Directorate of Distance Education

UNIVERSITY OF JAMMU

JAMMU

SELF LEARNING MATERIAL

B.A. Semester-VI

SUBJECT: BUSINESS MANAGEMENT **UNIT : I-V**
COURSE No. : BM -601 **LESSON NO. : 1-10**

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FINANCIAL MANAGEMENT

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BUSINESS MANAGEMENT SEMESTER-VI

Course No BM-601 **Total Marks :100**
CourseTitle:Financial Management **Theory Examination : 80**
Internal Assessment : 20

Duration of Exam: 3 hrs.

(For the Examinations to be held in 2017, 2018,and 2019)

Objective

The objective of this course is to expose the students to the basics of Financial Management.

UNIT-I

Meaning , Importance and Objective of Financial Management ; Profit Vs Wealth Maximization ; Role of Financial Manager ; Time Value of Money Through Compounding and Discounting Techniques.

UNIT -II

Financial Analysis : Analysis of Financial Health of the Business through the Techniques viz , Application of Various Ratios in Decision Making Process; Analysis of Cash Flow Statement , Computing Financial and Profitability Ratios.

UNIT -III

Financing Decision : Cost of Capital - Weighted Average and Marginal Cost of Capital, Capital Structure Decision -Designing Optimum Capital Structure, Leasing and Hire

Purchase , Derivatives : Managing Financial Risk.

UNIT -IV

Types of Financing : Introduction to Lease Financing , Venture Capital Finance , Project Financing - Intermediate and Long Term Financing , Financing of Working Capital ; Debt Vs Equity as a Source of Finance

UNIT -V

Share Capital Types of Capital and Shares; Various Types of Preference Shares ; Debentures : Various Types of Debentures, : Concept of Private Placement Zero Coupon Bonds, Deep Discount Bonds Escrow A/c Trust ; Difference between Shares and Debentures ; Buy Back of Shares ; Redemption of Shares and Debentures.

Note for Paper Setter

The question paper shall contain two questions from each unit (Total ten questions) and a candidate will be required to answer five questions selecting one question from each unit. Thus, there will be an internal choice within each unit.

Internal Assessment (Total Marks:20)

The marks shall be distributed as under:-

Two written Assignments of 10 marks each

Suggested Reading

1. Maheshwari , S.N.. Accounting and Financial Management .S. Chand , 5 th Edition 2012
2. Kishore , M.R. Cost and Management Accounting , Taxman Law Publication, 7th Edition 2012
3. Gupta , S.K and Sharma R.K Financial Management: Theory and Practice , Kalyani Publishers 7th Edition 2102
4 Rajiv, S and Misra , A Financial management , Oxford University Press, 2009
5, Khan, M.Y and Vaid P.K Financial Management , Tata Mc Graw- Hill Publishing , New Delhi

CONTENT

C. No. :- BM-601 **UNIT I**

SEMESTER: VI **LESSON : 1-2**

FINANCIAL MANAGEMENT

STRUCTURE

1.1 INTRODUCTION

Financial management is that managerial activity which is concerned with the planning and controlling of the firm's financial resources. Though it was a branch of economics till 1890, as a separate activity or discipline it is of recent origin. Still, it has no unique body of knowledge of its own, and draws heavily on economics for its theoretical concepts even today.

The subject of financial management is of immense interest to both academicians and practising managers. It is of great interest to academicians because the subject is still developing, and there are still certain areas where controversies exist for which no unanimous solutions have been reached as yet. Practising managers are interested in this subject because among the most crucial decisions of the firm are those which relate to finance, and an understanding of the theory of financial management provides them with conceptual and analytical insights to make those decisions skilfully.

1.2 OBJECTIVES

After completion of this lesson you shall be able to know:

Meaning, importance and objective of financial management

Profit vs. wealth maximization

Role of financial manager

Time value of money through compounding and discounting techniques

1.3 FINANCIAL MANAGEMENT

1.3.1 MEANING

Financial management is an integral part of overall management. It is concerned

with the duties of the financial managers in the business firm. In other words, financial management is that specialized activity which is responsible for obtaining and effectively utilizing the funds for the efficient functioning of the business and, therefore, it includes financial planning, financial administration and financial control. In this same vein, financial management is that managerial activity which is concerned with the planning and controlling of the firm's financial resources. In other terms, it is concerned with acquiring, financing and managing assets to accomplish the overall goal of a business enterprise (mainly to maximise the shareholder's wealth). Some important definitions of the term financial management are being discussed:

"It is concerned with the efficient use of an important economic resource namely, capital funds"

-Solomon

"Financial Management deals with procurement of funds and their effective utilization in the business".

- S.C. Kuchal

"Financial management as an application of general managerial principles to the area of financial decision-making".

- Howard and Upton

"Financial management is an area of financial decision-making, harmonizing individual motives and enterprise goals".

- Weston and Brigham

"Financial management is the operational activity of a business that is responsible for obtaining and effectively utilizing the funds necessary for efficient operations".

- Joshep and Massie

"Financial Management is concerned with managerial decisions that result in the acquisition and financing of long-term and short-term credits of the firm. As such it deals with the situations that require selection of specific assets (or combination of assets), the selection of specific liability (or combination of liabilities) as well as the problem of size and growth of an enterprise. The analysis of these decisions is based on the expected inflows and outflows of funds and their effects upon managerial objectives".

-Phillippatus

Thus, financial management is mainly concerned with the effective funds management in the business. In simple words, financial management as practiced by business firms can be called as corporation finance or business finance.

Characteristics of Financial Management

Financial management is applicable to every type of organization, irrespective of the size, kind or nature. Every organization aims to utilize its resources in a best possible and profitable way.

1. Financial Management is an integral part of overall management. Financial considerations are involved in all business decisions. Acquisition, maintenance, removal or replacement of assets, employee compensation, sources and costs of different capital, production, marketing, finance and personnel decision, almost all decisions for that matter have financial implications. Therefore, financial management is pervasive throughout the organization.

2. The central focus of financial management is valuation of the firm. Financial decisions are directed at increasing/maximization/ optimizing the value of the institution.

3. Financial management essentially involves risk-return trade-off. Decisions on investment involve choosing of types of assets which generate returns accompanied by risks. Generally higher the risk returns might be higher and vice versa. So, the financial manager has to decide the level of risk the

firm can assume and satisfy with the accompanying return. Similarly, cheaper sources of capital have other disadvantages. So to avail the benefit of the low cost funds, the firm has to put up with certain risks, so, risk-return trade-off is there throughout.

4. Financial management affects the survival, growth and vitality of the institution. Finance is said to be the life blood of institutions. The amount, type, sources, conditions and cost of finance squarely influence the functioning of the institution.

5. Finance functions, i.e., investment, raising of capital, distribution of profit, are performed in all firms - business or non-business, big or small, proprietary or corporate undertakings. Yes, financial management is a concern of every concern including educational institutions.

6. Financial management is a sub-system of the institutional system which has other subsystems like academic activities, research wing, etc., In systems arrangement financial sub-system is to be well coordinated with others and other sub-systems well matched with the financial sub-system.

7. Financial management of an institution is influenced by the external legal and economic environment. The legal constraints on using a particular type of funds or on investing in a particular type of activity, etc., affect financial decisions of the institution. Financial management is, therefore, highly influenced/constrained by external environment.

8. Financial management is related to other disciplines like accounting, economics, taxation, operations research, mathematics, statistics etc., It draws heavily from these disciplines.

9. There are some procedural finance functions - like record keeping, credit appraisal and collection, inventory replenishment and issue, etc. These are routinized and are normally delegated to bottom level management executives.

10. The nature of finance function is influenced by the special characteristic of

the business. In a predominantly technology oriented institutions like CSIR, CECRI, it is the R & D functions which get more dominance, while in a university or college the different courses offered and research which get more priority and so on.

Scope of Financial Management

Financial management is one of the important parts of overall management, which is directly related with various functional departments like personnel, marketing and production. Financial management covers wide area with multidimensional approaches. The following are the important scope of financial management.

1. **Financial Management and Economics**: Economic concepts like micro and macroeconomics are directly applied with the financial management approaches. Investment decisions, micro and macro environmental factors are closely associated with the functions of financial manager. Financial management also uses the economic equations like money value discount factor, economic order quantity etc. Financial economics is one of the emerging area, which provides immense opportunities to finance, and economical areas.

2. **Financial Management and Accounting:** Accounting records include the financial information of the business concern. Hence, we can easily understand the relationship between the financial management and accounting. In the olden periods, both financial management and accounting are treated as a same discipline and then it has been merged as Management Accounting because this part is very much helpful to finance manager to take decisions. But now a day's financial management and accounting discipline are separate and interrelated.

3. **Financial Management or Mathematics:** Modern approaches of the financial management applied large number of mathematical and statistical tools and techniques. They are also called as econometrics. Economic order quantity, discount factor, time value of money, present value of money, cost of capital, capital structure theories, dividend theories, ratio analysis and

working capital analysis are used as mathematical and statistical tools and techniques in the field of financial management.

4. **Financial Management and Production Management:** Production management is the operational part of the business concern, which helps to multiple the money into profit. Profit of the concern depends upon the production performance. Production performance needs finance, because production department requires raw material, machinery, wages, operating expenses etc. These expenditures are decided and estimated by the financial -department and the finance manager allocates the appropriate finance to production department. The financial manager must be aware of the operational process and finance required for each process of production activities.

5. **Financial Management and Marketing:** Produced goods are sold in the market with innovative and modern approaches. For this, the marketing department needs finance to meet their requirements. Introduction to Financial Management 5 The financial manager or finance department is responsible to allocate the adequate finance to the marketing department. Hence, marketing and financial management are interrelated and depends on each other.

6. **Financial Management and Human Resource:** Financial management is also related with human resource department, which provides manpower to all the functional areas of the management. Financial manager should carefully evaluate the requirement of manpower to each department and allocate the finance to the human resource department as wages, salary, remuneration, commission, bonus, pension and other monetary benefits to the human resource department. Hence, financial management is directly related with human resource management.

1.3.2 IMPORTANCE OF FINANCIAL MANAGEMENT

Finance is the lifeblood of business organization. It needs to meet the requirement of the business concern. Each and every business concern must maintain adequate

amount of finance for their smooth running of the business concern and also maintain the business carefully to achieve the goal of the business concern. The business goal can be achieved only with the help of effective management of finance. We can't neglect the importance of finance at any time at and at any situation. Some of the importance of the financial management is as follows:

1. **Financial Planning:** Financial management helps to determine the financial requirement of the business concern and leads to take financial planning of the concern. Financial planning is an important part of the business concern, which helps to promotion of an enterprise.

2. **Acquisition of Funds:** Financial management involves the acquisition of required finance to the business concern. Acquiring needed funds play a major part of the financial management, which involve possible source of finance at minimum cost.

3. **Proper Use of Funds:** Proper use and allocation of funds leads to improve the operational efficiency of the business concern. When the finance manager uses the funds properly, they can reduce the cost of capital and increase the value of the firm.

4. **Financial Decision:** Financial management helps to take sound financial decision in the business concern. Financial decision will affect the entire business operation of the concern. Because there is direct relationship with various department functions such as marketing, production personnel, etc.

5. **Improve Profitability:** Profitability of the concern purely depends on the effectiveness and proper utilization of funds by the business concern. Financial management helps to improve the profitability position of the concern with the help of strong financial control devices such as budgetary control, ratio analysis and cost volume profit analysis.

6. **Increase the Value of the Firm:** Financial management is very important in the field of increasing the wealth of the investors and the business concern. Ultimate aim of any business concern will achieve the maximum profit and

higher profitability leads to maximize the wealth of the investors as well as the nation.

7. **Promoting Savings:** Savings are possible only when the business concern earns higher profitability and maximizing wealth. Effective financial management helps to promoting and mobilizing individual and corporate savings.

8. **Setting Clear Goal:** Clarity of the goal is important for any firm. Financial management defines the goal of the firm in clear terms (maximization of the shareholders wealth). Setting goal helps to judge whether the decisions taken are in the best interest of the shareholders or not. Financial management also direct the efforts of all functional areas of business towards achieving the goal and facilitates among the functional areas of the firm.

Nowadays financial management is also popularly known as business finance or corporate finances. The business concern or corporate sectors cannot function without the importance of the financial management.

1.3.3 OBJECTIVE OF FINANCIAL MANAGEMENT

Financial management as the name suggests is management of finance. It deals with planning and mobilization of funds required by the firm. There is only one thing which matters for everyone right from the owners to the promoters and that is money. Managing of finance is nothing but managing of money. Every activity of an organization is reflected in its financial statements. Financial Management deals with activities which have financial implications. The very objective of Financial Management is to maximize the wealth of the shareholders by maximizing the value of the firm. This prime objective of Financial Management is reflected in the EPS (Earning per Share) and the market price of its shares.

The earlier objective of profit maximization is now replaced by wealth maximization. Since profit maximization is a limited one it cannot be the sole objective of a firm. The term profit is a vague phenomenon and if given undue importance problems may arise whereas wealth maximization on the other hand

overcomes the drawbacks of profit maximization. Thus the objective of Financial Management is to trade off between risk and return. The objective of Financial Management may be broadly divided into two parts such as:

1. Profit maximization

2. Wealth maximization.

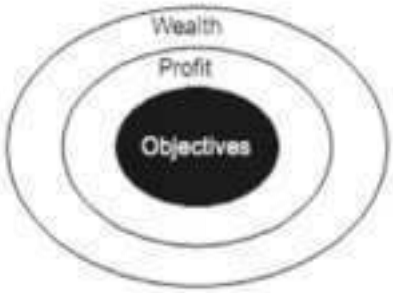


Fig. 1.2 Objectives of Financial Management

1. Profit Maximization: Main aim of any kind of economic activity is earning profit. A business concern is also functioning mainly for the purpose of earning profit. Profit is the measuring techniques to understand the business efficiency of the concern. Profit maximization is also the traditional and narrow approach, which aims at, maximizes the profit of the concern.

Profit maximization consists of the following important features.

1. Profit maximization is also called as cashing per share maximization. It leads to maximize the business operation for profit maximization.
2. Ultimate aim of the business concern is earning profit, hence, it considers all the possible ways to increase the profitability of the concern.
3. Profit is the parameter of measuring the efficiency of the business concern. So it shows the entire position of the business concern.
4. Profit maximization objectives help to reduce the risk of the business.

Favourable arguments for profit maximization

The following important points are in support of the profit maximization objectives of the business concern:

(i) Main aim is earning profit.

(ii) Profit is the parameter of the business operation.

(iii) Profit reduces risk of the business concern.

(iv) Profit is the main source of finance.

(v) Profitability meets the social needs also.

Unfavorable arguments for profit maximization

The following important points are against the objectives of profit maximization:

(i) Profit maximization leads to exploiting workers and consumers.

(ii) Profit maximization creates immoral practices such as corrupt practice, unfair trade practice, etc.

(iii) Profit maximization objectives leads to inequalities among the stake holders such as customers, suppliers, public shareholders, etc.

Drawbacks of Profit Maximization

Profit maximization objective consists of certain drawback also:

(i) **It is vague:** In this objective, profit is not defined precisely or correctly. It creates some unnecessary opinion regarding earning habits of the business concern.

(ii) **It ignores the time value of money:** Profit maximization does not consider the time value of money or the net present value of the cash inflow. It leads certain differences between the actual cash inflow and net present cash flow during a particular period.

(iii) **It ignores risk:** Profit maximization does not consider risk of the business

concern. Risks may be internal or external which will affect the overall operation of the business concern.

2. Wealth Maximization: Wealth maximization is one of the modern approaches, which involves latest innovations and improvements in the field of the business concern. The term wealth means shareholder wealth or the wealth of the persons those who are involved in the business concern.

Wealth maximization is also known as value maximization or net present worth maximization. This objective is universally accepted concept in the field of business.

Favourable Arguments for Wealth Maximization

(i) Wealth maximization is superior to the profit maximization because the main aim of the business concern under this concept is to improve the value or wealth of the shareholders.

(ii) Wealth maximization considers the comparison of the value to cost associated with the business concern. Total value detected from the total cost incurred for the business operation. It provides extract value of the business concern.

(iii) Wealth maximization considers both time and risk of the business concern.

(iv) Wealth maximization provides efficient allocation of resources.

(v) It ensures the economic interest of

Unfavourable Arguments for Wealth Maximization

(i) Wealth maximization leads to prescriptive idea of the business concern but it may not be suitable to present day business activities.

(ii) Wealth maximization is nothing, it is also profit maximization, and it is the indirect name of the profit maximization.

(iii) Wealth maximization creates ownership-management controversy.

(iv) Management alone enjoys certain benefits.

(v) The ultimate aim of the wealth maximization objectives is to maximize the profit.

(vi) Wealth maximization can be activated only with the help of the profitable position of the business concern.

1.4 PROFIT VS. WEALTH MAXIMIZATION

Profit maximization:

Profit maximization is the capability of the firm in producing maximum output with the limited input, or it uses minimum input for producing stated output. It is termed as the foremost objective of the company. It has been traditionally recommended that the apparent motive of any business organisation is to earn a profit, it is essential for the success, survival, and growth of the company. Profit is a long term objective, but it has a short-term perspective i.e. one financial year.

Profit can be calculated by deducting total cost from total revenue. Through profit maximization, a firm can be able to ascertain the input-output levels, which gives the highest amount of profit. Therefore, the finance officer of an organisation should take his decision in the direction of maximizing profit although it is not the only objective of the company.

Profit maximisation is considered as the goal of financial management. In this approach, actions that increase profits should be undertaken and the actions that decrease the profits are avoided. Thus, the investment, financing and dividend also be noted that the term objective provides a normative framework decisions should be oriented to the maximization of profits. The term 'profit' is used in two senses. In one sense it is used as an owner-oriented.

In this concept it refers to the amount and share of national Income that is paid to the owners of business. The second way is an operational concept i.e. profitability. This concept signifies economic efficiency. It means profitability refers

to a situation where output exceeds Input. It means, the value created by the use of resources is greater that the input resources. Thus in all the decisions, one test is used i.e. select asset, projects and decisions that are profitable and reject those which are not profitable.

The profit maximization criterion is criticized on several grounds. Firstly, the reasons for the opposition that are based on misapprehensions about the workability and fairness of the private enterprise itself. Secondly, profit maximization suffers from the difficulty of applying this criterion in the actual real-world situations. The term 'objective' refers to an explicit operational guide for the internal investment and financing of a firm and not the overall business operations. We shall now discuss the limitations of profit maximization objective of financial management.

1) Ambiguity: The term 'profit maximization' as a criterion for financial decision is vague and ambiguous concept. It lacks precise connotation. The term 'profit' is amenable to different interpretations by different people. For example, profit may be long-term or short-term. It may be total profit or rate of profit. It may be net profit before tax or net profit after tax. It may be return on total capital employed or total assets or shareholders equity and so on.

2) Timing of Benefits: Another technical objection to the profit maximization criterion is that It ignores the differences in the time pattern of the benefits received from investment proposals or courses of action. When the profitability is worked out the bigger the better principle is adopted as the decision is based on the total benefits received over the working life of the asset, irrespective of when they were received.

3) Quality of Benefits: Another important technical limitation of profit maximization criterion is that it ignores the quality aspects of benefits which are associated with the financial course of action. The term 'quality' means the degree of certainty associated with which benefits can be expected. Therefore, the more certain the expected return, the higher the quality of benefits. As against this, the

more uncertain or fluctuating the expected benefits, the lower the quality of benefits.

The profit maximization criterion is not appropriate and suitable as an operational objective. It is unsuitable and inappropriate as an operational objective of investment financing and dividend decisions of a firm. It is vague and ambiguous. It ignores important dimensions of financial analysis viz. risk and time value of money.

An appropriate operational decision criterion for financial management should possess the following quality.

a) It should be precise and exact.

b) It should be based on bigger the better principle.

c) It should consider both quantity and quality dimensions of benefits.

d) It should recognize time value of money.

Wealth maximization:

Wealth maximization is the ability of a company to increase the market value of its common stock over time. The market value of the firm is based on many factors like their goodwill, sales, services, quality of products, etc. It is the versatile goal of the company and highly recommended criterion for evaluating the performance of a business organisation. This will help the firm to increase their share in the market, attain leadership, maintain consumer satisfaction and many other benefits are also there.

It has been universally accepted that the fundamental goal of the business enterprise is to increase the wealth of its shareholders, as they are the owners of the undertaking, and they buy the shares of the company with the expectation that it will give some return after a period. This states that the financial decisions

of the firm should be taken in such a manner that will increase the Net Present Worth of the company's profit. The value is based on two factors:

1). Rate of Earning per share

2). Capitalization Rate

Wealth maximization decision criterion is also known as Value Maximization or Net Present-Worth maximization. In the current academic literature value maximization is widely accepted as an appropriate operational decision criterion for financial management decision. It removes the technical limitations of the profit maximization criterion. It posses the three requirements of a suitable operational objective of financial courses of action. These three features are exactness, quality of benefits and the time value of money.

i) Exactness: The value of an asset should be determined in terms of returns it can produce. Thus, the worth of a course of action should be valued In terms of the returns less the cost of undertaking the particular course of action. Important element in computing the value of a financial course of action is the exactness in computing the benefits associated with the course of action. The wealth maximization criterion is based on cash flows generated and not on accounting profit. The computation of cash inflows and cash outflows is precise. As against this the computation of accounting is not exact.

ii) Quality and Quantity and Benefit and Time Value of Money: The second feature of wealth maximization criterion is that. It considers both the quality and quantity dimensions of benefits. Moreover, it also incorporates the time value of money. As stated earlier the quality of benefits refers to certainty with which benefits are received in future.

The more certain the expected cash inflows the better the quality of benefits and higher the value. On the contrary the less certain the flows the lower the quality and hence, value of benefits. It should also be noted that money has time value. It should also be noted that benefits received in earlier years should be

valued highly than benefits received later.

The operational implication of the uncertainty and timing dimensions of the benefits associated with a financial decision is that adjustments need to be made in the cash flow pattern. It should be made to incorporate risk and to make an allowance for differences in the timing of benefits. Net present value maximization is superior to the profit maximization as an operational objective.

It involves a comparison of value of cost. The action that has a discounted value reflecting both time and risk that exceeds cost is said to create value. Such actions are to be undertaken. Contrary to this actions with less value than cost, reduce wealth should be rejected. It is for these reasons that the Net Present Value Maximization is superior to the profit maximization as an operational objective.

WEALTH MAXIMIZATION Vs. PROFIT MAXIMIZATION

Financial management is essential for any organization that seeks to manage their finances in an orderly manner. Wealth maximization and profit maximization are two important goals of financial management and are quite different to each other. Profit maximization looks at the shorter term and focuses on making larger profits in the short term, which could be at the expense of long term benefits. Wealth maximization, on the other hand, focuses on the long term and strives at long term value creation. As an example, a company has the option to invest $200,000 in a new technology to develop its product offering. If the investment is made now, the current profit levels of $400,000 will be reduced to $200,000. However, once the investment is made, the product that is currently sold for $10 can be sold for $15 in the future, which will then result in the market value of shares increasing by 10%. The bargain here is whether the $200,000 investment should be sacrificed for short term profits, or whether the investment should be made so that the product can be sold at a higher price, which will then increase market value, creating long term wealth. These differences are substantial, as noted below:

1). Planning duration: Under profit maximization, the immediate increase of profits is paramount, so management may elect not to spend on discretionary expenses, such as advertising, research, or maintenance. Under wealth maximization, management always makes the discretionary expenditures.

2). Risk management: Under profit maximization, management minimizes expenditures, so it is less likely to pay for hedges that could reduce the organization's risk profile. A wealth-focused company would work on risk mitigation, so its risk of loss is reduced.

3). Pricing strategy: When management wants to maximize profits, it prices products as high as possible in order to increase margins. A wealth-oriented company could do the reverse, electing to reduce prices in order to build market share over the long term.

4). Capacity planning: A profit-oriented business will spend just enough on its productive capacity to handle the existing sales level and perhaps the short-term sales forecast. A wealth-oriented business will spend more heavily on capacity in order to meet its long-term sales projections.

Thus profit maximization is a traditional approach and the more modern wealth maximization approach. It should be apparent from the preceding discussion that profit maximization is a strictly short-term approach to managing a business, which could be damaging over the long term. Wealth maximization focuses attention on the long term, requiring a larger investment and lower short-term profits, but with a long-term payoff that increases the value of the business.

Comparison between profit maximisation and wealth maximisation

Basis of Comparison	Profit maximization	Wealth maximization
Concept	The main objective of a concern is to earn a larger amount of profit.	The ultimate goal of the concern is to improve the market value of its shares.
Emphasizes on	Achieving short term objectives.	Achieving long term objectives.
Time value of money	It ignores time value of money. Time value of money refers the money receivable today is more valuable than the money which is going to be recieved in future.	It considers time value of money. In wealth maximization, the future cash flows are discounted at an suitable discounted rate to represent their present value.
Consideration of Risks and Uncertainty	It ignores risk and uncertainty	It recognizes risk and uncertainty
Reliability	In the new business environment Profit maximisation is regarded as unrealistic, difficult, inappropriate and immoral.	Wealth maximisation objectives ensures fair return to the shareholders, reserve funds for growth and expansion, promoting financial discipline in the management.
Advantage	Acts as a yardstick for computing the operational efficiency of the entity.	Gaining a large market share.
Recognition of Time Pattern of Returns	It ignores timing of return	It recognizes the timings of return

Key Differences Between Profit Maximization and Wealth Maximization

The fundamental differences between profit maximization and wealth maximization is explained in points below:

1). The process through which the company is capable of increasing earning capacity known as Profit Maximization. On the other hand, the ability of the company in increasing the value of its stock in the market is known as wealth maximization.

2). Profit maximization is a short term objective of the firm while the long-term objective is Wealth Maximization.

3). Profit Maximization ignores risk and uncertainty. Unlike Wealth Maximization, which considers both.

4). Profit Maximization avoids time value of money, but Wealth Maximization recognises it.

5). Profit Maximization is necessary for the survival and growth of the enterprise. Conversely, Wealth Maximization accelerates the growth rate of the enterprise and aims at attaining the maximum market share of the economy.

Conclusion

There is always a contradiction between Profit Maximization and Wealth Maximization. We cannot say that which one is better, but we can discuss which is more important for a company. Profit is the basic requirement of any entity. Otherwise, it will lose its capital and cannot be able to survive in the long run. But, as we all know, the risk is always associated with profit or in the simple language profit is directly proportional to risk and the higher the profit, the higher will be the risk involved with it. So, for gaining the larger amount of profit a

finance manager has to take such decision which will give a boost to the profitability of the enterprise.

In the short run, the risk factor can be neglected, but in the long-term, the entity cannot ignore the uncertainty. Shareholders are investing their money in the company with the hope of getting good returns and if they see that nothing is done to increase their wealth. They will invest somewhere else. If the finance manager takes reckless decisions regarding risky investments, shareholders will lose their trust in that company and sell out the shares which will adversely affect on the reputation of the company and ultimately the market value of the shares will fall.

Therefore, it can be said that for day to day decision making, Profit Maximization can be taken into consideration as a sole parameter but when it comes to decisions which will directly affect the interest of the shareholders, then Wealth Maximization should be exclusively considered.

1.5 ROLE OF FINANCIAL MANAGER

Financial activities of a firm is one of the most important and complex activities of a firm. Therefore in order to take care of these activities a financial manager performs all the requisite financial activities.

A financial manger is a person who takes care of all the important financial functions of an organization. The person in charge should maintain a far sightedness in order to ensure that the funds are utilized in the most efficient manner. His actions directly affect the profitability, growth and goodwill of the firm.

Following are the main functions/role of a Financial Manager:

i) **Estimating Requirements of Funds:** The first function of finance manager is to estimate the business requirements both for long term and short term purposes. A finance manager has to estimate the funds required to be invested in long term assets as well as current assets. A realistic estimation of funds requirement is therefore a crucial function of finance manager.

ii) **Deciding Overall Objectives:** A finance manger needs to be guided by some objectives. As a head of finance department the finance manager therefore has to determine the overall goals of finance department. The goals help in financial planning and decision making.

iii) **Determining Capital Composition:** A finance manager has to decide for capital structure, i.e. the mix of various sources of capital. The decision involves deciding about the ratio of debt, equity and shares. A finance manager has to design the capital structure which has the most economical cost of borrowing funds.

iv) **Deciding Sources of Finance:** There are several sources of finance e.g. shares, i.e. equity/preference, debt instruments, i.e. debentures, bonds, public deposits, bank loans, loans from financial institutions etc. A finance manager has to decide as to from which source the funds are to be arranged so that the overall cost for the organization is minimized.

v) **Deciding the Schedule of Procurement:** A finance manager has to decide the timing of borrowing funds. Timing of borrowing is crucial as the general market conditions affect the success of public issue. Similarly adequate funds should be arranged so that neither there is shortage of funds nor funds lie unutilized resulting in excessive cost to the organization.

vi) **Investment of Funds:** Fund raised should not lie idle. Judicious deployment of funds is essential to avoid misutilisation of funds and ensuring sound return on investment.

vii) **Managing Profit or Surplus:** Profit earned can either be retained or ploughed back or distributed by way of dividend. The question of how much to retain and how to distribute is a vital question as both the decisions affect the business. Lower dividends affect market price of shares but help maintain liquidity of the organization. Whereas higher dividend improve market price of shares but adversely affect fund availability of the organization.

viii) **Cash Management (Working Capital Management):** Investment of funds in current assets, i.e. investors, debtors and cash is a vital function. Excessive inventory and debtors lead to high cost whereas low inventory may lead to non availability of requisite material. The finance manager therefore has to judiciously decide for the working capital management.

ix) **Financial Control.** Financial control needs to be exercised to avoid wasteful expenditure and best possible utilization of available resources. Financial controls also include budgeting and variance analysis to minimize wasteful fund utilization and maximizing return. Other techniques of financial control are internal audit, cost control, break even analysis, ration analysis, etc.

x) **Compliance of Statutory Provisions.** Compliance of various statutory provisions and taxation matters is also a function of finance manager.

xi) **Liaison with Banks and Financial Institutions:** Effective liaison with banks and other financial institutions is also a function of finance manager.

KEY CHALLENGES OF FINANCIAL MANAGER

i. Designing and fine-tuning a more responsive "Rolling Forecast" budgeting process.

ii. Breeding new economy businesses from within and releasing value through M&As, planning, negotiating and overseeing strategic alliances.

iii. Managing physical and even working capital will become less and less important as the focus of finance shifts increasingly to intangible assets.

iv. How these assets are valued and nurtured will have little to do with accounting goals.

v. Dramatic changes in resource allocation.

vi. Dynamically balancing investments between old and new economy ventures will be essential to fuelling growth and shareholder value.

Leading the effort to align the strategic plan with the new operating mode, change

the organization structure, build the information systems and infrastructure, and develop the reporting and measures required to enable the enterprise to operate as smaller, independent business units.

The fortification of finance is the driver of change. From safeguarding the assets of the company to being answerable to investors, finance is the voice of organization. The meteoric growth in the use of Internet has compelled corporate to take a second look at the factors that drive their businesses. The old rules no longer work in the new arena.

In the hi-tech age, one can no longer group fundamental activities and manage them collectively.

1.6 TIME VALUE OF MONEY

Money has time value. A rupee today is more valuable than a year hence. It is on this concept "the time value of money" is based. The recognition of the time value of money and risk is extremely vital in financial decision making. Most financial decisions such as the purchase of assets or procurement of funds, affect the firm's cash flows in different time periods. For example, if a fixed asset is purchased, it will require an immediate cash outlay and will generate cash flows during many future periods. Similarly if the firm borrows funds from a bank or from any other source, it receives cash and commits an obligation to pay interest and repay principal in future periods. The firm may also raise funds by issuing equity shares. The firm's cash balance will increase at the time shares are issued, but as the firm pays dividends in future, the outflow of cash will occur. Sound decision-making requires that the cash flows which a firm is expected to give up over period should be logically comparable. In fact, the absolute cash flows which differ in timing and risk are not directly comparable. Cash flows become logically comparable when they are appropriately adjusted for their differences in timing and risk. The recognition of the time value of money and risk is extremely vital in financial decision-making. If the timing and risk of cash flows is not considered, the firm may make decisions which may allow it to miss its objective of maximising the owner's welfare. The welfare of owners would be maximised when Net Present

Value is created from making a financial decision. It is thus, time value concept which is important for financial decisions. Thus, we conclude that time value of money is central to the concept of finance. It recognizes that the value of money is different at different points of time. Since money can be put to productive use, its value is different depending upon when it is received or paid. In simpler terms, the value of a certain amount of money today is more valuable than its value tomorrow. It is not because of the uncertainty involved with time but purely on account of timing. The difference in the value of money today and tomorrow is referred as time value of money.

Reasons For Time Value of Money

Money has time value because of the following reasons:

1. **Risk and Uncertainty :** Future is always uncertain and risky. Outflow of cash is in our control as payments to parties are made by us. There is no certainty for future cash inflows. Cash inflows is dependent out on our Creditor, Bank etc. As an individual or firm is not certain about future cash receipts, it prefers receiving cash now.

2. **Inflation:** In an inflationary economy, the money received today, has more purchasing power than the money to be received in future. In other words, a rupee today represents a greater real purchasing power than a rupee a year hence.

3. **Consumption:** Individuals generally prefer current consumption to future consumption.

4. **Investment opportunities:** An investor can profitably employ a rupee received today, to give him a higher value to be received tomorrow or after a certain period of time. Thus, the fundamental principle behind the concept of time value of money is that, a sum of money received today, is worth more than if the same is received after a certain period of time. For example, if an individual is given an alternative either to receive Rs. 10,000 now or after one year, he will prefer Rs. 10,000 now. This is because, today, he

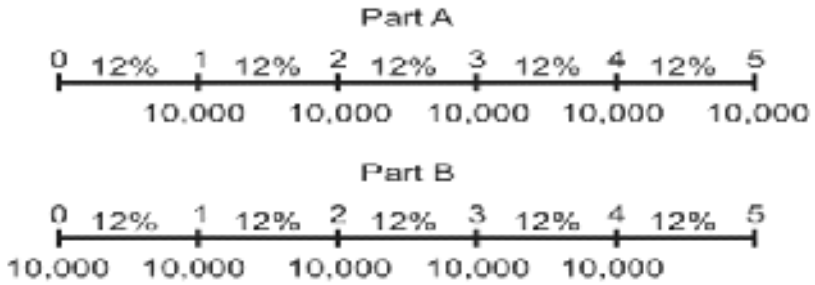
may be in a position to purchase more goods with this money than what he is going to get for the same amount after one year. Thus, time value of money is a vital consideration in making financial decision. Let us take some examples:

EXAMPLE 1: A project needs an initial investment of Rs. 1,00,000. It is expected to give a return of Rs. 20,000 per annum at the end of each year, for six years. The project thus involves a cash outflow of Rs. 1,00,000 in the 'zero year' and cash inflows of Rs. 20,000 per year, for six years. In order to decide, whether to accept or reject the project, it is necessary that the Present Value of cash inflows received annually for six years is ascertained and compared with the initial investment of Rs. 1,00,000. The firm will accept the project only when the Present Value of cash inflows at the desired rate of interest exceeds the initial investment or at least equals the initial investment of Rs. 1,00,000.

EXAMPLE 2: A firm has to choose between two projects. One involves an outlay of Rs. 10 lakhs with a return of 12% from the first year onwards, for ten years. The other requires an investment of Rs. 10 lakhs with a return of 14% per annum for 15 years commencing with the beginning of the sixth year of the project. In order to make a choice between these two projects, it is necessary to compare the cash outflows and the cash inflows resulting from the project. In order to make a meaningful comparison, it is necessary that the two variables are strictly comparable. It is possible only when the time element is incorporated in the relevant calculations. This reflects the need for comparing the cash flows arising at different points of time in decision-making.

Timelines And Notation

When cash flows occur at different points in time, it is easier to deal with them using a timeline. A timeline shows the timing and the amount of each cash flow in cash flow stream. Thus, a cash flow stream of Rs. 10,000 at the end of each of the next five years can be depicted on a timeline like the one shown below.



