:** Overseas medical insurance policy covers medical expenses of the insured while travelling abroad for business/holiday/study/ employment. The premium under this policy is payable in Rupees and claims are settled abroad in foreign currency.

6.14 TAX BENEFITS UNDER HEALTH INSURANCE POLICIES

Tax benefits are available to the insured in order to attract large number of people towards health insurance coverage. According to Section SOD of the Income Tax Act, medical cover premium is tax-deductible up to ? 15,000 for an insured below 65 years. An additional deduction up to ? 5,000 is available for a policy in the name of a senior citizen of 65 years of age or above if the premium is paid by him. Mediclaim policies attract tax-benefits also under Section SOD. Tax deduction is available if the premium is paid by cheque. Tax benefits are also available in case individuals pay for their parents and children who are dependent on them.

From the above discussion, it is clear that health insurance is one of the fastest growing segment in the non-life insurance industry in India. The premium from various health insurance products has grown from ? 675 crore in 2001—02 to more than ? 5,000 crore in 2007—08. There is huge potential for growth in health insurance market.

The claim ratio in India is around 6.4% which means that in a group of 1,000 health insured people, only 64 claims are lodged. Since, the health claims ratio is 100%, 6.4% of claimants take away 100% of the insured money. The

average claim size in Indian health insurance business is around ? 19,000. The claims ratio has increased from 83% in 2003-04 to 103% in 2008-09. The highest number of claims are lodged in the age bracket of 41 to 60 years.

6.15 REINSURANCE

Basically, reinsurance is nothing but an insurance of risks assumed by the primary insurer which is known as 'ceding company'. This risk is transferred to another insurer known as the 'reinsurer'. The ceding company can shift part or all the insurance originally written to the reinsurer. The amount of insurance retained by the ceding company for its own account is called 'retention'. So, retention is the amount of risk that the original insurer is prepared to take on its own account. The sum of insurance ceded to the reinsurer is called 'cession'. Reinsurance operates on the same basic principle as direct insurance, i.e. to spread sharing of risks as much as possible. The proportion of risk to be retained by the ceding company depends on certain factors such as: (a) ceding company's assets and investment income, (b) portfolio of the risks premium levels, (c) rate of inflation, and (d) market conditions for reinsurance, etc. The reinsurance business has tremendous importance in the whole insurance business particularly, at the time of war and natural calamities when the small insurance companies find it extremely difficult for them to undertake on their own full risk on account of their low capital base.

6.16 STRUCTURE AND TYPE OF REINSURANCE

The *structure of reinsurance* is explained in Figure 6.1

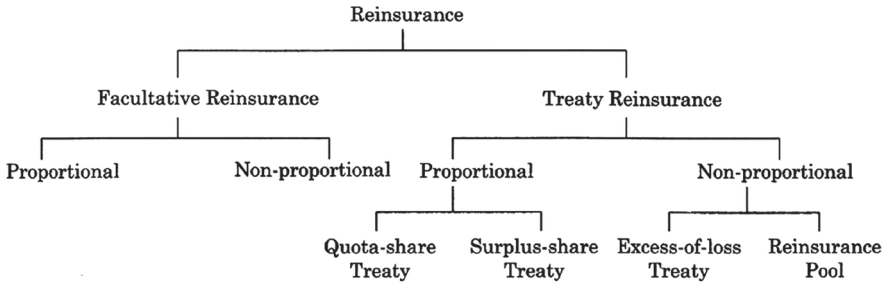


FIGURE 6.1 Structure of Reinsurance.

Two *types of reinsurance* in vogue are discussed hereunder.

6.16.1 Facultative Reinsurance

Facultative reinsurance is the reinsurance of large individual risks. It is the reinsurance in which the reinsurer can accept or reject any risk presented by the ceding company. It is not compulsory for the reinsurer to accept the cover. It has the discretion of rejecting any risk that it considers sub-standard. Therefore, the reinsurer retains its flexibility either to accept or reject each application for reinsurance.

On the other hand, the ceding company also has the discretion to retain any portion of the risk on its own account and the portion of the risk to be reinsured. Before underwriting any insurance, the ceding company determines whether reinsurance can be obtained. It then gets in touch with several reinsurers. After finding out a willing reinsurer, both ceding company and the reinsurer enter into a valid contract. It is the responsibility of the ceding company to disclose full information regarding the risk concerned in order to ensure valid performance of the contract from both sides. Generally, facultative reinsurance is exercised to cover large individual risks like, large departmental stores, car factories, pharmaceutical firms, etc.

6.16.2 Treaty Reinsurance

Treaty reinsurance is the reinsurance of specified types of risks which are automatically ceded and accepted. In this type of reinsurance, the ceding company is obliged to cede and the reinsurer is also obliged to accept an agreed share of all reinsurance specified in the contract. The ceding company need not search around for reinsurance before the policy is written. Therefore, it is also beneficial for the reinsurer as it is assured of a regular flow of business of reinsurance.

There are *four types* of reinsurance treaties. They are: (i) Quota-share treaty, (ii) Surplus-share treaty, (iii) Excess-of-loss treaty, and (iv) Reinsurance pool.

(i) Quota-share Treaty: In quota-share treaty, the ceding company and the reinsurer enters into an agreement

to share a fixed proportion of premium and losses. The ceding company retains on its account, a certain percentage of the risk specified in the agreement. This type of treaty is attractive to new insurers.

(ii) Surplus-share Treaty: In surplus-share treaty, the reinsurer agrees to accept insurance in excess of the retention with the ceding company up to certain maximum amount. The ceding company has the discretion in respect of retention. Generally, the ceding companies with financial standing can afford to have substantial retentions. The premiums and losses are shared between them on the basis of the portion of total insurance retained by the ceding company and the reinsurer.

(iv) Excess-of-loss Treaty: In excess-of-loss treaty, losses in excess of retention limit are covered by the reinsurer up to a certain maximum limit. It is an agreement in which all the claims made on local companies, above a certain limit, are reimbursed by the reinsurers. This type of treaty is beneficial for protection against catastrophic losses. Usually, at the beginning of every financial year, the non-life insurance companies are required to renew their excess-of-loss reinsurance treaties in the global market.

(v) Reinsurance Pool: The reinsurance pool is a pool of reinsurers who jointly underwrites insurance because it may be difficult for a single insurer alone to write large amounts of insurance. For example, huge exposure that arises in nuclear plant and the aviation cannot be underwritten by a single insurance company and a single reinsurer and hence, such types of risks are reinsured by a pool of reinsurers jointly.

Both facultative and treaty reinsurance may be of either proportional type or non-proportional type. In *proportional reinsurance,* the director insurer and the reinsurer share premiums and losses between them at a predetermined agreed ratio. The proportional treaty insurance provides the direct insurer a protection against major risk of random fluctuation, risk of change on account of trade cycle, new laws and regulations, social change, etc. *In non-proportional reinsurance,* there exists no contractual definite ratio for sharing of premiums and losses between the direct insurer and the reinsurer. The non-proportional treaty insurance provides the direct insurer a protection against catastrophic risk such as earthquake, flood as well as large marine and aviation accidents.

6.17 GENERAL INSURANCE CORPORATION OF INDIA (QIC)

It was mentioned earlier that the Central Government has nationalised general insurance business in 1972. In total, 107 insurers, including branches of foreign companies operating in India, were merged and grouped into 4 general insurance companies in the public sector, viz. National Insurance, New India Assurance, Oriental Insurance, and United India Assurance.

The General Insurance Corporation of India (GIG) was incorporated as a holding company of the above 4 insurance companies in November 1972. The capital of GIC has been subscribed by the Central Government, and in turn, the capital of these 4 companies has been subscribed by GIC. GIC started its operation with effect from January 1973.