As shown above, 0 refers to the present time. A cash flow that occurs at time 0 is already in present value terms and hence does not require any adjustment for time value of money. You must distinguish between a period of time and a point of time. Period 1 which is the first year is the portion of timeline between point 0 and point 1. The cash flow occurring at point 1 is the cash flow that occurs at the end of period 1. Finally, the discount rate, which is 12 per cent in our example, is specified for each period on the timeline and it may differ from period to period. If the cash flow occurs at the beginning, rather than the end of each year, the timeline would be as shown in Part B. Note that a cash flow occurring at the end of the year 1 is equivalent to a cash flow occurring at the beginning of year 2. Cash flows can be positive or negative. A positive cash flow is called a cash inflow; and a negative cash flow, a cash outflow.

Valuation Concepts

The time value of money establishes that there is a preference of having money at present than a future point of time. It means

(a) That a person will have to pay in future more, for a rupee received today. For example : Suppose your father gave you Rs. 100 on your tenth birthday. You deposited this amount in a bank at 10% rate of interest for one year. How much future sum would you receive after one year? You would receive Rs. 110

$$\text{Future sum} = \text{Principal} + \text{Interest}$$

$$= 100 + 0.10 \times 100$$

$$= \text{Rs. } 110$$

What would be the future sum if you deposited ` 100 for two years?

You would now receive interest on interest earned after one year.

$$\text{Future sum} = 100 \times 1.102$$

$$= \text{Rs. } 121$$

We express this procedure of calculating as Compound Value or

Future Value of a sum.

(b) A person may accept less today, for a rupee to be received in the future. Thus, the inverse of compounding process is termed as discounting. Here we can find the value of future cash flow as on today.

TECHNIQUES OF TIME VALUE OF MONEY

There are two techniques for adjusting time value of money. They are:

1. Compounding Techniques/Future Value Techniques

2. Discounting/Present Value Techniques

The value of money at a future date with a given interest rate is called future value. Similarly, the worth of money today that is receivable or payable at a future date is called Present Value.

1.6.1 Compounding Techniques/Future Value Technique

In this concept, the interest earned on the initial principal amount becomes a part of the principal at the end of the compounding period.

FOR EXAMPLE: Suppose you invest ` 1000 for three years in a saving account that pays 10 per cent interest per year. If you let your interest income be reinvested, your investment will grow as follows:

First year	:	Principal at the beginning	1,000
		Interest for the year (Rs. 1,000 × 0.10)	100
		Principal at the end	1,100

Second year	:	Principal at the beginning	1,100
		Interest for the year (Rs. 1,100 × 0.10)	110
		Principal at the end	1210
Third year	:	Principal at the beginning	1210
		Interest for the year (Rs. 1210 × 0.10)	121
		Principal at the end	1331

This process of compounding will continue for an indefinite time period.

The process of investing money as well as reinvesting interest earned there on is called Compounding. But the way it has gone about calculating the future value will prove to be cumbersome if the future value over long maturity periods of 20 years to 30 years is to be calculated.

A generalised procedure for calculating the future value of a single amount compounded annually is as follows:

Formula:

$$FV_n = PV(1 + r)^n$$

In this equation (1 + r)n is called the future value interest factor (FVIF).

where, FVn = Future value of the initial flow n year hence

PV = Initial cash flow

r = Annual rate of Interest

n = number of years

By taking into consideration, the above example, we get the same result.

$$FV_n = PV\ (1 + r)^n$$

$$= 1{,}000\ (1.10)^3$$

$FV_n = 1331$

To solve future value problems, we consult a future value interest factor (FVIF) table. The table shows the future value factor for certain combinations of periods and interest rates. To simplify calculations, this expression has been evaluated for various combination of 'r' and 'n'. Exhibit 1.1 presents one such table showing the future value factor for certain combinations of periods and interest rates.

Continued of Time Value of Money

Exhibit 1.1 Value of $FVIF_{r,n}$ for various combinations of r and n

n/r	6%	8%	10%	12%	14%
2	1.124	1.166	1.210	1.254	1.300
4	1.262	1.360	1.464	1.574	1.689
6	1.419	1.587	1.772	1.974	2.195
8	1.594	1.851	2.144	2.476	1.853
10	1.791	2.159	2.594	3.106	3.707
12	2.012	2.518	3.138	3.896	4.817

Future Value of A Single Amount (Lumpsum)

The formula for calculating the Future Value of a single amount is as follows:

$FV_n = PV\ (1 + r)^n$

ILLUSTRATION 1: If you deposit ` 55,650 in a bank which is paying a 12 per cent rate of interest on a ten-year time deposit, how much would the deposit grow at the end of ten years?

SOLUTION:

$$FV_n = PV(1 + r)^n \quad \text{or} \quad FV_n = PV(\text{FVIF}_{12\%,10\ \text{yrs}})$$
$$FV_n = ₹\ 55,650\ (1.12)^{10}$$
$$= ₹\ 55,650 \times 3.106 = ₹\ 1,72,848.90$$

MULTIPLE COMPOUNDING PERIODS

Interest can be compounded monthly, quarterly and half-yearly. If compounding is quarterly, annual interest rate is to be divided by 4 and the number of years is to be multiplied by 4. Similarly, if monthly compounding is to be made, annual interest rate is to be divided by 12 and number of years is to be multiplied by 12.

The formula to calculate the compound value is

$$FVn = PV(1+ r/m)^{mxn}$$

where,

FVn = Future value after 'n' years

PV = Cash flow today

r = Interest rate per annum

m = Number of times compounding is done during a year

n = Number of years for which compounding is done.

ILLUSTRATION 2: Calculate the compound value when Rs. 1000 is invested for 3 years and the interest on it is compounded at 10% p.a. semi-annually.

SOLUTION: The formulae is

$$FV_n = PV\left(1+\frac{r}{m}\right)^{m\times n}$$

$$= 1000 \times \left(1 + \frac{.10}{2}\right)^{2\times 3}$$

$$= ₹\ 1340$$

OR

The compound value of Re. 1 at 5% interest at the end of 6 years is Rs. 1.340.

Hence the value of Rs. 1000 using the table (FVIFr, n) will be

FVn = 1000 × 1.340

= Rs. 1,340

ILLUSTRATION 3: Calculate the compound value when Rs. 10,000 is invested for 3 years and interest 10% per annum is compounded on quarterly basis.

SOLUTION: The formulae is

$$FV_n = PV\left(1+\frac{r}{m}\right)^{m\times n}$$

$$= 1000 \times \left(1+\frac{.10}{2}\right)^{2\times 3}$$

$$= ₹\ 1340$$

The compound value of Re. 1 at 5% interest at the end of 6 years is Rs. 1.340. Hence the value of Rs. 1000 using the table (FVIFr, n) will be

FVn = 1000 × 1.340

=Rs 1,340

ILLUSTRATION 4: Mr. Ravi Prasad and Sons invests Rs. 500, Rs. 1,000, Rs. 1,500, Rs 2,000 and Rs. 2,500 at the end of each year. Calculate the compound value at the end of the 5th year, compounded annually, when the interest charged is 5% per annum.

SOLUTION: Statement of the compound value

End of the Year	Amount Deposited	Number of Years Compounded	Compounded Interest Factor ($FVIF_{r,n}$) from Appendix	Future Value
(1)	(2)	(3)	(4)	(2) × (4)
1	500	4	1.216	608.00
2	1,000	3	1.158	1,158.00
3	1,500	2	1.103	1,654.50
4	2,000	1	1.050	2,100.00
5	2,500	0	1.000	2,500.00
Amount at the end of 5th year is Future Value =				**8020.50**

FUTURE VALUE OF MULTIPLE CASH FLOWS

The above illustration is an example of multiple cash flows. The transactions in real life are not limited to one. An investor investing money in instalments may wish to know the value of his savings after 'n' years. The formulae is

$$FV_n = PV\left(1+\frac{r}{m}\right)$$

where,

FVn = Future value after 'n' years

PV = Present value of money today

r = Interest rate

m = Number of times compounding is done in a year.

EFFECTIVE RATE OF INTEREST IN CASE OF MULTI-PERIOD COMPOUNDING

Effective interest rate brings all the different bases of compounding such as yearly, half-yearly, quarterly, and monthly on a single platform for comparison to select the beneficial base. Now, the question is which works out highest interest amount? When interest is compounded on half-yearly basis, interest amount works out more than the interest calculated on yearly basis. Quarterly compounding works out more than half-yearly basis. Monthly compounding works out more than even quarterly compounding. So, if compounding is more frequent, then the amount of interest per year works out more. Now, we want to equate them for comparison. Suppose, an option is given as the following:

Basis of Compounding	Interest Rate
Yearly	10%
Half-yearly	9.5%
Quarterly	9%
Monthly	8.5%

Now, the question is which basis of compounding is to be accepted to get the highest interest rate. The answer is to calculate 'Effective Interest Rate'.

The formulae to calculate the Effective Interest Rate is

$$EIR = \left(1 + \frac{r}{m}\right)^m - 1$$

where,

EIR = Effective Rate of Interest

r = Nominal Rate of Interest (Yearly Interest Rate)

m = Frequency of compounding per year

Take nominal interest rate as the base and find-out the comparable rate of interest for half-yearly, quarterly and monthly basis and select that which is most attractive.

ILLUSTRATION 5:

(i) A company offers 12% rate of interest on deposits. What is the effective rate of interest if the compounding is done on

(a) Half-yearly

(b) Quarterly

(c) Monthly

(ii) As an alternative, the following rates of interest are offered for choice. Which basis gives the highest rate of interest that is to be accepted?

Basis of Compounding	Interest Rate
Yearly	12%
Half-yearly	11.75%
Quarterly	11.50%
Monthly	11.25%

SOLUTION:

(i) The formula for calculation of effective interest is as below:

$$EIR = \left(1 + \frac{r}{m}\right) - 1$$

(A) When the compounding is done on half-yearly basis:

$$EIR = \left[\left(1 + \frac{.12}{2}\right)^2 - 1\right]$$
$$= 1.1236 - 1$$
$$= 12.36\%$$

(B) When the compounding is done on quarterly basis

$$EIR = \left[1 + \frac{.12}{4}\right]^4 - 1$$
$$= 0.1255$$
$$= 12.55\%$$

(C) When the compounding is done on monthly basis

$$EIR = \left[1 + \frac{.12}{12}\right]^{12} - 1$$
$$= 0.1268$$
$$= 12.68\%$$

Basis of Compounding	Interest Rate	EIR
Yearly	12%	12%
Half-yearly	12%	12.36%
Quarterly	12%	12.55%
Monthly	12%	12.68%

(ii) When the compounding is done on half-yearly basis

$$EIR = \left[1+\frac{.1175}{2}\right]^{2}-1$$
$$= 0.1209$$
$$= 12.09\%$$

When the compounding is done on quarterly basis:

$$EIR = \left[1+\frac{0.1150}{4}\right]^{4}-1$$
$$= .1200$$
$$= 12\%$$

When the compounding is done on monthly basis:

$$EIR = \left[1+\frac{0.1125}{12}\right]^{12}-1$$
$$= 0.1184$$
$$= 11.84\%$$

Thus, out of all interest rate, interest rate of 11.75% on half-yearly compounding works out to be the highest effective interest rate i.e., 12.09% so this option is to be accepted.

ILLUSTRATION 6: Find out the effective rate of interest, if nominal rate of interest is 12% and is quarterly compounded.

SOLUTION:

$$EIR = \left[\left(1+\frac{r}{m}\right)^{m}-1\right]$$

$$= \left[\left(1+\frac{.12}{4}\right)^{4}-1\right]$$

$$= [(1+0.03)^{4}-1]$$

$$= 1.126 - 1$$

$$= 0.126$$

$$= 12.6\% \text{ p.a.}$$

Growth Rate

The compound rate of growth for a given series for a period of time can be calculated by employing the future value interest factor table (FVIF)

EXAMPLE:

Years	Profit (in Lakhs)
1	95
2	105
3	140
4	160
5	165
6	170

How is the compound rate of growth for the above series determined?

This can be done in two steps:

(i) The ratio of profits for year 6 to year 1 is to be determined i.e.,

170/95 = 1.79

(ii) The FVIFr,n table is to be looked at. Look at a value which is close to 1.79 for the row for 5 years. The value close to 1.79 is 1.762 and the interest rate corresponding to this is 12%. Therefore, the compound rate of growth is 12 per cent.

1.6.2 Discounting Or Present Value Concept

Present value is the exact opposite of future value. The present value of a future cash inflow or outflow is the amount of current cash that is of equivalent value to the decision maker. The process of determining present value of a future payment or receipts or a series of future payments or receipts is called discounting. The compound interest rate used for discounting cash flows is also called the discount rate. In the next chapter, we will discuss the net present value calculations.

Simple And Compound Interest

In compound interest, each interest payment is reinvested to earn further interest in future periods. However, if no interest is earned on interest, the investment earns only simple interest. In such a case, the investment grows as follows:

$$\text{Future value} = \text{Present value}\,[1 + \text{Number of years} \times \text{Interest rate}]$$

For example, if Rs. 1,000 is invested @ 12% simple interest, in 5 years it will become

$$1{,}000\,[\,1 + 5 \times 0.12] = \text{Rs. } 1{,}600$$

The following table reveals how an investment of Rs. 1,200 grows over time under simple interest as well as compound interest when the interest rate is 12 per cent. From this table, we can feel the power of compound interest. As Albert Einstein once remarked, " I don't know what the seven wonders of the world are, but I know the eighth - the compound interest. You may be wondering why your ancestors did not display foresight. Hopefully, you will show concern for your posterity."Value of Rs. 1,000 invested at 10% simple and compound interest

Year	Simple Interest	Compound Interest
	Starting Balance + Interest = Ending Balance	Starting Balance + Interest = Ending Balance
1	1,000 + 100 = 1,100	1,000 + 100 = 1,100
5	1,400 + 100 = 1,500	1,464 + 146 = 1,610
10	1,900 + 100 = 2,000	2,358 + 236 = 2,594
20	2,900 + 100 = 3,000	6,116 + 612 = 6,728
50	5,900 + 100 = 6,000	1,06,718 + 10672 = 11,7,390
100	10,900 + 100 = 11,000	1,25,27,829 + 12,52,783 = 1,37,80,612

ILLUSTRATION 7: Mr. Rahul has deposited Rs. 1,00,000 in a saving bank account at 6 per cent simple interest and wishes to keep the same, for a period of 5 years. Calculate the accumulated Interest.

SOLUTION:

$$S1 = P0\ (I)\ (n)$$

where,

S1 = Simple interest

P0 = Initial amount invested

I = Interest rate

n = Number of years

S1 = Rs. 1,00,000 × 0.06 × 5 years

S1 = Rs. 30,000

If the investor wants to know his total future value at the end of 'n' years. Future value is the sum of accumulated interest and the principal amount.

Symbolically

$$FVn = P0 + P0(I)\ (n)$$

OR

S1 + P0

1.7 SUMMARY

Business concern needs finance to meet their requirements in the economic world. Any kind of business activity depends on the finance. Hence, it is called as lifeblood of business organization. Whether the business concerns are big or small, they need finance to fulfil their business activities. In the modern world, all the activities are concerned with the economic activities and very particular to earning profit through any venture or activities. The entire business activities are directly related with making profit. According to the economics concept of factors of production, rent given to landlord, wage given to labour, interest given to capital and profit given to shareholders or proprietor, a business concern needs finance to meet all the requirements. Hence finance may be called as capital, investment, fund etc., but each term is having different meanings and unique characters. Increasing the profit is the main aim of any kind of economic activity. Effective procurement and efficient use of finance lead to proper utilization of the finance by the business concern. It is the essential part of the financial manager. Hence, the financial manager must determine the basic objectives of the financial management. Objectives of Financial Management may be broadly divided into two parts such as: 1. Profit maximization 2. Wealth maximization. Profit maximization-The main purpose of any kind of economic activity is earning profit. A business concern operates mainly for the purpose of making profit. Profit has become the yardstick to measure the business efficiency of a concern. Profit maximization is also the out-moded and narrow approach, which aims at, maximizing the profit of the concern. Wealth maximization-Wealth maximization is one of the modern approaches, which involves latest innovations and improvements in the field of the business concern. The term wealth means shareholder wealth or the wealth of the persons those who are involved in the business concern. Wealth maximization is also known as value maximization or net present worth maximization. This objective is a universally accepted concept in the field of business. The essential difference between the maximization of profits and the

maximization of wealth is that the profits focus is on short-term earnings, while the wealth focus is on increasing the overall value of the business entity over time. Financial managers perform data analysis and advise senior managers on profit-maximizing ideas. Financial managers are responsible for the financial health of an organization. They produce financial reports, direct investment activities, and develop strategies and plans for the long-term financial goals of their organization. Financial managers typically: Prepare financial statements, business activity reports, and forecasts; Monitor financial details to ensure that legal requirements are met; Supervise employees who do financial reporting and budgeting; Review company financial reports and seek ways to reduce costs; Analyze market trends to find opportunities for expansion or for acquiring other companies; Help management make financial decisions. The role of the financial manager, particularly in business, is changing in response to technological advances that have significantly reduced the amount of time it takes to produce financial reports. Financial managers' main responsibility used to be monitoring a company's finances, but they now do more data analysis and advise senior managers on ideas to maximize profits. They often work on teams, acting as business advisors to top executives. Time value of money is the value which is earned over a given amount of time in terms of interest. For example if Rs. 200 money will be invested for about 1 year then the earning will be of 5% interest which will be worth 205 after one year. So using this time value of money terminology the future value can be predicted. The techniques which are used for this is as follows:

Calculation of the present value: in this the worth of the future sum is given and the specified rate of return is been shown. It has lots of variations in this is that the future cash flow are discounted at the discount rate and it also represents the low present value of future cash flow. Discounted cash flow: in finance it is the analysis of a method which talks about the value of the project, company and the asset which is being used using the time value of money. In this all estimation has been taken and discounted for the present value as it shows both incoming and outgoing. This kind is used for investment of the finance and used for financial management.

1.8 GLOSSARY

Financial Management: Financial Management means planning, organizing, directing and controlling the financial activities such as procurement and utilization of funds of the enterprise.

Profit Maximisation: It is a traditional and narrow approach which aims at maximisation of returns by the firm in terms of monetary resources and increasing the earning per share of the shareholders. Under such approach maximisation of profit is the sole objective of a business and the behaviour of a firm is analysed in terms of its profit maximisation ability.

Wealth maximisation: It refers to maximisation of the net present value of a course of action for increasing shareholders wealth.

Time Value of money: It is the premise that an investor prefers to receive a payment of a fixed amount of money today, rather than an equal amount in the future, all else being equal.

Compounding time value of money: It is the process of calculating future value of cash flows.

Discounting time value of money: It is the process of calculating present value of cash flows.

1.9 SELF ASSESSMENT QUESTIONS

1. Explain the importance and objective of financial management.
2. Why is the consideration of time important in financial decision-making? How can time be adjusted? Illustrate your answer.
3. Explain the discounting and compounding technique of time value of money.
4. Discuss in detail the emerging role of financial manager in Indian context.
5. Mr. Dhiraj deposits Rs. 1,00,000 at the end of each year for 10 years. What will be the value of his money at the end of 10 years at (a) 9%, (b)

10% and (c) 12%?

[Ans. (a) Rs. 15,19,300; (b) Rs. 15,93, 700; (c) Rs. 17,54,900]

1.10 LESSON END EXERCISE

1. Define financial management.

_____

_____

_____

2. Discuss the relationship between profit and wealth maximisation.

_____

_____

_____

3. If you deposit Rs. 1,00,000 in a bank which provides an interest of 12% quarterly compounding is done. How much will the investment be after 5 years?

[Ans. Rs. 1,80,611]

_____

_____

_____

1.11 SUGGESTED READING

1. Financial Management : I.M. Pandey

2. Fundamental of Financial Management : M.Y. Khan

3. Fundamentals of Financial Management : Prasanna Chandra

4. Fundamentals of Financial Management : J.Van Horne

C. No. :- BM-601 **UNIT II**

SEMESTER: VI **LESSON : 3-4**

FINANCIAL ANALYSIS

STRUCTURE

2.1 INTRODUCTION

Financial Statement Analysis (Financial Analysis) is a method of reviewing and analyzing a company's accounting reports (financial statements) in order to gauge its past, present or projected future performance. This process of reviewing the financial statements allows for better economic decision making. Globally, publicly listed companies are required by law to file their financial statements with the relevant authorities. For example, publicly listed firms in America are required to submit their financial statements to the Securities and Exchange Commission (SEC). Firms are also obligated to provide their financial statements in the annual report that they share with their stakeholders. As financial statements are prepared in order to meet requirements, the second step in the process is to analyze them effectively so that future profitability and cash flows can be forecasted. Therefore, the main purpose of financial statement analysis is to utilize information about the past performance of the company in order to predict how it will fare in the future. Another important purpose of the analysis of financial statements is to identify potential problem areas and troubleshoot those. To sum up, Financial statement analysis is used to predict a company's future profitability and cash flows from its past performance and to evaluate the performance of a company with an eye toward identifying problem areas. The informativeness of financial ratios is greatly enhanced when they are compared with past values and with values for other firms in the same industry.

2.2 OBJECTIVES

After completion of this lesson you shall be able to know:

- Meaning of Financial Analysis
- Analysis of Financial Health
- Applications of Various Ratios in Decision Making Process
- Analysis of Cash Flow Statement
- Computing Financial and Profitability Ratios.

2.3 FINANCIAL ANALYSIS

MEANING AND DEFINITION

According to **Hamptors** John, the financial statement (financial analysis) is an organized collection of data according to logical and consistent accounting procedures. Its purpose is to convey an understanding of financial aspects of a business firm. It may show a position at a moment of time as in the case of a balance-sheet or may reveal a service of activities over a given period of time, as in the case of an income statement.

Financial statements are the summary of the accounting process, which, provides useful information to both internal and external parties. **John N. Nyer** also defines it "Financial statements provide a summary of the accounting of a business enterprise, the balance-sheet reflecting the assets, liabilities and capital as on a certain data and the income statement showing the results of operations during a certain period".

Financial statements generally consist of two important statements:

(i) The income statement or profit and loss account.

(ii) Balance sheet or the position statement.

A part from that, the business concern also prepares some of the other parts of statements, which are very useful to the internal purpose such as:

(i) Statement of changes in owner's equity.

(ii) Statement of changes in financial position.

2.3.1 ANALYSIS OF FINANCIAL HEALTH OF THE BUSINESS THROUGH VARIOUS TECHNIQUES.

The analysis is primarily performed by management of companies to assess the business sustainability of its suppliers. The overall health of a supplier sheds light on how well it will do in the short term and whether it will be able to honour the supply agreements.

For example, Apple has business agreement with 320 suppliers.

At periodic intervals the financial manager of product sourcing (procurement) team checks the financial health of its suppliers to assess whether a supplier would be able to honour the supply agreement of the products. The company also analyzes the financial health while entering into agreement with a new supplier.

The financial health analysis is also now done by independent Supplier Assessment companies. The Financial Analyst in these companies analyses the financial health for the suppliers of a company (such as Apple) and provides the analysis to the financial manager, who can take decision for existing or new supply agreement.

The assessment of financial health can be done by analyzing the performance under four broad categories:

1. Profitability
2. Cash Flow
3. Liquidity
4. Leverage

This four broad categories will be briefly discussed in section 1.4 and 1.5

2.3.1.1 APPLICATIONS OF VARIOUS RATIOS IN DECISION MAKING PROCESS

Ratio analysis is a technique of analysis and interpretation of financial statements. It is the process of establishing and interpreting various ratios for helping in making certain decisions. However, ratio analysis is not an end in itself. It is only a means of better understanding of financial strengths and weaknesses of a firm.

Calculation of mere ratios does not serve any purpose, unless several appropriate ratios are analyzed and interpreted. There are a number of ratios which can be calculated from the information given in the financial statements,

but the analyst has to select the appropriate data and calculate only a few appropriate ratios from the same keeping in mind the objective of analysis. The ratios may be used as a symptom like blood pressure, the pulse rate or the body temperature and their interpretation depends upon the calibre and competence of the analyst.

The following are the four steps involved in the ratio analysis:

(i) Selection of relevant data from the financial statements depending upon the objective of the analysis.

(ii) Calculation of appropriate ratios from the above data.

(iii) Comparison of the calculated ratios with the ratios of the same firm in the past, or the ratios developed from projected financial statements or the ratios of some other firms or the comparison with ratios of the industry to which the firm belongs.

(iv) Interpretation of the ratios.

Uses of Ratio Analysis:

The ratio analysis is one of the most powerful tools of financial analysis. It is used as a device to analyze and interpret the financial health of enterprise. Just like a doctor examines his patient by recording his body temperature, blood pressure, etc. before making his conclusion regarding the illness and before giving his treatment, a financial analyst analyses the financial statements with various tools of analysis before commenting upon the financial health or weaknesses of an enterprise.

'A ratio is known as a symptom like blood pressure, the pulse rate or the temperature of an individual.' It is with help of ratios that the financial statements can be analyzed more clearly and decisions made from such analysis. The use of ratios is not confined to financial managers only. There are different parties interested in the ratio analysis for knowing the financial position of a firm for different purposes.

The supplier of goods on credit, banks, financial institutions, investors, shareholders and management all make use of ratio analysis as a tool in evaluating the financial position and performance of a firm for granting credit, providing loans or making investments in the firm. With the use of ratio analysis one can measure the financial condition of a firm and can point out whether the condition is strong, good, questionable or poor. The conclusions can also be drawn as to whether the performance of the firm is improving or deteriorating.

Thus, ratios have wide applications and are of immense use today:

(a) Managerial Uses of Ratio Analysis:

1. **Helps in decision-making:** Financial statements are prepared primarily for decision-making. But the information provided in financial statements is not an end in itself and no meaningful conclusion can be drawn from these statements alone. Ratio analysis helps in making decisions from the information provided in these financial statements.

2. **Helps in financial forecasting and planning:** Ratio analysis is of much help in financial forecasting and planning. Planning is looking ahead and the ratios calculated for a number of years work as a guide for the future. Meaningful conclusions can be drawn for future from these ratios. Thus, ratio analysis helps in forecasting and planning.

3. **Helps in communicating:** The financial strength and weakness of a firm are communicated in a more easy and understandable manner by the use of ratios. The information contained in the financial statements is conveyed in a meaningful manner to the one for whom it is meant. Thus, ratios help in communication and enhance the value of the financial statements.

4. **Helps in co-ordination:** Ratios even help in co-ordination which is of utmost importance in effective business management. Better communication of efficiency and weakness of an enterprise results in better coordination in the enterprise.

5. **Helps in Control:** Ratio analysis even helps in making effective control of

the business. Standard ratios can be based upon proforma financial statements and variances or deviations, if any, can be found by comparing the actual with the standards so as to take a corrective action at the right time. The weaknesses or otherwise, if any, come to the knowledge of the management which helps in effective control of the business.

6. **Other Uses:** These are so many other uses of the ratio analysis. It is an essential part of the budgetary control and standard costing. Ratios are of immense importance in the analysis and interpretation of financial statements as they bring the strength or weakness of a firm.

(b) Utility to Shareholders/Investors:

An investor in the company will like to assess the financial position of the concern where he is going to invest. His first interest will be the security of his investment and then a return in the form of dividend or interest. For the first purpose he will try to assess the value of fixed assets and the loans raised against them. The investor will feel satisfied only if the concern has sufficient amount of assets.

Long-term solvency ratios will help him in assessing financial position of the concern. Profitability ratios, on the other hand, will be useful to determine profitability position. Ratio analysis will be useful to the investor in making up his mind whether present financial position of the concern warrants further investment or not.

(c) Utility to Creditors:

The creditors or suppliers extend short-term credit to the concern. They are interested to know whether financial position of the concern warrants their payments at a specified time or not. The concern pays short- term creditor, out of its current assets. If the current assets are quite sufficient to meet current liabilities then the creditor will not hesitate in extending credit facilities. Current and acid-test ratios will give an idea about the current financial position of the concern.

(d) Utility to Employees:

The employees are also interested in the financial position of the concern especially profitability. Their wage increases and amount of fringe benefits are related to the volume of profits earned by the concern. The employees make use of information available in financial statements. Various profitability ratios relating to gross profit, operating profit, net profit, etc. enable employees to put forward their viewpoint for the increase of wages and other benefits.

(e) Utility to Government:

Government is interested to know the overall strength of the industry. Various financial statements published by industrial units are used to calculate ratios for determining short-term, long-term and overall financial position of the concerns. Profitability indexes can also be prepared with the help of ratios. Government may base its future policies on the basis of industrial information available from various units. The ratios may be used as indicators of overall financial strength of public as well as private sector, in the absence of the reliable economic information, governmental plans and policies may not prove successful.

(f) Tax Audit Requirements:

Section 44 AB was inserted in the Income Tax Act by the Finance Act, 1984. Under this section every assessee engaged in any business and having turnover or gross receipts exceeding Rs. 40 lakh is required to get the accounts audited by a chartered accountant and submit the tax audit report before the due date for filing the return of income under Section 139 (1). In case of a professional, a similar report is required if the gross receipts exceed Rs. 10 lakh.

Clause 32 of the Income Tax Act requires that the following accounting ratios should be given:

(i) Gross Profit/Turnover

(ii) Net Profit/Turnover

(iii) Stock-in-trade/Turnover

(iv) Material Consumed/Finished Goods Produced.

Further, it is advisable to compare the accounting ratios for the year under consideration with the accounting ratios for the earlier two years so that the auditor can make necessary enquiries, if there is any major variation in the accounting ratios.

2.4 ANALYSIS OF CASH FLOW STATEMENT

Cash flow statement is a statement which shows the sources of cash inflow and uses of cash out-flow of the business concern during a particular period of time. It is the statement, which involves only short-term financial position of the business concern. Cash flow statement provides a summary of operating, investment and financing cash flows and reconciles them with changes in its cash and cash equivalents such as marketable securities. Institute of Chartered Accountants of India issued the Accounting Standard (AS-3) related to the preparation of cash flow statement in 1998.

2.4.1 Objectives Of Cash Flow Statement

A Cash flow statement shows inflow and outflow of cash and cash equivalents from various activities of a company during a specific period. The primary objective of cash flow statement is to provide useful information about cash flows (inflows and outflows) of an enterprise during a particular period under various heads, i.e., operating activities, investing activities and financing activities.

This information is useful in providing users of financial statements with a basis to assess the ability of the enterprise to generate cash and cash equivalents and the needs of the enterprise to utilise those cash flows. The economic decisions that are taken by users require an evaluation of the ability of an enterprise to generate cash and cash equivalents and the timing and certainty of their generation. The statement of cash flow serves a number of objectives which are as follows :

- Cash flow statement aims at highlighting the cash generated from operating

activities.

- Cash flow statement helps in planning the repayment of loan schedule and replacement of fixed assets, etc.
- Cash is the centre of all financial decisions. It is used as the basis for the projection of future investing and financing plans of the enterprise.
- Cash flow statement helps to ascertain the liquid position of the firm in a better manner. Banks and financial institutions mostly prefer cash flow statement to analyse liquidity of the borrowing firm.
- Cash flow Statement helps in efficient and effective management of cash.
- The management generally looks into cash flow statements to understand the internally generated cash which is best utilised for payment of dividends.
- Cash Flow Statement based on AS-3 (revised) presents separately cash generated and used in operating, investing and financing activities.
- It is very useful in the evaluation of cash position of a firm.

2.4.2 Benefits of Cash Flow Statement

Cash flow statement provides the following benefits:

- A cash flow statement when used along with other financial statements provides information that enables users to evaluate changes in net assets of an enterprise, its financial structure (including its liquidity and solvency) and its ability to affect the amounts and timings of cash flows in order to adapt to changing circumstances and opportunities.
- Cash flow information is useful in assessing the ability of the enterprise to generate cash and cash equivalents and enables users to develop models to assess and compare the present value of the future cash flows of different enterprises.
- It also enhances the comparability of the reporting of operating performance

by different enterprises because it eliminates the effects of using different accounting treatments for the same transactions and events.

- It also helps in balancing its cash inflow and cash outflow, keeping in response to changing condition. It is also helpful in checking the accuracy of past assessments of future cash flows and in examining the relationship between profitability and net cash flow and impact of changing prices.

2.4.3 CASH AND RELEVANT TERMS AS PER AS-3 (REVISED)

As per AS-3 (revised) issued by the Accounting Standards Board

1. (a) Cash fund :

Cash Fund includes (i) Cash in hand

(ii) Demand deposits with banks, and

(iii) cash equivalents.

(b) Cash equivalents are short-term, highly liquid investments, readily convertible into cash and which are subject to insignificant risk of changes in values.

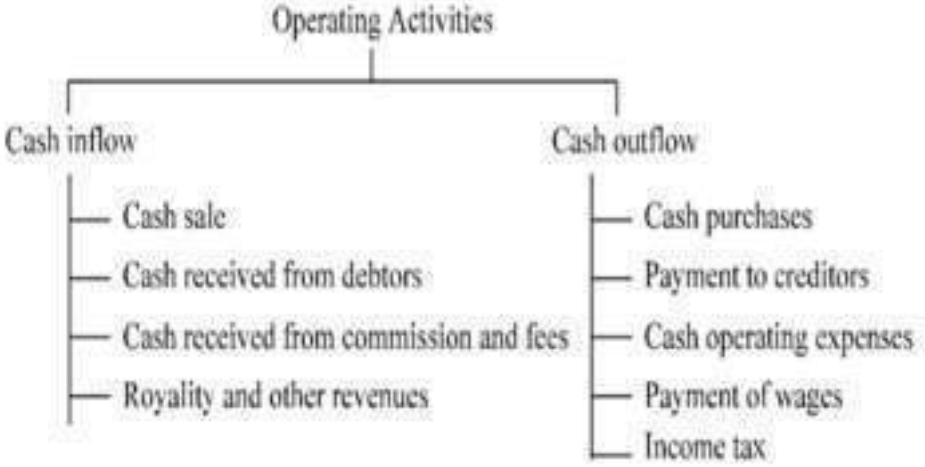
2. Cash Flows are inflows and outflows of cash and cash equivalents. The statement of cash flow shows three main categories of cash inflows and cash outflows, namely : operating, investing and financing activities.

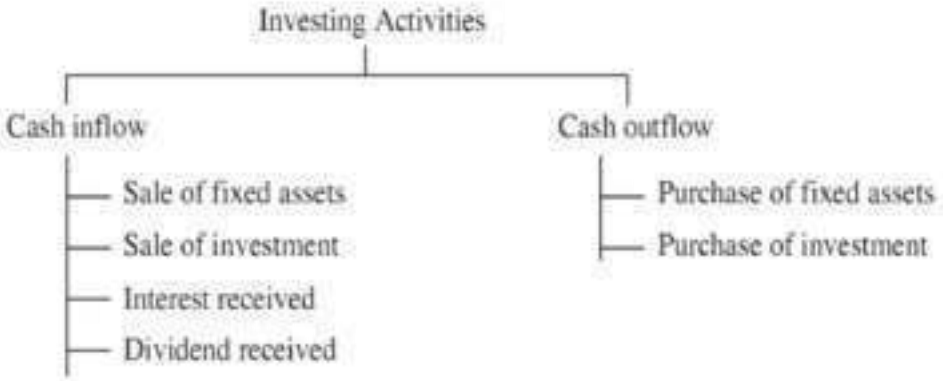
(a) Operating activities are the principal revenue generating activities of the enterprise.

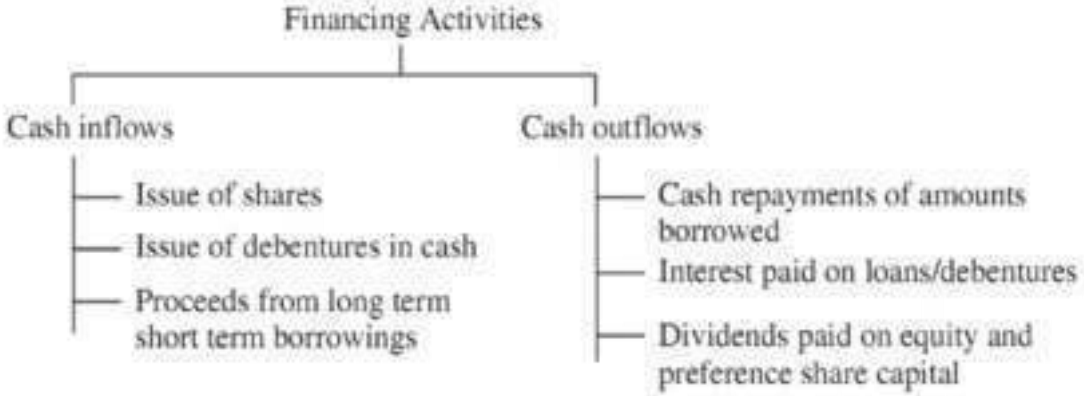
(b) Investing activities include the acquisition and disposal of long- term assets and other investments not included in cash equivalents.