In November 2000, the Central Government notified the GIC as the official 'Indian Reinsurer' under Section 101A of the Insurance Act, 1938. Accordingly, GIC has turned into a full reinsurer providing reinsurance to the direct general insurance companies in India. Initially, the IRDA prescribed that 20% of the gross premium would be ceded compulsorily to GIC as reinsurer, by all insurance companies. In 2008-09, 20% of the gross premium prescribed by IRDA was reduced to 10%. The main purpose was to retain maximum business in India as also to secure the best terms from foreign reinsurers through GIC for its own and for its subsidiary companies.

The main objectives of GIC are to (a) superintendent, control, and carry out the business of general insurance; (b) generate competition among the 4 subsidiary companies; and (c) write directly the Aviation (Hull and Liability) insurance of the national carriers Indian Airlines, and Air India, Hindustan Aeronautics Ltd, and International Airport Authority of India.

The functions of GIC as specified under the Act are:

(i) Carrying on of general insurance business, as deemed desirable; (ii) Aiding, assisting and advising the companies in regard to setting up of standard of conduct and sound practice in general insurance business and rendering efficient customer services; (iii) Advising the acquiring companies to control expenses including the payment of commission and other expenses; (iv) Advising the acquiring companies in regard to investment of funds; and (v) Issuing directions to acquiring companies in regard to the conduct of general insurance business.

6.18 MANAGEMENT AND ORGANISATION STRUCTURE OF GIC

The management structure of GIC is shown in Figure 6.2.

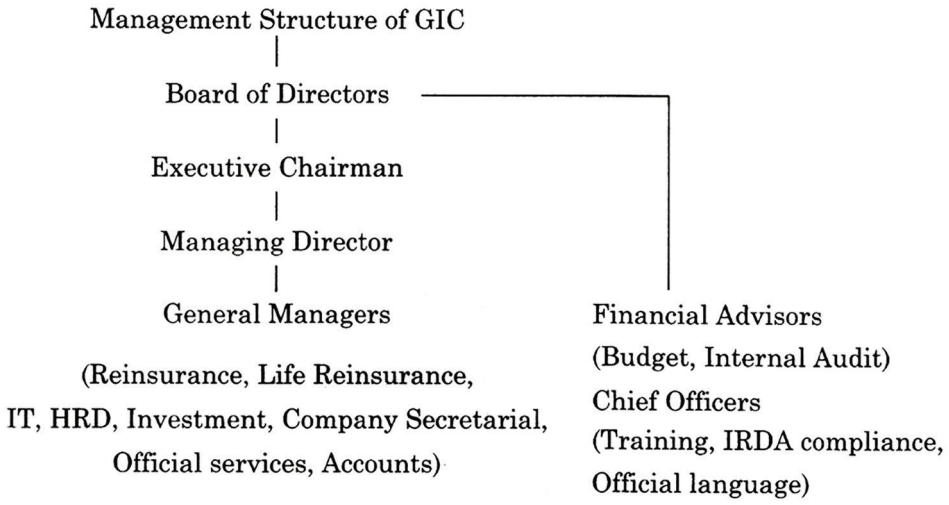


FIGURE 6.2 Management Structure of GIC.

The GIC has huge organisation structure with strong distribution network comprising regional offices, divisional offices, branch offices, and agents. The regional head office undertakes the job of underwriting, reinsurance, and investment functions. The divisional office consists of divisional manager, and development officers performing the task of training and development of agents. It procures business, underwrites new business, and settle claims. There are branch offices under the control of divisional offices which also procure business. The decision making is slow and administration expenditures are high due to existence of multi-layered distribution system in GIC.

GIC has opened a branch office in Dubai and several representative offices in London and Moscow for the purpose of enhancing foreign insurance business.

The income of GIC comes from the sources, viz. (a) Premiums accepted under obligatory cessions; (b) Inward reinsurance arrangements by the non-life insurers; and (c) Premiums on reinsurance accepted from the international market.

6.18.1 Operations and Performance of GIC

GIC as mentioned before has become a full reinsurer as it provides reinsurance to the direct general insurance companies in India. It administers on behalf of the government, the crop insurance scheme for areas and crops notified under it. It draws a reinsurance programme for the reinsurance industry every year and gets it cleared by the IRDA. It also underwrites inward reinsurance business from Afro-Asian countries, SAARC countries and Gulf countries. It manages marine hull pool and the terrorism pool on behalf of the Indian insurance industry. It also manages third party motor pool. It provides war cover, catastrophic peril cover, earthquake peril cover, marine cover and protection personal accident business, and oil and energy business. It provides assistance to the Indian insurance companies in terms of obligatory cessions, company-surplus treaties, market-surplus treaties, excess of loss protection to the direct insurers. It has diversified into life insurance business to avail of the opportunity in the Life insurance market. It has focused on marketing its reinsurance services in a competitive market.

The reinsurance market in India is estimated at ? 3,000 crore, of which GIG has 40% share. The domestic insurance companies reinsure the balance 60% through reinsurance brokers in the global market. GIG meets the requirements of industrial, manufacturing, commercial, services, household, and agricultural sectors through a wide range of products and grant them insurance coverage. It underwrites vast and diversified portfolios of general insurance. The largest domestic reinsurance clients of GIG include IOC, ONGC, Indian Airlines, and Air India. It has developed special package covers and group covers for individuals. It has also developed rural insurance and agricultural insurance schemes so that even the poor people can avail of the insurance cover at cheap cost. It has promoted personal insurance cover in the area of livestock, poultry, sericulture, horticulture, and personal accidents.

GIG has diversified its operation to provide life reinsurance since 2003-04. Treaties have been entered into with

both domestic and foreign insurers. Inward requests for reinsurance support have been received from Asian and African countries. As far as the foreign insurance business of GIG is concerned, about 25% of the total inward business of GIG is from the Middle-East, 30% from Asia, 15% each from Africa and Western Europe, and 12% from Mediterranean and Eastern Europe.

Let us now understand the growth of GIG and its subsidiaries in terms of gross direct premium as well as Investments made by them from the statistics given in Table 6.9.

TABLE 6.9 Growth of GIC and Its Subsidiaries in terms of Gross Direct Premium as well as Investments]

(Period: 2000-01 to 2006-07) (₹ in crore)

Year	*Gross Direct Premium*	*Investments*
2000–01	10,492	—
2001–02	11,917	25,498
2002–03	13,520	7,827
2003–04	14,284	9,837
2004–05	14,948	10,880
2005–06	15,976	12,529
2006–07	17,283	14,349

Source : IRDA Annual Reports.

It may be observed from Table 6.9 that the gross direct premium of GIG has been increasing continuously during the period 2000—01 to 2006—07. There has been a growth of about 65% in gross direct premium of GIG over these years.

GIG invests in units of UTI, equities of private and public sector enterprises, and approved government securities. GIG is also an active player in the secondary market for shares and government securities. As per IRDA guidelines, GIG is required to invest 45% of the total assets in sectors comprising investments in government securities, government guaranteed bonds, housing sector, infrastructure and social sector. The balance 55% may be invested in market subject to prudent and exposure norms. It is observed that share of investment in government sector by GIG in total investment has been fluctuating in the range of 32 to 45% during the period 1992 to 2004. Its investment in corporate sector has been the highest at around 44% of its total investments. However, it is observed from Table 6.9 that the total investment of GIG has come down over the period 2001—02 to 2006—07.