(c) Financing activities are activities that result in change in the size and composition of the owner's capital (including Preference share capital in the case of a company) and borrowings of the enterprise.

As per AS-3 the inflow and outflow of cash are :


Operating Activities
Cash inflow
Cash outflow
Cash sale
Cash received from debtors
Cash received from commission and fees
Royality and other revenues
Cash purchases
Payment to creditors
Cash operating expenses
Payment of wages
Income tax


Investing Activities
Cash inflow
Cash outflow
Sale of fixed assets
Sale of investment
Interest received
Dividend received
Purchase of fixed assets
Purchase of investment


Financing Activities
Cash inflows
Cash outflows
Issue of shares
Issue of debentures in cash
Proceeds from long term short term borrowings
Cash repayments of amounts borrowed
Interest paid on loans/debentures
Dividends paid on equity and preference share capital

2.4.4. Method Of Preparing Cash Flow Statement

There are two methods of preparing the Cash Flow Statement. Both methods give the same results in respect of the final total as well as sub-totals of the three sections - operating, investing and the financing. They differ only in the manner the information regarding cash flow from operating activities is presented.

- **Indirect Method**

Format of Cash Flow Statement for the year ended .....

As per Accounting Standard - 3 (Revised)

Particulars			Rs
(i) Cash flows from operating Activities		xxx	xxx
Net Profit as per Profit and Loss A/c or difference between closing balance and opening balance of Profit and Loss A/c			
Add : Transfer to reserve		xxx	
Proposed dividend for current year		xxx	
Interim dividend paid during the year		xxx	
Provision for tax made during the current year		xxx	
Extraordinary items, if any, debited to Profit and Loss A/c		xxx	xxx
		xxx	xxx
Less : Extraordinary Items, if any, credited to Profit and Loss A/c		xxx	
Refund of Tax credited to Profit and Loss A/c		xxx	xxx
			xxx
A. Net profit before taxation and Extra ordinary items Adjustment for Non-Cash and Non-Operating Items.			
B. Add :			

–	Depreciation	xxx	
–	Preliminary expenses	xxx	
–	Discount on issue of shares and debentures written off	xxx	
–	Interest on borrowings and debentures	xxx	
–	Loss on sale of fixed assets	xxx	xxx
			xxx
C.	Less :		
–	Interest income/received	xxx	
–	Dividend income received	xxx	
–	Rental income received	xxx	
–	Profit on sale of fixed asset	xxx	xxx
D.	Operating profits before working capital changes (A + B – C)	xxx	xxx
			xxx
E.	Decrease in current assets and increase in current liabilities		xxx
F.	Less : Increase in current assets and decrease in current liabilities		xxx
G.	Cash generated from operations (D + E – F)		xxx
H.	Less : Income tax paid (Net tax refund received)		xxx
I.	Cash flow from before extraordinary items		xxx
	Adjusted extraordinary items (+/–)		xxx
J.	Net cash from operating activities		xxx
(ii)	Cash from investing accounting		
	Add :		
–	Proceeds from sale of fixed assets		xxx
–	Proceeds from sale of investments		xxx
–	Proceeds from sale of intangible assets		xxx

– Interest and dividend received			xxx
			xxx
Less :			
– Rent income	xxx		
– Purchase of fixed assets	xxx		
Purchase of investment	xxx		
– Purchase of intangible assets like goodwill	xxx		xxx
			xxx
Advanced extraordinary items (+/–)			xxx
Net cash from (or used in) investing activities			xxx
			xxx
(iii) Cash flows from financing activities			
Add :			
Proceeds from issue of shares and debentures			xxx
Proceeds from other long term borrowings			xxx
			xxx
Less :			
Final dividend fund			xxx
Interim dividend fund			xxx
Interest on debentures and loans paid			xxx

Repayment of loans	xxx		
Redemption of debenture preference shares	xxx	xxx	
Adjust extraordinary items (+/–)	xxx	xxx	
Net cash from (or used in) financing activities		xxx	
		xxx	
(iv) Net increase/Decrease in cash and cash equivalent (i + ii + iii)		xxx	
(v) Add : cash and cash equivalents in the beginning of the year			
– cash in hand	xxx		
– cash at bank overdraft	xxx		
– short term deposit	xxx		
– marketable securities	xxx		
(vi) Less : cash and cash equivalents in the end of the year			
– cash in hand	xxx		
– cash at Bank (by bank overdraft)	xxx		
– short term deposits	xxx		
– Cash flow from operation	xxx	xxx	
		xxx	

- **Direct method**

Format for Cash flow Statement for the year ended .....

As per Accounting Standard-3 (Revised)

Particulars			Rs
(i) Cash flow from operating activities			
A. Operating cash receipts			
– Cash sales	xxx		
– Cash received from customers	xxx		
– Trading commission received	xxx		
– Royalties received	xxx	xxx	
B. Less : Operating cash payment			
– Cash purchase	xxx		
– Cash paid to the supplier	xxx		
– Cash paid for business expenses like office expenses, Manufacturing expenses, selling and distribution expenses	xxx	xxx	
C. Cash generated from operation (A – B)		xxx	
D. Less Income tax paid (Net of tax refund received)		xxx	
E. Cash flow before extraordinary items		xxx	
F. Adjusted extraordinary items (+/–)/Receipt/payment			xxx
G. Net cash flow from (or used in) operating activities			xxx
(ii) Cash flow from investing activities (calculation same as under indirect method)			xxx
(iii) Cash flow from financing activities (Calculation same as under indirect method)			xxx
(iv) Net increase/decrease in cash and cash equivalents (i + ii + iii)			xxx
(v) Add cash and cash equivalent in the beginning of the year (same as under indirect method)			xxx
(vi) Less cash under cash equivalent in the end of the year			xxx
			xxx

2.4.5 Some facts about cash flow statement :

(i) Only listed companies are required to prepare and present Cash flow statement.

(ii) The Accounting period for the Cash Flow Statement is the same for which Profit and Loss Account and Balance Sheet are prepared.

(iii) Cash flow items are as (a) Cash flow from operating activities :(b) Cash flow from investing activities (c) Cash flow from financing activities.

(iv) Operating activities include revenue producing activities which are not investing and financing activities.

(v) There are two methods of calculating cash flow from operating activities namely Direct method and Indirect method. SEBI (Securities Exchange Board of India) Guidelines recommend for only direct method.

(vi) Extra ordinary Items : The Cash flow associated with extra ordinary items should be classified as arising from operating, investing financing activities. For example, the amount received from Insurance Company on account of Loss of Stock or loss from earthquake should be reported as cash flow from operating activities.

2.4.6 Preparation Of Cash Flow Statement

(1) Operating Activities

Cash flow from operating activities are primarily derived from the principal revenue generating activities of the enterprise. A few items of cash flows from operating activities are:

(i) Cash receipt from the sale of goods and rendering services.

(ii) Cash receipts from royalties, fee, Commissions and other revenue.

(iii) Cash payments to suppliers for goods and services.

(iv) Cash payment to employees

(v) Cash payment or refund of Income tax.

Determination of cash flow from operating activities

There are two stages for arriving at the cash flow from operating activities

Stage-1

Calculation of operating profit before working capital changes, It can be calculated in the following manner.

Net profit before Tax and extra ordinary Items	xxx	
Add Non-cash and non operating Items		
which have already been debited to profit and Loss Account i.e.		
Depreciation	xxx	
Amortisation of intangible assets	xxx	
Loss on the sale of Fixed assets.	xxx	
Loss on the sale of Long term Investments	xxx	
Provision for tax	xxx	
Dividend paid	xxx	xxx
		xxx
Less : Non-cash and Non-operating Items which have already been credited to Profit and Loss Account i.e.		
Profit on sale of fixed assets	xxx	
Profit on sale of Long term investment	xxx	xxx
Operating profit before working Capital changes.		xxx

Stage-II

After getting operating profit before working capital changes as per stage I, adjust increase or decrease in the current assets and current liabilities.

The following general rules may be applied at the time of adjusting current assets and current liabilities.

A. Current assets

(i) An increase in an item of current assets causes a decrease in cash inflow because cash is blocked in current assets.

(ii) A decrease in an item of current assets causes an increase in cash inflow because cash is released from the sale of current assets.

B. Current liabilities

(i) An increase in an item of current liability causes a decrease in cash outflow because cash is saved.

(ii) A decrease in an item of current liability causes increase in cash outflow because of payment of liability.

Thus,

Cash from operations = operating profit before working capital changes + Net decrease in current assets + Net Increase in current liabilities - Net increase in current assets - Net decrease in current liabilities.

Illustration 1

The net Income reported in the Income Statement for the year was Rs. 110,000 and depreciation of fixed assets for the year was Rs. 44000. The balances of the current assets and current liabilities at the beginning and end of the year are as follows. Calculate cash from operating activities.

	End of the year Amount (Rs.)	Beginning of the year Amount (Rs.)
Current Items		
Cash	130,000	140,000
Debtors	200,000	180,000
Inventories	290,000	300,000
Prepaid expenses	15,000	16,000
Account payables	102,000	1,16,000

Solution

Cash from operating Activities

Details		Amount (Rs.)
Net Income		1,10,000
Adjustment for non cash and Non-operating items		
Add Depreciation		44,000
Operating Profit before working capital changes		154,000
Current Assets :		
Add : (a) Decrease in inventories	10,000	
(b) Decrease in prepaid expenses	1000	11000
		165,000
Deduct : (a) Increase in Debtors	(20,000)	
Current liabilities		
(b) Decrease in Account payables	(14,000)	34,000
Net Cash flow from operating Activities		131,000

2.5 Computing Financial and Profitability Ratios.

Ratio analysis is a commonly used tool of financial statement analysis. Ratio is a mathematical relationship between one number to another number. Ratio is used as an index for evaluating the financial performance of the business concern. An accounting ratio shows the mathematical relationship between two figures, which have meaningful relation with each other. Ratio can be classified into various types. Classification from the point of view of financial management is as follows:

- Liquidity Ratio
- Activity Ratio
- Solvency Ratio
- Profitability Ratio

A. Liquidity Ratio

It is also called as short-term ratio. This ratio helps to understand the liquidity in a business which is the potential ability to meet current obligations. This ratio expresses the relationship between current assets and current liabilities of the business concern during a particular period. The following are the major liquidity ratio:

S. No.	Ratio	Formula	Significant Ratio
1.	Current Ratio	$= \frac{\text{Current Assets}}{\text{Current Liability}}$	2 : 1
2.	Quick Ratio	$= \frac{\text{Quick Assets}}{\text{Quick / Current Liability}}$	1 : 1

1. Current Ratio

The ratio is used to assess the firm's ability to meet its short-term liabilities on time. It is generally believed that 2:1 ratio shows a comfortable working capital position. However this rule should not be taken as a hard and fast rule, because ratio that is satisfactory for one company may not be satisfactory for other. It means that current assets of an organization should, at least be twice of its current liabilities. The higher the ratio, the better it is.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current Assets = Cash & Bank Balance + Stock + Debtors + Bills Receivable + Prepaid Expenses + Investments readily convertible into cash + Loans and Advances

Current Liabilities = Creditors + Bills Payable + Bank Overdraft + Unclaimed Dividend + Provision for Taxation + Proposed Dividend]

2. Quick Ratio

The measure of absolute liquidity may be obtained by comparing only cash and bank balance as well as readily marketable securities with liquid liabilities. This is a very exacting standard of liquidity and it is satisfactory if the ratio is 0.5: 1. It is computed by dividing the value of quick assets by liquid liabilities. Here, quick assets do not include both stock and debtors, because payments from debtors would not generally be received immediately when liquid liabilities are to be paid. Thus the quick assets comprise only cash balance, bank balance and readily marketable securities only. Some writers call this ratio as Absolute Liquidity Ratio, (or Absolute Cash Ratio).

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Liquid Liabilities}}$$

B. Activity Ratio OR Efficiency Ratio

It is also called as turnover ratio. This ratio measures the efficiency of the current assets and liabilities in the business concern during a particular period. This ratio is helpful to understand the performance of the business concern. Some of the activity ratios are given below:

S. No.	Ratio	Formula
1.	Stock Turnover Ratio	$\frac{\text{Cost of Sales}}{\text{Average Inventory}}$
2.	Debtors Turnover Ratio	$\frac{\text{Credit Sales}}{\text{Average Debtors}}$
3.	Creditors Turnover Ratio	$\frac{\text{Credit Purchase}}{\text{Average Credit}}$
4.	Working Capital Turnover Ratio	$\frac{\text{Sales}}{\text{Net Working Capital}}$

1. Stock Turnover Ration/ Inventory Turnover Ratio / Inventory Velocity

Inventory turnover ratio is also known as stock turnover ratio. This is calculated by dividing cost of goods sold by average inventory.

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory at Cost}}$$

$$\text{Average inventory} = \frac{\text{Opening Stock} + \text{Closing Stock}}{2}$$

$$\text{Cost of Goods Sold} = \text{Opening Stock} + \text{Purchases} - \text{Closing Stock}$$

$$= \text{Net Sales} - \text{Gross Profit}$$

Interpretation

Inventory turnover ratio shows the velocity of stocks. A higher ratio is an indication that the firm is moving the stocks better so profitability, in such a situation, would be more. However, a very high ratio may show that the firm has been maintaining only fast moving stocks. The firm may not be maintaining the total range of inventory and so may be missing business opportunities, which may otherwise be available.

It is better to compare the turnover ratio, with the industry or its immediate competitor.

Points for Consideration: Two points are worth noting in the formula, which are as follows:

(a) Instead of sales, cost of goods sold is to be taken, as inventory is valued at cost so that both numerator and denominator are on the same basis. If there is no possibility to calculate cost of sales, sales may be taken for calculating the ratio.

(b) It is the normal practice to liquidate the stocks at the end of the year. So, it is often advocated to take the average of opening stock and closing stock for a better picture. The situation does not, really, improve. Reason is simple. Last year closing stock is the opening stock of the current year. At the end of last year too, liquidation of stocks would have occurred to bring out a better picture. So, averaging opening stock and closing stock at the end of the year, alone, may not show a real picture, if the firm has the tendency of liquidating the stocks, at the end of the year, to improve the ratio. Better ratio and picture would be available if the opening and closing inventory, at the end of every month, are taken and average is arrived at.

However, in questions, the stock figures at the end of every month are not available, so average of opening and closing inventory at the end of the year is to be taken. In case, cost of goods sold is not available, sales are to be taken in their place. But, the ratio, in such a case, may not give satisfactory findings.

Days of Inventory Holdings: If we want to know the holding of inventory in the form of number of days, the following formula helps us.

$$\text{No. of Days Inventory Holding} = \frac{36}{\text{Inventory Turnover ratio}}$$

Ideal Standard: There is no standard ratio.

The ratio depends upon the nature of business. The ratio has to be compared with the ratio of the industry, other firms or past ratio of the same firm.

Every firm has to maintain certain level of inventory, be it raw materials or finished goods, to carry on the business, smoothly, without interruption of production and loss of business opportunities. Inventory Turnover Ratio is a test of inventory management.

This level of inventory should be neither too high nor too low. If the ratio is too high, it is an indication of the following:

(i) Blocking unnecessary funds that can be utilised somewhere else, more profitably.

(ii) Unnecessary payment for extra godown space for piled stocks.

(iii) Chances of obsolescence and pilferage are more.

(iv) Likely deterioration in quality and

(v) Above all, slow movement of stocks means slow recovery of cash, tied in stocks.

On the other hand, if the ratio is too low:

(i) Stoppage of production, in the absence of continuous availability of raw materials and

(ii) Loss of business opportunities as range of finished goods is not available, at all times.

To avoid the situation, the firm should know the position, periodically, whether it is carrying excessive or inadequate stocks for necessary corrective action, in time. In the ratio analysis, readers would have observed, by now, it is difficult to lay down specific standards. It is always better to compare the ratios of the firm with the ratios of industry and other firms, in competition, for proper evaluation of the performance of the firm.

2. Debtors' (Receivables) Turnover Ratio / Debtors' Velocity

Firms sell goods on cash and credit. As and when goods are sold on credit, debtors (receivables) appear in accounts. Debtors are expected to be converted into cash, over a short period, and they are included in current assets. To judge the quality or liquidity of debtors, financial analysts apply three ratios, which are:

(a) debtors turnover ratio

(b) collection period

(c) aging schedule of debtors

Debtors' Turnover Ratio: Debtors turnover is found out by dividing credit sales by average debtors.

$$\text{Debtors Turnover Ratio} = \frac{\text{Credit Sales}}{\text{Average Debtors}}$$

Debtors' turnover ratio indicates the number of times debtors are turned over, each year.

The higher the debtors' turnover, more efficient is the management of credit. If Bills Receivable is outstanding, they are to be added to the debtors as bills receivable have come into balance sheet, in place of debtors, which are, still, outstanding.

Collection Period: The collection period is calculated by

$$\text{Collection Period} = \frac{360^*}{\text{Debtors' Turnover Ratio}}$$

*360 days are taken in place of 365 for convenience in calculation only.

3. Creditors Turnover Ratio

Creditors Turnover Ratio (also known as Accounts PayableTurnover Ratio) is calculated by taking the total purchases made and dividing it by the average accounts payable during the period. It is used to measure the rate at which a firm pays off its suppliers.

Formula:

Creditors Turnover Ratio = Credit Purchases / Average Trade Creditors

OR

Accounts Payable Turnover (APT) Ratio = Cost of Goods sold / Accounts Payable

4. Working Capital Turnover (WCT) Ratio

The WCT Ratio indicates the velocity of utilisation of working capital of the firm, during the year. The working capital refers to net working capital, which is equal to total current assets less current liabilities. The ratio is calculated as follows:

$$\text{Working Capital Ratio} = \frac{\text{Cost of Sales or Sales}}{\text{Average Working Capital}}$$

Working capital average can be calculated by averaging working capital, at the beginning and end of the year.

Importance: This ratio measures the efficiency of working capital management. A higher ratio indicates efficient utilisation of working capital and a low ratio shows otherwise. A high working capital ratio indicates a lower investment in working capital has generated more volume of sales. Higher ratio improves the profitability of the firm. But, a very high ratio is also not desirable for any firm. This may also imply overtrading, as there may be inadequacy of working capital to support the increasing volume of sales. This may be a risky proposition to the firm. The ratio is to be compared with the trend of the other firms in the industry for different periods to understand the right working capital ratio, without resulting

overtrading.

C. Solvency Ratio/ Leverage Ratio

It is also called as leverage ratio, which measures the long-term obligation of the business concern. This ratio helps to understand, how the long-term funds are used in the business concern. Some of the solvency ratios are given below:

S. No	Ratio	Formula
1.	Debt-Equity Ratio	$\frac{\text{External Equity}}{\text{Internal Equity}}$
2.	Proprietary Ratio	$\frac{\text{Shareholder / Shareholder's Fund}}{\text{Total Assets}}$
3.	Interest Coverage Ratio	$\frac{\text{EBIT}}{\text{Fixed Interest Charges}}$

1. Debt-Equity Ratio

Debt-Equity Ratio is also known as External-Internal Equity Ratio. This ratio is calculated to measure the relative claims of outsiders and owners against the firm's assets. The ratio shows the relationship between the external equities (outsiders' funds) and internal equities (shareholders' funds).

This ratio can be calculated in two ways. The numerator can only be long-term debt such as debentures, mortgages or long-term loans. Alternatively, it can be total debt that includes both long-term and short-term liabilities. We are of the opinion that current liabilities (short-term liabilities) should be included in the total debt for calculating debt equity ratio.

$$\text{Debt-Equity Ratio} = \frac{\text{Total Debt}}{\text{Net Worth*}} \quad \text{or} \quad \frac{\text{Long-term Debt}}{\text{Net Worth*}}$$

* Net Worth = Equity Share Capital + Preference Share Capital + Reserves and Surplus

The accumulated losses and deferred expenses, if any, should be deducted to arrive at net worth.

Treatment of Preference Share Capital: There is a difference of opinion on the inclusion of preference share capital in outsiders' funds (numerator) or shareholders' funds (denominator). The reason for including in numerator (Total debt) is that the funds bear a fixed commitment in the form of dividend to the firm, similar to interest on debentures. If preference share capital is treated as borrowing, it is to be included in the numerator. It may be noted though the preference share capital bears the obligation of fixed dividend, yet, is not in the nature of debt, a basic aspect to be remembered.

The preference share capital does not bring any financial risk to the firm, in the absence of profit and non-payment of dividend, which is the basic character of debt.

We are of the opinion to treat the preference share capital as shareholders' funds and be included in the net worth (denominator). Students are advised to give specific mention of the treatment and substantiate with reasoning.

Interpretation of Debt-Equity Ratio

Debt-Equity Ratio indicates the extent to which debt financing has been used in business. This ratio shows the level of dependence on the outsiders.

As a general rule, there should be a mix of debt and equity. The owners want to conduct business, with maximum outsiders' funds to take less risk for their investment. At the same time, they want to maximise their earnings, at the cost and risk of outsiders' funds. The outsiders (lenders and creditors) want the owners' share, on a higher side in the business and assume lower risk, with more safety to their funds.

Total debt to net worth of 1:1 is considered satisfactory, as a thumb rule. In some businesses, a high ratio 2:1 or even more may be considered satisfactory, say, for example in the case of contractor's business. It all depends upon the financial policy of the firm, risk bearing profile and nature of business. Generally

speaking, the long-term creditors welcome a low ratio as owners' funds provide the necessary cushion to them, in the event of liquidation. It is a better approach to compare the DE ratio of the firm with that of the industry to which it belongs to for proper evaluation of the risk character of the firm. Every industry has its own peculiar characteristics relating to capital requirements. For example, in case of basic and heavy industries, the DE ratio is always higher compared to manufacturing concerns.

Impact of High Ratio: A high debt-equity ratio may be unfavourable as the firm may not be able to raise further borrowing, without paying higher interest, and accepting stringent conditions. This situation creates undue pressures and unfavourable conditions to the firm from the creditors.

2. Proprietary Ratio

Proprietary ratio (also known as Equity Ratio or Net worth to total assets or shareholder equity to total equity). Establishes relationship between proprietor's funds to total resources of the unit. Where proprietor's funds refer to Equity share capital and Reserves, surpluses and Tot resources refer to total assets.

Formula:

Following formula is used to calculate proprietary ratio:

Proprietary ratio = Proprietor's funds / Total assets

This relationship highlights the fact as to what is the proportion of Proprietors and outsiders in financing the total business. Suppose, in a business total assets amount of $4,00,000 and Proprietors equity is $3,00,000 then

Proprietary ratio = 3,00,000 / 4,00,000 = 0.75 times.

or 75% meaning hereby that 25% of the funds have been supplied by the outside creditors.

3. Interest Coverage Ratio

Debt ratios are static and fail to indicate the ability of the firm to meet interest

obligations.

The interest coverage ratio is used to test the firm's debt-servicing capacity.

The interest coverage ratio shows the number of times the interest charges are covered by funds that are ordinarily available to pay interest charges.

As taxes are computed on earnings after deducting interest, earnings before taxes are taken.

Depreciation is a non-cash item. Therefore, funds equal to depreciation are also available for payment of interest charges. So, the interest coverage ratio is computed by dividing the earnings before depreciation, interest and taxes (EBDIT) by interest charges.

$$\text{Interest coverage} = \frac{\text{EBDIT}}{\text{Interest}}$$

Interpretation of Coverage Ratio: This ratio indicates the extent to which earnings can fall, without causing any embarrassment to the firm, regarding the payment of interest charges. The higher the IC ratio, better it is both for the firm and lenders. For the firm, the probability of default in payment of interest is reduced and for the lenders, the firm is considered to be less risky. However, too high a ratio indicates the firm is very conservative in not using the debt to its best advantage of the shareholders. On the other hand, a lower coverage ratio indicates the excessive use of debt. When the coverage ratio is low, compared to the industry, it should improve its operational efficiency or retire the debt, early, to have a coverage ratio, comparable to the industry. It is well said, a single soldier cannot afford to be tipsy, while the whole army is sober.

Limitations:

1. IC ratio is based on the accrual concept of accounting. In practice, the interest is to be paid in cash. Therefore, it is better to compare the interest liability with the cash profits (based on cash inflows and outflows, both for incomes and

expenses) of the firm.

2. This ratio also ignores the repayment of installment liability of the firm.

D. Profitability Ratio

Profitability ratio helps to measure the profitability position of the business concern. In other words, it is used to measure the operating efficiency of the company. Besides management, lenders and owners of the company are interested in the analysis of the profitability of the firm. Some of the major profitability ratios are given below:

S. No	Ratio	Formula
1.	Gross Profit Ratio	$\frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$
2.	Net Profit Ratio	$\frac{\text{Net Profit after tax}}{\text{Net Sales}} \times 100$
3.	Operating Profit Ratio	$\frac{\text{Operating Net Profit}}{\text{Sales}} \times 100$
4.	Return in Investment	$\frac{\text{Net Profit after tax}}{\text{Shareholder Fund}} \times 100$

1. Gross Profit Ratio

The first ratio in relation to sales is gross profit ratio or gross margin ratio. The ratio can be calculated by

$$\text{Gross Profit Ratio} = \frac{\text{Sales - Cost of Goods Sold}}{\text{Sales}} \times 100$$

$$= \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

Importance: The ratio reflects the efficiency with which a firm produces/sells its different products.

Gross Profit Ratio indicates the spread between the cost of goods sold and revenue. Analysis gives the clues to the management how to improve the depressed profit margins. The ratio indicates the extent to which the selling price can decline, without resulting in losses on operations of a firm.

Reasons for high gross profit ratio: High gross profit ratio is a sign of good management. Reasons could be:

- High sales price, cost of goods remaining constant
- Lower cost of goods sold, sales price remaining constant
- A combination of factors in sales price and costs of different products, widening the margin.
- An increase in proportion of volume of sales of those products that carry a higher margin and
- Overvaluation of closing stock due to misleading factors.

Reasons for fall in gross profit ratio: Reasons may be:

- Purchase of raw materials, at unfavourable rates
- Over investment and/ or inefficient utilisation of plant and machinery, resulting in higher cost of production
- Excessive competition, compelling to sell at reduced prices.

The finance manger has to analyse the reasons for the fall and initiate the action, necessary to improve the situation.

2. Net Profit Ratio: Net profit is obtained, after deducting operating expenses, interest and taxes from gross profit. The net profit ratio is calculated by

$$\text{Net Profit Ratio} = \frac{\text{Profit After Tax}}{\text{Sales}} \times 100$$

Net profit includes non-operating income so the later may be deducted to

arrive at profitability arising from operations.

Interpretation

Net Profit ratio indicates the overall efficiency of the management in manufacturing, administering and selling the products. Net profit has a direct relationship with the return on investment. If net profit is high, with no change in investment, return on investment would be high. If there is fall in profits, return on investment would also go down.

For a meaningful understanding, both the ratios - gross profit ratio and net profit ratio - have to be interpreted together. If gross margin increases but net margin declines, this indicates operating expenses have gone up. Further analysis has to be made which operating expense has contributed to the declining position for control. Reverse situation is also possible with gross margin declining, and net margin going up. This could be due to increase of cost of production, without any change in selling price, and operating expenses reducing more to compensate the change.

The crux is both the Gross Profit ratio and Net Profit Ratio are to be analyzed, together, to find out the causes of increase/decline of profit for control and corrective action.

3. Operating Profit Ratio

Operating profit ratio is calculated by dividing the operating net profit by sales. This ratio helps in determining the ability of the management in running the business.

Formula:

$$\text{Operating profit ratio} = (\text{Operating profit} / \text{Net sales}) \times 100$$

$$\text{Operating profit} = \text{Gross profit} - \text{Operating Expenses}$$

OR

$$\text{Operating profit} = \text{Net sales} - \text{Operating cost}$$

OR

Operating profit= Net sales - (Cost of goods sold + Administrative and office expenses + Selling and distribution exp.)

OR

(Net profit + Non-operating expenses) - (Non-operating incomes)

4. Return on Investment

Return on investment (ROI) measures the gain or loss generated on an investment relative to the amount of money invested. ROI is usually expressed as a percentage and is typically used for personal financial decisions, to compare a company's profitability or to compare the efficiency of different investments.

The return on investment formula is:

ROI = (Net Profit / Cost of Investment) x 100

Illustration:

From the following balance sheet of Mr. Arvind Industries Ltd., as 31st March 2007.

Liabilities	Rs.	Assets	Rs.
Equity Share Capital	10,000	Fixed assets (less	26,000
7% Preference Share Capital	2,000	depreciation Rs. 10,000)	
Reserves and Surplus	8,000	Current Assets:	
6% Mortgage Debentures	14,000	Cash	1,000
Current Liabilities:		Investments (10%)	3,000
Creditors	1,200	Sundry debtors	4,000
Bills payable	2,000	Stock	6,000
Outstanding expenses	200		
Tax Provision	2,600		
	40,000		**40,000**

Other information:

1.	Net sales	Rs. 60,000
2.	Cost of goods sold	Rs. 51,600
3.	Net income before tax	Rs. 4,000
4.	Net income after tax	Rs. 2,000

Calculate appropriate ratios.

Solution

Short-term solvency ratios

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liability}} = \frac{14,000}{6,000} = 2.33:1$$

$$\text{Liquid Ratio} = \frac{\text{Liquid Ratio}}{\text{Current Liability}} = \frac{8,000}{6,000} = 1.33:1$$

Long-term solvency ratios

$$\text{Proprietary ratio} = \frac{\text{Proprietor's funds}}{\text{Total Assets}} = \frac{20,000}{40,000} = 0.5:1$$

Proprietor's fund or Shareholder's fund = Equity share capital + Preference share capital + Reserve and surplus

= 10,000 + 2,000 + 8,000 = 20,000

$$\text{Debt-Equity ratio} = \frac{\text{External equities}}{\text{Internal equities}} = \frac{20,000}{20,000} = 1:1$$

$$\text{Interest coverage ratio} = \frac{\text{EBIT}}{\text{Fixed interest charges}} = \frac{4,000+840}{840} = 5.7 \text{ times}$$

Fixed interest charges = 6% on debentures of Rs.14,000

= Rs. 840

Activity Ratio

$$\text{Stock Turnover Ratio} = \frac{\text{Cost of Sales}}{\text{Average Inventory}} = \frac{51,600}{6,000} = 8.6 \text{ times}$$

As there is no opening stock, closing stock is taken as average stock.

$$\text{Debtors Turnover Ratio} = \frac{\text{Credit Sales}}{\text{Average Debtors}} = \frac{60,000}{6,000} = 10 \text{ times}$$

In the absence of credit sales and opening debtors, total sales is considered as sales and closing debtors as average debtors.

$$\text{Creditors turn over ratio} = \frac{\text{Credit Purchases}}{\text{Average Creditors}} = \frac{43,200}{1,200} = 36 \text{ times}$$

In absence of purchases, cost of goods sold – gross profit treated as credit purc and in the absence of opening creditors, closing creditors are treated as average cred

$$\text{Working Capital Turnover Ratio} = \frac{\text{Sales}}{\text{Net Working Capital}} = \frac{60,000}{8,000} = 7.5 \text{ times}$$

Profitability Ratios

$$\text{Gross profit ratio} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100 = \frac{8,400}{60,000} \times 100 = 14\%$$

$$\text{Net profit ratio} = \frac{\text{Net Profit}}{\text{Sales}} \times 100 = \frac{2,000}{60,000} \times 100 = 3.33\%$$

In the absence of non-operating income, operating profit ratio is equal to net ratio.

$$\text{Return of Investment} = \frac{\text{Net Profit after Tax}}{\text{Shareholder's Fund}} \times 100 = \frac{2,000}{20,000} \times 100 = 10\%$$