6.19 LIFE INSURANCE

Life insurance is defined as a contract between two parties, the assured and the assurer, whereby the latter (assurer), for consideration, promises to pay a certain sum of money to the former (assured) (or failing him/her, to the person entitled to receive the same) on the happening of the event insured against. Therefore, a life insurance contract provides for payment of an amount either on the date of maturity of the contract or at specified dates at periodical intervals or at untimely (premature) death. The insured shall pay premiums to the insurer periodically for operation and continuation of the policy.

There are various purposes for taking a life policy such as: (i) care for children and family, (ii) protection at times of disability, (iii) protection against death at young age, (iv) source of livelihood at old age, and (v) generation of wealth. Life insurance contract, being a long-term contract, provides a sense of security to the insured and his family members.

Life insurance provides enormous benefits to the people of the society such as, life insurance provides a source of income at the old age. It protects the insured's family against his untimely death and gives a secured income. It gives protection against disability and uncertain future adversities of life. It provides assistance in meeting some periodical financial needs like child's education, or daughter's marriage. It provides a means of compulsory savings. It improves the lifestyle of the insured and his family members. It provides tax-benefits under Section 80C of the Income Tax Act.

6.20 LIFE INSURANCE BUSINESS

There are two types of life insurance business, viz. (i) Individual life insurance business, and (ii) Group life insurance business.

Individual life insurance is classified into 3 main business segments, viz. (a) Individual regular business, (b) Single premium business, and (c) Individual pension business.

Group life insurance business is classified into 2 main business segments, viz. (a) Regular group insurance, and (b) Group gratuity and superannuation plans.

6.21 TYPES OF LIFE INSURANCE PRODUCTS

There are several types of life insurance policies as mentioned:

6.21.1 Endowment Policy

Under endowment policy or plan, insurance cover is available for a specified period or term. The sum assured is payable even if the assured dies during the tenure of the policy. The sum assured plus the bonus is payable on the date of maturity of the policy or in the event of death of the assured, whichever is earlier. The endowment policy is the most attractive and popular among all life policies all over the glove.

6.21.2 Money-back Policy

Under money-back policy, the sum assured is returned to the assured as lumpsum after fixed intervals of time specified in the policy. The assured receives a fixed sum of money at fixed intervals during the tenure of the policy. Money-back policy is also very popular in India.

Both endowment and money-back policies are the most expensive products.

6.21.3 Whole-life Policy

Whole-life policy covers risk for the whole life of the assured against death. It protects entire life of the policy holder. The assured pays premium all through his life and in the event of his death, the total money is given to the assured's family. This policy is not very popular in India as it does not take into account the increasing needs of the insured during his post-retirement periods. Besides, the cost of this policy is also higher.

6.21.4 Term Insurance Policy

Term insurance policy is like a whole-life policy, but it offers risk cover for specified periods. The policy premium is low as the sum assured is payable only if the policy holder dies within the term of the policy. If the policy holder survives, he is not entitled to any sum on maturity, irrespective of premium payments made by him. It is a lowest cost policy generally taken by the young people as a life cover or as a security of their family against a long-term outstanding loan. It is not a popular policy among investors as there is no maturity benefit available on survival until the end of the term. Nowadays, the life insurance companies offer money-back options, pension plans, and unit-linked insurance, with health insurance riders with premium collected either by way of lumpsum payment or by multiple installments.

6.21.5 Unit-linked Insurance Policy (ULJP)

Unit-linked Insurance Policies (ULIPs) are becoming increasingly popular in India. ULIPs are those policies where a part of the premium is charged for the risk cover and the rest is invested in select mutual funds as per the choice of the investor. The investors are given a choice of three categories of funds such as, a debt fund, an equity fund, and a balanced fund for investment and the return is linked to the performance of the fund. The choice of funds depends on the risk appetite of the investor as the risk has to be borne by him. The investor also bears charges such as, premium allocation charges, mortality charges, fund management charges, administration charges, surrender charges, fund switching charges and service tax.

ULIPs are more flexible and transparent as compared to the traditional life plans. ULIPs are sold both under the individual single premium and non-single premium segments. Insurance companies are required to declare NAV of various ULIPs on day-to-day basis.

Despite the increasing popularity of ULIPs, the policy holders suffer problems at times, mainly due to their ignorance about the complicated design of the policies, features, etc. Most of them are not even aware that the return would fall on account of high front loading charges in the initial 3/4 years of the policy if they exercise option to stop the payment of premium after a few years and they would get their money after deduction of all charges only after 5 years.

6.21.6 Group Insurance Policy

As mentioned earlier, the group insurance policies comprise regular group insurance and group gratuity and superannuation plans for corporates. Regular group insurance policies cover groups of people, viz. employees in a company. Generally, corporate houses purchase these policies to cover their employees. These types of policies have become popular because the cost of premium per employee is low. The group gratuity and superannuation plans are also taken by the corporates for their employees.

6.22 NEW ENTRANTS IN LIFE INSURANCE BUSINESS

The life insurance business in India is mainly dominated by a single public sector organisation called *Life Insurance of Corporation (LIC) of India*. However, the deregulation of insurance sector has enabled increase in the number of entrants in the life insurance market. At present, there are 22 new private sector players in this business, in addition to LIC being in the public sector.

It has been observed that among the private sector insurers, ICICI Prudential has emerged as the market leader. It has adopted the strategy of aggressive distribution, expanding the customer base, and detailed implementation of plans. Nevertheless, all new entrants have established themselves well and expanded their business across cities with their offices and agents. They have introduced a large number of new and innovative products.

As a natural consequence, the Life Insurance Corporation (LIC) of India which hitherto had enjoyed monopolistic position in the insurance market, faced a stiff competition from the new entrants. In fact, the competition has forced LIC to adopt new marketing strategies and alternative distribution channels.

In this connection, let us find out the position of LIC and private sector insurers in regard to their respective market share over the years from the statistics provided in Table 6.10.

TABLE 6.10 Market Share of Life Insurance Companies (Period: 2006-07 to 2008-09) (%)

Insurers	2006–07	2007–08	2008–09
Regular Premium			
LIC	65.89	47.77	38.77
Private Sector	34.11	52.23	61.23
Total	**100.00**	**100.00**	**100.00**
Single Premium			
LIC	86.96	86.99	90.44
Private Sector	13.04	13.01	9.56
Total	**100.00**	**100.00**	**100.00**
First Year Premium			
LIC	74.32	64.02	61.12
Private Sector	25.68	35.98	38.88
Total	**100.00**	**100.00**	**100.00**
Renewal Premium			
LIC	89.02	83.42	77.24
Private Sector	10.98	16.58	22.76
Total	**100.00**	**100.00**	**100.00**
Total Premium			
LIC	81.90	74.39	70.92
Private Sector	18.10	25.61	29.08
Total	**100.00**	**100.00**	**100.00**

Source: IRDA Annual Reports.

It may be observed from Table 6.10 that the private sector life insurance companies have already captured 29% of the total market share within a short span of time. They have been succeeded in building confidence and trust among the Indian investors. Main reasons for their success are (a) tailor-made design of the products, (b) smart pricing, and (c) huge risk management and fund management practices. On the contrary, the market share of LIC has come down rapidly from 81.90% in 2006—07 to 74.39% in 2007-08 to 70.92% in 2008-09. The main reason for downfall in the market share of LIC has been the poor collection of regular premium, followed by the first year premium and renewal premium.

6.23 INVESTMENT OF LIFE INSURANCE FUNDS

Life insurance funds come from the premium income of the insurance companies. These premiums are received in advance and are supposed to be judicious and prudently kept invested until these are required to pay claims and incur expenses. The income received from investment is paid by the insurance companies in terms of dividends to the policy holders, thereby reducing the cost of life insurance.

The life insurers are required to invest their life, pension and general annuity, group and unit-linked funds as per Regulation 3 of the IRDA (Investment) Regulations, 2000. These funds are to be invested in Central Government securities, state government securities, other approved securities, infrastructure, and social sector.

6.23.1 IRDA's *Directives on Pattern of Investment*

IRDA has stipulated the pattern of investments to be followed by the life insurance companies. Every insurer carrying on the business of life insurance shall invest and at all times keep invested its controlled fund (other than funds relating to pension and general annuity business and unit-linked life insurance business) in the manner presented in Table 6.11.

TABLE 6.11 IRDA's Pattern of Investment for Life Insurance Companies

	Type of Investment	*Percentage*
1.	Government securities	25
2.	Government securities or other approved securities (including (1) above)	Not less than 50
3.	Approved investments as specified in Schedule I	
	(a) Infrastructure and Social Sector	Not less than 15
	(b) Others to be governed by exposure norms (investments in 'other than approved investments' in no case can exceed 15% of the fund)	Not exceeding 35

Let us now analyse the investments made by the life insurers fund-wise, from the statistics provided in Table 6.12.

TABLE 6.12 Investments Made by the Life Insurance Companies—Fund-wise (Period: 2006-07 to 2008-09) (₹ in crore)

Year/Insurer	*Life Fund and Group Fund*	*Pension and General Annuity*	*Unit-linked Fund*	*Total*
2006–07				
LIC	4,53,440	69,508	36,252	5,59,200
Private Sector	12,115	2,066	30,798	44,979
Total	**4,65,555**	**71,574**	**67,050**	**6,04,179**
(%)	**(77.05)**	**(11.85)**	**(11.10)**	**(100.00)**
2007–08				
LIC	5,22,985	87,744	67,674	6,78,403
Private Sector	18,645	3,518	65,404	87,567
Total	**5,41,630**	**91,262**	**1,33,078**	**7,65,970**
(%)	**(70.71)**	**(11.92)**	**(17.37)**	**(100.00)**
2008–09				
LIC	6,06,487	1,07,135	85,972	7,99,594
Private Sector	23,163	6,817	86,792	1,16,772
Total	**6,29,650**	**1,13,952**	**1,72,764**	**9,16,366**
(%)	**(68.71)**	**(12.44)**	**(18.85)**	**(100.00)**

Note: Figure in brackets represents percentage of respective funds to the total funds.
Source: IRDA, Annual Reports.

It may be observed from Table 6.12 that the total investments have increased over the years from 2006-07 to 2008-09. The percentage-wise investment in life fund has been low over these years whereas it is opposite in case of investments in pension and general annuity and group fund as well as unit-linked fund. The total investible funds of life insurance sector stood at ? 9,16,365 crore at the end of March 2009 accounting for about 20% growth over the previous year. Among all the insurers, the LIC has been the largest contributor in all these years representing 92% (2006-07), 89% (2007-08), and 87% (2008-09) of the total investible funds. The private sector share of investible funds has also increased quite substantially over all these years.

6.23.2 Solvency Margins of Life Insurers

Every life insurer is required to maintain solvency ratio as mandated by the Regulations. Solvency ratio is defined as the ratio of available solvency margin to the required solvency margin. The life insurer shall maintain solvency margin calculated in the following manner:

(a) An excess of value of its assets over the amount of its liabilities of not less than ? 50 crore (? 100 crore in the case of a reinsurer); or (b) A sum equivalent based on a prescribed formula as determined by regulations not exceeding 5% of the mathematical reserves, and (c) A percentage not more than 1% of the sum at risk for the policies on which the sum at risk is not negative, whichever is the highest. In addition, at the time of registration, all new insurers are required to maintain a solvency ratio of 1.5 times the normal requirements.

It may be mentioned here that all life insurance companies have complied with the stipulated solvency ratio of 1.5 in the year 2008-09.

6.23.3 Life Insurance Council of India

Life insurance council of India is an industry body of the registered life insurance companies in India. It was established in the year 2004 as per Section 64C of the Insurance Act, under the aegis of the IRDA in order to put forward common issues and concerns of life insurance to the IRDA and the Central Government. All registered life insurers are the members of this council. The council consists of two nominees from IRDA, one of whom is the chairman of the council. The secretary general functions as the chief executive of the council. The council so far has taken up many issues like income tax, service tax, management expenses, rules and regulations of market conduct, research, etc. It has also set up a new entity known as Mortality and Morbidity Investigation Bureau (MMIB) for efficient data management.

6.23.4 Life Insurance Self-Regulation Standards of Conduct and Sound Practice

With effect from August 2003, the life insurance industry adopted for the first time, 'self-regulation' practice. All the insurers jointly set up code of life insurance self-regulation standards of conduct and sound practice. All insurance companies are required to use a standardised rate of return set out by the council in consultation with Actuarial Society of India. They must inform their clients that the rates of return are not guaranteed. Further, they are required to inform their clients on the policy status at least once a year.

6.23.5 Post Office Life Insurance

Let us deliberate on the performance of post office life insurance organisation to understand its volume and growth of life insurance business. The volume of business of postal life insurance cannot be said negligible because the volume of postal business is still higher than the business of some of the private insurance companies. Since the responsibility of promoting life business in rural areas has been given to the postal life insurance organisation, it is expected that this business will grow further in future years.

6.24 LIFE INSURANCE CORPORATION (LIC) OF INDIA

The Life Insurance Corporation (LIC) of India was established in September 1956, as an autonomous body. In January 1956, 154 Indian Insurers, 16 foreign insurers, and 75 provident societies operating in India were taken over by the Central Government and thereafter nationalised in September 1956, which all-together gave birth of a new public sector organisation named Life Insurance Corporation (LIC) of India. It was set up with a view to spreading life insurance much more widely particularly to the rural areas and to the socially and economically backward classes of people in the country and providing them adequate financial cover against death at reasonable cost.

The role of LIC has been to maximise mobilisation of savings of the people by way of premiums and investment of funds in the activities that contribute to the economic prosperity and welfare of the country and the policy holders.

6.24.1 Vision and Mission *of LIC*

LIC has redefined its vision and mission as stated:

Vision: To become a transnationally competitive financial conglomerate of significance to societies and pride of India.

Mission: To explore and enhance the quality of life of people through financial security by providing products and services of aspired attributes with competitive returns, and by rendering resources for economic development.

LIC has the following objectives:

1. To spread life insurance much more widely, particularly to the rural areas and to the socially and economically backward classes with a view to reaching all insurable persons in the country and providing them adequate financial cover against death at reasonable cost.
2. To maximise mobilisation of savings of the people by making insurance-linked savings adequately attractive.
3. To bear in mind the investment of funds, the primary obligation to its policy holders, the funds to be deployed to the best advantage of the investors and the community as a whole, keeping in view national priorities and obligations of attractive return.
4. To conduct business with utmost economy and with full realisation that the money belongs to the policy holders.
5. To act as trustees of the insured public in their individual and collective capacities.
6. To meet various life insurance needs of the community that would arise in the changing social and economic environment.
7. To involve all people working in the corporation to the best of their capability in furthering the interests of the insured public by providing efficient service with courtesy.
8. To promote among all agents and employees of the corporation a sense of participation, pride, and job satisfaction through discharge of their duties with dedication towards achievement of corporate objectives.