2.6 SUMMARY

Financial Analysis is defined as being the process of identifying financial strength and weakness of a business by establishing relationship between the elements of balance sheet and income statement. The information pertaining to the financial statements is of great importance through which interpretation and analysis is made. It is through the process of financial analysis that the key performance indicators, such as, liquidity solvency, profitability as well as the efficiency of operations of a business entity may be ascertained, while short term and long term prospects of a business may be evaluated. Thus, identifying the weakness, the intent is to arrive at recommendations as well as forecasts for the future of a business entity. Financial analysis focuses on the financial statements, as they are a disclosure of a financial performance of a business entity. "A Financial Statement is an organized collection of data according to logical and consistent accounting procedures. Its purpose is to convey an understanding of some financial aspects of a business firm. It may show assets position at a moment of time as in the case of balance sheet, or may reveal a series of activities over a given period of times, as in the case of an income statement." Since there is recurring need to evaluate the past performance, present financial position, the position of liquidity and to assist in forecasting the future prospects of the organization, various financial statements are to be examined in order that the forecast on the earnings may be made and the progress of the company be ascertained. The financial statements are: Income statement, balance sheet, statement of earnings, statement of changes in financial position and the cash flow statement. The income statement, having been termed as profit and loss account is the most useful financial statement to enlighten what has happened to the business between the specified time intervals while showing, revenues, expenses gains and losses. Balance sheet is a statement which shows the financial position of a business at certain point of time. The distinction between income statement and the balance sheet is that the former is for a period and the latter indicates the financial position on a particular date. However, on the basis of financial statements, the objective of financial analysis is to draw information to facilitate decision making, to evaluate the strength and

the weakness of a business, to determine the earning capacity, to provide insights on liquidity, solvency and profitability and to decide the future prospects of a business entity. There are various types of Financial analysis. They are briefly mentioned herein: **External analysis:** The external analysis is done on the basis of published financial statements by those who do not have access to the accounting information, such as, stock holders, banks, creditors, and the general public**. Internal Analysis:** This type of analysis is done by finance and accounting department. The objective of such analysis is to provide the information to the top management, while assisting in the decision making process. **Short term Analysis:** It is concerned with the working capital analysis. It involves the analysis of both current assets and current liabilities, so that the cash position (liquidity) may be determined. **Horizontal Analysis:** The comparative financial statements are an example of horizontal analysis, as it involves analysis of financial statements for a number of years. Horizontal analysis is also regarded as Dynamic Analysis. **Vertical Analysis:** it is performed when financial ratios are to be calculated for one year only. It is also called as static analysis. An assortment of techniques is employed in analyzing financial statements. They are: Comparative Financial Statements, statement of changes in working capital, common size balance sheets and income statements, trend analysis and ratio analysis. **Comparative Financial Statements:** It is an important method of analysis which is used to make comparison between two financial statements. Being a technique of horizontal analysis and applicable to both financial statements, income statement and balance sheet, it provides meaningful information when compared to the similar data of prior periods. The comparative statement of income statements enables to review the operational performance and to draw conclusions, whereas the balance sheets, presenting a change in the financial position during the period, show the effects of operations on the assets and liabilities. Thus, the absolute change from one period to another may be determined. **Statement of Changes in Working Capital:** The objective of this analysis is to extract the information relating to working capital. The amount of net working capital is determined by deducting the total of current liabilities from the total of current assets. The statement of changes in working capital provides the information in relation to working capital

between two financial periods. **Common Size Statements:** The figures of financial statements are converted to percentages. It is performed by taking the total balance sheet as 100. The balance sheet items are expressed as the ratio of each asset to total assets and the ratio of each liability to total liabilities. Thus, it shows the relation of each component to the whole - Hence, the name common size. Trend Analysis: It is an important tool of horizontal analysis. Under this analysis, ratios of different items of the financial statements for various periods are calculated and the comparison is made accordingly. The analysis over the prior years indicates the trend or direction. Trend analysis is a useful tool to know whether the financial health of a business entity is improving in the course of time or it is deteriorating. **Ratio Analysis:** The most popular way to analyze the financial statements is computing ratios. It is an important and widely used tool of analysis of financial statements. While developing a meaningful relationship between the individual items or group of items of balance sheets and income statements, it highlights the key performance indicators, such as, liquidity, solvency and profitability of a business entity. The tool of ratio analysis performs in a way that it makes the process of comprehension of financial statements simpler, at the same time, it reveals a lot about the changes in the financial condition of a business entity. It must be noted that Financial analysis is a continuous process being applicable to every business to evaluate its past performance and current financial position. It is useful in various situations to provide managers the information that is needed for critical decisions. The process of financial analysis provides the information about the ability of a business entity to earn income while sustaining both short term and long term growth. The assessment of financial health can be done by analyzing the performance under four broad categories: Profitability; Cash Flow; Liquidity; Leverage. Accounting ratio is the most important factor used by management, creditors, investors and other users of financial statement in carrying out most business decisions. It uses an application in making most business decisions remain inevitable. Decision making is the most important element in management activities of all kinds of enterprises; profit oriented, non-profit oriented and public institutions. This research is carried out in profit oriented enterprise where decisions are made based on different aspects among which

the use of accounting ratios should have a great impact. The use of financial reporting is the main aspect in decision making. According to Charles H. GIBSON, 1989, financial reporting is not the end in its self but it is intended to provide information that is useful in making business and economic decisions. It is in this regard the researcher was motivated in finding the extent to which management dealers may depend on accounting ratios in decision making. Cash flow statement shows how much cash comes in and goes out of the company over the quarter or the year. At first glance, that sounds a lot like the income statement in that it records financial performance over a specified period. But there is a big difference between the two. Basically, Three Sections of the Cash Flow Statement: **Cash Flow from Operating activities:** This section shows how much sales of the company's goods and services, less the amount of cash needed to make and sell those goods and services. Investors tend to prefer companies that produce a net positive cash flow from operating activities. High growth companies, such as technology firms, tend to show negative cash flow from operations in their formative years. At the same time, changes in cash flow from operations typically offer a preview of changes in net future income. Normally it's a good sign when it goes up. Watch out for a widening gap between a company's reported earnings and its cash flow from operating activities. If net income is much higher than cash flow, the company may be speeding or slowing its booking of income or costs. **Cash Flows from Investing Activities:** This section largely reflects the amount of cash the company has spent on capital expenditures, such as new equipment or anything else that needed to keep the business going. It also includes acquisitions of other businesses and monetary investments such as money market funds. You want to see a company re-invest capital in its business by at least the rate of depreciation expenses each year. If it doesn't re-invest, it might show artificially high cash inflows in the current year which may not be sustainable. **Cash Flow From Financing Activities:** This section describes the going-on of cash associated with outside financing activities. Typical sources of cash inflow would be cash raised by selling stock and bonds or by bank borrowings. Likewise, paying back a bank loan would show up as a use of cash flow, as would dividend payments and common stock repurchases. Financial ratio analysis is the process

of calculating financial ratios, which are mathematical indicators calculated by comparing key financial information appearing in financial statements of a business, and analyzing those to find out reasons behind the business's current financial position and its recent financial performance, and develop expectation about its future outlook. Financial ratio analysis is very useful tool because it simplifies the process of financial comparison of two or more businesses. Direct comparison of financial statements is not efficient due to difference in the size of relevant businesses. Financial ratio analysis makes the financial statements comparable both among different businesses and across different periods of a single business. There are different financial ratios to analyze different aspects of a business' financial position, performance and cash flows. Financial ratios calculated and analyzed in a particular situation depend on the user of the financial statements. For example, a shareholder is primarily concerned about a business's profitability and solvency; a debt-holder is concerned about its solvency, liquidity and profitability in the descending order of importance; a creditor/supplier is worried mainly about the business' liquidity, etc. Financial ratios can be broadly classified into liquidity ratios, solvency ratios, profitability ratios and efficiency ratios (also called activity ratios or asset utilization ratios). Other categories include cash flow ratios, market valuation ratios, coverage ratios, etc. **Liquidity Ratios:** Liquidity ratios asses a business's liquidity, i.e. its ability to convert its assets to cash and pay off its obligations without any significant difficulty (i.e. delay or loss of value). Liquidity ratios are particularly useful for suppliers, employees, banks, etc. Important liquidity ratios are: Current ratio; Quick ratio (also called acid-test ratio); Cash ratio; Cash conversion cycle; **Solvency Ratios:** Solvency ratios assess the long-term financial viability of a business i.e. its ability to pay off its long-term obligations such as bank loans, bonds payable, etc. Information about solvency is critical for banks, employees, owners, bond holders, institutional investors, government, etc. Solvency ratios are: Debt ratio; Debt to equity ratio; Debt to capital ratio; Times interest earned ratio; Fixed charge coverage ratio; Equity multiplier; **Profitability Ratios:** Profitability ratios measure the ability of a business to earn profit for its owners. While liquidity ratios and solvency ratios explain the financial position of a business, profitability ratios and efficiency ratios

communicate the financial performance of a business. Important profitability ratios include: net profit margin; gross profit margin; operating profit margin; return on assets; return on capital employed; return on equity; earnings per share; **Other ratios** related to profitability that are used by investors to assess the stock market performance of a business include: price to earnings (P/E) ratio; price to book (P/B) ratio; Dividend payout ratio; Dividend yield ratio; Retention ratio**; Activity Ratios:** Activity ratios assess the efficiency of operations of a business. For example, these ratios attempt to find out how effectively the business is converting inventories into sales and sales into cash, or how it is utilizing its fixed assets and working capital, etc. Activity ratios are: inventory turnover ratio; days sales in inventory; receivables turnover ratio; days sales outstanding; payables turnover ratio; days payable outstanding; fixed asset turnover ratio; working capital turnover ratio; **Cash flow ratios:** Cash flow ratios are mainly used to assess the quality of earnings of a business. Since net income information is based on accrual concept, which is subject to significant management judgment, cash flows ratios (also called performance ratios) provide a more unbiased assessment. Example include cash flow per share. **Coverage Ratios:** Coverage ratios are supplementary to solvency and liquidity ratios and measure the risk inherent in lending to the business in long-term. They include EBIDTA coverage ratio, debt coverage ratio, interest coverage ratio (also known as times interest earned), fixed charge coverage ratio, etc.

2.7 GLOSSARY

Financial Analysis: Financial analysis (also referred to as financial statement analysis or accounting analysis or Analysis of finance) refers to an assessment of the viability, stability and profitability of a business, sub-business or project.

Cash Flow Statement: In financial accounting, a cash flow statement, also known as statement of cash flows, is a financial statement that shows how changes in balance sheet accounts and income affect cash and cash equivalents, and breaks the analysis down to operating, investing and financing activities. It is concerned with the flow of cash in and out of the business. It is useful in determining the

short-term viability of a company.

Financial Ratio: Financial ratios can be classified into ratios that measure: liquidity ratios, solvency ratios, profitability ratios and efficiency ratios (also called activity ratios or asset utilization ratios)

Liquidity Ratio: Liquidity ratios measure a company's ability to pay debt obligations and its margin of safety through the calculation of metrics including the current ratio, quick ratio and operating cash flow ratio. Current liabilities are analyzed in relation to liquid assets to evaluate the coverage of short-term debts in an emergency. Bankruptcy analysts and mortgage originators use liquidity ratios to evaluate going concern issues, as liquidity measurement ratios indicate cash flow positioning.

Solvency Ratios: A key metric used to measure an enterprise's ability to meet its debt and other obligations. The solvency ratio indicates whether a company's cash flow is sufficient to meet its short-term and long-term liabilities. The lower a company's solvency ratio, the greater the probability that it will default on its debt obligations.

The measure is usually calculated as follows:

Profitability Ratios: Profitability ratios are a class of financial metrics that are used to assess a business's ability to generate earnings compared to its expenses and other relevant costs incurred during a specific period of time.

Efficiency Ratios: Efficiency ratios measure a company's ability to use its assets and manage its liabilities effectively. Some efficiency ratios include the inventory turnover ratio, asset turnover ratio and receivables turnover ratio. These ratios measure how efficiently a company uses its assets to generate revenues and its ability to manage those assets.

2.8 SELF ASSESSMENT QUESTIONS

1. Explain the application of various ratios in decision making process?

2. What is a financial ratio? In what manner, financial ratios can be compared?

3. What are the important profitability ratios? How they are calculated? Explain their significance?

4. What is financial analysis? Explain analysis of financial health of the business.

5. Presented below is the comparative balance sheets of Anjali Ltd. as on 31st March 2007.

Details	2007 Amount (Rs)	2006 Amount (Rs)
Cash	40000	57000
Account Receivables	77000	64000
Inventory	132000	140000
Prepaid expenses	12140	16540
Land	125000	150000
Equipment	200000	175000
Accumulated Depreciation (Equipment)	(60000)	(42000)
Building	250000	250000
Accumulated Depreciation (Building)	(75000)	(50000)
	701140	760540
Account payables	33000	45000
Bond payables	235000	265000
Equity share capital (Rs 10 per share)	280000	250000
Retained earnings	153140	200540
	701140	760540

2.9 LESSON END EXERCISE

1. Define Profitability Ratio.

_____

_____

2. What do you mean by Cash Flow Statement? State main objectives of cash flow statement.

_____

_____

3. Give three examples of operating activities.

_____

_____

2.10 SUGGESTED READING

1. Accounting and Financial Management : S.N. Maheshwari

2. Financial Management: Theory and Practice : S.K. Gupta and R.K. Sharma

3. Financial Management : S. Rajiv and A. Misra

4. Financial Management : C. Paramasivan and T. Subramanian

C. No. :- BM-601 **UNIT III**

SEMESTER: VI **LESSON : 5-6**

FINANCING DECISION

STRUCTURE

3.1 INTRODUCTION

Finance comprises of blend of knowledge of credit, securities, financial related legislations, financial instruments, financial markets and financial system. As finance is a scarce resource, it must be systematically raised form the cheapest source of funds and must be judiciously utilized for the development and growth of the organization. Charles Gertenberg visualizes the significance of scientific arrangement of records with the help of which the inflow and outflow of funds can be efficiently managed, stocks and bonds can be efficiently marketed and the efficacy of the organization can be greatly improved.

The financial manager in his new role, is concerned with the efficient allocation of funds. The firm's investment and financing decisions are continuous. The financial manager according to Ezra Solomon must find a rationale for answering the following three questions.

1) How large should an enterprise be and how fast should it grow?

2) In what form should it hold its assets?

3) How should the funds required be raised?

It is therefore clear from the above discussion that firms take different financial decisions continuously in the normal course of business. Liquidity, solvency, profitability and flexibility optimization goals and risk, would lead to reaping of wealth maximization goal.

3.2 OBJECTIVES

After completion of this lesson you shall be able to know:

- Meaning and Types of Financing Decision

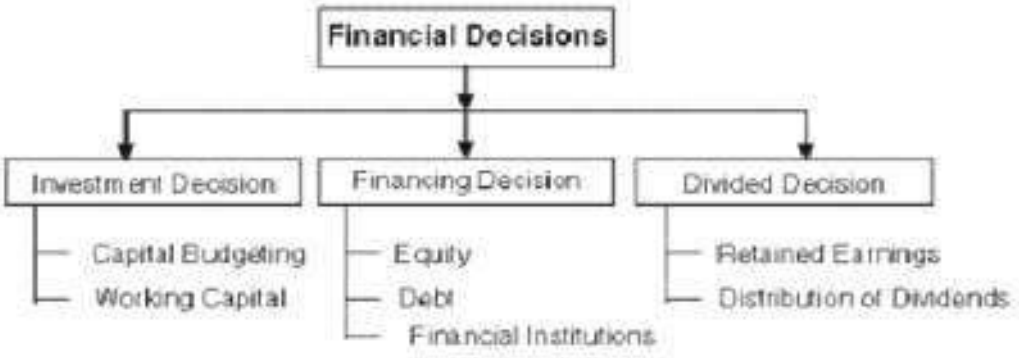
- Weighted Average and Marginal Cost of Capital
- Designing Optimum Capital Structure
- Leasing and Hire Purchase
- Managing Financial Risk

3.3 FINANCING DECISION

Financial decision is yet another important function which a financial manger must perform. It is important to make wise decisions about when, where and how should a business acquire funds. Funds can be acquired through many ways and channels. Broadly speaking a correct ratio of an equity and debt has to be maintained. This mix of equity capital and debt is known as a firm's capital structure.

A firm tends to benefit most when the market value of a company's share maximizes this not only is a sign of growth for the firm but also maximizes shareholders wealth. On the other hand the use of debt affects the risk and return of a shareholder. It is more risky though it may increase the return on equity funds.

A sound financial structure is said to be one which aims at maximizing shareholders return with minimum risk. In such a scenario the market value of the firm will maximize and hence an optimum capital structure would be achieved. Other than equity and debt there are several other tools which are used in deciding a firm capital structure.



1. Investment Decisions / Capital Budgeting Decisions: Investment Decision relates to the determination of total amount of assets to be held in the firm, the composition of these assets and the business risk complexities of the firm as perceived by the investors. It is the most important financial decision. Since funds involve cost and are available in a limited quantity, its proper utilization is very necessary to achieve the goal of wealth maximisation.

The investment decisions can be classified under two broad groups; (i) long-term investment decision and (ii) Short-term, investment decision. The long-term investment decision is referred to as the capital budgeting and the short-term investment decision as working capital management.

Capital budgeting is the process of making investment decisions in capital expenditure. These are expenditures, the benefits of which are expected to be received over a long period of time exceeding one year. The finance manager has to assess the profitability of various projects before committing the funds. The investment proposals should be evaluated in terms of expected profitability, costs involved and the risks associated with the projects. The investment decision is important not only for the setting up of new units but also for the expansion of present units, replacement of permanent assets, research and development project costs, and reallocation of funds, in case, investments made earlier, do not fetch result as anticipated earlier.

2. Financing Decisions / Capital Structure Decisions: Once the firm has taken the investment decision and committed itself to new investment, it must decide the best means of financing these commitments. Since, firms regularly make new investments, the needs for financing and financial decisions are ongoing, Hence, a firm will be continuously planning for new financial needs. The financing decision is not only concerned with how best to finance new asset, but also concerned with the best overall mix of financing for the firm.

A finance manager has to select such sources of funds which will make optimum capital structure. The important thing to be decided here is the proportion of various sources in the overall capital mix of the firm. The debt-equity ratio should be fixed in such a way that it helps in maximising the profitability of the concern. The raising of

more debts will involve fixed interest liability and dependence upon outsiders. It may help in increasing the return on equity but will also enhance the risk. The raising of funds through equity will bring permanent funds to the business but the shareholders will expect higher rates of earnings. The financial manager has to strike a balance between anxious sources so that the overall profitability of the concern improves. If the capital structure is able to minimise the risk and raise the profitability then the market prices of the shares will go up maximising the wealth of shareholders.

3. Dividend Decision: The third major financial decision relates to the disbursement of profits back to investors who supplied capital to the firm. The term dividend refers to that part of profits of a company which is distributed by it among its shareholders. It is the reward of shareholders for investments made by them in the share capital of the company. The dividend decision is concerned with the quantum of profits to be distributed among shareholders. A decision has to be taken whether ail the profits are to be distributed, to retain all the profits in business or to keep a part of profits in the business and distribute others among shareholders. The higher rate of dividend may raise the market price of shares and thus, maximise the wealth of shareholders. The firm should also consider the question of dividend stability, stock dividend (bonus shares) and cash dividend.

Relationship of Financial Decisions

The financial manager is concerned with the optimum utilization of funds and their procurement in a manner that the risk, cost and control considerations are properly balanced in a given situation. Irrespective of nature of decisions, i.e. investment decisions, financing or capital structure decisions / dividend decisions all these decisions are interdependent. All these decisions are interrelated. All are intended to maximize the wealth of the shareholders. An efficient financial manager has to ensure optimal decision by evaluating each of the decision involved in relation to its effect on shareholders wealth.

Factors Influencing Financial Decisions

Every business organization can achieve its ultimate goal, if it can perfectly perform their activities of financial management. In this purpose of achievement finance manager

has to play a vital role by taking some major financial decisions like, investment decision, financing decision and dividend decision. These financial decisions are influenced by some factors. For the convenience of analysis let us classify these factors into two factors-

1. Internal Factors

2. External Factors

Internal Factors: Internal factors are those, which ate possible to control by the business organization itself. The major internal factors those influences the financial decision are given below-

1. **Size of the firm:** To implement the future plan as well as the daily activity and to implement the financial decision the organization management accounting, budgeting and financial management strategies. To implement those policies or strategies, the size of the firms plays a vital role. The large organization gets more facilities compare to small organization because of their financial ability by raising more funds market.

2. **Nature of business:** We can find the nature of business of an organization from their normal activities. Such as the volume assets On the others hand, few organizations may require more current assets as well as some may require more fixed assets like manufacturing organization. So financial decision largely influenced by the nature of business.

3. **The forms of legal organization:** Financial decision also influenced by the form of legal organization. If the organization is a joint venture then get extra facilities regarding loan and some other case rather than a sole partnership or partnership business.

4. **Situation of business cycle:** The financial decision is also influenced by the business cycle. The boom or depression situation of the economy has controlled the business velocity.

5. **Assets structure:** The financial decision influences in determining the types of

asset structure and how the assets should be financed of whether it be financed. A business organization can collect their funds more form long term sources because of their amount of fixed assets and vice versa.

6. **Regularity and adequacy of income:** If the income of any business is regular and adequate then it won't face any kind of difficulties to collect further loan. On the other hand, if the income of any business is irregular and lower then definitely it will face problem in financing thus it will be forced to issue shares in markets to raise money.

7. **Economic life of business:** The business, which has long economic life, has got high priority in getting loan. Because the risk of investors get long time to know that organization.

8. **Terms of credit:** The financial activities of any business are influenced by the rules and regulation or the terms of credit. Business the procedure of collection of funds largely depends on the terms of credit.

9. **Management philosophy:** In this case management implies the board of directors and the top level manager of an organization. If the objective of management is to control the organization only by them then it won't increase the ownership by issuing shares. And thus funds will be not that much interest to control the business then they will increase the funds by selling shares keeping the low risk aspect their mind.

External factors: External factors are those which can't be controlled by the business organization. Such as economic condition of the country, government regulation, tax system etc. the most influential external factors are given below-

1. **Government regulation:** Business finance activities are influenced by government rules and regulations. There are government control and regulation are not restriction on investment in socialism economy. But, government rules and regulation are not restricted to invest in market economy. In other word in case of market economy the policy of export import industrial policy, company, labor law are not that much controlled by the government.

2. **Tax system:** The tax system of a country can influence the function of financial management. If the tax system is very tight ten it will demodulate the investment tax credit, depreciation tax credit etc, also motivate the investors.

3. **Economic condition of the country:** The economic condition of a country influences the financial decision taken by the financial manager. If the economy condition is good than the investors of that country will invest more and they will reluctance to invest in worse economic condition. However, n good economic condition company can declare higher dividend and follow the conservative approach in bad situation.

4. **Condition of money market and capital market:** The economic condition of a country highly depends on the condition of money market and capital market. In a developed money and capital market investors are willing to take high risk. Thus short term and long term financing become very easy to get. Generally in a good economic condition money and capital market become developed. That financial manager to take financial decision.

Above are the factors those must be considered while decision regarding finance. So financial manager has to be efficient enough to deal with these external and internal factors and take most effective financial decision to implement.

3.3.1.COST OF CAPITAL

Cost of capital is an integral part of investment decision as it is used to measure the worth of investment proposal provided by the business concern. It is used as a discount rate in determining the present value of future cash flows associated with capital projects. Cost of capital is also called as cut-off rate, target rate, hurdle rate and required rate of return.

When the firms are using different sources of finance, the finance manager must take careful decision with regard to the cost of capital; because it is closely associated with the value of the firm and the earning capacity of the firm.

Meaning of Cost of Capital

Cost of capital is the rate of return that a firm must earn on its project investments to maintain its market value and attract funds.

Cost of capital is the required rate of return on its investments which belongs to equity,debt and retained earnings. If a firm fails to earn return at the expected rate, the market value of the shares will fall and it will result in the reduction of overall wealth of the shareholders.

Definitions

The following important definitions are commonly used to understand the meaning and concept of the cost of capital.

According to the definition of **John J. Hampton "** Cost of capital is the rate of return the firm required from investment in order to increase the value of the firm in the market place".

According to the definition of **Solomon Ezra,** "Cost of capital is the minimum required rate of earnings or the cut-off rate of capital expenditure".

According to the definition of **James C. Van Horne,** Cost of capital is "A cut-off rate for the allocation of capital to investment of projects. It is the rate of return on a project that will leave unchanged the market price of the stock".

According to the definition of **William and Donaldson,** "Cost of capital may be defined as the rate that must be earned on the net proceeds to provide the cost elements of the burden at the time they are due".

Assumption of Cost of Capital

Cost of capital is based on certain assumptions which are closely associated while calculating and measuring the cost of capital. It is to be considered that there are three basic concepts:

1. It is not a cost as such. It is merely a hurdle rate.

2. It is the minimum rate of return.

3. It consists of three important risks such as zero risk level, business risk and financial risk.

Cost of capital can be measured with the help of the following equation.

$$K=rj + b + f.$$

Where,

K = Cost of capital.

rj = The riskless cost of the particular type of finance.

b = The business risk premium.

f = The financial risk premium.

Classification of Cost of Capital

Cost of capital may be classified into the following types on the basis of nature and usage:

- Explicit and Implicit Cost.
- Average and Marginal Cost.
- Historical and Future Cost.
- Specific and Combined Cost.

Explicit and Implicit Cost

The cost of capital may be explicit or implicit cost on the basis of the computation of cost of capital.

Explicit cost is the rate that the firm pays to procure financing. This may be calculated with the help of the following equation;

$$CI_o = \sum_{t=1}^{n} \frac{CO_t}{(t+C)^t}$$

Where,

CIo = initial cash inflow

C = outflow in the period concerned

N = duration for which the funds are provided

T = tax rate

Implicit cost is the rate of return associated with the best investment opportunity for the firm and its shareholders that will be forgone if the projects presently under consideration by the firm were accepted.

Average and Marginal Cost

Average cost of capital is the weighted average cost of each component of capital employed by the company. It considers weighted average cost of all kinds of financing such as equity, debt, retained earnings etc.

Marginal cost is the weighted average cost of new finance raised by the company. It is the additional cost of capital when the company goes for further raising of finance.

Historical and Future Cost

Historical cost is the cost which has already been incurred for financing a particular project. It is based on the actual cost incurred in the previous project.

Future cost is the expected cost of financing in the proposed project. Expected cost is calculated on the basis of previous experience.

Specific and Combine Cost

The cost of each sources of capital such as equity, debt, retained earnings and

loans is called as specific cost of capital. It is very useful to determine the each and every specific source of capital.

The composite or combined cost of capital is the combination of all sources of capital.

It is also called as overall cost of capital. It is used to understand the total cost associated with the total finance of the firm.

IMPORTANCE OF COST OF CAPITAL

Computation of cost of capital is a very important part of the financial management to decide the capital structure of the business concern.

- **Importance to Capital Budgeting Decision:** Capital budget decision largely depends on the cost of capital of each source. According to net present value method, present value of cash inflow must be more than the present value of cash outflow. Hence, cost of capital is used to capital budgeting decision.
- **Importance to Structure Decision:** Capital structure is the mix or proportion of the different kinds of long term securities. A firm uses particular type of sources if the cost of capital is suitable. Hence, cost of capital helps to take decision regarding structure.
- **Importance to Evolution of Financial Performance:** Cost of capital is one of the important determine which affects the capital budgeting, capital structure and value of the firm. Hence, it helps to evaluate the financial performance of the firm.
- **Importance to Other Financial Decisions:** Apart from the above points, cost of capital is also used in some other areas such as, market value of share, earning capacity of securities etc. hence, it plays a major part in the financial management.

3.3.1.1. Weighted Average Cost of Capital

Weighted average cost of capital is the average cost of the costs of various source of financing. Weighted average cost of capital is also known as composite cost of capital, overall cost of capital or average cost of capital. Once the specific cost of individual sources of finance is determined, we can compute the weighted average cost of capital by putting weights to the specific costs of capital in proportion of various sources of funds to total. The weights may be given either by using the book value of source or market value of source. If there is a difference between market value and book value weights, the weights, the weighted average cost of capital would also differ. The market value weighted average cost would be overstated if market value of the share is higher than book value and vice versa. The market value weights are sometimes preferred to the book value weights because the market value represents the true value of investors. However, the market value weights suffer from the following limitations:

(i) It is very difficult to determine the market values because of frequent fluctuations.

(ii) With the use of market value weights, equity capital gets greater importance.

For the above limitations, it is better to use book value which is readily available. Weighted average cost of capital can be computed as follows:

$$Kw = XW$$

Kw = Weighted average cost of capital

X = Cost of specific source of finance

W = Weight, proportion of specific source of finance

Illustration1: A firm has the following capital structure and after-tax costs for the different sources of funds used:

Source of Funds	*Amount* *Rs.*	*Proportion* *%*	*After-tax cost* *%*
Debt	15,00,000	25	5
Preference Shares	12,00,000	20	10
Equity Shares	18,00,000	30	12
Retained Earnings	15,00,000	25	11
Total	60,00,000	100	

You are required to compute the weighted average cost of capital.

Solution:

Computation of Weighted Average Cost of Capital

Source of Funds	Proportion % (W)	Cost % (X)	Weighted Cost % Proportion Cost (XW) %
Debt	25	5	1.25
Preference shares	20	10	2.00
Equity Shares	30	12	3.60
Retained Earnings	25	11	2.75
Weighted Average Cost of Capital			9.60%

Illustration2: Continuing illustration 1, the firm has 18,000 equity shares of Rs. 100 each outstanding and the current market price is Rs. 300 per calculate the market, value weighted average cost of capital assuming that the market values and book values of the debt and preference capital are same.

Solution:

Sources of Funds	Amount (Rs.)	Proportion % W	Cost % X	Weighted Cost Proportion Cost XW
Debt	15,00,000	18.52	5	0.93
Preference Capital	12,00,000	14.81	10	1.48
Equity Share Capital (18000 shares @ Rs. 300)	54,00,000	66.67	12	8.00
	81,00,000	100		
Weighted Average Cost of Capital				10.41%

Illustration 3: ABC Ltd. has the following capital structure.

	Rs.
Equity (expected dividend 12%)	10,00,000
10% preference	5,00,000
8% loan	15,00,000

You are required to calculate the weighted average cost of capital, assuming 50% as the rate of income-tax, before and after tax.

Solution:

Solution showing weighted average cost of capital:

Particulars	Rs.	After	Weights	Cost
Equity	10,00, 000	12%	33.33%	3.99
Preference	5,00,000	10%	16.67	1.67
8% Loan	15,00,000	4%	50.00	2.00
				7.66%

Weight average cost of capital = 7.66%

3.3.1.2. Marginal Cost of Capital

The marginal cost of capital is the weighted average cost of new capital calculated by using the marginal weights. The marginal weights represent the proportion of various sources of funds to be employed in raising additional funds. In case, a firm employs the existing proportion of capital structure and the component costs remain the same the marginal cost of capital shall be equal to the weighted average cost of capital. But in practice, the proportion and /or the component costs may change for additional funds to be raised. Under this situation the marginal cost of capital shall not be equal to weighted average cost of capital. However, the marginal cost of capital concept ignores the long-term implications of the new financing plans, and thus, weighted average cost of capital should be preferred for maximisation of shareholder's wealth in the long-run.

Illustration 1: A firm has the following capital structure and after-tax costs for the different sources of funds used:

Source of Funds	Amount(Rs.)	Proportion (%)	After-tax Cost(%)
Debt	4,50,000	30	7
Preference Capital	3,75,000	25	10
Equity Capital	6,75,000	45	15
	15,00,000	100	

(a) Calculate the weighted average cost of capital using book-value weights.

(b) The firm wishes to raise further Rs. 6,00,000 for the expansion of the project as below.

Debt Rs. 3,00,000

Preference Capital Rs. 1,50,000

Equity Capital Rs. 1,50,000

Assuming that specific costs do not change, compute the weighted marginal cost of capital.

Solution:

Computation of Weighted Average Cost of Capital (WACC)

Source of Funds	Proportion (%) (W)	After tax cost (%) (X)	Weighted Cost % (XW) %
Debt	30	7	2.10
Preference Capital	25	10	2.50
Equity Capital	45	15	6.75
Weighted Average Cost of Capital (WACC)		11.35%	

Computation of Weighted Marginal Cost of Capital (WMCC)

Source of Funds	Marginal Weights Proportion (%) (W)	After tax cost (%) (X)	Weighted Marginal Cost %
Debt	50	7	3.50
Preference Capital	25	10	2.50
Equity Capital	25	15	3.27
Weighted Marginal Cost of Capital (WMCC)		9.75%	

Cost of Equity Using Capital Asset Pricing Model (CAPM)

The value of an equity share is a function of cash inflows expected by the investors and risk associated with cash inflows. It is calculated by discounting the future stream of dividends at required rate of return called capitalization rate. The required rate of return depends upon the element of risk associated with investment in share. It will be equal to the risk free arte of interest plus the premium for risk. Thus required rate of return K for the share is,

Ke = Risk - free rate of interest + Premium for risk

According to CAPM, the premium for risk is the difference between market return from diversified portfolio and risk free rate of return. It is indicated of beta coefficient (b):

Risk - premium= (Market return of a diversified portfolio - Risk free return) x b =b (R - R)

Thus, cost of equity, according to CAPM can be calculated as below:

Ke = Rf + bI (Rm - R f)

where, Ke = Cost of equity capital

Rf = Risk free rate of return

Rm = Market return of a diversified portfolio

bI = Beta coefficient of the firm's portfolio

Illustration 2: You are given the following facts about a firm:

1.Risk free rate of return is 11%.

2.Beta co-efficient bI of the firm is 1.25.

Compute the cost of equity capital using Capital Asset Pricing Model (CAPM) assuming a market return of 15 percent next year. What would be the cost of equity if bI rises to 1.75.

Solution:

$K_e = R_f + b_I (R_m - R_f)$

when $b_I = 1.25$

$K_e = 11\% + 1.25(15\%-11\%)$

$= 11\% + 5\% = 16\%$

when $b_I = 1.75$ $K_e = 11\% + 1.75(15\%-11\%)$

$= 11\% + 7\%$

$= 18\%$

Illustration 3: The following is an extract from the financial statement of KPN Ltd.

		Rs.lakhs
(Operating Profit		105
Less :Interest on debentures		33
		72
Less: Income -tax (50%)	36	
Net Profit 36		
Equity Share capital (shares of Rs.10 each)		200
Reserves and Surplus		100
15%Non-convertible debentures (of Rs.100 each)	220	
		520

The market price per equity share Rs.12 and per debenture Rs.93.75.

1.What is the earning per share?

2. What is the percentage cost of capital to the company for the debenture funds and the equity?

Solution:

1.Calculation of Earnings per Share:

Earnings Per Share (EPS) = Profit After Tax/ No. Of Equity Shares

= 36,00,000/20,00,000=Rs.1.80

2.Computation of Percentage Cost of Capital.

a) Cost of Equity Capital:

Cost of Equity (Ke) = D/MP

or Ke (%)= 1.80/12 *100= 15%

where D = expected earnings per share

and MP= Market price per share.

b) Cost of Debenture Funds:

	At Book Value	**At Market Value**
	(Rs. Lakhs)	(Rs. Lakhs)
Value of 15% debenture	220.00	206.25
Interest cost for the year	33.00	33.00
Less: Tax at 50%	16.50	16.50
Interest cost after tax	16.50	16.50
Cost of Debenture Fund (%)	16.50/220 x100 = 7.5%	16.50/206.25x100 = 8%.

Illustration 4: Given below is the summary of the balance sheet of a company as at 31 December, 1999:

Liabilities	**Rs.**	**Assets**	**Rs.**
Equity share capital			
20,000 shares of Rs.100 each	2,00,000	Fixed Assets	4,00,000
Reserves and surplus	1,30,000	Investments	50,000
8% debentures	1,70,000	Current assets	2,00,000
Current Liabilities			
Short term loans	1,00,000		
Trade creditors	50,000		
6,50,000	6,50,000		

You are required to calculate the company's weighed average cost of capital using balance sheet

valuations: The following additional information is also available:

(1) 8%Debentures were issued at par.

(2) All interests payments are up to date and equity dividends is currently 12%.

(3) Short term loan carries interest at 18% p.a

(4) The shares and debentures of the company are all quoted on the Stock Exchange and current

Market prices are as follows:

Equity Shares Rs.14 each

8% Debentures Rs.98 each.

(5) The rate of tax for the company may be taken at 50%.

Solution:

Calculation of the Cost of Equity:	***Rs.***	
Equity Share		2,00,000
Reserves and Surplus	1,30,000	
Equity (Shareholder's)Fund	3,30,000	

Book Value Per Share = 3,30,000/20,000 =Rs.16.50.

Equity Dividend Per Share = 12/100*10 =Rs.1.20

Therefore, Cost Of Equity (%)= 1.20/16.50*100= 7.273 %

Computation of Weighted Average Cost of Capital:

Capital Structure or				
Type of Capital	Amount (Rs)	Before Tax Cost%	After Tax Cost%	Weighted Average cost (Rs.)
Equity Funds	3,30,000	7.273%	7.273%	24,000
Debentures	1,70,000	8%	4%	6,800
Total	5,00,000			30,800
Weighted Average Cost of Capital = 30,800/5,00,000*100 =6.16 %.				

3.4 CAPITAL STRUCTURE DECISION

Capital is the major part of all kinds of business activities, which are decided by the size, and nature of the business concern. Capital may be raised with the help of various sources.

If the company maintains proper and adequate level of capital, it will earn high profit and they can provide more dividends to its shareholders.

Meaning of Capital Structure

Capital structure refers to the kinds of securities and the proportionate amounts that make up capitalization. It is the mix of different sources of long-term sources such as equity shares, preference shares, debentures, long-term loans and retained earnings.

The term capital structure refers to the relationship between the various long-term source financing such as equity capital, preference share capital and debt capital. Deciding the suitable capital structure is the important decision of the financial management because it is closely related to the value of the firm.

Capital structure is the permanent financing of the company represented primarily by long-term debt and equity.

Definition of Capital Structure:

The following definitions clearly initiate, the meaning and objective of the capital structures.

According to the definition of **Gerestenbeg,** "Capital Structure of a company refers to the composition or make up of its capitalization and it includes all long-term capital resources".

According to the definition of James **C. Van Horne,** "The mix of a firm's permanent long-term financing represented by debt, preferred stock, and common stock equity".

According to the definition of **Presana Chandra**, "The composition of a firm's financing consists of equity, preference, and debt".

According to the definition of **R.H. Wessel,** "The long term sources of fund employed in a business enterprise".

Financial Structure

The term financial structure is different from the capital structure. Financial structure shows the pattern total financing. It measures the extent to which total funds are available to finance the total assets of the business.

Financial Structure = Total liabilities

Or

Financial Structure = Capital Structure + Current liabilities.

The following points indicate the difference between the financial structure and capital structure.

S.No.	Financial Structures	Capital Structures
1	It includes both long-term and short-term sources of funds	It includes only the long-term sources of funds.
2	It means the entire liabilities side of the balance sheet.	It means only the long-term liabilities of the company.
3	Financial structures consist of all sources of capital.	It consist of equity, preference and retained earning capital.
4	It will not be more important while determining the value of the firm.	It is one of the major determinations of the value of the firm.

3.4.1 Designing Optimum Capital Structure

Optimum capital structure is the capital structure at which the weighted average cost of capital is minimum and thereby the value of the firm is maximum. Optimum capital structure may be defined as the capital structure or combination of debt and equity, that leads to the maximum value of the firm.

Objectives of Capital Structure:

Decision of capital structure aims at the following two important objectives:

1. Maximize the value of the firm.

2. Minimize the overall cost of capital.

Forms of Capital Structure:

Capital structure pattern varies from company to company and the availability of finance.