6.24.2 Organisation Structure *of LIC*

The LIC as we know, enjoys a tremendous brand equity, goodwill, and a high reach with strong distribution network. Its distribution network comprises 8 zonal offices, 106 divisional offices, 323 satellite offices, and 2,048 branch offices with about 12 lakh insurance agents. It has a special cell at Srinagar. The zonal offices look after the activities of development, planning and review of business valuations, recruitment, training of staff, and supervision of divisional offices. The divisional offices are engaged in the tasks of procuring new businesses, planning and executing various new business operations, underwriting new businesses and settling claims. A number of branch offices work under the control and supervision of each divisional office and their tasks are to procure new businesses.

LIC has a 3-tier marketing set up with the agents working at base level. They are recruited, trained and supervised by a development officer. An assistant branch manager (sales) supervises the functions of development officers. The responsibilities of development officers are to develop and increase new life insurance business in the areas allotted to them through their agents.

LIC is a board-managed organisation and governed by the board of directors. It has 1 chairman, 1 managing director and 5 executive directors. LIC's head office is situated in Mumbai.

6.24.3 Subsidiaries and Joint *Ventures of LIC*

LIC has 4 subsidiaries, viz. (i) Life Insurance Corporation (International) EC, (ii) LIC Mutual Fund, (iii) LIC Pension Fund, and (iv) LIC Housing Finance Ltd.

LIC has established several joint ventures abroad, viz. LIC (Nepal) Ltd., and LIC (Lanka) Ltd. It has set up LIC (Nepal) Ltd. with Vishal Group of Companies of Nepal in 2001. LIC (Lanka) Ltd. was set up by LIC with Bartleet Group of Sri Lanka in 2002.

6.24.4 Products *of LIC*

LIC offers a wide range of insurance products for both individuals and groups, as stated:

Individual plans (suitable for individuals), viz. (i) Whole life schemes, (ii) Endowment schemes, (iii) Term assurance plan, (iv) Periodic money-back plan, (v) Special money-back plan for women, (vi) Plan for high worth individuals and key men, (vii) Medical benefits-linked insurance, (viii) Plan for the benefit of handicapped, (ix) Plan to cover housing loan, (x) Joint life plan-Jeevan Saathi Plan, (xi) Plan for children's needs, (xii) Capital market-linked plan-Unit-linked plans, viz. Money Plus I, Fortune Plus, and Profit Plus.

Group schemes (ideal for employers, associations, society, etc.), viz. Group term insurance scheme, Group insurance scheme in lieu of EDLI, 1976, Group insurance scheme jointly with superannuation scheme, Group gratuity scheme, Group superannuation, Group savings-linked insurance scheme, Group leave encashment scheme, Group mortgage redemption assurance scheme, Gratuity Plus, Group critical illness rider.

Social security group insurance schemes, viz. Landless Agricultural Labourers Group Insurance (LALGI) Scheme, Janashree Bima Yojana (JBY), 2000 for the rural and urban poor people below the poverty line and marginally above the poverty line, Krishi Shramik Samajik Suraksha Yojana, 2001, Shiksha Sahayog Yojana, Aam Aadmi Bima Yojana, Jeevan Madhur (a micro-insurance policy for the underprivileged.

Pension plans, viz. Jeevan Nidhi, Jeevan Akshay V, New Jeevan Suraksha I, New Jeevan Dhara I.

Special plans, viz. New Bima Gold, Bima Nivesh 2005, Jeevan Saral, Health Plus.

Besides, LIC has introduced a group insurance scheme for the workers engaged in khadi and village industries. Under this scheme, the beneficiary pays only one-third of the premium amount and the balance is shared by the government and the employers equally.

LIC also runs two of the world's largest social security schemes, viz. LALGI and JBY. Under these plans at least 1.5 crore landless agricultural labourers get benefits of life insurance and the social security for more than 1.50 crore IRDP beneficiaries.

Moreover, LIC has about 25 social security group insurance schemes for groups like beedi workers, carpenters, tailors, cobblers, etc.

With profit and without profit plans. An insurance policy can be 'with' or 'without' profit. In 'with' profit plan, bonuses are disclosed if any, after periodical valuations are allotted to the policy, and are payable to the assured along with the contracted amount. In 'without' profit plan, only the contracted amount is paid to the assured without any addition. The rate of premium charged for a 'with' profit policy is naturally higher than a 'without' profit policy.

6.24.5 Performance of LIC

The LIC enjoyed monopoly on the life insurance market till 2000. With the entry of private sector players its market share started declining, which is evident from the statistics provided in Table 6.13.

TABLE 6.13 Statement Showing New Policies Issued by Life Insurers (Period: 2002-03 to 2007-08) (Nos.)

Insurer	**2002-03**		**2003-04**		**2004-05**		**2005-06**		**2006-07**		**2007-08**	
	Nos.	*(%)*	*Nos.*	*(%)*	*Nos.*	*(%)*	*Nos.*	*(%)*	*Nos.*	*(%)*	*Nos.*	*(%)*
LIC	2,45,45,580	97	2,69,68,069	94	2,39,78,123	91	3,15,90,707	89	3,82,29,292	82	3,76,12,599	74
(%) Growth over Prev. Year	(97)		(10)		(-11)		(32)		(21)		(-2)	
Private Sector	8,25,094	3	16,58,847	6	22,33,075	9	38,71,410	11	79,22,274	18	1,32,61,558	26
(%) Growth over Prev. Year	(3)		(101)		(35)		(73)		(105)		(67)	
Total	**2,53,70,674**	**100**	**2,86,26,916**	**100**	**2,62,11,198**	**100**	**3,54,62,117**	**100**	**4,61,51,566**	**100**	**5,08,74,157**	**100**

Source: Handbook on Indian Insurance Statistics, 2008.

It may be observed from Table 6.13 that the market share of LIC has gone down gradually over the years from 97% in 2002-03 to 74% in 2007-08. On the contrary, private sector players have shown an increase in their market share from 3% in 2002-03 to 26% in 2007-08. However, LIC has regained its market share by way of aggressive marketing of its insurance products and expanding the distributional channel. It has connected all branches through metro network for the purpose of efficient customer servicing. It has tied up with some banks to offer on-line premium collection facility in selected areas.

LIC is one of the largest life insurance organisations in the world. It has a policy base over 200 million. LIC is the highest ranking organisation in terms of claims settled. It has settled 1,83,75,000 claims in the year 2012-13 and the value of these claims was ₹ 73,947.99 crore. In the year 2012-13, 99.45% of claims due were settled by LIC. Despite its decreasing market share, LIC is still a market leader in terms of policies sold and premiums received among all life insurance companies.

LIC has been very active in rural areas also. The percentages of new business in rural areas to the total new business of LIC were 33% in 1976-77, 31% in 1977-78, 38% in 1986-87, 48% in 1995-96, and 50% in 2002-03 in terms of number of policies, and in terms of sum assured, the percentages were 11% in 1976-77, 9% in 1977-78, 32% in 1986-87, 41% in 1995-96, and 45% in 2002-03.

We shall conclude our observation on LIC's performance with the statistics provided by Table 6.14 on LIC's major income and expenditures.

TABLE 6.14 Major Income and Expenditures of LIC (Period: 2004-05 to 2006-07) (₹ in crore)

S.No.	Items	2004-05		2005-06		2006-07	
		Amount	(%)	Amount	(%)	Amount	(%)
1.	Net premium income	75,083	(67)	90,759	(69)	1,27,782	(73)
2.	Income from investment	36,315	(32)	40,046	(30)	45,682	(26)
3.	Other income	995	(1)	1,342	(1)	961	(1)
4.	Total Income (1+2+3)	1,12,393	(100)	1,32,147	(100)	1,74,425	(100)
5.	Commission expenses	6,245	(51)	7,095	(54)	9,200	(56)
6.	Operating expenses	5,987	(49)	6,041	(46)	7,229	(44)
7.	Total expenses (5+6)	12,232	(100)	13,136	(100)	16,429	(100)

Source: IRDA Annual Reports, various issues.

It may be observed from Table 6.14 that the total income of LIC has increased over the years from 2004-05 to 2006-07. Similarly, the expenditure also has increased. The share of net premium income has increased from 67% in 2004-05 to 73% in 2006-07, whereas the income from investment has declined from 32% to 26% in these years. In the expenditure side, commission expense has increased from 51% in 2004-05 to 56% in 2006-07, whereas operating has declined from 49% in 2004-05 to 44% in 2006-07 due to better infrastructure availability and utilisation.

6.24.6 Investment of L/C

The investment pattern of LIC funds can be better understood from the statistics provided in Table 6.15.

TABLE 6.15 Outstanding Investments of LIC—Instruments wise (Period: 1991-92 to 2003-04) (₹ in crore)

Instruments	1991–92		1994–95		1999–2000		2000–01		2001–02		2002–03		2003–04	
	Amount	(%)	*Amount*	(%)	*Amount*	(%)	*Amount*	(%)	*Amount*	(%)	*Amount*	(%)	*Amount*	(%)
Govt. and Other Approved Securities	15,410	(48)	30,399	(54)	69,930	(58)	1,03,058	(59)	1,31,421	(60)	1,66,285	(63)	2,09,219	(60)
Loans for Infrastructure Facilities	3,703	(11)	7,237	(13)	11,412	(9)	13,586	(8)	15,997	(8)	21,892	(8)	27,950	(8)
Loans for Housing Development incl. Mortgage Loans	4,064	(13)	6,250	(11)	9,977	(8)	11,557	(7)	11,769	(5)	13,090	(5)	12,157	(4)
Shares and Debentures of Companies	3,625	(11)	6,878	(12)	20,242	(18)	35,257	(20)	43,031	(20)	47,220	(18)	76,295	(22)
Loans to Companies incl. Short-Term Loans	2,123	(7)	2,712	(5)	3,683	(3)	2,812	(1)	3,021	(1)	2,960	(1)	6,647	(2)
Others	3,337	(10)	2,706	(5)	5,201	(4)	9,221	(5)	13,579	(6)	13,597	(5)	15,493	(4)
Total	**32,262**	**(100)**	**56,182**	**(100)**	**1,20,445**	**(100)**	**1,75,491**	**(100)**	**2,18,818**	**(100)**	**2,65,044**	**(100)**	**3,47,761**	**(100)**

Notes: (a) Investments do not include outstanding premiums, interest, dividend, rent accrued but not due, and cash and bank balances.

(b) The item 'Others' includes loans on policies, investment in foreign countries, special deposits with GOI, municipal securities not guaranteed by the government, contributions to initial capital of UTI, LIC Housing Finance, LIC International, LIC Mutual Fund, etc.

Source: IDBI Report on Development Banking in India, various issues.

It may be observed from Table 6.15 that the most important avenue for LIC investment is the government and approved securities, which have increased from 48% in 1991-92 to 60% in 2003-04. The next important area of LIC investment has been in shares and debentures in companies, which have increased from 11% in 1991-92 to 22% in 2003-04.

6.24.7 Icici Prudential Life Insurance Co. Ltd.

ICICI Prudential Life Insurance company was established in the year 2000. It was the first private sector insurance company to commence operations after receiving approval from IRDA. The main objective of the company is to expand and reshape the life insurance industry in India with commitment. The company offers the plans, viz. (i) Savings plans, (ii) Retirement plans, (iii) Protection plans, and (iv) Investment plans. ICICI Prudential is the market leader among all private sector life insurance companies. Its success is driven by aggressive distribution, leveraging existing customer base, and detailed implementation planning.

6.24.8 SBI Life Insurance Company Ltd.

SBI Life Insurance company is a joint venture between India's largest bank, State Bank of India, and Cardiff S.A., a leading life insurance company of France. SBI Life Insurance has been registered with IRDA as a life insurance company. It started its operation with effect from 2001. The company's authorised capital is ? 250 crore, and its paid-up capital is ? 125 crore. SBI owns 74% of the total equity and the balance 26% by Cardiff.

SBI Life was the first private sector company to report net profit of ? 2.02 crore in 2005-06. It reported higher net profit of ? 3.83 crore in 2006-07. It increased its net profit further to ? 34.38 crore in 2007-08. SBI Life has been successful in achieving an early break-even due to its lower cost of operations by way of utilising large network of its Indian promoter, SBI.

7 MICRO-INSURANCE

The utilisation of insurance as a cover on risk is very poor in India. Only 20% of the total insurable population has taken life and health insurance policies in this country. In fact, very little efforts have been taken by the insurance industry as also by the government to reach out to the vast low income population, particularly in the rural areas.

It is no denying the fact that the poor and marginal people have greater risks of life, income and standard of living than that of the rich people. These risks can give severe blow to their families due to the death or illness of only wage earner of the family. In this time of crisis, insurance can provide financial support to individuals and their family members. In this respect, micro-insurance can be of great help to them as it provides insurance to the poor. It aims at building a system for insuring the poor people against their various risks.

7.1 MICRO-INSURANCE PRODUCTS

A micro-insurance product is an insurance policy with a small sum insured and low premium. It is designed to minimise the basic risks of life, living and livelihood by way of the following mechanism:

Risk	*Product (Kind of policy)*
Life	Term life insurance, Accident death insurance
Living	Health insurance, Catastrophe or Sudden calamity insurance
Livelihood	Asset insurance, Weather insurance, etc.

7.2 FUNCTIONS OF INTERMEDIARIES IN MICRO-INSURANCE

In micro-insurance the focus is given on the community rather than individuals. It is essential to have proper and adequate capability to handle community risk and educate masses on the advantages of insurance. There are various functions to be performed by the intermediaries or deliverers as mentioned:

1. Identification and assessment of risk is the starting point to make the micro-insurance programmes successful and durable. Therefore, proper risk assessment is essential for the development of a balanced and sustainable insurance product. An intermediary should have good understanding of the social and economic factors around the common people.
2. The concept of insurance is required to be understood by the masses for which adequate and frequent education, training and awareness programme should be conducted by the intermediaries in order to popularise insurance.
3. It is the responsibility of the intermediaries to enroll the insured. Proper enrollment of the insured in the programme involves correct documentation of relevant details about the insured and delivery of the policy documents.
4. Underwriting of insurance policy is the process of selection, classification and pricing risk in relation to the insurance coverage offered. Adverse selection is a situation in which people with higher expected losses enter the insured population. Adverse selection occurs when individuals who are prone to a particular risk buy insurance against it. It is more common in health insurance.

Moral hazard is a symptom whereby having insured a property or asset, the insured lacks the initiative to reduce his expected losses despite having some control over them and takes advantage of insurance to make claims for loss that he has helped to incur. The role of a deliverer or intermediary is to put in efforts in order to control both adverse selection and moral hazard at the initial level. They have to take decision whether to accept the insurance proposal and if so, on what terms and conditions and at what price.

5. An intermediary is supposed to market micro-insurance products. Thus, he is required to build up confidence among the poor people and develop a credible image for himself and the system.

6. It is one of the functions of an intermediary to collect claim documents in time, explain the basis of claim settlement, and pay the claim.

   In order to discharge service delivery functions properly, an intermediary should have strong relationship with poor rural population. He should have sound administrative capability and proper understanding of the principles and practice of risk and financial management. He should focus on various risks confronted by the people and offer solutions with micro-insurance products. The number of micro-insurance intermediaries or agents was 7,070 as on March 2009, of whom number of LIC agents are 6,467, and private sector agents are 603.