Normally the following forms of capital structure are popular in practice.

- Equity shares only.
- Equity and preference shares only.
- Equity and Debentures only.
- Equity shares, preference shares and debentures.

Factors determining designing an optimum capital structure:

While designing an optimum capital structure the following factors are to be considered carefully:

1. Profitability: An optimum capital structure must provide sufficient profit. So the profitability aspect is to be verified. Hence an EBIT-EPS analysis may be performed which will help the firm know the EPS under various financial alternatives at different levels of EBIT. Apart from EBIT-EPS analysis the company may calculate the coverage ratio to know its ability to pay interest.

2. Liquidity: Along with profitability the optimum capital structure must allow a firm to pay the fixed financial charges. Hence the liquidly aspect of the capital structure is also to be tested. This can be done through cash flow analysis. This will reduce the risk of insolvency. The firm will separately know its operating cash flow, non-operating cash flow as well as financial cash flow. In addition to the cash flow analysis various liquidity ratios may be tested to judge the liquidity position of the capital structure.

3. Control: Another important aspect in designing optimum capital structure is to ensure control. The supplies of debt have no role to play in managing the firm; but equity holders have right to select management of the firm. So more debt means less amount of control by the supplier of funds. Hence the management will decide the extent of control to be retained by themselves while designing optimum capital structure.

4. Industry Average: The firm should be compared with the other firms in the industry in terms of profitability and leverage ratios. The amount of financial risk borne by other companies must be considered while designing the capital structure. Industry average provides a benchmark in this respect. However it is not necessary that the firm should follow the industry average and keep its leverage ratio at par with other companies; however, the comparison will help the firm to act as a check valve in taking risk.

5. Nature of Industry: The management must take into consideration the nature of the industry the firm belongs to while designing the optimum capital structure. If the firm belongs to an industry where sales fluctuate frequently then the operating leverage

must be conservative.

In case of firms belonging to an industry manufacturing durable goods, the financial leverage should be conservative and the firm can depend less on debt. On the other hand, firms producing less expensive products and having lesser fluctuation in demand may take an aggressive debt policy.

6. Maneuverability in Funds: There should be wide flexibility in sourcing the funds so that firm can adjust its long-term sources of funds if necessary. This will help firm to combat any unforeseen situations that may arise in the economic environment. Moreover, flexibility allows firms to avail the best opportunity that may arise in future. Management must keep provision not only for obtaining funds but also for refunding them.

7. Timing of Raising Funds: Timing is yet another important factor that needs to be considered while raising funds. Right timing may allow the firm to obtain funds at least cost. Here the management needs to keep a constant vigil on the stock market, the government's steps towards monetary and fiscal policies, market sentiment and other macro economic variables. If it is found that borrowed funds became cheap the firm may move to issue debt securities. It should be noted here that the firm must operate under its debt capacity while designing its capital structure.

8. Firm's Characteristics: The size of the firm and creditworthiness are important factors to be considered while designing its capital structure. For a small company the management cannot depend much on the debt because its creditworthiness is limited-they will have to depend on equity.

For a large concern, however, the benefit of capital gearing may be availed. Small firms have limited access to various sources of funds. Even investors are reluctant to invest in small firms. So the size and credit standing also determine capital structure of the firm.

Capital Structure Theories:

Capital structure is the major part of the firm's financial decision which affects the value of the firm and it leads to change EBIT and market value of the shares. There is

a relationship among the capital structure, cost of capital and value of the firm. The aim of effective capital structure is to maximize the value of the firm and to reduce the cost of capital.

There are two major theories explaining the relationship between capital structure, cost of capital and value of the firm.

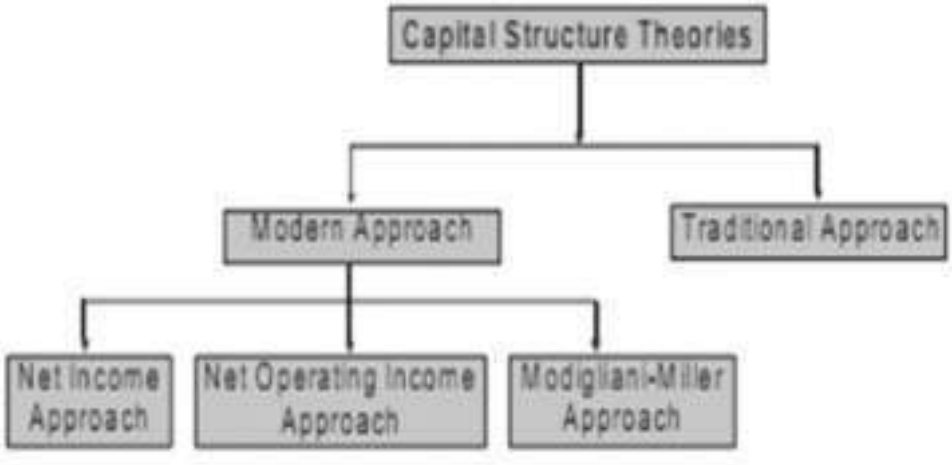


Fig. Capital Structure Theories

Traditional Approach:

It is the mix of Net Income approach and Net Operating Income approach. Hence, it is also called as intermediate approach. According to the traditional approach, mix of debt and equity capital can increase the value of the firm by reducing overall cost of capital up to certain level of debt. Traditional approach states that the Ko decreases only within the responsible limit of financial leverage and when reaching the minimum level, it starts increasing with financial leverage.

Assumptions

Capital structure theories are based on certain assumption to analysis in a single and convenient manner:

- There are only two sources of funds used by a firm; debt and shares.

- The firm pays 100% of its earning as dividend.
- The total assets are given and do not change.
- The total finance remains constant.
- The operating profits (EBIT) are not expected to grow.
- The business risk remains constant.
- The firm has a perpetual life.
- The investors behave rationally.

Exercise 1

ABC Ltd., needs Rs. 30,00,000 for the installation of a new factory. The new factory expects to yield annual earnings before interest and tax (EBIT) of Rs.5,00,000. In choosing a financial plan, ABC Ltd., has an objective of maximizing earnings per share (EPS). The company proposes to issuing ordinary shares and raising debit of Rs. 3,00,000 and Rs. 10,00,000 of Rs. 15,00,000. The current market price per share is Rs. 250 and is expected to drop to Rs. 200 if the funds are borrowed in excess of Rs. 12,00,000. Funds can be raised at the following rates.

-up to Rs. 3,00,000 at 8%

-over Rs. 3,00,000 to Rs. 15,000,00 at 10%

-over Rs. 15,00,000 at 15%

Assuming a tax rate of 50% advise the company.

Solution:

Earnings Before Interest and Tax (BIT) less Interest Earnings Before Tax less: Tax@50%.

Alternatives		
I (Rs. 3,00,000 debt)	II Rs. 10,00,000 debt)	III (Rs. 15,00,000 debt)
5,00,000 24,000	5,00,000 1,00,000	5,00,000 2,25,000
4,76,000 2,38,000	4,00,000 2,00,000	2,75,000 1,37,500
2,38,000 27,00,000 250 10800 2,38,000	2,00,000 20,00,000 250 8,000 2,00,000	1,37,500 15,00,000 200 7,500 1,37,500
No. of shares 10,800 Earnings per share 22.03	8,000 25	7,500 18.33

The secure alternative which gives the highest earnings per share is the best. Therefore the company is advised to revise Rs. 10,00,000 through debt amount Rs. 20,00,000 through ordinary shares.

Exercise 2

Compute the market value of the firm, value of shares and the average cost of capital from the following information.

Net operating income Rs. 1,00,000

Total investment Rs. 5,00,000

Equity capitalization Rate:

(a) If the firm uses no debt 10%

(b) If the firm uses Rs. 25,000 debentures 11%

(c) If the firm uses Rs. 4,00,000 debentures 13%

Assume that Rs. 5,00,000 debentures can be raised at 6% rate of interest whereas Rs. 4,00,000 debentures can be raised at 7% rate of interest.

Solution:

Computation of market value of firm value of shares and the average cost of capital

Particulars	(a) No Debt	(b) Rs. 2,50,000 6% debentures	(c) Rs. 4,00,000 7% debentures
Net operating system	1,00,000	1,00,000	1,00,000
(–) Interest (i.e.) Cost of debt	–	15,000	28,000
Earnings available to Equity shareholders	1,00,000	85,000	72,000
Equity Capitalization Rate	10%	11%	13%
Market value of shares	$10,000 \times \frac{10}{100}$	$85,000 \times \frac{100}{11}$	$72,000 \times \frac{100}{13}$
Market Value of firm	Rs. 10,00,000/- 10,00,000 1,00,000	Rs. 772727/- 10,22,727 1,00,000	Rs. 553846/- 9,53,846 1,00,000
Average cost of capital	$\frac{1,00,000}{10,00,000} \times 100$	$\frac{1,00,000}{10,22,727} \times 100$	$\frac{1,00,000}{9,53,846} \times 100$
$\frac{\text{Earnings}}{\text{Value of the firm}}$			
$\frac{EBIT}{V}$	=10%	=9.78%	=10.48%

Comments

From the above data, if debt of Rs. 2,50,000 is used, the value of the firm increases and the overall cost of capital decreases. But, if more debt is used to finance in place of equity i.e., Rs. 4,00,000 debentures, the value of the firm decreases and the overall cost of capital increases.

Net Income (NI) Approach

Net income approach suggested by the Durand. According to this approach, the capital structure decision is relevant to the valuation of the firm. In other words, a

change in the capital structure leads to a corresponding change in the overall cost of capital as well as the total value of the firm.

According to this approach, use more debt finance to reduce the overall cost of capital and increase the value of firm.

Net income approach is based on the following three important assumptions:

1. There are no corporate taxes.

2. The cost debt is less than the cost of equity.

3. The use of debt does not change the risk perception of the investor.

where

V = S+B

V = Value of firm

S = Market value of equity

B = Market value of debt

Market value of the equity can be ascertained by the following formula:

$$S=\frac{NI}{K_e}$$

where

NI = Earnings available to equity shareholder

Ke = Cost of equity/equity capitalization rate

Format for calculating value of the firm on the basis of NI approach.

Exercise 3

(a) A Company expects a net income of Rs. 1,00,000. It has Rs. 2,50,000, 8% debentures. The equality capitalization rate of the company is 10%. Calculate the

value of the firm and overall capitalization rate according to the net income approach (ignoring income tax).

(b) If the debenture debts are increased to Rs. 4,00,000. What shall be the value of the firm and the overall capitalization rate?

Solution

(a) Capitalization of the value of the firm

	Rs.
Net income	1,00,000
Less: Interest on 8% Debentures of Rs. 2,50,000	20,000
Earnings available to equality shareholders	80,000
Equity capitalization rate	10%

$$= \frac{80{,}000 \times 100}{10}$$

Market value of equity = 8,00,000

Market value of debentures = 2,50,000

Value of the firm = 10,50,000

Calculation of overall capitalization rate

$$\text{Overall cost of capital (Ko)} = \frac{\text{Earnings}}{\text{Value of the firm}} = \frac{\text{EBIT}}{\text{V}}$$

$$= \frac{1{,}00{,}000 \times 100}{10{,}50{,}000}$$

$$= 9.52\%$$

(b) Calculation of value of the firm if debenture debt is raised to Rs. 3,00,000.

	Rs.
Net income	1,00,000
Less: Interest on 8% Debentures of Rs. 4,00,000	32,000
Equity Capitalization rate	68,000
	10%

Market value of equity $= 68{,}000 \times \frac{100}{10} = 6{,}80{,}000$

$= 6{,}80{,}000$

Market value of Debentures $= 4{,}00{,}000$

Value of firm $= 10{,}80{,}000$

Overall cost of capital $= \frac{1{,}00{,}000}{10{,}80{,}000} \times 10$

$= 9.26\%$

Thus, it is evident that with the increase in debt financing, the value of the firm has increased and the overall cost of capital has increased.

Net Operating Income (NOI) Approach

Another modern theory of capital structure, suggested by Durand. This is just the opposite to the Net Income approach. According to this approach, Capital Structure decision is irrelevant to the valuation of the firm. The market value of the firm is not at all affected by the capital structure changes.

According to this approach, the change in capital structure will not lead to any change in the total value of the firm and market price of shares as well as the overall cost of capital.

NI approach is based on the following important assumptions;

The overall cost of capital remains constant;

There are no corporate taxes;

The market capitalizes the value of the firm as a whole;

Value of the firm (V) can be calculated with the help of the following formula:

$$V = \frac{EBIT}{K_o}$$

Where,

V = Value of the firm

EBIT = Earnings before interest and tax

Ko = Overall cost of capital

Exercise 4

XYZ expects a net operating income of Rs. 2,00,000. It has 8,00,000, 6% debentures. The overall capitalization rate is 10%. Calculate the value of the firm and the equity capitalization rate (Cost of Equity) according to the net operating income approach.

If the debentures debt is increased to Rs. 10,00,000. What will be the effect on volume of the firm and the equity capitalization rate?

Solution

Net operating income = Rs. 2,00,000

Overall cost of capital = 10%

Market value of the firm (V)

$$= \frac{EBIT}{K_o}$$

$$= 2,00,000 \times \frac{100}{10} = \text{Rs. } 20,00,000$$

Market value of the firm = Rs. 20,00,000

Less: market value of Debentures = Rs. 8,00,000

12,00,000

Equity capitalization rate (or) cost of equity (K_e)

$$= \frac{EBIT - I}{V - D}$$

Where, V = value of the firm

D = value of the debt capital

$$= \frac{2,00,000 - 48,000}{20,00,000 - 8,00,000} \times 100$$

$$= 12.67\%$$

if the debentures debt is increased to Rs. 10,00,000, the value of the firm shall remain changed to Rs. 20,00,000. The equity capitalization rate will increase as follows:

Modigliani and Miller Approach

Modigliani and Miller approach states that the financing decision of a firm does not affect the market value of a firm in a perfect capital market. In other words MM approach maintains that the average cost of capital does not change with change in the debt weighted equity mix or capital structures of the firm.

Modigliani and Miller approach is based on the following important assumptions:

- There is a perfect capital market.
- There are no retained earnings.
- There are no corporate taxes.
- The investors act rationally.

- The dividend payout ratio is 100%.
- The business consists of the same level of business risk.

Value of the firm can be calculated with the help of the following formula:

$$\frac{EBIT}{K_o}(1-t)$$

Where

EBIT = Earnings before interest and tax

Ko = Overall cost of capital

t = Tax rate

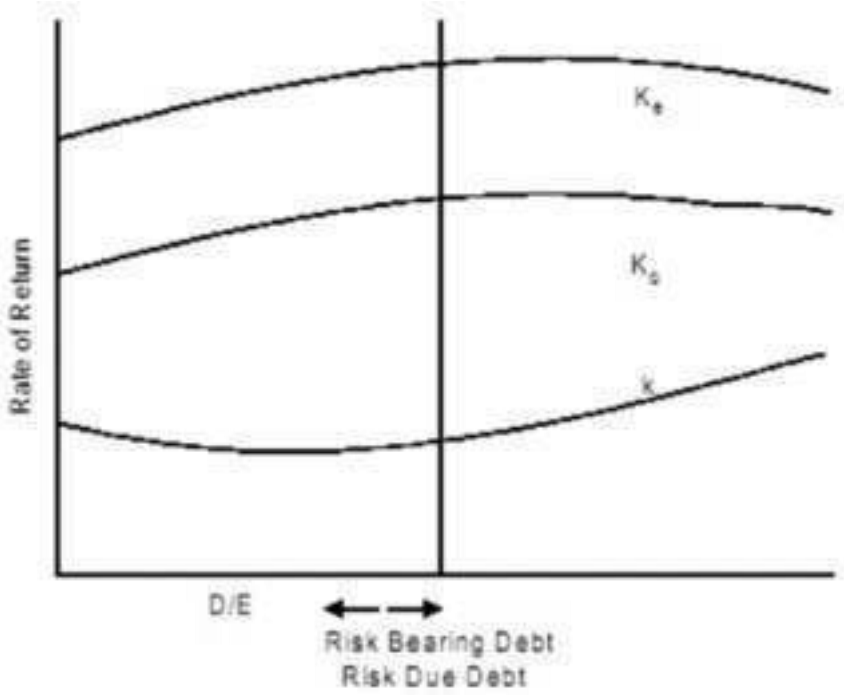


Fig. Modigliani and Miller Approach

Exercise 1

There are two firms 'A' and 'B' which are exactly identical except that A does not use any debt in its financing, while B has Rs. 2,50,000 , 6% Debentures in its financing. Both the firms have earnings before interest and tax of Rs. 75,000 and the equity capitalization rate is 10%. Assuming the corporation tax is 50%, calculate the value of the firm.

Solution:

The market value of firm A which does not use any debt.

$$V_u = \frac{EBIT}{K_o}$$

$$= \frac{75,000}{10/100} = 75,000 \times 100/10$$

$$= \text{Rs. } 7,50,000$$

The market value of firm B which uses debt financing of Rs. 2,50,000

$$V_t = V_u + t$$

V_u = 7,50,000, t = 50% of Rs. 2,50,000

= 7,50,000 + 1,25,000

= Rs. 8,75,000

Exercise 2

The following is the data regarding two Company's. X and Y belonging to the same risk class.

	X	Y
No. of ordinary shares	90,000	1,50,000
Market price/share (Rs.)	1.2	1.0
6% debentures	60,000	–
Profit before interest	18,000	18,000

All profits after interest are distributed as dividend.

Explain how under Modigliani & Miller Approach an investor holding 10% of shares in Company X will be better off in switching his holding to Company Y.

(CA Final Nov. 1993)

Solution:

Both the firms have EBIT of Rs. 18,000. Company X has to pay interest of Rs. 3600 (i.e., 6% on Rs. 60,000) and the remaining profit of Rs. 14,400 is being distributed among the shareholders. The Company Y on the other hand has no interest liability and therefore is distributing Rs.18,000 among the shareholders.

The investor will be well off under MM Model by selling the shares of X and shifting to shares of Y company through the arbitrage process as follows. If he sells shares of X Company He gets Rs. 10,800 (9,000 shares @ Rs.1.2 per share). He now takes a 6% loan

of Rs.6,000.

(i.e. 105 of Rs. 60,000) and out of the total cash of Rs. 16,800 he purchases 10% of shares of Company Y for Rs. 15,000; his position with regard to Company Y would be as follows:

	X	Y
Dividends (10% of Profits)	1,440	1,800
Less:Interest (6% on Rs. 6,000)	–	360
Net Income	1,440	1,440

Thus by shifting from Company Y the investor is able to get the same income of Rs. 1,440 and still having funds of Rs. 1,800 (i.e., Rs. 16,800 - 15,000) at his disposal. He is better off not in terms of income but in terms of having capital of Rs. 1,800 with him which he can invest elsewhere.

5.5 LEASING AND HIRE PURCHASE

LEASE FINANCING

Lease financing is one of the popular and common methods of assets based finance, which is the alternative to the loan finance. Lease is a contract. A contract under which one party, the leaser (owner) of an asset agrees to grant the use of that asset to another leaser, in exchange for periodic rental payments.

Lease is contractual agreement between the owner of the assets and user of the assets for a specific period by a periodical rent.

In simple terms, a lease is a contractual procedure calling for the lessee (user) to pay the lessor (owner) for use of an asset. Lease usually involves two parties which include the lessor (owner) and the lessee (user). In this arrangement, the lessor transfers the right to use to the lessee in return of the lease rentals agreed upon. Lease agreement can be made flexible enough to meet the financial necessities of both the parties

Definition of Leasing

Lease may be defined as a contractual arrangement in which a party owning an asset provides the asset for use to another, the right to use the assets to the user over a certain period of time, for consideration in form of periodic payment, with or without a further payment.

According to the equipment leasing association of UK definition, leasing is a contract between the lesser and the lessee for hire of a specific asset selected from a manufacturers or vender of such assets by the lessee. The leaser retains the ownership of the asset. The lessee pass possession and uses the asset on payment for the specified period.

Elements of Leasing

Leasing is one of the important and popular parts of asset based finance. It consists of the following essential elements. One should understand these elements before they are going to study on leasing.

1. **Parties:** These are essentially two parties to a contract of lease financing, namely the owner and user of the assets.
2. **Leaser:** Leaser is the owner of the assets that are being leased. Leasers may be individual partnership, joint stock companies, corporation or financial institutions.
3. **Lease:** Lease is the receiver of the service of the assets under a lease contract. Lease assets may be firms or companies.
4. **Lease broker:** Lease broker is an agent in between the leaser (owner) and lessee. He acts as an intermediary in arranging the lease deals. Merchant banking divisions of foreign banks, subsidiaries Indian banking and private foreign banks are acting as lease brokers.
5. **Lease assets:** The lease assets may be plant, machinery, equipments, land, automobile, factory, building etc.

Term of Lease

The term of lease is the period for which the agreement of lease remains for operations. The lease term may be fixed in the agreement or up to the expiry of the assets.

Lease Rental

The consideration that the leasee pays to the leaser for lease transaction is the

rental.

Type of Leasing

Leasing, as a financing concept, is an arrangement between two parties for a specified period. Leasing may be classified into different types according to the nature of the agreement. The following are the major types of leasing as follows:

(A) Lease based on the term of lease

1. Finance Lease
2. Operating Lease

(B) Lease based on the method of lease

1. Sale and lease back
2. Direct lease

(C) Lease based in the parties involved

1. Single investor lease
2. Leveraged lease

(D) Lease based in the area

1. Domestic lease
2. International lease

1. Financing lease

Financing lease is also called as full payout lease. It is one of the long-term leases and cannot be cancellable before the expiry of the agreement. It means a lease for terms that approach the economic life of the asset, the total payments over the term of the lease are greater than the leasers initial cost of the leased asset.

For example: Hiring a factory, or building for a long period. It includes all expenditures related to maintenance.

2. Operating lease

Operating lease is also called as service lease. Operating lease is one of the short-term and cancellable leases. It means a lease for a time shorter than the economic life of the assets, generally the payments over the term of the lease are less than the leaser's initial cost of the leased asset.

For example : Hiring a car for a particular travel. It includes all expenses such as driver salary, maintenance, fuels, repairs etc.

3. Sale and lease back

Sale and lease back is a lease under which the lessee sells an asset for cash to a prospective leaser and then leases back the same asset, making fixed periodic payments for its use. It may be in the firm of operating leasing or financial leasing. It is one of the convenient methods of leasing which facilitates the financial liquidity of the company.

4. Direct lease

When the lease belongs to the owner of the assets and users of the assets with direct relationship it is called as direct lease. Direct lease may be Dipartite lease (two parties in the lease) or Tripartite lease. (Three parties in the lease)

5. Single investor lease

When the lease belongs to only two parties namely leaser and it is called as single investor lease. It consists of only one investor (owner). Normally all types of leasing such as operating, financially, sale and lease back and direct lease are coming under this categories.

6. Leveraged lease

This type of lease is used to acquire the high level capital cost of assets and equipments. Under this lease, there are three parties involved; the leaser, the lender and the lessee. Under the leverage lease, the leaser acts as equity participant supplying a fraction of the total cost of the assets while the lender supplies the major part.

7. Domestic lease

In the lease transaction, if both the parties belong to the domicile of the same country it is called as domestic leasing.

8. International lease

If the lease transaction and the leasing parties belong to the domicile of different countries, it is called as international leasing.

Advantages of Leasing

Leasing finance is one of the modern sources of finance, which plays a major role in the part of the asset based financing of the company. It has the following important advantages.

1. Financing of fixed asset

Lease finance helps to mobilize finance for large investment in land and building, plant and machinery and other fixed equipments, which are used in the business concern.

2. Assets based finance

Leasing provides finance facilities to procure assets and equipments for the company. Hence, it plays a important and additional source of finance.

3. Convenient

Leasing finance is convenient to the use of fixed assets without purchasing. This type of finance is suitable where the company uses the assets only for a particular period or particular purpose. The company need not spend or invest huge amount for the acquiring of the assets or fixed equipments.

4. Low rate of interest

Lease rent is fixed by the lease agreement and it is based on the assets which are

used by the business concern. Lease rent may be less when compared to the rate of interest payable to the fixed interest leasing finance like debt or loan finance.

5. Simplicity

Lease formalities and arrangement of lease finance facilities are very simple and easy. If the leaser agrees to use the assets or fixed equipments by the lessee, the leasing arrangement is mostly finished.

6. Transaction cost

When the company mobilizes finance through debt or equity, they have to pay some amount as transaction cost. But in case of leasing finance, transaction cost or floating cost is very less when compared to other sources of finance.

7. Reduce risk

Leasing finance reduces the financial risk of the lessee. Hence, he need not buy the assets and if there is any price change in the assets, it will not affect the lessee.

8. Better alternative

Now a days, most of the commercial banks and financial institutions are providing lease finance to the industrial concern. Some of the them have specialised lease finance company. They are established to provide faster and speedy arrangement of lease finance.

Leasing Finance Institutions In India

Presently, leasing finance becomes popular and effective financial sources for most of the business concerns. With the importance of lease finance, now-a-days banks and financial institutions provide leasing financial assistance to the industrial concern. The following institutions are famous and widely providing lease finance in India:

Leasing financial institutions in India may be classified into the following groups.

Fig. Leasing Institutions

Leasing by Development Institutions

All India development institutions are providing leasing finance assistance to industrial concerns. Some of the public sector leasing finance company in India are follows:

Industrial Credit & Investment Corporation of India (ICICI)

- Industrial Finance Corporation of India (IFCI)
- Industrial Investment Bank of India (IIBI)
- Small Industries Development Corporation (SIDC)
- State Industrial Investment Corporation (SIIC)

Leasing by Specialized Institutions

Specialized financial institutions also provide lease finance to the industrial concern. Some of the lease finance providing institutions are as follows:

- Life Insurance Corporation of India (LIC)
- General Insurance Corporation of India (GIC)
- Unit Trust of India (UTI)
- Housing Development Finance Corporation of India (HDFC)

Private Sector Leasing Company

Private sector leasing companies also provide financial assistance to the industrial concerns. The following are the example of the private sector leasing companies in India:

- Express Leasing Limited
- 20th Century Leasing Corporation Ltd.
- First Leasing Company of India
- Mazda Leasing Limited
- Grover Leasing Limited

Private Sector Financial Company

Private sector financial companies also involve in the field of leasing finance. The following are the example of the private sector finance companies:

- Cholamandal Investment and Finance Company Ltd.
- DCL Finance Limited
- Sundaram Finance Limited
- Anagram Finance Limited
- Nagarjuna Finance Limited.

HIRE PURCHASE

Hire purchase is type of the legal contract, in which a buyer agrees to pay for goods in parts or a percentage over a number of months. Hire purchase is used to buy luxurious products which a person cannot afford to pay out right such as a car. A down payment is generally paid and the balance is paid over several months as a monthly instalments.

In countries like Canada and the United States, a hire purchase is termed an instalment plan although these may vary marginally as in a hire purchase agreement,

the ownership of the goods remains with the merchant until the last payment is done. Other similar practices are described as closed-end leasing or rent to own. The hire purchase agreement was established in the United Kingdom in the 19th century to permit customers with a cash shortage to make a luxurious purchase. It was done because companies did not want to lose customers or delay the buying process.

According to hire purchase act of 1972, an agreement under which goods are let on hire under which the hirer has an option to purchase them in accordance with the terms of agreement and include an agreement under which Possession of goods is delivered by the owner thereof to a person on the condition that such person pays the amount in periodic payments. The property of the goods is to pass to such a person on the payment of the last instalment. Such a person has a right to dismiss the agreement any time before the property so passes.

Abundant of management studies have explained concept of hire purchase system. Many theorists defined that "Hire Purchase System is a system under which money is paid for goods by means of periodical instalments with the view of ultimate purchase. All money being paid in the meantime is regarded as payment of hire and the goods become the property of the buyers only when all the instalments have been paid. J. Stephenson stated that "The hire-purchase is a form of trade in which credit is granted to the customer on the security of a lien on the goods."

From the above descriptions it is established that the buyer takes the delivery of the article on the payment of first instalment and becomes the owner only after paying the final instalment. Hire purchase type of business is generally carried in the case of durable consumer articles such as sewing machines, televisions, desert coolers and refrigerators.

Characteristics of Hire purchase:

1. Possession
2. Ownership upon the full payment
3. Instalment buying

4. Social innovation

5. Expands economy

6. Additional income

Hire purchase involves a definite procedure to be followed. For this, an agreement called hire purchase agreement is made in written between the parties involved in the hire purchase transaction.

The agreement comprises of the following elements:

1. The hire purchase price of the goods to which the agreement relates.

2. The cash price of the goods, that is to say, the price at which the good is purchased for cash.

3. The date of the beginning of the agreement.

4. The number and time interval of instalments by which the hire purchase price is to be paid.

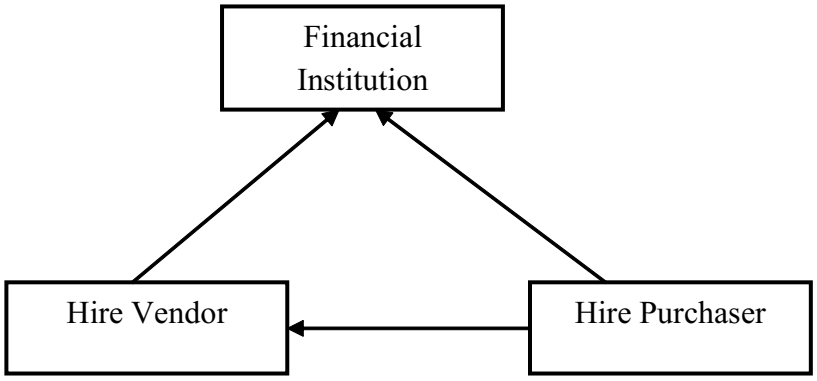
5. The name of goods, with its sufficient identity, to which the hire purchase agreement relates to.

6. The amount to be paid, if any, at the time of signing the agreement.

7. The signatures of the parties involved in transaction.

When the hire purchase deal is funded by the manufacturer or dealer, then two parties, called, hire vendor and hire purchaser, are involved in the agreement. The hire purchase transaction is financed by some financial institution, and then there are three parties involved in the transaction. These are Hire Vendor, Hire Purchaser, and Financial Institution. In such case, the vendor, initially receives the bills of exchange for hire purchase price of the goods from the hirer. The vendor, then, discounts the bills with the financial institution and gets payment for the goods sold under hire purchase system. The financial institution collects the payments of the bills from the hirer, as and when the instalments fall due.

Three parties involved in hire purchase:



Advantages of Hire Purchase System:

1. **Convenience in Payment:** The buyer gets advantage as he has to make the payment in instalments. This system is greatly beneficial to the people having limited income.
2. **Increased Volume of Sales:** This system fascinates more customers as the payment is to be made in easy instalments. This leads to increased volume of sales.
3. **Increased Profits:** Large volume of sales guarantees increased profits to the seller.
4. **Encourages Savings:** It boosts thrift among the buyers who are forced to save some portion of their income for the payment of the instalments. This inculcates the habit to save among the people.
5. **Helpful for Small Traders:** This system is highly beneficial for the small manufacturers and traders. They can purchase machinery and other equipment on instalment basis and in turn sell goods to the buyer charging full price.
6. **Earning of Interest:** The seller gets the instalment which includes original price

and interest. The interest is calculated in advance and added in total instalments to be paid by the buyer.

7. **Lesser Risk:** From seller's viewpoint, this system is greatly beneficial as he knows that if the buyer fails to pay one instalment, he can get the article back.

Disadvantages of Hire Purchase System:

1. **Higher Price:** A purchaser has to pay higher price for the article purchased which includes cost plus interest. The rate of interest is normally quite high.
2. **Artificial Demand:** Hire purchase system creates false demand for the product. The buyer is desirous to purchase the products, even if he does not need or afford to buy the product.
3. **Heavy Risk:** The seller runs a heavy risk under such system, though he has the right to take back the articles from the defaulting customers. The second hand goods make little price.
4. **Problems to recover instalments:** It has been perceived that the sellers do not get the instalments from the buyers on time. They may choose immoral buyers which may put them in trouble. They have to waste time and incur extra expenditure to recollect the instalments. This sometimes leads to serious fights between the buyers and the sellers.
5. **Break Up of Families:** The system puts heavy financial load on the families which cannot afford to buy costly and luxurious items. In many studies, it has been shown that many happy homes and families have been broken by hire purchase buying's.

It is said that hire purchase in similar to leasing with the exception that ownership of the goods passes to hire purchase customer on payment of the final payment instalment, whereas a lessee never becomes the owner of the goods (Steve Carter, 1997).

Difference between Lease and Hire Purchase:

1. **Ownership of the Asset:** In lease, ownership lies with the lessor. The lessee has the right to use the equipment and does not have an option to purchase. However in hire purchase, the hirer has the choice to purchase. The hirer becomes the owner of the asset/equipment immediately after the last instalment is paid.

2. **Depreciation:** In lease funding, the depreciation is demanded as an expense in the books of lessor. Instead, the depreciation claim is allowed to the hirer in case of hire purchase deal.

3. **Rental Payments:** The lease rentals cover the cost of using an asset. Usually, it is derived with the cost of an asset over the asset life. But in the process of hire purchase, instalment is inclusive of the principal amount and the interest for the time period the asset is used.

4. **Duration:** Normally lease agreements are done for longer duration and for big assets such as land, property. But hire Purchase agreements are done generally for shorter duration and cheaper assets such as hiring a car or machinery.

5. **Tax Impact:** In lease agreement, the total lease rentals are revealed as expenditure by the lessee. In hire purchase, the hirer claims the depreciation of asset as an expense.

6. **Repairs and Maintenance:** Repairs and maintenance of the asset in financial lease is the responsibility of the lessee but in operating lease, it is the responsibility of the lessor. In hire purchase, hirer is responsible for maintenance.

7. **Extent of Finance:** Lease financing can be called the complete financing choice in which no down payments are required but in hire purchase, the normally 20 to 25 % margin money is required to be paid upfront by the hirer.

3.6 DERIVATES: MANAGING FINANCIAL RISK

Managing Financial Risk is one of the most essential activities that every firm needs to consider. Financial risk is the type of risk that involves financial loss to a firm. Financial risks can be classified into various types such as Market risk, Credit risk,

Liquidity risk and Operational risk. Further, market risk is classified into directional and non-directional risk, credit risk into sovereign risk and settlement risk, liquidity risk into asset liquidity risk and funding liquidity risk and operation risk into fraud risk, model risk and legal risk. After realizing what financial risk is and its types, the next major concern for firms is to perform financial risk management. Various tools were and are used for managing financial risk and out of all derivatives are the most widely used tool to manage financial risk. Let's discuss derivatives as a tool of financial risk management.

In addition to this, the objective of an investment decision is to get required rate of return with minimum risk. To achieve this objective, various instruments, practices and strategies have been devised and developed in the recent past. With the opening of boundaries for international trade and business, the world trade gained momentum in the last decade, the world has entered into a new phase of global integration and liberalisation. The integration of capital markets world-wide has given rise to increased financial risk with the frequent changes in the interest rates, currency exchange rate and stock prices. To overcome the risk arising out of these fluctuating variables and increased dependence of capital markets of one set of countries to the others, risk management practices have also been reshaped by inventing such instruments as can mitigate the risk element. These new popular instruments are known as financial derivatives which, not only reduce financial risk but also open us new opportunity for high risk takers.

Defining Derivatives

Literal meaning of derivative is that something which is derived. Now question arises as to what is derived? From what it is derived? Simple one line answer is that value/ price is derived from any underlying asset. The term 'derivative' indicates that it has no independent value, i.e., its value is entirely derived from the value of the underlying asset. The underlying asset can be securities, commodities, bullion, currency, livestock or anything else. The Securities Contracts (Regulation) Act 1956 defines 'derivative' as under: 'Derivative' includes

Security derived from a debt instrument, share, loan whether secured or unsecured,

risk instrument or contract for differences or any other form of security. A contract which derives its value from the prices, or index of prices of underlying securities. There are two types of derivatives. Commodity derivatives and financial derivatives. Firstly derivatives originated as a tool for managing risk in commodities markets. In commodity derivatives, the underlying asset is a commodity. It can be agricultural commodity like wheat, soybeans, rapeseed, cotton etc. or precious metals like gold, silver etc. The term financial derivative denotes a variety of financial instruments including stocks, bonds, treasury bills, interest rate, foreign currencies and other hybrid securities. Financial derivatives include futures, forwards, options, swaps, etc. Futures contracts are the most important form of derivatives, which are in existence long before the term 'derivative' was coined. Financial derivatives can also be derived from a combination of cash market instruments or other financial derivative instruments. In fact, most of the financial derivatives are not new instruments rather they are merely combinations of older generation derivatives and/or standard cash market instruments.