7.3 DELIVERY MODELS OF MICRO-INSURANCE

It is interesting to note that micro-insurance process started with the NGOs, micro-finance institutions, and community-based organisations.

The following distribution models are in existence in India for micro-insurance:

(a) Partner-Agent model, (b) Community-based model or Mutual model, (c) Full-service model, and (d) Provider-driven model.

7.3.1 Partner-Agent Model

Partner-agent model is the most common insurance delivery model in which the partner, i.e. insurance company bears the risk and the agent, i.e. NGO acts as a product deliverer. This model is useful for delivering simple insurance products such as, term life insurance. Figure 7.1 provides a glimpse of partner-agent model.

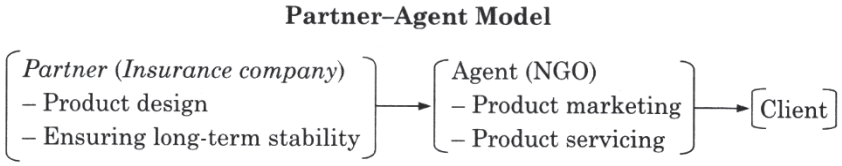


FIGURE 7.1 Partner-Agent Model.

Example of partner-agent model in India: Shepherd and United India Insurance Company.

7.3.2 Community-based Model or Mutual Model

Community-based model or Mutual model is a self-insurance scheme in which the community itself pools the contributions and acts as an insurer. Members or clients are both the insured and the insurers because the group is involved in managing and underwriting the risk collectively. This model is useful in managing low severity risks like primary health care. Figure 7.2 provides a glimpse of community-based model or mutual model.

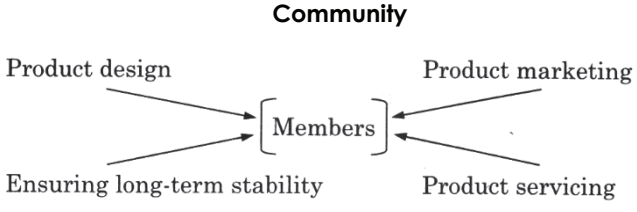


FIGURE 7.2 Community-based Model or Mutual Model.

Example of community-based model or mutual model in India: People's Rural Health Promotion Scheme (PRHPS) introduced by People's Rural Education Movement (PREM) in Orissa.

7.3.3 Full-service Model

Full-service model has a wider role for the intermediary. In this model, the insurer simply carries the risk, all other remaining functions including claim-processing are taken up by the deliverer or the intermediary. This model is useful for complicated and service intensive covers such as, health and weather insurance.

For example, Vima SEWA is an integrated insurance programme that aims to provide social protection for SEWA members to cover their life cycle needs and the various other risks confronted by them, through an insurance company in which they themselves are users, owners, and managers of all services.

Figure 7.3 provides a glimpse of full-service model.

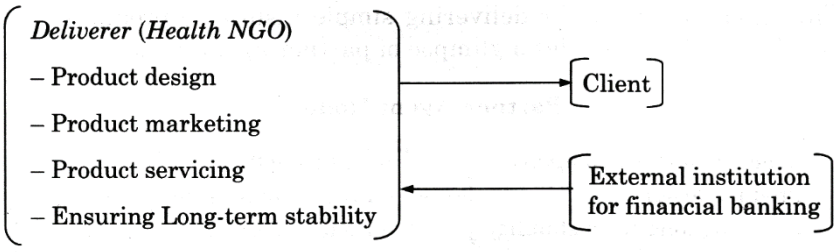


FIGURE 7.3 Full-service Model.

7.3.4 Provider-driven Model

Provider-driven model is the new model which integrates services like health care with insurance. The health care provider assumes the risk and thereby eliminates a tier in the value chain. Service providers like hospitals which in any way are involved in the service-delivery chain, integrate themselves fully by way of assuming risks themselves. Figure 24.8 provides a glimpse of provider-driven model.

Provider-driven Model

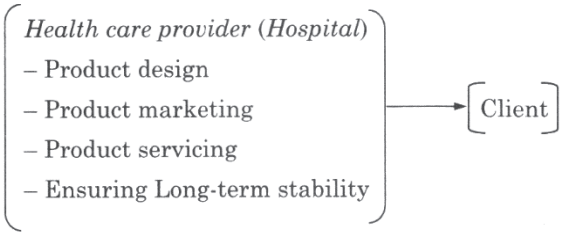


FIGURE 7.4 Provider-driven Model.

7.4 IRDA REGULATIONS ON MICRO-INSURANCE

As per IRDA regulation, an insurance company that transacts life insurance business shall be allowed to provide life micro-insurance products as well as general micro-insurance products provided it ties up with an insurance company that transacts general insurance business for the general micro-insurance products, and vice versa. The tie-up can take place either at product level or distribution level. The main features of micro-insurance regulations are as stated:

1. Development Goal: In order to enable micro-insurance as an integral part of the country's wider insurance system, it is essential to (a) adapt insurance companies to the requirements of micro-insurance, (b) link them as wholesale institutions to Self-help Groups (SHGs) as retailers, and (c) upgrade SHGs to the level of financial cooperatives or village banks.

The functions involved in such exercise include: (a) Providing guidance to members, (b) Collection of premium installments from members, (c) Insurance service to members, (d) Communication and exchange of experience, (e) Providing link with banks, NGOs or donors, (f) Supporting the proposals of individual members to insurance companies by way of recommendations.

2. Micro-insurance Product: A 'life micro-insurance product' means any term insurance contract with or without return of premium, any endowment insurance contract or health insurance contract, with or without an accident benefit rider, either on individual or group basis.

15 life insurers have launched 30 micro-insurance products out of which 16 are individual products and remaining 14 are group micro-insurance products. For example, Bajaj-Allianz have launched the saving-linked micro-insurance product, viz. Swayam Shakti Suraksha in 2008 with SKS microfinance. Some other micro-insurance products are: (i) Bajaj Allianz Jana Vikas Yojana, (ii) Bajaj Allianz Alp Vishesh Yojana, (hi) ICICI Pru Sarv Jana Suraksha, (iv) LIC Jeevan Madhur and Mangal, and (v) SBI Life Grameen Shakti.

3. Distribution of Micro-insurance Products: Micro-insurance products may be distributed by individual insurance agents or corporate insurance agents or insurance brokers or micro-insurance agents.

A micro-insurance agent shall be an NGO or a SHG.

(a) An NGO shall be registered as non-profit organisation under the Society's Act, 1968, with a proven track record of working with marginalised groups with clearly stated aims and objectives, transparency and accountability outlined in its memorandum, rules and regulations, and demonstrate involvement of committed people.

(b) A SHG may be an informal group or registered under the Society's Act, State Cooperative Act, or as a partnership firm, consisting of 10 or 20 members with a proven track record of working with marginalised groups with clearly stated aims and objectives, transparency and accountability outlined in its memorandum, rules and regulations, and demonstrate involvement of committed people.

(c) The minimum number of members comprising a group should be at least 10 for insurance of individuals, and at least 20 for group insurance.