Evolution of Derivatives

It is difficult to trace out origin of futures trading since it is not clearly established as to where and when the first forward market came into existence. Historically, it is evident that futures markets were developed after the development of forward markets. It is believed that the forward trading was in existence during 12th century in England and France. Forward trading in rice was started in 17th century in Japan, known as Cho-at-Mai a kind (rice trade-on-book) concentrated around Dojima in Osaka, later on the trade in rice grew with a high degree of standardization. In 1730, this market got official recognition from the Tokugawa Shogurate. As such, the Dojima rice market became the first futures market in the sense that it was registered on organized exchange with the standardized trading norms.

The butter and eggs dealers of Chicago Produce Exchange joined hands in 1898 to form the Chicago Mercantile Exchange for futures trading. The exchange provided a futures market for many commodities including pork bellies (1961), live cattle (1964), live hogs (1966), and feeder cattle (1971). The International Monetary Market was formed as a division of the Chicago Mercantile Exchange in 1972 for

futures trading in foreign currencies. In 1982, it introduced a futures contract on the S&P 500 Stock Index. Many other exchanges throughout the world now trade futures contracts. Among these are the Chicago Rice and Cotton Exchange, the New York Futures Exchange, the London International Financial Futures Exchange, the Toronto Futures Exchange and the Singapore International Monetary Exchange.

During 1980's, markets developed for options in foreign exchange, options on stock indices, and options on futures contracts. The Philadelphia Stock Exchange is the premier exchange for trading foreign exchange options. The Chicago Board Options Exchange trades options on the S&P 100 and the S&P 500 stock indices while the American Stock Exchange trades options on the Major Market Stock Index, and the New York Stock Exchange trades options on the NYSE Index. Most exchanges offering futures contracts now also offer options on these futures contracts. Thus, the Chicago Board of Trades offers options on commodity futures, the Chicago Mercantile Exchange offers options on live cattle futures, the International Monetary Market offers options on foreign currency futures, and so on.

The basic cause of forward trading was to cover the price risk. In earlier years, transporting goods from one market to other markets took many months. For example, in the 1800s, food grains produced in England sent through ships to the United States which normally took few months. Sometimes, during this time, the price trembled due to unfavourable events before the goods reached to the destination. In such cases, the producers had to sell their goods at loss. Therefore, the producers sought to avoid such price risk by selling their goods forward, or on a "to arrive" basis. The basic idea behind this move at that time was simply to cover future price risk. On the opposite side, the speculator or other commercial firms seeking to offset their price risk came forward to go for such trading. In this way, the forward trading in commodities came into existence.

In the beginning, these forward trading agreements were formed to buy and sell food grains in the future for actual delivery at the predetermined price. Later on these agreements became transferable, and during the American Civil War period, Le., 1860 to 1865, it became common place to sell and resell such agreements where actual

delivery of produce was not necessary. Gradually, the traders realized that the agreements were easier to buy and sell if the same were standardized in terms of quantity, quality and place of delivery relating to food grains. In the nineteenth century this activity was centred in Chicago which was the main food grains marketing centre in the United States. In this way, the modern futures contracts first came into existence with the establishment of the Chicago Board of Trade (CBOT) in the year 1848, and today, it is the largest futures market of the world. In 1865, the CBOT framed the general rules for such trading which later on became a trendsetter for so many other markets.

In 1874, the Chicago Produce Exchange was established which provided the market for butter, eggs, poultry, and other perishable agricultural products. In the year 1877, the London Metal Exchange came into existence, and today, it is leading market in metal trading both in spot as well as forward. In the year 1898, the butter and egg dealers withdrew from the Chicago Produce Exchange to form separately the Chicago Butter and Egg Board, and thus, in 1919 this exchange was renamed as the Chicago Mercantile Exchange (CME) and was reorganized for futures trading. Since then, so many other exchanges came into existence throughout the world which trade in futures contracts.

Although financial derivatives have been operation since long, but they have become a major force in financial markets in the early 1970s. The basic reason behind this development was the failure of Bretton-wood System and the fixed exchange rate regime was broken down. As a result, new exchange rate regime, i.e., floating rate (flexible) system based upon market forces came into existence. But due to pressure or demand and supply on different currencies, the exchange rates were constantly changing, and often, substantially. As a result, the business firms faced a new risk, known as currency or foreign exchange risk. Accordingly, a new financial instrument was developed to overcome this risk in the new financial environment.

Another important reason for the instability in the financial market was fluctuation in the short-term interests. This was mainly due to that most of the government at that time tried to manage foreign exchange fluctuations through short-term interest rates

and by maintaining money supply targets, but which were contrary to each other. Further, the increased instability of short-term interest rates created adverse impact on long-term interest rates, and hence, instability in bond prices, because they are largely determined by long-term interest rates. The result is that it created another risk, named interest rate risk, for both the issuers and the investors of debt instruments.

Interest rate fluctuations had not only created instability in bond prices, but also in other long-term assets such as, company stocks and shares. Share prices are determined on the basis of expected present values of future dividend payments discounted at the appropriate discount rate. Discount rates are usually based on long-term interest rates in the market. So increased instability in the long-term interest rates caused enhanced fluctuations in the share prices in the stock markets. Further volatility in stock prices is reflected in the volatility in stock market indices which causes systematic risk or market risk.

In the early 1970s, it is witnessed that the financial markets were highly instable, as a result, so many financial derivatives have been emerged as the means to manage the different types of risks stated above, and also for taking advantage of it. Hence, the first financial futures market was the International Monetary Market, established in 1972 by the Chicago Mercantile Exchange which was followed by the London International Financial Futures Exchange in 1982. The Forwards Contracts (Regulation) Act, 1952, regulates the forward/futures contracts in commodities all over India. As per this the Forward Markets Commission (FMC) continues to have jurisdiction over commodity forward/futures contracts. However when derivatives trading in securities was introduced in 2001, the term 'security' in the Securities Contracts (Regulation) Act, 1956 (SCRA), was amended to include derivative contracts in securities. Consequently, regulation of derivatives came under the preview of Securities Exchange Board of India (SEBI). We thus have separate regulatory authorities for securities and commodity derivative markets.

Features of Financial Derivatives

It is a contract: Derivative is defined as the future contract between two parties.

It means there must be a contract-binding on the underlying parties and the same to be fulfilled in future. The future period may be short or long depending upon the nature of contract, for example, short term interest rate futures and long term interest rate futures contract.

Derives value from underlying asset: Normally, the derivative instruments have the value which is derived from the values of other underlying assets, such as agricultural commodities, metals, financial assets, intangible assets, etc. Value of derivatives depends upon the value of underlying instrument and which changes as per the changes in the underlying assets, and sometimes, it may be nil or zero. Hence, they are closely related.

Specified obligation: In general, the counter parties have specified obligation under the derivative contract. Obviously, the nature of the obligation would be different as per the type of the instrument of a derivative. For example, the obligation of the counter parties, under the different derivatives, such as forward contract, future contract, option contract and swap contract would be different.

Direct or exchange traded: The derivatives contracts can be undertaken directly between the two parties or through the particular exchange like financial futures contracts. The exchange-traded derivatives are quite liquid and have low transaction costs in comparison to tailor-made contracts. Example of exchange traded derivatives are Dow Jons, S&P 500, Nikki 225, NIFTY option, S&P Junior that are traded on New York Stock Exchange, Tokyo Stock Exchange, National Stock Exchange, Bombay Stock Exchange and so on.

Related to notional amount: In general, the financial derivatives are carried off-balance sheet. The size of the derivative contract depends upon its notional amount. The notional amount is the amount used to calculate the payoff. For instance, in the option contract, the potential loss and potential payoff, both may be different from the value of underlying shares, because the payoff of derivative products differ from the payoff that their notional amount might suggest.

Delivery of underlying asset not involved: Usually, in derivatives trading, the taking or making of delivery of underlying assets is not involved, rather underlying transactions are mostly settled by taking offsetting positions in the derivatives themselves. There is, therefore, no effective limit on the quantity of claims, which can be traded in respect of underlying assets.

May be used as deferred delivery: Derivatives are also known as deferred delivery or deferred payment instrument. It means that it is easier to take short or long position in derivatives in comparison to other assets or securities. Further, it is possible to combine them to match specific, i.e., they are more easily amenable to financial engineering.

Secondary market instruments: Derivatives are mostly secondary market instruments and have little usefulness in mobilizing fresh capital by the corporate world, however, warrants and convertibles are exception in this respect.

Exposure to risk: Although in the market, the standardized, general and exchange-traded derivatives are being increasingly evolved, however, still there are so many privately negotiated customized, over-the-counter (OTC) traded derivatives are in existence. They expose the trading parties to operational risk, counter-party risk and legal risk. Further, there may also be uncertainty about the regulatory status of such derivatives.

Off balance sheet item: Finally, the derivative instruments, sometimes, because of their off-balance sheet nature, can be used to clear up the balance sheet. For example, a fund manager who is restricted from taking particular currency can buy a structured note whose coupon is tied to the performance of a particular currency pair.

Types of financial Derivatives

Derivatives are of two types: financial and commodities.

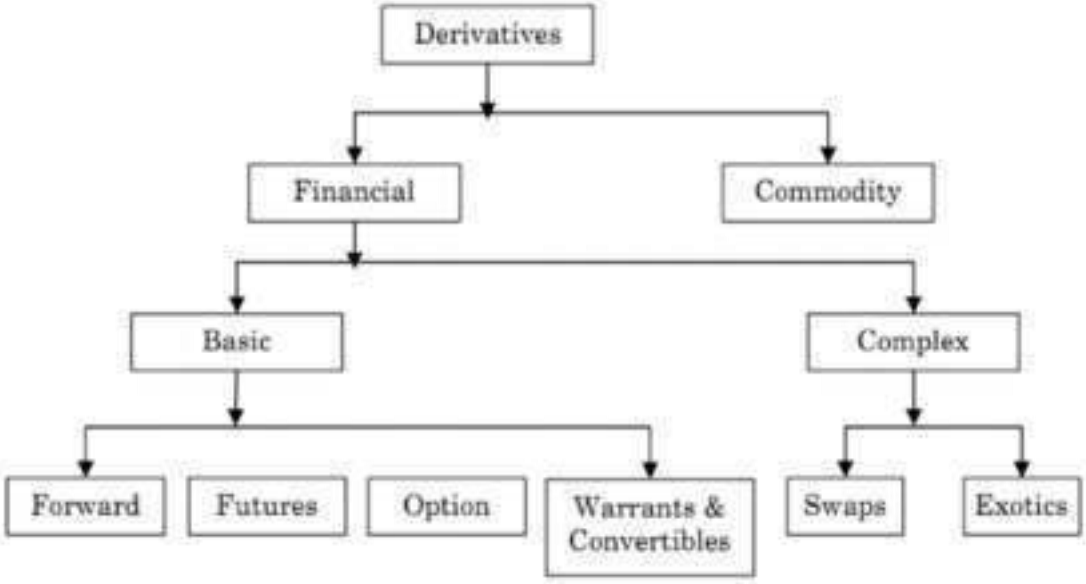


Fig. : Classification of Derivatives

One form of classification of derivative instruments is between commodity derivatives and financial derivatives. The basic difference between these is the nature of the underlying instrument or asset. In a commodity derivative, the underlying instrument is a commodity which may be wheat, cotton, pepper, sugar, jute, turmeric, corn, soyabeans, crude oil, natural gas, gold, silver, copper and so on. In a financial derivative, the underlying instrument may be treasury bills, stocks, bonds, foreign exchange, stock index, gilt-edged securities, cost of living index, etc. It is to be noted that financial derivative is fairly standard and there are no quality issues whereas in commodity derivative, the quality may be the underlying matter. However, despite the distinction between these two from structure and functioning point of view, both are almost similar in nature. The most commonly used derivatives contracts are forwards, futures and options.

Forwards: A forward contract is a customised contract between two entities, where settlement takes place on a specific date in the future at today's pre-agreed price. For example, an Indian car manufacturer buys auto parts from a Japanese car maker with payment of one million yen due in 60 days. The importer in India is short

of yen and suppose present price of yen is Rs. 68. Over the next 60 days, yen may rise to Rs. 70. The importer can hedge this exchange risk by negotiating a 60 days forward contract with a bank at a price of Rs. 70. According to forward contract, in 60 days the bank will give the importer one million yen and importer will give the banks 70 million rupees to bank.

Futures: A futures contract is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price. Futures contracts are special types of forward contracts in the sense that the former are standardised exchange-traded contracts. A speculator expects an increase in price of gold from current future prices of Rs. 9000 per 10 gm. The market lot is 1 kg and he buys one lot of future gold (9000 × 100) Rs. 9,00,000. Assuming that there is 10% margin money requirement and 10% increase occur in price of gold. the value of transaction will also increase i.e. Rs. 9900 per 10 gm and total value will be Rs. 9,90,000. In other words, the speculator earns Rs. 90,000.

Options: Options are of two types- calls and puts. Calls give the buyer the right but not the obligation to buy a given quantity of the underlying asset, at a given price on or before a given future date. Puts give the buyer the right, but not the obligation to sell a given quantity of the underlying asset at a given price on or before a given date.

Warrants: Options generally have lives of upto one year, the majority of options traded on options exchanges having maximum maturity of nine months. Longer-dated options are called warrants and are generally traded over-the-counter.

Leaps: The acronym LEAPS means long term equity anticipation securities. These are options having a maturity of upto three years. Baskets: Basket options are options on portfolios of underlying assets. The index options are a form of basket options.

Swaps: Swaps are private agreements between two parties to exchange cash flows in the future according to a prearranged formula. They can be regarded as portfolios of forward contracts. The two commonly used swaps are:

- ***Interest rate swaps:*** These entail swapping only the interest related cash flows between the parties in the same currency
- ***Currency Swaps:*** These entail swapping both principal and interest on different currency than those in the opposite direction.

Swaptions: Swaptions are options to buy or sell a swap that will become operative at the expiry of the options. Thus a swaptions is an option on a forward swap. Rather than have calls and puts, the swaptions market has receiver swaptions and payer swaptions. A receiver swaption is an option to receive fixed and pay floating. A payer swaption is an option to pay fixed and receive floating.

Uses and Functions of Derivatives:

Generally derivatives are used as risk management tools. Here is the brief description of their uses and functions.

Uses of Derivatives

Derivatives are supposed to provide the following services:

Risk aversion tools: One of the most important services provided by the derivatives is to control, avoid, shift and manage efficiently different types of risks through various strategies like hedging, arbitraging, spreading, etc. Derivatives assist the holders to shift or modify suitably the risk characteristics of their portfolios. These are specifically useful in highly volatile financial market conditions like erratic trading, highly flexible interest rates, volatile exchange rates and monetary chaos.

Prediction of future prices: Derivatives serve as barometers of the future trends in prices which result in the discovery of new prices both on the spot and futures markets. Further, they help in disseminating different information regarding the futures markets trading of various commodities and securities to the society which enable to discover or form suitable or correct or true equilibrium prices in the markets. As a result, they assist in appropriate and superior allocation of resources in the society.

Enhance liquidity: As we see that in derivatives trading no immediate full amount of the transaction is required since most of them are based on margin trading.

As a result, large number of traders, speculators arbitrageurs operate in such markets. So, derivatives trading enhance liquidity and reduce transaction costs in the markets for underlying assets. Assist investors: The derivatives assist the investors, traders and managers of large pools of funds to devise such strategies so that they may make proper asset allocation increase their yields and achieve other investment goals.

Integration of price structure: It has been observed from the derivatives trading in the market that the derivatives have smoothen out price fluctuations, squeeze the price spread, integrate price structure at different points of time and remove gluts and shortages in the markets.

Catalyse growth of financial markets: The derivatives trading encourage the competitive trading in the markets, different risk taking preference of the market operators like speculators, hedgers, traders, arbitrageurs, etc. resulting in increase in trading volume in the country. They also attract young investors, professionals and other experts who will act as catalysts to the growth of financial markets.

Brings perfection in market: Lastly, it is observed that derivatives trading develop the market towards 'complete markets'. Complete market concept refers to that situation where no particular investors can be better off than others, or patterns of returns of all additional securities are spanned by the already existing securities in it, or there is no further scope of additional security.

Functions of Derivatives Markets

The following functions are performed by derivative markets:

Discovery of price: Prices in an organised derivatives market reflect the perception of market participants about the future and lead the prices of underlying assets to the perceived future level. The prices of derivatives converge with the prices of the underlying at the expiration of the derivative contract. Thus derivatives help in discovery of future as well as current prices.

Risk transfer: The derivatives market helps to transfer risks from those who have them but may not like them to those who have an appetite for them.

Linked to cash markets: Derivatives, due to their inherent nature, are linked to the underlying cash markets. With the introduction of derivatives, the underlying market witnesses higher trading volumes because of participation by more players who would not otherwise participate for lack of an arrangement to transfer risk.

Check on speculation: Speculation traders shift to a more controlled environment of the derivatives market. In the absence of an organised derivatives market, speculators trade in the underlying cash markets. Managing, monitoring and surveillance of the activities of various participants become extremely difficult in these kind of mixed markets.

Encourages entrepreneurship: An important incidental benefit that flows from derivatives trading is that it acts as a catalyst for new entrepreneurial activity. Derivatives have a history of attracting many bright, creative, well-educated people with an entrepreneurial attitude. They often energize others to create new businesses, new products and new employment opportunities, the benefit of which are immense.

Increases savings and investments: Derivatives markets help increase savings and investment in the long run. The transfer of risk enables market participants to expand their volume of activity.

Futures Contracts

Suppose a farmer produces rice and he expects to have an excellent yield on rice; but he is worried about the future price fall of that commodity. How can he protect himself from falling price of rice in future? He may enter into a contract on today with some party who wants to buy rice at a specified future date on a price determined today itself. In the whole process the farmer will deliver rice to the party and receive the agreed price and the other party will take delivery of rice and pay to the farmer. In this illustration, there is no exchange of money and the contract is binding on both the parties. Hence future contracts are forward contracts traded only on organised exchanges and are in standardised contract-size. The farmer has protected himself against the risk by selling rice futures and this action is called short hedge while on the other hand, the other party also protects against-risk by buying rice futures is called long hedge.

Features of financial futures contract

Financial futures, like commodity futures are contracts to buy or sell, financial aspects at a future date at a specified price. The following features are there for future contracts:

- Future contracts are traded on organised future exchanges. These are forward contracts traded on organised futures exchanges.
- Future contracts are standardised contracts in terms of quantity, quality and amount.
- Margin money is required to be deposited by the buyer or sellers in form of cash or securities. This practice ensures honour of the deal.
- In case of future contracts, there is a dairy of opening and closing of position, known as marked to market. The price differences every day are settled through the exchange clearing house. The clearing house pays to the buyer if the price of a futures contract increases on a particular day and similarly seller pays the money to the clearing house. The reverse may happen in case of decrease in price.

Types of financial future contracts

Financial futures contracts can be categorised into following types:

Interest rate futures: In this type the futures securities traded are interest bearing instruments like T-bills, bonds, debentures, euro dollar deposits and municipal bonds, notional gilt-contracts, short term deposit futures and treasury note futures.

Stock index futures: Here in this type contracts are based on stock market indices. For example in US, Dow Jones Industrial Average, Standard and poor's 500 New York Stock Exchange Index. Other futures of this type include Japanese Nikkei index, TOPIX etc.

Foreign currency futures: These future contracts trade in foreign currency generating used by exporters, importers, bankers, FIs and large companies.

Bond index futures: These contracts are based on particular bond indices i.e. indices of bond prices. Municipal Bond Index futures based on Municipal Bonds are traded on CBOT (Chicago Board of Trade). Cost of living index future: These are based on inflation measured by CPI and WPI etc. These can be used to hedge against unanticipated inflationary pressure.

Forward contract

A forward contract is a simple customized contract between two parties to buy or sell an asset at a certain time in the future for a certain price. Unlike future contracts, they are not traded on an exchange, rather traded in the over-the-counter market, usually between two financial institutions or between a financial institution and one of its client. In brief, a forward contract is an agreement between the counter parties to buy or sell a specified quantity of an asset at a specified price, with delivery at a specified time (future) and place. These contracts are not standardized, each one is usually customized to its owner's specifications.

Features of forward contract

The basic features of a forward contract are given in brief here as under:

Bilateral: Forward contracts are bilateral contracts, and hence, they are exposed to counter-party risk.

More risky than futures: There is risk of non-performance of obligation by either of the parties, so these are riskier than futures contracts. Customised contracts: Each contract is custom designed, and hence, is unique in terms of contract size, expiration date, the asset type, quality, etc.

Long and short positions: In forward contract, one of the parties takes a long position by agreeing to buy the asset at a certain specified future date. The other party assumes a short position by agreeing to sell the same asset at the same date for the same specified price. A party with no obligation offsetting the forward contract is said to have an open position. A party with a closed position is, sometimes, called a hedger.

Delivery price: The specified price in a forward contract is referred to as the

delivery price. The forward price for a particular forward contract at a particular time is the delivery price that would apply if the contract were entered into at that time. It is important to differentiate between the forward price and the delivery price. Both are equal at the time the contract is entered into. However, as time passes, the forward price is likely to change whereas the delivery price remains the same.

Synthetic assets: In the forward contract, derivative assets can often be contracted from the combination of underlying assets, such assets are oftenly known as synthetic assets in the forward market.

The forward contract has to be settled by delivery of the asset on expiration date. In case the party wishes to reverse the contract, it has to compulsorily go to the same counter party, which may dominate and command the price it wants as being in a monopoly situation.

Pricing of arbitrage based forward prices: In the forward contract, covered parity or cost-of-carry relations are relation between the prices of forward and underlying assets. Such relations further assist in determining the arbitrage-based forward asset prices.

Popular in forex market: Forward contracts are very popular in foreign exchange market as well as interest rate bearing instruments. Most of the large and international banks quote the forward rate through their 'forward desk' lying within their foreign exchange trading room. Forward foreign exchange quotes by these banks are displayed with the spot rates.

Different types of forward: As per the Indian Forward Contract Act- 1952, different kinds of forward contracts can be done like hedge contracts, transferable specific delivery (TSD) contracts and non-transferable specific delivery (NTSD) contracts. Hedge contracts are freely transferable and do not specify, any particular lot, consignment or variety for delivery. Transferable specific delivery contracts are though freely transferable from one party to another, but are concerned with a specific and predetermined consignment. Delivery is mandatory. Non-transferable specific delivery contracts, as the name indicates, are not transferable at all, and as such, they are highly specific.

Distinction between futures and forwards contracts

Forward contracts are often confused with futures contracts. The confusion is primarily because both serve essentially the same economic functions of allocating risk in the presence of future price uncertainty. However futures are a significant improvement over the forward contracts as they eliminate counterparty risk and offer more liquidity. Table 1.1 lists the distinction between the two.

TABLE 1.1: DISTINCTION BETWEEN FUTURES AND FORWARDS

Futures	Forwards
Trade on an organised exchange	OTC in nature
Standardised contract terms	Customised contract terms
Hence more liquid	Hence less liquid
Requires margin payments	No margin payment
Follows daily settlement	Settlement happens at end of period

3.7 SUMMARY

Financial decisions refer to decisions concerning financial matters of a business firm. There are many kinds of financial management decisions that the firm makers in pursuit of maximising shareholder's wealth, viz., kind of assets to be acquired, pattern of capitalisation, distribution of firm's income etc. We can classify these decisions into three major groups: Investment decisions; Financing decision; Dividend decisions; Liquidity decisions. Investment Decision relates to the determination of total amount of assets to be held in the firm, the composition of these assets and the business risk complexities of the firm as perceived by the investors. Once the firm has taken the investment decision and committed itself to new investment, it must decide the best means of financing these commitments. Since, firms regularly make new investments, the needs for financing and financial decisions are ongoing, Hence, a firm will be

continuously planning for new financial needs. The third major financial decision relates to the disbursement of profits back to investors who supplied capital to the firm. The term dividend refers to that part of profits of a company which is distributed by it among its shareholders. The dividend decision is concerned with the quantum of profits to be distributed among shareholders. Liquidity and profitability are closely related. Obviously, liquidity and profitability goals conflict in most of the decisions. The finance manager always perceives / faces the task of balancing liquidity and profitability. The term liquidity implies the ability of the firm to meet bills and the firm's cash reserves to meet emergencies. Lack of liquidity in extreme situations can lead to the firm's insolvency. The term cost of capital refers to the minimum rate of return a firm must earn on its investments. This is in consonance with the firm's overall object of wealth maximization. Cost of capital is a complex, controversial but significant concept in financial management. It is also termed as cut-off rate, target rate, hurdle rate and required rate of return. When the companies are using different sources of finance, the finance manager must take vigilant decision with regard to the cost of capital; because it is closely associated with the value of the firm and the earning capacity of the firm. Cost of capital can be classified into weighted average cost of capital and marginal cost of capital. Weighted average cost of capital is the average of the costs of various sources of financing. It is also known as composite or overall or average cost of capital. After computing the cost of individual sources of finance, the weighted average cost of capital is calculated by putting weights in the proportion of the various sources of funds to the total funds. Weighted average cost of capital is computed by using either of the following two types of weights : 1) Market value 2) Book Value Market value. Weights are sometimes preferred to the book value weights as the market value represents the true value of the investors. However, market value weights suffer from the following limitations : i) Market value are subject to frequent fluctuations. ii) Equity capital gets more importance, with the use of market value weights. Moreover, book values are readily available. Marginal cost of refers to the average cost of capital of new or additional funds required by a firm. It is the marginal cost which should be taken into consideration in investment decisions. Capital Structure refers to the mix of a firm's capitalisation (i.e. mix of long term sources of funds such as debentures, preference share capital, equity share capital and retained earnings for meeting total

capital requirement). Capital Structure decision refers to deciding the forms of financing (which sources to be tapped), their actual requirements (amount to be funded) and their relative proportions (mix) in total capitalisation. Normally, a finance manager tries to choose a pattern of capital structure which minimises cost of capital and maximises the owners' return. The optimal capital structure refers to a proportion of debt and equity at which the marginal real cost of each available source of financing is same. This is also viewed as a capital structure that maximizes market price of shares and minimizes the overall cost of capital of the firm. Theoretically the concept of optimal capital structure can easily be explained, but in operational terms it is difficult to design an optimal capital structure because of a number of factors, both quantitative and qualitative, that influence the optimum capital structure. Moreover the subjective judgment of the finance manager of the firm is also an influencing factor in designing the optimum capital structure of a firm. Designing the capital structure is also known as capital structure planning and capital structure decision. While designing an optimum capital structure the following factors are to be considered carefully: Profitability; Liquidity; Control; Industry Average; Nature of Industry; Maneuverability in Funds; Timing of Raising Funds; Firm's Characteristics. Leasing: A lease is a contractual procedure calling for the lessee (user) to pay the lessor (owner) for use of an asset. Lease usually involves two parties which include the lessor (owner) and the lessee (user). In this arrangement, the lessor transfers the right to use to the lessee in return of the lease rentals agreed upon. Lease agreement can be made flexible enough to meet the financial necessities of both the parties. According to the Hire Purchase Act of 1972, the term hire purchase is defined as, an agreement under which goods are let on hire and under which the hirer has an option to purchase them in accordance with the terms of the agreement, and includes an agreement under which a). Possession of goods is delivered by the owner thereof to a person on the condition that such person pays the agreed amount in periodic payments; b). The property of the goods is to pass to such a person on the payment of the last of such installment; c). Such a person has a right to terminate the agreement any time before the companies are controlled by the Hire Purchase Act, 1972. A Hire purchase transaction has two elements, Bailment which is governed by the Indian Contract Act, 1872 and Sale under the Sale of Goods Act, 1930. A derivative relating to financial risk management is a contract

whose payoff depends on a specific benchmark. The benchmark is known as the underlying. An underlying is usually a tradable asset such as a stock or commodity. The most common derivatives in the field of finance are options, futures, and swaps. Like many of the methods and instruments used in risk management, derivatives can be used to hedge or for speculating. Why would a company use derivatives? Management may use these derivatives to provide leverage, speculate, hedge risk, create option ability, etc.

3.8 GLOSSARY

Financial Decision: Decisions concerning the liabilities and stockholders' equity side of the firm's balance sheet, such as a decision to issue bonds.

Cost of Capital: cost of capital is the rate of return the firm requires firm investment in order to increase the value of the firm in the market place.

Weighted Average Cost of Capital: Weighted average cost of capital is the expected average future cost of funds over the long run found by weighting the cost of each specific type of capital by its proportion in the firm's capital structure.

Marginal Cost of Capital: The cost associated with raising one additional dollar of capital. The marginal cost will vary according to the type of capital used. For example, raising funds through the use of unsecured or subordinated debt, or through debt that requires higher interest rates to offset risk, will be more expensive than debt that is backed by collateral, such as a secured bond.

Capital Structure Decision: Capital Structure decision refers to deciding the forms of financing (which sources to be tapped), their actual requirements (amount to be funded) and their relative proportions (mix) in total capitalisation.

Optimum Capital Structure: Optimum capital structure occurs at the point where value of the firm is highest and the cost of capital is the lowest.

Leasing: Lease is a contract in which one party conveys the use of an asset to another party for a specific period of time for a predetermined payment amount. In leasing, there is mainly three parties involved that include Lessor, Lessee and Vendor.

Hire Purchase: Hire purchase is type of the legal contract, in which a buyer agrees to pay for goods in parts or a percentage over a number of months. Hire purchase is used to buy luxurious products which a person cannot afford to pay out right such as a car. A down payment is generally paid and the balance is paid over several months as a monthly instalments.

Derivates: Derivatives are the financial instruments whose pay-off is derived from some other underlying asset.

Forward contract: Forward contract is an agreement between two parties to exchange an asset for cash at a predetermined future date for a price specified today.

Future contracts: Future contracts are forward contracts traded on organized exchanges in standardized contract size.

Option: Option is the right (not obligation) to buy or sell an asset on or before a pre-specified date at a predetermined price.

Call option: Call option is the option to buy an asset.

Put option: Put option is the option to sell an asset.

In-the-money: An option is called in-the-money if it benefits the investor when exercised immediately.

Out-of-the money: An option is said to be out-of-the money if it is not advantageous for the investor to exercise it.

At-the-money: When holder of an option neither gains nor looses when the exercises the option.

Option premium: Option premium is the price that the holder of an option has to pay for obtaining a call or put option.

3.8 SELF ASSESSMENT QUESTIONS

1 Explain financing decision in detail.

2. What is cost of capital? Explain the classification of cost.

3. Explain the capital structure theories.

4. Explain the types of leasing. Discuss the advantages of lease financing.

5. Define forward contract and explain its characteristics?

3.9 LESSON END EXERCISE

1. Define cost of capital.

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2. What is a derivative?

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_____
_____

3. Explain the types of leasing.

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3.10 SUGGESTED READING

1. Accounting and Financial Management : S.N. Maheshwari

2. Financial Management: Theory and Practice : S.K. Gupta and R.K. Sharma

3. Fundamentals of Financial Management : Sharan

4. Fundamentals Of Financial Derivatives : N.R. Parasuraman

C. No. :- BM-601 **UNIT IV**

SEMESTER: VI **LESSON : 7-8**

TYPES OF FINANCING

STRUCTURE

4.10 Suggested Reading

4.1 INTRODUCTION

Financing is needed to start a business and ramp it up to profitability. There are several sources to consider when looking for start-up financing. But first you need to consider how much money you need and when you will need it. The financial needs of a business will vary according to the type and size of the business. For example, processing businesses are usually capital intensive, requiring large amounts of capital. Retail businesses usually require less capital. Debt and equity are the two major sources of financing. Government grants to finance certain aspects of a business may be an option. Also, incentives may be available to locate in certain communities and/or encourage activities in particular industries. Equity Financing means exchanging a portion of the ownership of the business for a financial investment in the business. The ownership stake resulting from an equity investment allows the investor to share in the company's profits. Equity involves a permanent investment in a company and is not repaid by the company at a later date. The investment should be properly defined in a formally created business entity. An equity stake in a company can be in the form of membership units, as in the case of a limited liability company or in the form of common or preferred stock as in a corporation.

Companies may establish different classes of stock to control voting rights among shareholders. Similarly, companies may use different types of preferred stock. For example, common stockholders can vote while preferred stockholders generally cannot. But common stockholders are last in line for the company's assets in case of default or bankruptcy. Preferred stockholders receive a predetermined dividend before common stockholders receive a dividend. Venture Capital Financing refers to financing that comes from companies or individuals in the business of investing in young, privately held businesses. They provide capital to young businesses in exchange for an ownership share of the business. Venture capital firms usually don't want to participate in the initial financing of a business unless the company has management with a proven track record. Generally, they

prefer to invest in companies that have received significant equity investments from the founders and are already profitable. They also prefer businesses that have a competitive advantage or a strong value proposition in the form of a patent, a proven demand for the product, or a very special (and protectable) idea. Venture capital investors often take a hands-on approach to their investments, requiring representation on the board of directors and sometimes the hiring of managers. Venture capital investors can provide valuable guidance and business advice. However, they are looking for substantial returns on their investments and their objectives may be at cross purposes with those of the founders. They are often focused on short-term gain. Venture capital firms are usually focused on creating an investment portfolio of businesses with high-growth potential resulting in high rates of returns. These businesses are often high-risk investments. They may look for annual returns of 25 to 30 percent on their overall investment portfolio. Because these are usually high-risk business investments, they want investments with expected returns of 50 percent or more. Assuming that some business investments will return 50 percent or more while others will fail, it is hoped that the overall portfolio will return 25 to 30 percent. More specifically, many venture capitalists subscribe to the 2-6-2 rule of thumb. This means that typically two investments will yield high returns, six will yield moderate returns (or just return their original investment), and two will fail. Debt Financing involves borrowing funds from creditors with the stipulation of repaying the borrowed funds plus interest at a specified future time. For the creditors (those lending the funds to the business), the reward for providing the debt financing is the interest on the amount lent to the borrower. Debt financing may be secured or unsecured. Secured debt has collateral (a valuable asset which the lender can attach to satisfy the loan in case of default by the borrower). Conversely, unsecured debt does not have collateral and places the lender in a less secure position relative to repayment in case of default. Debt financing (loans) may be short term or long term in their repayment schedules. Generally, short-term debt is used to finance current activities such as operations while long-term debt is used to finance assets such as buildings and equipment. Lease Financing is a method of obtaining the use of assets for the business without using debt or equity financing. It is a legal

agreement between two parties that specifies the terms and conditions for the rental use of a tangible resource such as a building and equipment. Lease payments are often due annually. The agreement is usually between the company and a leasing or financing organization and not directly between the company and the organization providing the assets. When the lease ends, the asset is returned to the owner, the lease is renewed, or the asset is purchased. A lease may have an advantage because it does not tie up funds from purchasing an asset. It is often compared to purchasing an asset with debt financing where the debt repayment is spread over a period of years. However, lease payments often come at the beginning of the year where debt payments come at the end of the year. So, the business may have more time to generate funds for debt payments, although a down payment is usually required at the beginning of the loan period. Working Capital Financing-most businesses need financing for purchasing, production, payroll, rent, distribution and other operating costs. The challenge is to determine the most advantageous methods of raising working capital.

4.2 OBJECTIVES

After completion of this lesson you shall be able to know:

- Introduction to Lease Financing
- Venture Capital Finance
- Intermediate and long-term Financing
- Financing of Working Capital
- Debt Vs. Equity as a Source of Finance

4.3 TYPES OF FINANCING

4.3.1 Introduction to Lease Financing

Lease financing is one of the important sources of medium- and long-term financing where the owner of an asset gives another person, the right to use that asset against periodical payments. The owner of the asset is known as lessor and

the user is called lessee.

The periodical payment made by the lessee to the lessor is known as lease rental. Under lease financing, lessee is given the right to use the asset but the ownership lies with the lessor and at the end of the lease contract, the asset is returned to the lessor or an option is given to the lessee either to purchase the asset or to renew the lease agreement.

Different Types of Lease:

Depending upon the transfer of risk and rewards to the lessee, the period of lease and the number of parties to the transaction, lease financing can be classified into two categories. Finance lease and operating lease.

i. Finance Lease: It is the lease where the lessor transfers substantially all the risks and rewards of ownership of assets to the lessee for lease rentals. In other words, it puts the lessee in the same condition as he/she would have been if he/she had purchased the asset. Finance lease has two phases: The first one is called primary period. This is non-cancellable period and in this period, the lessor recovers his total investment through lease rental. The primary period may last for indefinite period of time. The lease rental for the secondary period is much smaller than that of primary period.

Features of Finance Lease:

From the above discussion, following features can be derived for finance lease:

1. A finance lease is a device that gives the lessee a right to use an asset.
2. The lease rental charged by the lessor during the primary period of lease is sufficient to recover his/her investment.
3. The lease rental for the secondary period is much smaller. This is often known as peppercorn rental.
4. Lessee is responsible for the maintenance of asset.

5. No asset-based risk and rewards is taken by lessor.

6. Such type of lease is non-cancellable; the lessor's investment is assured.

ii. Operating Lease: Lease other than finance lease is called operating lease. Here risks and rewards incidental to the ownership of asset are not transferred by the lessor to the lessee. The term of such lease is much less than the economic life of the asset and thus the total investment of the lessor is not recovered through lease rental during the primary period of lease. In case of operating lease, the lessor usually provides advice to the lessee for repair, maintenance and technical knowhow of the leased asset and that is why this type of lease is also known as service lease.

Features of Operating Lease:

Operating lease has following features:

1. The lease term is much lower than the economic life of the asset.

2. The lessee has the right to terminate the lease by giving a short notice and no penalty is charged for that.

3. The lessor provides the technical knowhow of the leased asset to the lessee.

4. Risks and rewards incidental to the ownership of asset are borne by the lessor.

5. Lessor has to depend on leasing of an asset to different lessee for recovery of his/her investment.

Advantages and Disadvantages of Lease Financing:

At present leasing activity shows an increasing trend. Leasing appears to be a cost-effective alternative for using an asset. However, it has certain advantages as well as disadvantages.

Advantages of Lease Financing:

Lease financing has following advantages

a. To Lessor:

The advantages of lease financing from the point of view of lessor are summarized below

Assured Regular Income: Lessor gets lease rental by leasing an asset during the period of lease which is an assured and regular income.

Preservation of Ownership: In case of finance lease, the lessor transfers all the risk and rewards incidental to ownership to the lessee without the transfer of ownership of asset hence the ownership lies with the lessor.

Benefit of Tax: As ownership lies with the lessor, tax benefit is enjoyed by the lessor by way of depreciation in respect of leased asset.

High Profitability: The business of leasing is highly profitable since the rate of return based on lease rental, is much higher than the interest payable on financing the asset.

High Potentiality of Growth: The demand for leasing is steadily increasing because it is one of the cost efficient forms of financing. Economic growth can be maintained even during the period of depression. Thus, the growth potentiality of leasing is much higher as compared to other forms of business.

Recovery of Investment: In case of finance lease, the lessor can recover the total investment through lease rentals.

b. To Lessee:

The advantages of lease financing from the point of view of lessee are discussed below:

Use of Capital Goods: A business will not have to spend a lot of money for

acquiring an asset but it can use an asset by paying small monthly or yearly rentals.

Tax Benefits: A company is able to enjoy the tax advantage on lease payments as lease payments can be deducted as a business expense.

Cheaper: Leasing is a source of financing which is cheaper than almost all other sources of financing.

Technical Assistance: Lessee gets some sort of technical support from the lessor in respect of leased asset.

Inflation Friendly: Leasing is inflation friendly, the lessee has to pay fixed amount of rentals each year even if the cost of the asset goes up.

Ownership: After the expiry of primary period, lessor offers the lessee to purchase the assets by paying a very small sum of money.

ii. Disadvantages of Lease Financing:

Lease financing suffers from the following disadvantages

a. To Lessor:

Lessor suffers from certain limitations which are discussed below:

Unprofitable in Case of Inflation: Lessor gets fixed amount of lease rental every year and they cannot increase this even if the cost of asset goes up.

Double Taxation: Sales tax may be charged twice- First at the time of purchase of asset and second at the time of leasing the asset.

Greater Chance of Damage of Asset: As ownership is not transferred, the lessee uses the asset carelessly and there is a great chance that asset cannot be useable after the expiry of primary period of lease.

b. To Lessee:

The disadvantages of lease financing from lessee's point of view are given below:

Compulsion: Finance lease is non-cancellable and even if a company does not want to use the asset, lessee is required to pay the lease rentals.

Ownership: The lessee will not become the owner of the asset at the end of lease agreement unless he decides to purchase it.

Costly: Lease financing is more costly than other sources of financing because lessee has to pay lease rental as well as expenses incidental to the ownership of the asset.

Understatement of Asset: As lessee is not the owner of the asset, such an asset cannot be shown in the balance sheet which leads to understatement of lessee's asset.

4.3.2. Venture Capital Finance

Venture capital financing is a type of financing by venture capital. Venture Capital represents financial investment in highly risky proposition made in the hope of earning a high rate of return. It is generally considered as a synonym high risk capital. Capital is provided by venture capital funds which are prepared to finance an untried company that appears to have promising prospects.

According to **Pratt,** Venture capital is thought of as, "the early stage financing of new and young enterprise seeking to grow rapidly." The venture capitalist finances high and new technology based enterprise whereas the banks or financial institutions generally support proven technologies with established markets. But technology is not necessary condition for venture financing.

According to **Wan,** "Venture capital is also described as unsecured risk financing". Reason being that new, high tech venture carry high risk and are also enable to offer suitable collateral for securing capital.

Venture capital is a power mechanism with the help of which innovative entrepreneurship can be institutionalized through the venture capitalist and the entrepreneur joining hands together. In other words, venture capitalist and

entrepreneur would act as 'partners' where venture capitalist not only directly purchases the equity shares of the entrepreneur but also participates in the management of the entrepreneur's business, help him to protect his investment, increases his investment by actively involving and supporting the entrepreneur. Venture capitalist also gives the entrepreneur his marketing, planning, and management skills and technology to the new firm. He plays the role of a banker, development financier and that of a stock market investor as well. He sees the company growing with the intention to make capital gains by selling the equity shares of the company in future.

According to **I. M. Pandey,** "Venture capital is an investment, in the form of equity, quasi-equity and sometimes debt-straight or conditional (i.e. interest and principal payable when it starts generating sales), made in new and untried technology, or high-risk venture, promoted by technically or professionally qualified entrepreneur, where the venture capitalist".

Expects the enterprise to have a very high growth rate,

Provides management and business skills to the enterprise,

Expects medium to long - term gains and,

Doesn't expect any collateral to cover the capital provided.

Over the years, venture capital has given birth to what today mega corporations are. Venture capital in most cases came in at an idea stage. Examples are many - Tandem Computers (non-stop computers), Genentech (bio-medical products), Apple Computers, Qume Corporation (Computer printers).

The Paradigm Shift in Venture Capital

	The Old	The New
See And Start-Up Capital	• Conditional Loans • Equity Support From Financial Institutions • Social Development Funds	• Conditional Loans • Equity Support From Financial Institutions • Social Development Funds
Expansion	• Informal Sources • Terms Loans	• Informal Sources • Venture Leasing • Equity Support From Financial Institutions • Private Equity • Convertible Debentures •Cumulative Preference Shares
Bridge Financing		• Bank Loans •Special Purpose Vehicles

Features of Venture Capital

The terms and conditions on which venture capital is provided are not standardized, the following are the main features of venture capital:-

1. The venture capitalist participates in the entrepreneur's business through direct purchase of shares, options or convertible shares.
2. The objectives of venture capitalist are to make capital gains by selling off the investment once the enterprise becomes profitable.
3. The venture capital firm (VCF) is inclined to assume a high degree of risk to make capital gains.

4. Venture financing is a long term liquid investment where investment can be liquidated in the assisted firm only after a long-period, say 4-8 years.

5. The financial burden of the assisted firm tends to be negligible during the first few years.

6. The Venture capital firm, in addition to providing funds, takes an active interest in guiding the firm in various ways and supports the entrepreneur through all the stages of the company's development - monetarily and non-monetarily.

7. It finances high-tech projects.

8. When the assisted company has reached a certain stage of profitability, the venture capitalist sells his shares in the stock market at a hefty premium. He thus makes good profit as well as gets his locked up funds realeased for redeployment in some other ventures.

9. It is an equity or quasi-equity form of investment.

10. It is an active form of investment with a higher degree of involvement in the management of a venture

Venture capital financing includes development, expansion and buyout financing for the enterprise which are unable to raise funds through conservative financing channels. As per Pratt's Guide (1988) VCF also provide turn around finance to revitalize and revive sick enterprises.

Eligibility For Venture Capital Financing

According to Government of India guidelines, the following enterprises are eligible for venture capital financing:

1. **Size:** Total investment should not exceed Rs. 100 million.

2. **Technology:** New or relatively untried or very closely held or being taken from pilot to commercial stage or incorporating some significant improvement over the existing ones in India.

3. **Entrepreneur:** Relatively new, professional or technically qualified persons with inadequate resources or backing to finance the project.

Venture capital excludes financing of enterprises engaged in trading, broking, investment of financing services, agency or liaison work. A venture capital firm in India is required to invest at least 75 percent of its funds in venture capital activity, and must be managed by professionals.

Sources of Venture Capital Financing

Small scale industries are required increasingly to operate in open, relatively unprotected markets, often with adequate policy support intervention. These industries face a number of challenges including difficulty in availability of credit, information access, higher risk perceptions, high cost of credit, adverse economies of scale, high transaction costs for raising equity capital etc. On the other, Small scale industries are the prime drivers of the economy. It is recognized, that small industries are hampered in their efforts at accessing traditional sources of institutional funding.

If any entrepreneur seeks to finance his project/industry through venture capital, he has the following institutions available to him for providing finance.

1. Venture capital funds sponsored by All India financial institutions or their subsidiaries e.g. venture capital scheme of IDBI, ICICI.
2. Venture capital funds sponsored by state level financial institutions e.g, Gujrat Venture Finance Limited (GVFL).
3. Venture capital funds sponsored by public sector banks or their subsidiaries e.g, Confine venture Funds.
4. Venture capital funds set up by private sector institutions, Indian or Foreign e.g, Indus venture capital Fund, Twentieth Century Finance Company (TCFC), Infrastructural Leasing and Financial Services Limited.

Vision of Venture Capital

The vision of venture capital is focused on new projects, seed capital, technology and innovation.

Venture Capital aims at:

- Fuels ambitions and dreams
- Breathes life into promising business ventures
- Charts the course of incisive business ideas
- Provides foresight with a free sense of direction
- Helps in building enterprise vision
- Smoothly glide over rough passages
- Partners enterprises on to script thrilling success
- Complements acumen and enterprise with a steady flow of resources.
- Inspires enterprises to script thrilling success.
- Venture capital finances are plotted on a firm life-cycle curve.

Forms of Venture Capital

Based on the four stages of development of a business, the venture capital financing may be classified as seed finance, start-up finance, beginner's finance and establishment finance. During the first stage of starting a business, i.e., at the formulation of an idea stage, the risk associated is very high. Here an idea needs to be translated into a business proposition. So the finance required at this stage is the seed finance from the venture capital fund. The second stage being the implementation phase, start-up finance from Venture Capital is required for the purpose of implementing the appropriate production processes. In the third stage, commercial production is to be started and beginners finance is required to develop the marketing and other infrastructures. In the fourth and the last stage, when the business is fully established, it requires finance for its growth and

expansion so as to reap the economics of the scale. Here establishment finance is sought from the venture capital fund. The degree of risk associated with a business gradually diminishes in every subsequent stage of business development. A comprehensive venture capital financing may take all of the above forms.

Venture Capital: Stages of Financing

Seed Money Stage: Small amount of financing needed to prove a concept or develop a product. Marketing is not included in this stage.	Start Up: Financing for a firm that started up in the past one year. Funds are likely to pay for marketing and product development.
Second-Round Financing : Fund Earmarked for working capital for a firm that is selling its product, but is still losing money	First-Round Financing: Additional Money to begin sales and manufacturing after a firm has spent its start-up capital.
Third-Round Financing: Financing for a firm that is breaking even and is content plating an expansion project	Fourth-Round Financing: Money provided for firms that are likely to go public soon. Also known as bridge financing.

Factors Responsible for Slow Growth.

The various factors which have been hindering the growth of this industry are tested below:

(i) The guidelines issued by the Govt, of India was meant to encourage private

promoters. However, individual non-institutional promoters were allowed to enter this field only in collaboration with public sector financial institutions, scheduled banks, State Bank of India, and the like, but their holding could not exceed 20% of the equity of such a joint effort. Who will bite a bait of only 20% participation in responsibility and profits in a high risk and uncertain gains?

(ii) The guidelines speak of funding relatively new projects with no proven record in market acceptability. This does not make the Venture Capital financing an attractive investment. There are other more attractive options available to an investor.

(iii) Section 372 of the Companies Act prohibits investment in a single company beyond 10% of the paid up capital of a company. The aggregate of the investment made in the same group should not exceed 20% of the capital of the investment company. There is also an upper limit which prohibits investment by the investing company beyond 30% of the capital of the investing company.

(iv) Indian educational system fails to march laboratory research with commercial application. This result in the processes developed in the laboratories remaining only in the laboratories.

(v) Lack of entrepreneurial tradition. People try to enter a field which has already established its commercial viability.

(vi) In the present pattern of finding, if the Venture capitalist insist for major equity participation, the entrepreneur feels his position threatened. If it is the other way round, The Venture capitalist does not feel satisfied. There ought to be some say to satisfy both.

(vii) Venture capital funds, as the position stands today mostly operate from metropolitan towns. An entrepreneur who is sitting at a distance does not therefore, have easy access to them. Unless he can manage the funds from other sources, he has no option but to drop his proposal.

(viii) The venture capital have not been given tax incentives commensurate with the risk which they carry.

(ix) At present, there are four kinds of rules applicable to venture capital funds (a) old Finance ministry guidelines, which are too restrictive (b) guidelines issued by Central Board of Direct Taxes for tax breaks (c) separate guidelines for offshore venture funds issued by the Ministry of Finance and (d) SEBI's own regulations.

(x) Section 372 of the Companies Act places restrictions on inter-corporate investments.

(xi) Section 369, 309 and 387 of the Companies Act place restrictions on the remuneration of managing directors, directors and managers.

(xii) Under Section 43A, private companies under certain circumstances, are deemed to be public companies. This provision acts as a disincentive for those promoters who desire to organise their businesses as private limited companies, and to keep a firm grip over the affairs of the company.

Measure to Accelerate the Development of Venture Capital Industry

The following measures have been suggested in order to accelerate the development of venture capital industry in our country:

1. Section 80CC of the Income-tax Act may be re-introduced with a separate deduction for investments in venture capital funds. The benefits may also be extended to shares acquired through private placement, however, with such checks and balances, as are considered appropriate.

2. While the reduction of capital gains tax to 20% has been welcomed by one and all, it is suggested that in order to encourage venture capital funds, they may be exempted even from this tax subject to reinvestment of the total proceed in another non venture.

3. The provisions of Section 80HH of the Income Tax Act may be extended to venture capital funds and 50% of the profits earned by venture capital

investment may be exempted from tax.

4. Section 2(18) of the Income Tax, Act defines 'companies in which the public are substantially interested and certain tax benefits are available to them. It is suggested that the venture capital joint stock companies may be extended the same benefits.

5. Section 43A of the companies Act may be suitably amended so that the venture capital company may continue to retain its private ownership, despite the fact that 25% or more of its share capital is held by one or more public companies.

6. The Indian partnership Act may be amended to permit the formation of limited partnerships.

7. Non-voting shares may be introduced, to eliminate the fear of the entrepreneur of losing control over the company.

8. Losses of VCCs may be treated as business losses and allowed to be carried forward under the existing rules, since a Venture Capital Company (by virtue of its holding the shares of the assisted company for a period of at least one year) will incur only capital loss and not normal business loss, this amount can be set off only against capital gain, and not other income. It is suggested that in view of the unique risky business undertaken by venture capital companies, this provision may be relaxed in their case.

9. At present there is no distinction between the tax liability on the income from risky investment and risk-free investment. On the face of it this is not fair. Suitable provisions may be incorporated in the Income Tax Act, to make risky investments attractive.

10. There is always a gestation period between making the venture capital investment, and he assisted company coming of age. It is suggested that during the interim period, the venture capitalist may be compensated in some form of a tax break.

11. Wherever directors are nominated on the boards of the assisted companies, they are also treated as officers in default under the provisions of Employers Provident Fund Act and Employees State Insurance Act. These provisions need to be suitably amended, in view of the fact that these directors have no say in the day to day working of the assisted company.

12. Rules and regulations for mergers and acquisitions need to be simplified.

13. Sometimes the assisted company refuses to register the transfer of shares unloaded by the venture capitalist. The registration may be made mandatory.

14. Wherever, it is observed that the affairs of the assisted company are not being conducted in a satisfactory manner, the venture capitalist should have powers to effect change in management.

15. Stock option scheme to provide incentives for venture capitalist in the form of reasonable degree of compensation may be introduced.

16. The procedure for issue of bonus shares may be simplified, to enable companies which have been ploughing back the profits, without declaring dividends, to issue bonus shares.

17. The venture capitalists should improve their expertise to identify and appraise the projects expeditiously, provide management assistance and monitor the progress of the assisted project. There has to be a clear understanding of the roles to be played by the venture capitalist and the management of the assisted company. As a matter of fact, instead of waiting for the projects being presented to him, the venture capitalist should himself identify the opportunities by close association with research laboratories/universities, foreign manufacturers/large scale companies looking for ancillaries, and try to develop entrepreneurs for taking up those projects.

18. The financial institutions should treat conditional loans as equity for reckoning Debt: Equity ratio.

19. Investment in venture capital by multilateral bodies e.g. IFC (W), ADB or

UNDP may be encouraged.

20. The association of venture capital with high-tech high-risk and high return projects should be de-linked. More practical norms could be introduced to have an appropriate mix of high risk and innovative technology/ product relevant to our country.

21. Wherever any clearances are required to be obtained from Reserve Bank of India and the Securities and Exchange Board of India, It may be made smooth by providing one stop clearance.

22. Debt: Equity ratio may be raised to 6:1

23. As a matter of a prudent policy, in the initial stages, the assistance may be confined to comparatively better managed and better capitalised firms. Within that category also special attention may be given to private limited companies in small scale sector, those going for modernisation, those having export potential and those having potential for ancillary production. Also assistance may be extended to those sick units which are considered viable for rehabilitation as identified by IRBI and BIFR.

24. Institutions like LIC, GIC, Provident Funds, and Mutual Funds may be permitted to make investments in ventures floated by eligible institutions. This step is likely to add dynamism in the new investment markets.

25. Not only the manufacturing sector, but even the trading sector offers scope for introduction of innovative practices. It is therefore, suggested that venture capital assistance may be permitted to be extended to trading enterprises also.

26. State Governments should create equity funds to strengthen the equity base of small scale industries.

27. Venture investment for small firms should be undertaken by matured and proven agencies in the private and public sector. The experienced private investment companies and underwriters may assume this specialised

responsibility.

28. As separate national VCF covering all aspects of venture capital financing and offering a comprehensive package of technical, commercial, managerial and financial assistance and services to entrepreneurs, along with offering innovative solutions to the varied problems faced by them in the business promotion, technology transfer and innovation may be established.

29 Finally, if we look to conditions obtaining in our country, there are thousands of sick industrial units, in which thousands of crores of rupees are locked up, with no return either to their promoters, or to the nation. Instead of promoting/financing new companies, it will be more prudent to help in turnaround of these units. That strategy is likely to bring quick and good returns, and shall benefit all the players , i.e. the promoter, the venture capitalist and the nation.

4.4. PROJET FINANCING

Project finance is the long-term financing of infrastructure and industrial projects based upon the projected cash flows of the project rather than the balance sheets of its sponsors. Usually, a project financing structure involves a number of equity investors, known as 'sponsors', a 'syndicate' of banks or other lending institutions that provide loans to the operation. They are most commonly non-recourse loans, which are secured by the project assets and paid entirely from project cash flow, rather than from the general assets or creditworthiness of the project sponsors, a decision in part supported by financial modelling. The financing is typically secured by all of the project assets, including the revenue-producing contracts. Project lenders are given a lien on all of these assets and are able to assume control of a project if the project company has difficulties complying with the loan terms.

Generally, a special purpose entity is created for each project, thereby shielding other assets owned by a project sponsor from the detrimental effects of a project failure. As a special purpose entity, the project company has no assets other than the project. Capital contribution commitments by the owners

of the project company are sometimes necessary to ensure that the project is financially sound or to assure the lenders of the sponsors' commitment. Project finance is often more complicated than alternative financing methods. Traditionally, project financing has been most commonly used in the extractive (mining), transportation, telecommunications, power industries as well as sports and entertainment venues.

Risk identification and allocation is a key component of project finance. A project may be subject to a number of technical, environmental, economic and political risks, particularly in developing countries and emerging markets. Financial institutions and project sponsors may conclude that the risks inherent in project development and operation are unacceptable (unfinanceable). "Several long-term contracts such as construction, supply, off-take and concession agreements, along with a variety of joint-ownership structures are used to align incentives and deter opportunistic behaviour by any party involved in the project."[2] The patterns of implementation are sometimes referred to as "project delivery methods." The financing of these projects must be distributed among multiple parties, so as to distribute the risk associated with the project while simultaneously ensuring profits for each party involved.

A riskier or more expensive project may require limited recourse financing secured by a surety from sponsors. A complex project finance structure may incorporate corporate finance, securitization, options (derivatives), insurance provisions or other types of collateral enhancement to mitigate unallocated risk.

4.4.1. Intermediate and Long Term Financing

Intermediate-term Financing

Sources of raising medium/intermediate term funds (To finance fixed working capital requirements) are:

1. Public deposits

2. Deferred credit

3. Lease Finance

4. Subsidy and other incentives / assistance from the government

5. Hire purchase

Public Deposits: A company can raise deposits to meet its capital needs directly from the public at an interest rate generally above the bank rate. These public deposits represent unsecured borrowings from the public at large for a period varying between 2-3 years. As per Companies Acceptance Deposit Rules 1975, public deposits can be raised only up to 25% of the paid up capital and free reserves of the company. This source is useful due to the following reasons: (i) These are cheaper, (ii) These are unsecured, (iii) Involves only lesser paper formalities, and (iv) This does not involve monitoring from the outside agencies.

Deferred Credit: Under this arrangement payments to suppliers of plant and equipments are made in agreed installments over a specified period of time at some agreed rate of interest on the outstanding balance. Normally the suppliers offering deferred credit facility ask for bank guarantee from the buyer. Banks will examine the viability of the project before giving guarantee for such deferred credits. Incentive Sources The government and its agencies may provide financial support as incentives to certain types of promoters or for setting up industrial units in certain locations. These incentives may take the form of seed capital assistance (provided at a nominal rate of interest to enable the promoter to meet his contribution to the project), or capital subsidy (to attract industries to certain locations), or tax exemption (particularly from sales tax) for a certain period.

Lease Financing: Lease financing is one of the methods of long term financing. Lease is a right to use an asset. In a lease deal the owner allows the user to use the asset for a specified period for a consideration. Thus lease financing can be explained as a contract between the owner of the asset and the user of the asset whereby the owner of the asset gives it to the user for a consideration. The owner of the asset is called the lessor (i.e. the leasing company) and the user of the asset is called the lessee (i.e. the business enterprise which hires the assets). The consideration (periodic payment) which is required to be paid by the lessee

for using the asset (or for taking the asset for lease) is called lease rental. Instead of acquiring the assets, a business enterprise enters into an agreement with the leasing company whereby the leasing company (lessor) purchases the asset required by the business enterprise and then leases the asset on a long term basis to the business enterprise (lessee). The lessor retains the title to the asset and he can sell the asset after the lease period. Thus under lease financing, no initial funds are required, but the lessee has to make a regular lease payment. If the lease is not renewed, the lessor takes the possession of the asset after the expiry of the existing lease period.

Long-term Financing:

Finance may be mobilized by long-term or short-term. When the finance mobilized with large amount and the repayable over the period will be more than five years, it may be considered as long-term sources. Share capital, issue of debenture, long-term loans from financial institutions and commercial banks come under this kind of source of finance. Long-term source of finance needs to meet the capital expenditure of the firms such as purchase of fixed assets, land and buildings, etc.

Long-term Financing include:

- Equity Shares
- Preference Shares
- Debenture
- Loans from financing institutions.
- Loans from commercial banks.
- Retained Earnings

Equity Shares

Equity Shares also known as ordinary shares, which means, other than preference shares. Equity shareholders are the real owners of the company. They have a control over the management of the company. Equity shareholders are eligible to

get dividend if the company earns profit. Equity share capital cannot be redeemed during the lifetime of the company. The liability of the equity shareholders is the value of unpaid value of shares.

Features of Equity Shares

Equity shares consist of the following important features:

1. Maturity of the shares: Equity shares have permanent nature of capital, which has no maturity period. It cannot be redeemed during the lifetime of the company.

2. Residual claim on income: Equity shareholders have the right to get income left after paying fixed rate of dividend to preference shareholder. The earnings or the income available to the shareholders is equal to the profit after tax minus preference dividend.

3. Residual claims on assets: If the company wound up, the ordinary or equity shareholders have the right to get the claims on assets. These rights are only available to the equity shareholders.

4. Right to control: Equity shareholders are the real owners of the company. Hence, they have power to control the management of the company and they have power to take any decision regarding the business operation.

5. Voting rights: Equity shareholders have voting rights in the meeting of the company with the help of voting right power; they can change or remove any decision of the business concern. Equity shareholders only have voting rights in the company meeting and also they can nominate proxy to participate and vote in the meeting instead of the shareholder.

6. Pre-emptive right: Equity shareholder pre-emptive rights. The pre-emptive right is the legal right of the existing shareholders. It is attested by the company in the first opportunity to purchase additional equity shares in proportion to their current holding capacity.

7. Limited liability: Equity shareholders are having only limited liability to the

value of shares they have purchased. If the shareholders are having fully paid up shares, they have no liability. For example: If the shareholder purchased 100 shares with the face value of Rs. 10 each. He paid only Rs. 900. His liability is only Rs. 100.

Advantages of Equity Shares

Equity shares are the most common and universally used shares to mobilize finance for the company. It consists of the following advantages.

1. Permanent sources of finance: Equity share capital is belonging to long-term permanent nature of sources of finance, hence, it can be used for long-term or fixed capital requirement of the business concern.

2. Voting rights: Equity shareholders are the real owners of the company who have voting rights. This type of advantage is available only to the equity shareholders.

3. No fixed dividend: Equity shares do not create any obligation to pay a fixed rate of dividend. If the company earns profit, equity shareholders are eligible for profit, they are eligible to get dividend otherwise, and they cannot claim any dividend from the company.

4. Less cost of capital: Cost of capital is the major factor, which affects the value of the company. If the company wants to increase the value of the company, they have to use more share capital because, it consists of less cost of capital (Ke) while compared to other sources of finance.

5. Retained earnings: When the company have more share capital, it will be suitable for retained earnings which is the less cost sources of finance while compared to other sources of finance.

Disadvantages of Equity Shares

1. Irredeemable: Equity shares cannot be redeemed during the lifetime of the business concern. It is the most dangerous thing of over capitalization.

2. Obstacles in management: Equity shareholder can put obstacles in management by manipulation and organizing themselves. Because, they have power to contrast any decision which are against the wealth of the shareholders.

3. Leads to speculation: Equity shares dealings in share market lead to secularism during prosperous periods.

4. Limited income to investor: The Investors who desire to invest in safe securities with a fixed income have no attraction for equity shares.

5. No trading on equity: When the company raises capital only with the help of equity, the company cannot take the advantage of trading on equity.

Preference Shares

The parts of corporate securities are called as preference shares. It is the shares, which have preferential right to get dividend and get back the initial investment at the time of winding up of the company. Preference shareholders are eligible to get fixed rate of dividend and they do not have voting rights.

Preference shares may be classified into the following major types:

1. Cumulative preference shares: Cumulative preference shares have right to claim dividends for those years which have no profits. If the company is unable to earn profit in any one or more years, C.P. Shares are unable to get any dividend but they have right to get the comparative dividend for the previous years if the company earned profit.

2. Non-cumulative preference shares: Non-cumulative preference shares have no right to enjoy the above benefits. They are eligible to get only dividend if the company earns profit during the years. Otherwise, they cannot claim any dividend.

3. Redeemable preference shares: When, the preference shares have a fixed maturity period it becomes redeemable preference shares. It can be redeemable during the lifetime of the company. The Company Act has provided certain restrictions on the return of the redeemable preference shares.

4.Irredeemable Preference Shares: Irredeemable preference shares can be redeemed only when the company goes for liquidator. There is no fixed maturity period for such kind of preference shares.

5 Participating Preference Shares: Participating preference shares-holders have right to participate extra profits after distributing the equity shareholders.

6 Non-Participating Preference Shares: Non-participating preference shares-holders are not having any right to participate extra profits after distributing to the equity shareholders. Fixed rate of dividend is payable to the type of shareholders.

7 Convertible Preference Shares: Convertible preference shares-holders have right to convert their holding into equity shares after a specific period. The articles of association must authorize the right of conversion.

8 Non-convertible Preference Shares: There shares, cannot be converted into equity shares from preference shares.

Features of Preference Shares

The following are the important features of the preference shares:

1. Maturity period: Normally preference shares have no fixed maturity period except in the case of redeemable preference shares. Preference shares can be redeemable only at the time of the company liquidation.

2. Residual claims on income: Preferential shares-holders have a residual claim on income. Fixed rate of dividend is payable to the preference shareholders.

3. Residual claims on assets: The first preference is given to the preference shareholders at the time of liquidation. If any extra Assets are available that should be distributed to equity shareholder.

4. Control of Management: Preference shareholder does not have any voting rights. Hence, they cannot have control over the management of the company.

Advantages of Preference Shares

Preference shares have the following important advantages.

1. Fixed dividend: The dividend rate is fixed in the case of preference shares. It is called as fixed income security because it provides a constant rate of income to the investors.

2. Cumulative dividends: Preference shares have another advantage which is called cumulative dividends. If the company does not earn any profit in any previous years, it can be cumulative with future period dividend.

3. Redemption: Preference Shares can be redeemable after a specific period except in the case of irredeemable preference shares. There is a fixed maturity period for repayment of the initial investment.

4. Participation: Participative preference shares-holders can participate in the surplus profit after distribution to the equity shareholders.

5. Convertibility: Convertibility preference shares can be converted into equity shares when the articles of association provide such conversion.

Disadvantages of Preference Shares

1. Expensive sources of finance: Preference shares have high expensive source of finance while compared to equity shares.

2. No voting right: Generally preference shares-holders do not have any voting rights. Hence they cannot have the control over the management of the company.

3. Fixed dividend only: Preference shares can get only fixed rate of dividend. They may not enjoy more profits of the company.

4. Permanent burden: Cumulative preference shares become a permanent burden so far as the payment of dividend is concerned. Because the company must pay the dividend for the unprofitable periods also.

5. Taxation: In the taxation point of view, preference shares dividend is not a deductible expense while calculating tax. But, interest is a deductible expense.

Hence, it has disadvantage on the tax deduction point of view.

Deferred Shares

Deferred shares also called as founder shares because these shares were normally issued to founders. The shareholders have a preferential right to get dividend before the preference shares and equity shares. According to Companies Act 1956 no public limited company or which is a subsidiary of a public company can issue deferred shares.

These shares were issued to the founder at small denomination to control over the management by the virtue of their voting rights.

No Par Shares

When the shares are having no face value, it is said to be no par shares. The company issues this kind of shares which is divided into a number of specific shares without any specific denomination. The value of shares can be measured by dividing the real net worth of the company with the total number of shares.

$$\text{Value of no. per share} = \frac{\text{The real net-worth}}{\text{Total no. of shares}}$$

Creditorship Securities

Creditorship Securities also known as debt finance which means the finance is mobilized from the creditors. Debenture and Bonds are the two major parts of the creditorship securities.

Debentures

A Debenture is a document issued by the company. It is a certificate issued by the company under its seal acknowledging a debt.

According to the Companies Act 1956, "debenture includes debenture stock, bonds and any other securities of a company whether constituting a charge of the assets of the company or not."

Types of Debentures

Debentures may be divided into the following major types:

1. Unsecured debentures: Unsecured debentures are not given any security on assets of the company. It is also called simple or naked debentures. This type of debentures are treated as unsecured creditors at the time of winding up of the company.

2. Secured debentures: Secured debentures are given security on assets of the company. It is also called as mortgaged debentures because these debentures are given against any mortgage of the assets of the company.

3. Redeemable debentures: These debentures are to be redeemed on the expiry of a certain period. The interest is paid periodically and the initial investment is returned after the fixed maturity period.

4. Irredeemable debentures: These kind of debentures cannot be redeemable during the life time of the business concern.

5. Convertible debentures: Convertible debentures are the debentures whose holders have the option to get them converted wholly or partly into shares. These debentures are usually converted into equity shares. Conversion of the debentures may be:

- Non-convertible debentures
- Fully convertible debentures
- Partly convertible debentures

6. Other types: Debentures can also be classified into the following types. Some of the common types of the debentures are as follows:

- Collateral Debenture
- Guaranteed Debenture

- First Debenture
- Zero Coupon Bond
- Zero Interest Bond/Debenture

Features of Debentures

1. Maturity period: Debentures consist of long-term fixed maturity period. Normally, debentures consist of 10-20 years maturity period and are repayable with the principle investment at the end of the maturity period.

2. Residual claims in income: Debenture holders are eligible to get fixed rate of interest at every end of the accounting period. Debenture holders have priority of claim in income of the company over equity and preference shareholders.

3. Residual claims on asset: Debenture holders have priority of claims on Assets of the company over equity and preference shareholders. The Debenture holders may have either specific change on the Assets or floating change of the assets of the company. Specific change of Debenture holders are treated as secured creditors and floating change of Debenture holders are treated as unsecured creditors.

4. No voting rights: Debenture holders are considered as creditors of the company. Hence they have no voting rights. Debenture holders cannot have the control over the performance of the business concern.

5. Fixed rate of interest: Debentures yield fixed rate of interest till the maturity period. Hence the business will not affect the yield of the debenture.

Advantages of Debenture

Debenture is one of the major parts of the long-term sources of finance which of consists the following important advantages:

1. Long-term sources: Debenture is one of the long-term sources of finance to the company. Normally the maturity period is longer than the other sources of finance.

2. Fixed rate of interest: Fixed rate of interest is payable to debenture holders, hence it is most suitable of the companies earn higher profit. Generally, the ratemof interest is lower than the other sources of long-term finance.

3. Trade on equity: A company can trade on equity by mixing debentures in its capital structure and thereby increase its earning per share. When the company apply the trade on equity concept, cost of capital will reduce and value of the company will increase.

4. Income tax deduction: Interest payable to debentures can be deducted from the total profit of the company. So it helps to reduce the tax burden of the company.

5. Protection: Various provisions of the debenture trust deed and the guidelines issued by the SEB1 protect the interest of debenture holders.

Disadvantages of Debenture

Debenture finance consists of the following major disadvantages:

1. Fixed rate of interest: Debenture consists of fixed rate of interest payable to securities. Even though the company is unable to earn profit, they have to pay the fixed rate of interest to debenture holders, hence, it is not suitable to those company earnings which fluctuate considerably.

2. No voting rights: Debenture holders do not have any voting rights. Hence, they cannot have the control over the management of the company.

3. Creditors of the company: Debenture holders are merely creditors and not the owners of the company. They do not have any claim in the surplus profits of the company.