4. Other Features: Other salient features of the regulations are:

- The model adopted for micro-insurance is the principal/agent model
- Micro-insurance sold would be recognised while reckoning the social and rural sector obligations
- The minimum qualification for appointment as an insurance agent is removed and the requirement of 100 hours of training followed by an examination is waived
- The insurance company is required to impart 25 hours of training to a micro-insurance agent as part of capacity building
- All products designed to be sold as micro-insurance products have to be cleared by the authority and have to clearly identify themselves as micro-insurance products before launching in the market
- The insurance contracts are required to be delivered to the policy holders in local language
- All micro-insurance products will compulsorily be underwritten by insurance companies only

At present, insurance outreach is poor in India. At least, 80% of the insurable population in India is waiting for insurance, particularly in rural areas for availing benefits of micro-insurance. Thus, there is huge potential for micro-insurance in this country. However, the issues relating to transaction costs, balancing of scale and diversity, capacity building of deliverers have to be sorted out. Besides, operational efficiency, convergence with other activities adherence to properly designed business plans, and above all a standard regulatory framework ensuring protection of interests of policy holders are required to be implemented to make micro product insurance a success.

7.5 INSURANCE IN INDIA VIS-A-VIS OTHER COUNTRIES

With the opening up of Indian economy and its insurance sector, competition has multiplied in the insurance sector. The private sector insurers have brought paradigm shift in the concept of insurance. Presently, this sector is growing at an average of 20% in case of life insurance and 15% in case of non-life insurance. Despite this growth rate, India is heavily under-insured in its vast population when compared to other countries.

As per the recent survey conducted by FICCI, the Indian insurance market is one of the least insured markets in the world. Only around 100 million Indians out of a total population of 1.2 billion, have life insurance policies. About 300 million people in this country can afford to buy life insurance out of which only 20% have insurance cover.

In order to understand the extent of under-insurance in India as compared to other countries, let us take the help of statistics provided in Table-A.

TABLE-A Statement Showing International Comparison of Insurance Protection and Insurance Density (Year 2008)

Countries	*Insurance Penetration Insurance Density*							
	Premium as (%) of GDP 2008				*Premium per capita in USD 2008*			
	Total	*Life*	*Non-life*	*Rank*	*Total*	*Life*	*Non-life*	*Rank*
Australia	7.3	4.4	2.9	19	3,386.5	2,038.0	1,348.6	14
Bahamas	10.2	2.6	7.6	7	2,299.1	593.4	1,706.7	21
Brazil	3.0	1.4	1.6	48	244.5	115.4	129.1	51
Canada	7.0	3.2	3.8	20	3,170.8	1,442.7	1,728.0	17
Chile	4.0	2.4	1.6	37	344.2	205.8	138.4	47
France	9.2	6.6	2.6	11	4,131.0	2,791.9	1,339.1	8
India	**4.6**	**4.0**	**0.6**	**31**	**47.4**	**41.2**	**6.2**	**78**
Japan	9.8	7.6	2.2	9	3,698.6	2,869.5	829.1	13
Malaysia	4.3	2.8	1.5	33	345.4	225.9	119.5	46
Mexico	1.7	0.8	1.0	68	176.5	77.3	99.2	58
Netherlands	12.9	4.5	8.4	4	6,849.5	2,366.0	4,483.5	2
PR China	3.3	1.8	1.5	43	105.4	71.7	33.7	66
Russia	2.3	0.0	2.3	55	273.5	5.4	268.1	50
South Korea	11.8	8.0	3.1	5	1,968.7	1,347.7	621.0	24
South Africa	15.3	12.5	2.8	3	870.6	707.0	163.6	35
Switzerland	9.9	5.5	4.5	8	6,379.4	3,551.5	2,827.9	3
Taiwan	16.2	13.3	2.9	1	2,787.6	2,288.1	499.5	20
United Kingdom	15.7	12.8	2.9	2	6,857.8	5,582.1	1,275.7	1
United States	8.7	4.1	4.6	13	4,078.0	1,900.6	2,177.4	9

Source: Swiss Re, Sigma 3, 2009.

It may be observed from Table-A, in which the statistics sourced from Swiss Re, which is one of the world's largest life and health reinsurers, points out that India's life insurance premium is 4.0% of the GDP only as against 13.3% in Taiwan and 12.8% in UK, and 12.5% in South Africa. Indian insurance is ranked 31 in the world with a low insurance penetration of 4.6% of GDP.

The present size of India's insurance market is USD 60 billion only, whereas the global insurance market is around USD 4,300 billion. India accounts for only 1.39% of the global insurance market.

So far as the insurance density is concerned India's position is all the more dismal. While the per capita insurance premium in India is USD 47.4, it is USD 6,857.8 in the UK, USD 6,849.5 in Netherlands, USD 6,379.4 in Switzerland, USD 4,131 in France, USD 3,698.6 in Japan, USD 1,968.7 in South Korea, and USD 345.4 in Malaysia.

The statistics in Table-A reveals that human and physical assets in India are totally unprotected and uncared for. Although, India and China have very low insurance penetration in the global insurance market, their robust economies and population size are definitely capable of creating ample opportunities for insurance. Insurance penetration can be improved by way of tapping the neglected rural markets as there ie vast potential for the growth of insurance in the rural segment.

A rjecent survey by the Foundation for Research, Training and Education in insurance (FORTE) has reported that

insurance can be sold profitably to the rural communities in India. Therefore, a faster growth of insurance in the rural segment can be achieved by the insurance companies if they collaborate with cooperative societies, regional rural banks, NGOs, SHGs, kissan credit card holders, and agents for the purpose of distributing insurance products in a cost-effective manner to the vast rural population.

7.5 CONCLUSION

Insurance is defined as a legal contract between two parties whereby one party called the *insurer* or the *insurance company* or *assurer* or *underwriter* undertakes to compensate the other party called the *insured* or *assured,* for any loss or damage suffered by the latter, in consideration of payment of certain sum of money called *premium* for a certain period of time. The document which embodies the contract is called the *insurance policy*. The chapter started with the discussion on concept, features and principles of insurance, reinsurance, and role of insurance towards economic growth. Then it discussed genesis of insurance, reforms in the insurance sector, structure and present status of insurance industry in India. Insurance Regulatory and Development Authority of India (IRDA), its composition, management and administration, objectives, mission, role, membership, statutory powers and functions, operations, and regulations framed under IRDA Act, 1999 has been discussed in this chapter. In this connection, policy developments in 2007, policyholders' grievance redressal system, rural and social sector obligation for insurers, obligations for life insurers, general insurers, public sector insurance companies, and new insurance companies have been explained in detail. The chapter also dealt with various insurance intermediaries, viz. insurance agents, surveyors and loss assessors, insurance brokers, TPAs, bancassurance, etc. and their functions. The chapter explained in detail, risk management in insurance, factors affecting risk profile of insurers, different kinds of risks in insurance, risk-based capital, and risk management process in insurance.

While deliberating on 'general insurance', the genesis of general insurance in India, public and private sector companies in general insurance, general insurance products, TAG, General Insurance Council, de-tariffing in general insurance, investments of non-life insurers, IRDA's exposure/prudential norms, solvency margins of non-life insurers, performance of non-life insurance companies, etc. were also discussed. The chapter also added in the discussion, various aspects of health insurance, and reinsurance. General Insurance Corporation (GIC) of India, its functions, objectives, management and organisation structure, operation and performance were included in the chapter.

The chapter also dealt with in detail, various aspects of life insurance such as, advantages, trends in life insurance business, types of products, new entrants in life insurance business, investment of life insurance funds, solvency margins, Life Insurance Council of India, self-regulation standards of conduct and sound practices in life insurance. Post office life insurance was included in this discussion. Life Insurance Corporation (LIC) of India, its vision and mission, objectives, organisation structure, subsidiaries and joint ventures, products, performance and investment were dealt in this chapter. In this connection, the activities of ICICI Prudential, SBI Life insurance, and life insurance industry in India as also various aspects of micro-insurance were also discussed. The chapter ended with a comparative study on insurance in India vis-a-vis other countries.

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