4. High risk: Every additional issue of debentures becomes more risky and costly on account of higher expectation of debenture holders. This enhanced financial risk increases the cost of equity capital and the cost of raising finance through debentures which is also high because of high stamp duty.

5. Restrictions of further issues: The company cannot raise further finance through debentures as the debentures are under the part of security of the assets already mortgaged to debenture holders.

Loans from financing institutions:

Long term loans are provided by specify financial institutions in India. The following are the specialised financial institution:

(i) The industrial financial corporation in India.

(ii) Industrial development bank of India.

(iii) Industrial Reconstruction Corporation in India.

(iv) Small industries development bank of India.

(v) Life insurance Corporation of India.

(vi) State financial corporation.

(vii) Exime book.

Term loans are provided by these institutions at deferent rate of interest under scheme of financial institution. it is also to be repaid according to a stipulated repayment schedule these institution stipulate a number of condition management and certain and other financial policy of a company . Term loan represent secured borrowing. It is the most important source of finance for new project. They generally carry a rate of interest inclusive interest tax depending on the credit rating of the borrower, the perceived risk of lending. The loan are generally repayable over a period of 60 to 10 years in annul, half yearly or quarterly installment. for last scale project all India financial institution provide the bulk of term finance either singly or in consortium with other financial institution.

Loan from commercial banks:

The banks' in India also provide term loans to the companies .banks normally provides term loans to projects in the small and medium scale sectors . The primary role of commercial banks is to cater to the short term requirement of the

industry. However banks have started taking an interest on term financing of industries in several ways. The proceeds of the term loan from banks are generally used for fixed assets or for expansion of plant capacity. Their repayment is scheduled over a period of time. Term loans proposals involve an element of risk because of changes in the conditions affecting the borrowers. The bank making such a proposal has to access the situation to make a proper appraisal. The decision in such a situation would depend upon various factors affecting the conditions of the industry concerned and the earning potential of the borrower.

Retained earnings:

When a company retains a part of undistributed profits in the form of free reserves and the same is utilised for further expansion and diversification programmes, is known as ploughing back of profit or retained earnings. These funds belong to the equity shareholders. It increases the net worth of the business.

Although it is essentially a means of long-term financing for expansion and development of a firm, and its availability depends upon a number of factors such as the rate of taxation, the dividend policy of the firm, Government policy on payment of dividends by the corporate sector, extent of profit earned and upon the firm's appropriation policy etc.

Advantages and Disadvantages:

The advantages of ploughing back of profits are:

1. It is the cheapest method of raising capital
2. It has no specific cost of capital
3. It increases the net worth of business
4. There is no dilution of control of present owners
5. It does not require any pledge, mortgage etc. like other loans.
6. It provides required capital for expansion and development.
7. Firms do not need to depend on lenders or outsiders if retained earnings, are

readily available.

8. It increases the reputation of the business.

Disadvantages of Retained earnings

It suffers from the following limitations:

1. It may lead to cause of dissatisfaction among the shareholders as they receive-a low rate of dividend.
2. Management may fail to properly use the profits retained.
3. Ploughing back or reinvestment of profit means depriving the shareholders a portion of the earning of the company. As a result, share price may come down in the market.
4. It may lead to over-capitalisation because of capitalisation of profits.

4.4.2 FINANCING OF WORKING CAPITAL

Working Capital is part of the capital which is needed for meeting day to day requirement of the business concern. For example, payment to creditors, salary paid to workers, purchase of raw materials etc., normally it consists of recurring in nature. It can be easily converted into cash. Hence, it is also known as short-term capital.

Definitions

According to the definition of **Mead, Baker and Malott,** "Working Capital means Current Assets".

According to the definition of **J.S.Mill,** "The sum of the current asset is the working capital of a business".

According to the definition of **Weston and Brigham**, "Working Capital refers to a firm's investment in short-term assets, cash, short-term securities, accounts receivables and inventories".

According to the definition of **Bonneville,** "Any acquisition of funds which

increases the current assets, increase working capital also for they are one and the same".

According to the definition of **Shubin,** "Working Capital is the amount of funds necessary to cover the cost of operating the enterprises".

According to the definition of **Genestenberg,** "Circulating capital means current assets of a company that are changed in the ordinary course of business from one form to another, for example, from cash to inventories, inventories to receivables, receivables to cash".

Concept of Working Capital

Working capital can be classified or understood with the help of the following two important concepts.

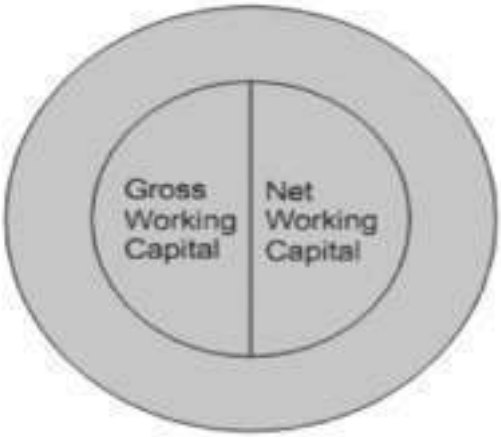


Fig. 10.2 Working Capital Concept

Gross Working Capital

Gross Working Capital is the general concept which determines the working capital concept. Thus, the gross working capital is the capital invested in total current assets of the business concern.

Gross Working Capital is simply called as the total current assets of the concern.

GWC =CA

Net Working Capital

Net Working Capital is the specific concept, which, considers both current assets and current liability of the concern.

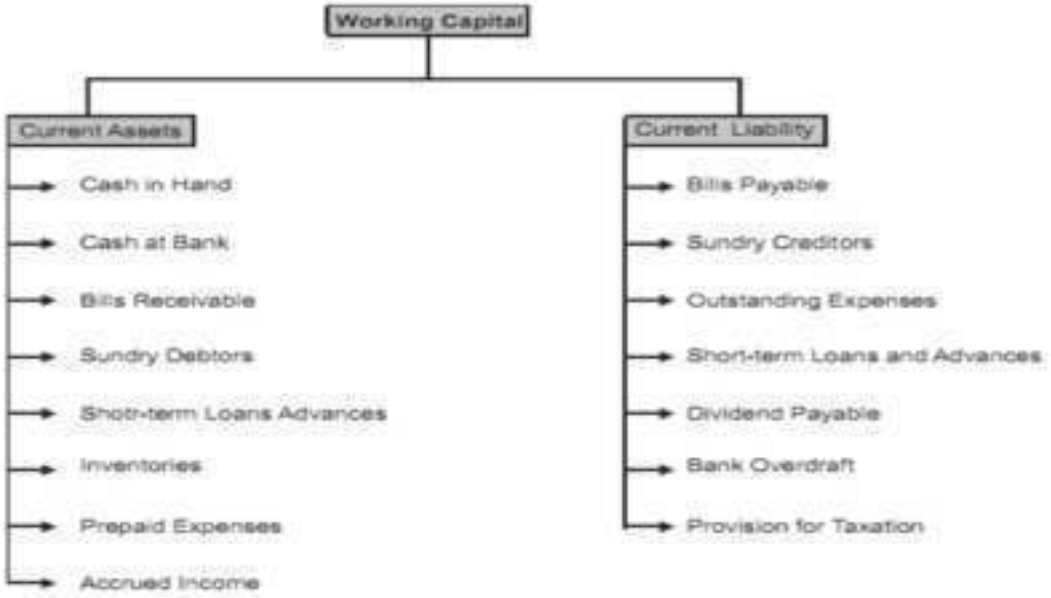
Net Working Capital is the excess of current assets over the current liability of the concern during a particular period.

If the current assets exceed the current liabilities it is said to be positive working capital; it is reverse, it is said to be Negative working capital.

NWC =CA-CL

Component of Working Capital

Working capital constitutes various current assets and current liabilities. This can be illustrated by the following chart.



Types of Working Capital

Working Capital may be classified into three important types on the basis of time.

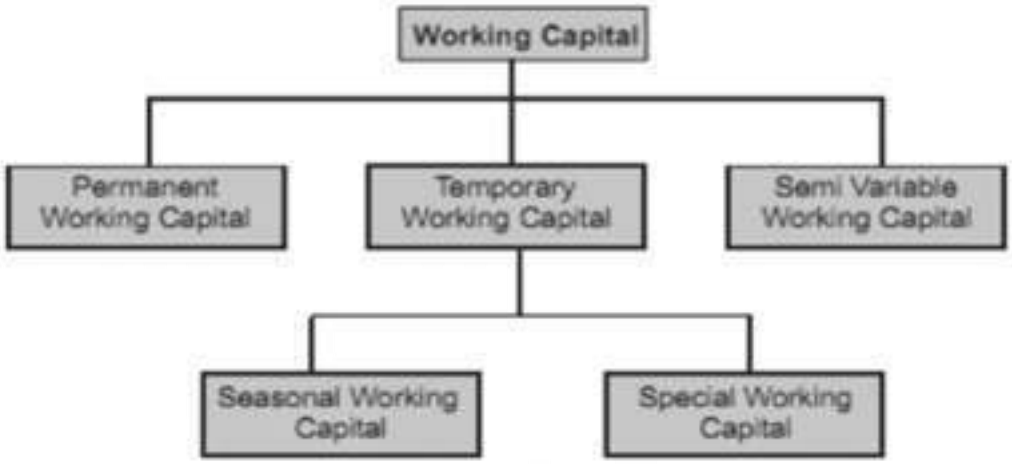


Fig. 10.3 Types of Working Capital

Permanent Working Capital

It is also known as Fixed Working Capital. It is the capital; the business concern must maintain certain amount of capital at minimum level at all times. The level of Permanent Capital depends upon the nature of the business. Permanent or Fixed Working Capital will not change irrespective of time or volume of sales.

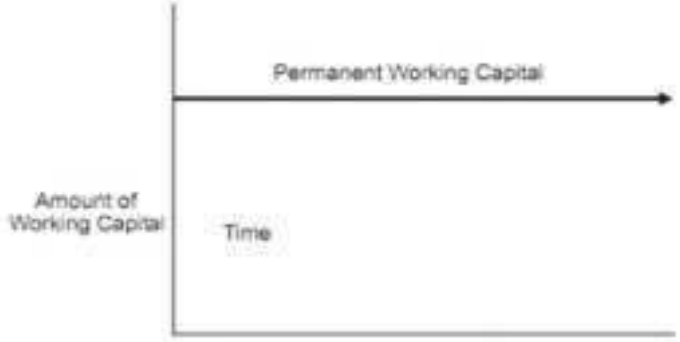


Fig. 10.4 Permanent Working Capital

Temporary Working Capital

It is also known as variable working capital. It is the amount of capital which is required to meet the Seasonal demands and some special purposes. It can be further classified into Seasonal Working Capital and Special Working Capital. The capital required to meet the seasonal needs of the business concern is called as Seasonal Working Capital. The capital required to meet the special exigencies such as launching of extensive marketing campaigns for conducting research, etc.

Fig. 10.5 Temporary Working Capital

Semi Variable Working Capital

Certain amount of Working Capital is in the field level up to a certain stage and after that it will increase depending upon the change of sales or time.

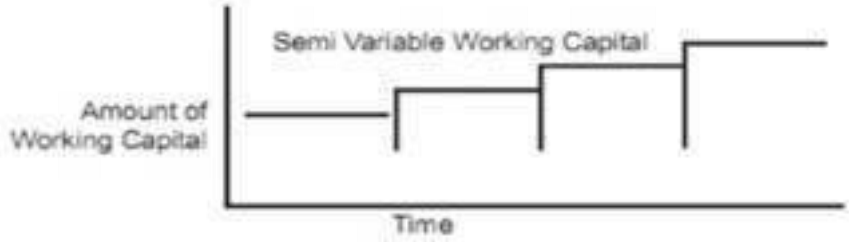


Fig. 10.6 Semi Variable Working Capital

Factors Determining Working Capital Requirements

Working Capital requirements depends upon various factors. There are no set of rules or formula to determine the Working Capital needs of the business concern. The following are the major factors which are determining the Working Capital requirements.

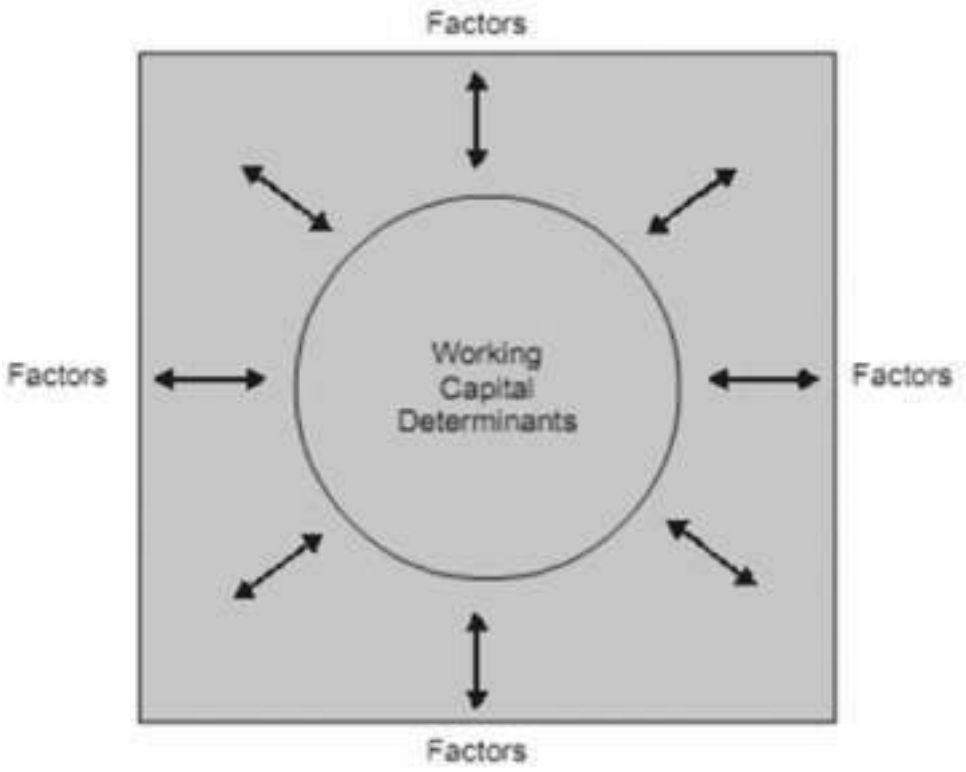


Fig. 10.7 Factors Determining Working Capital Requirements

1. Nature of business: Working Capital of the business concerns largely depend upon the nature of the business. If the business concerns follow rigid credit policy and sell goods only for cash, they can maintain lesser amount of Working Capital. A transport company maintains lesser amount of Working Capital while a construction company maintains larger amount of Working Capital.

2. Production cycle: Amount of Working Capital depends upon the length of

the production cycle. If the production cycle length is small, they need to maintain lesser amount of Working Capital. If it is not, they have to maintain large amount of Working Capital.

3. Business cycle: Business fluctuations lead to cyclical and seasonal changes in the business condition and it will affect the requirements of the Working Capital. In the booming conditions, the Working Capital requirement is larger and in the depression condition, requirement of Working Capital will reduce. Better business results lead to increase the Working Capital requirements.

4. Production policy: It is also one of the factors which affects the Working Capital requirement of the business concern. If the company maintains the continues production policy, there is a need of regular Working Capital. If the production policy of the company depends upon the situation or conditions, Working Capital requirement will depend upon the conditions laid down by the company.

5. Credit policy: Credit policy of sales and purchase also affect the Working Capital requirements of the business concern. If the company maintains liberal credit policy to collect the payments from its customers, they have to maintain more Working Capital. If the company pays the dues on the last date it will create the cash maintenance in hand and bank.

6. Growth and expansion: During the growth and expansion of the business concern, Working Capital requirements are higher, because it needs some additional Working Capital and incurs some extra expenses at the initial stages.

7. Availability of raw materials: Major part of the Working Capital requirements are largely depend on the availability of raw materials. Raw materials are the basic components of the production process. If the raw material is not readily available, it leads to production stoppage. So, the concern must maintain adequate raw material; for that purpose, they have to spend some amount of Working Capital.

8. Earning capacity: If the business concern consists of high level of earning

capacity, they can generate more Working Capital, with the help of cash from operation. Earning capacity is also one of the factors which determines the Working Capital requirements of the business concern

Needs of Working Capital

Working Capital is an essential part of the business concern. Every business concern must maintain certain amount of Working Capital for their day-to-day requirements and meet the short-term obligations.

Working Capital is needed for the following purposes.

1. Purchase of raw materials and spares: The basic part of manufacturing process is, raw materials. It should purchase frequently according to the needs of the business concern. Hence, every business concern maintains certain amount as Working Capital to purchase raw materials, components, spares, etc.

2. Payment of wages and salary: The next part of Working Capital is payment of wages and salaries to labour and employees. Periodical payment facilities make employees perfect in their work. So a business concern maintains adequate the amount of working capital to make the payment of wages and salaries.

3. Day-to-day expenses: A business concern has to meet various expenditures regarding the operations at daily basis like fuel, power, office expenses, etc.

4. Provide credit obligations: A business concern responsible to provide credit facilities to the customer and meet the short-term obligation. So the concern must provide adequate Working Capital.

Working Capital Financing

Working capital financing is done by various modes such as trade credit, cash credit / bank overdraft, working capital loan, purchase of bills / discount of bills, bank guarantee, letter of credit, factoring, commercial paper, inter-corporate deposits etc.

The arrangement of working capital financing forms a major part of the day to day activities of a finance manager. It is a very crucial activity and requires continuous attention because working capital is the money which keeps the day to day business operations smooth. Without appropriate and sufficient working capital financing, a firm may get into troubles. Insufficient working capital may result into non-payment of certain dues on time. Inappropriate mode of financing would result in loss of interest which directly hits the profits of the firm.

Types of Working Capital Financing / Loans

- **Trade Credit**

  This is simply the credit period which is extended by the creditor of the business. Trade credit is extended based on the creditworthiness of the firm which is reflected by its earning records, liquidity position and records of payment. Just like other sources of working capital financing, trade credit also comes with a cost after the free credit period. Normally, it is a costly source as a means of financing business working capital.

- **Cash Credit / Bank Overdraft**

  Cash credit or bank overdraft is the most useful and appropriate type of working capital financing extensively used by all small and big businesses. It is a facility offered by commercial banks whereby the borrower is sanctioned a particular amount which can be utilized for making his business payments. The borrower has to make sure that he does not cross the sanctioned limit. The best part is that the interest is charged to the extent the money is used and not on the sanctioned amount which motivates him to keep depositing the amount as soon as possible to save on interest cost. Without a doubt, this is a cost effective working capital financing.

- **Working Capital Loans**

  Working capital loans are as good as term loan for a short period. These loans may be repaid in installments or a lump sum at the end. The borrower

should take such loans for financing permanent working capital needs. The cost of interest would not allow using such loans for temporary working capital.

- **Purchase / Discount of Bills**

  For a business, it is another good service provided by commercial banks for working capital financing. Every firm generates bills in the normal course of business while selling goods to debtors. Ultimately, that bill acts as a document to receive payment from the debtor. The seller who requires money will approach the bank with that bill and bank will apply discount on the total amount of the bill based on the prevailing interest rates and pay the remaining amount to the seller. On the date of maturity of that bill, the bank will approach the debtor and collect the money from him.

- **Bank Guarantee**

  It is primarily known as non-fund based working capital financing. Bank guarantee is acquired by a buyer or seller to reduce the risk of loss to the opposite party due to non-performance of agreed task which may be repaying of money or providing of some services etc. A buyer 'B1' is buying some products from seller 'S1'. In this case, 'B1' may acquire bank guarantee from the bank and give it to 'S1' to save him from the risk of non-payment. Similarly, if 'S1' may acquire bank guarantee and hand it over to 'B1' to save him from the risk of getting lower quality goods or late delivery of goods etc. In essence, a bank guarantee is revoked by the holder only in case of non-performance by the other party. Bank charges some commission for same and may also ask for security.

- **Letter of Credit**

  It is also known as non-fund based working capital financing. Letter of credit and bank guarantee has a very thin line of difference. Bank guarantee is revoked and the bank makes payment to the holder in case of non-

performance of the opposite party whereas, in the case of a letter of credit, the bank will pay the opposite party as soon as the party performs as per agreed terms. So, a buyer would buy a letter of credit and send it to the seller. Once the seller sends the goods as per the agreement, the bank would pay the seller and collects that money from the buyer.

- **Factoring**

  Factoring is an arrangement whereby a business sells all or selected accounts payables to a third party at a price lower than the realizable value of those accounts. The third party here is known as the 'factor' who provides factoring services to business. The factor would not only provide financing by purchasing the accounts but also collects the amount from the debtors. Factoring is of two types - with recourse and without recourse. The credit risk of non-payment by the debtor is borne by the business in case of with recourse and it is borne by the factor in the case of without recourse.

Some other sources of working capital financing used are inter-corporate deposits, commercial paper, public deposits etc.

4.5 DEBT VS. EQUITY AS A SOURCE OF FINANCE

4.5.1 Debt Financing

Debt means borrowing money, and debt financing mean borrowing money without giving away your ownership rights. Debts finance means having to pay both the interest and the principal at a certain date; however with strict conditions and agreements for the reason that if debt conditions are not met or are failed then there are severe consequences to face. Usually, the rate of interest and the maturity or the payback date of debt borrowings is fixed or pre-discussed. The payback of the principals can be done in full or in part payments as agreed upon in the loan agreement. Debt can be either a loan form or in the form of sale of bonds; however, they do not change the conditions of the borrowings the lender of the money can claim his money back as per the agreement. And hence lending money

to a company is usually safe for you will defiantly get your principal back along with the agreed interest above the same.

Debt financing can be both secure and unsecured financing security is usually a guarantee or an assurance that the loan will be paid off, this security can be of any type; whereas some lenders will lend you money on the basis of your idea or on the goodwill of your name or your brand. Various types of security can be offered to avail a debt finance based on a security or debt finance can be availed as a different type of unsecured loans as well.

Advantages

1. Debt financing does not give the lender ownership rights in your company. Your bank or your lending institution will not have a right of telling you how to run your company and hence that right will be all yours.
2. Once you pay back the money your business relationship with the lender ends.
3. The interest you pay on loans is after deduction of taxes.
4. You can choose the duration of your loan it can either be long term or short term.
5. If you choose a fixed rate plan you the amount of the principal and the interest will be known and hence you can plan your business budget accordingly.

Disadvantages

1. You have to pay back the money in a specific amount of time
2. Too much of loan or debt creates cash flow problems which create a trouble in paying back your debts.
3. Showing too much of debt creates a problem in raising equity capital as

debt is considered high-risk potential by investors and this will limit your ability to raise capital.

4. Your business can fall into big crises in case of too much of debt especially during hard times when the sales of your organization fall down.

5. The cost of repaying the loans is high and hence this can reduce the chances of growth for your company.

6. Usually, the assets of a company are held collateral to the lending institution in order to get a loan as a security of repaying the loan.

4.5.2 Equity Financing

The company needs cash or additional cash to grow always. These funds can be raised either by debt or equity financing. Now that you know about debt financing let us explain equity financing. Unlike debt financing equity financing is a process of raising funds by selling the stocks of the company to the financer. Selling of stocks is giving ownership interest of the company to the financer. The proportion of ownership given to the financer depends on the amount invested in the company. Finance is required for every business and in every stage of business be it the start-up or the growth of the company.

Equity financing is another word for ownership in a company. Usually, companies like equity financing because the investor bears all the risk in case of business failure the investor is also in a loss. However, the loss of equity is the loss of ownership because equity gives you a say in the operations of the company and mostly in the difficult times of the company. Besides just the ownership rights the investor also gets some claims of future profit in the company. Satisfaction of equity ownership comes in various forms for examples some investors are happy with the ownership rights, some are happy with the receipt of dividends, whereas some investors are happy with the appreciation of the share price of the company.

Advantage

1. The risk here is less because it is not a loan and it need not be paid back. Equity financing is a very good way of financing your business if you cannot afford a loan.

2. You actually collect a network of investors which increases you're the credibility of your business.

3. An investor does not expect immediate returns from his investment and hence it takes a long term view to your business.

4. You will have to distribute profits and not pay off your loan payments.

5. Equity financing gives you more cash in hand for expanding your business.

6. In case business fails the money need not be repaid.

Disadvantages

1. You can end up paying more returns than you might pay for a bank loan.

2. You may or may not like giving up the control of your company in terms of ownership or share of profit percentage with investors.

3. It is important to take the consent or consult your investors before taking a big or a routine decision and you may not agree with the decision given.

4. In the case of a huge disagreement with the investors, you might have to only take your cash benefits and let the investors run your business without you.

5. Finding the right investors for your business takes time and efforts.

Key Differences - Debt Vs. Equity Financing

S.No.	Base of Difference	Debt	Equity
1	Debt Vs. Equity Financing – Meaning	Funds borrowed from financiers without giving them ownership rights.	Funds raised by the company by giving the investor's ownership rights.
2	What is it to the company?	Debt finance is a loan or a liability of the company.	Equity finance is an asset of the company or the companies own funds.
3	What does it reflect?	Debt finance is an obligation to the company.	Equity finance gives the investor ownership rights.
4	Debt Vs. Equity Financing – Duration	Debt finance is comparatively short term finance.	Equity, on the other hand, is long term finance for the company.
5	What is the status of the lender?	Debt financier is a lender to the company.	The shareholder of the company is the owner of the company.
6	Debt Vs. Equity Financing – Risk	Debt falls under low-risk investment.	Equity falls under high-risk investment.
7	Types of financing	Debt financing can be categorized by Term Loan, Debentures, Bonds, etc	Equity can be categorized by Shares and Stocks.
8	Debt vs. Equity Financing – Investment Payoff	Lenders get paid interest over and above the principal amount financed.	Shareholders of the company get a dividend on the ratio of shares held / profit earned by the company.
9	What is the nature of return?	The interest payable to the lenders is fixed and regular and also mandatory.	Dividend paid to the shareholders is variable, irregular as it completely depends on the profit earnings of the company.
10	What is the security?	A security is required in order to secure your money,	No security is requires in case of investing in a

4.6 SUMMARY

This chapter deals with some of the important types of financing such as leasing, venture capital, project financing, working capital financing and debt vs. equity finance. Lease financing is one of the popular and common methods of assets based finance, which is the alternative to the loan finance. Lease is a contract. A contract under which one party, the leaser (owner) of an asset agrees to grant the use of that asset to another leaser, in exchange for periodic rental payments. Lease is contractual agreement between the owner of the assets and user of the assets for a specific period by a periodical rent. Venture Capital finance is a new type of financial intermediary which has emerged in India during 1980s. It is a long-term financial assistance provided to projects, which are established to introduce new products, inventions, idea and technology. Venture capital finance is more suitable to risky oriented business which consists of huge investment and provides results after 5 to 7 year. Project finance is the long-term financing of infrastructure and industrial projects based upon the projected cash flows of the project rather than the balance sheets of its sponsors. Usually, a project financing structure involves a number of equity investors, known as 'sponsors', a 'syndicate' of banks or other lending institutions that provide loans to the operation. They are most commonly non-recourse loans, which are secured by the project assets and paid entirely from project cash flow, rather than from the general assets or creditworthiness of the project sponsors, a decision in part supported by financial modelling. The financing is typically secured by all of the project assets, including the revenue-producing contracts. Project lenders are given a lien on all of these assets and are able to assume control of a project if the project company has difficulties complying with the loan terms. Providers of medium- and long-term financing such as Ex-Im Bank's guarantees allow banks to finance buyers who would otherwise be unable to get financing either in the United States or in their home country because of the transaction size, risk, location of the buyer and the debt servicing associated with this type of financing. Medium-term and long-term financing are available for capital goods or services that have a useful life that extends beyond one year. A creditworthy buyer who cannot get financing

from a local bank may find more favourable terms through Ex-Im Bank. These programs help make international transactions more attractive for both a buyer and a seller. Ex-Im Bank provides full payment to the seller, and the buyer gets financing that would not be available otherwise, thus allowing a transaction to move forward. The two segments of working capital viz., regular or fixed or permanent and variable are financed by the long-term and the short-term sources of funds respectively. The main sources of long-term funds are shares, debentures, term- loans, retained earnings etc. The sources of short-term funds used for financing variable part of working capital mainly include the following:1. Loans from commercial banks; 2. Public deposits; 3. Trade credit; 4. Factoring; 5. Discounting bills of exchange; 6. Bank overdraft and cash credit; 7. Advances from customers; 8. Accrual accounts. Debt financing means borrowing money from an outside source with the promise of paying back the borrowed amount, plus the agreed-upon interest, at a later date. Traditional secured loans, like those offered by banks, are one form of debt financing. Such loans are typically paid back in monthly installments and require a personal guaranty on the part of the borrower. Inventory, accounts receivable, equipment, real estate and insurance policies can all be used as security on a bank loan. If the borrower can't pay back the loan, this collateral can be used to satisfy payment. Equity financing, in the world of small business, means raising capital by selling shares of a business to investors. Unlike debt financing, the capital raised through equity financing isn't paid back in monthly installments with interest. Instead, investors put money into a business and become partial owners of that business. They are then entitled to a share of the business's profits over time. Most investors expect a return on their investment within three to five years. The most common source of equity for small business owners is friends and family. Unlike a personal loan, investments made by friends and family are paid back after your business starts making money, which might not be for several years. Often, business owners will tie payments to investors with the operating cash flow of the business. In other words, when the business is making money, so are investors. Once investors have achieved a specific percentage return on their investments, they are no longer involved in the business.

4.7 GLOSSARY

Lease Financing: Lease financing is one of the popular and common methods of assets based finance, which is the alternative to the loan finance. Lease is a contract. A contract under which one party, the leaser (owner) of an asset agrees to grant the use of that asset to another leaser, in exchange for periodic rental payments.

Venture Capital Finance: The term Venture Capital fund is usually used to denote Mutual funds or Institutional investors. They provide equity finance or risk capital to little known, unregistered, highly risky, young and small private business, especially in technology oriented and knowledge intensive business.

Project Planning: Project financing may be defined as that scheme of 'financing of a particular unit in which a lender is satisfied in looking at the cash flows and the earnings of that economic unit as a source of funds, from which a loan can be repaid, and to the assets of the economic units as a collateral for the loan'.

Working Capital Financing: Working capital is described as the capital which is not fixed but the more common uses of the working capital is to consider it as the difference between the book value of current assets and current liabilities.

Debt Finacing: Debt financing means borrowing money from an outside source with the promise of paying back the borrowed amount, plus the agreed-upon interest, at a later date.

Equity Financing: Equity financing, in the world of small business, means raising capital by selling shares of a business to investors. Unlike debt financing, the capital raised through equity financing isn't paid back in monthly installments with interest.

4.8 SELF ASSESSMENT QUESTIONS

1. Explain the types of leasing. Discuss the advantages of lease financing.

2. What are the sources of long-term finance?

3. Discuss the concept of working capital?

4. What is debenture (debt) financing? Why debentures are considered cheaper than equity as a source of long-term finance?

5. Explain the concept of financial feasibility of a Project?

4.9 LESSON END EXERCISE

1. Define lease financing.

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2. What is a venture capital?

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3. Explain the intermediate and long-term financing.

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4.10 SUGGESTED READING

1. Accounting and Financial Management: S.N. Maheshwari

2. Financial Management: Theory and Practice : S.K. Gupta and R.K. Sharma

3. Financial Management: Text and Problems: M.Y Khan & P.K Jain.

4. Fundamentals Of Financial Derivatives : N.R. Parasuraman

C. No. :- BM-601 **UNIT V**

SEMESTER: VI **LESSON : 9-10**

SHARES CAPITAL AND DEBENTURES

STRUCTURE

5.1 INTRODUCTION

A company form of organisation is the third stage in the evolution of forms of organisation. Its capital is contributed by a large number of persons called shareholders who are the real owners of the company. But neither it is possible for all of them to participate in the management of the company nor considered desirable. Therefore, they elect a Board of Directors as their representative to manage the affairs of the company. In fact, all the affairs of the company are governed by the provisions of the Companies Act, 1956. A company means a company incorporated or registered under the Companies Act, 1956 or under any other earlier Companies Acts.

According to Chief Justice Marshal, "a company is a person, artificial, invisible, intangible and existing only in the eyes of law. Being a mere creation of law, it possesses only those properties which the charter of its creation confers upon it, either expressly or as incidental to its very existence".

A company usually raises its capital in the form of shares (called share capital) and debentures (debt capital.) This chapter deals with the share capital and debentures of companies.

5.2 OBJECTIVES

After studying this chapter, you will be able to:

- explain the meaning and types of capital and shares

- explain the meaning and various types of debentures
- explain the concept of private placement; zero coupon and deep discount bonds
- know escrow a/c trust; buy back of shares
- explain redemption of shares and debentures

5.3 SHARES CAPITAL

A company, being an artificial person, cannot generate its own capital which has necessarily to be collected from several persons. These persons are known as shareholders and the amount contributed by them is called share capital. Since the number of shareholders is very large, a separate capital account cannot be opened for each one of them. Hence, innumerable streams of capital contribution merge their identities in a common capital account called as 'Share Capital Account'.

In other words, capital is essential for a trading concern. A company collects capital by inviting the public to buy its shares through a document known as prospectus. The capital is usually divided into different units with definite value called shares. Section 2(46) of the companies act defines a share as "a share in the share capital of the company and includes stock except where a distinction between stock and share is expressed or implied". A share is not a sum of money but is an interest measured by a sum of money, and made up of various rights contained in the contract. A share is a fractional part of the share capital which forms the basis of ownership in a company.

Share capital refers to the amount of capital raised or to be raised by a company by the issue of shares. The main divisions of share capital are as follows:-

1. **Authorised Capital:** Authorised capital is the amount of share capital which a company is authorised to issue by its Memorandum of Association. The company cannot raise more than the amount of capital as specified in the Memorandum of Association. It is also called Nominal or Registered capital.

The authorised capital can be increased or decreased as per the procedure laid down in the Companies Act. It should be noted that the company need not issue the entire authorised capital for public subscription at a time. Depending upon its requirement, it may issue share capital but in any case, it should not be more than the amount of authorised capital.

2. **Issued Capital:** It is that part of the authorised capital which is actually issued to the public for subscription including the shares allotted to vendors and the signatories to the company's memorandum. The authorised capital which is not offered for public subscription is known as 'unissued capital'. Unissued capital may be offered for public subscription at a later date.

3. **Subscribed Capital:** It is that part of the issued capital which has been actually subscribed by the public. When the shares offered for public subscription are subscribed fully by the public the issued capital and subscribed capital would be the same. It may be noted that ultimately, the subscribed capital and issued capital are the same because if the number of share, subscribed is less than what is offered, the company allot only the number of shares for which subscription has been received. In case it is higher than what is offered, the allotment will be equal to the offer. In other words, the fact of over subscription is not reflected in the books.

4. **Called-up Capital:** It is that part of the subscribed capital which has been called up on the shares. The company may decide to call the entire amount or part of the face value of the shares. For example, if the face value (also called nominal value) of a share allotted is Rs. 10 and the company has called up only Rs. 7 per share, in that scenario, the called up capital is Rs. 7 per share. The remaining Rs. 3 may be collected from its shareholders as and when needed.

5. **Paid-up Capital:** It is that portion of the called up capital which has been actually received from the shareholders. When the shareholders have paid all the call amount, the called-up capital is the same to the paid-up capital. If any of the shareholders has not paid amount on calls, such an amount

may be called as 'calls in arrears'. Therefore, paid-up capital is equal to the called-up capital minus call-in-arrears.

6. **Uncalled Capital:** That portion of the subscribed capital which has not yet been called-up. As stated earlier, the company may collect this amount any time when it needs further funds.

7. **Reserve Capital:** A company may reserve a portion of its uncalled capital to be called only in the event of winding up of the company. Such uncalled amount is called 'Reserve Capital' of the company. It is available only for the creditors on winding up of the company

Issue of Share Capital

The shares can be issued either at par, premium or at discount. Shares are said to be issued at par when a shareholder is required to pay the face value of the shares to the company. Shares are said to be issued at premium when a shareholder is required to pay more than the face value to the company. Shares are said to be issued at discount when the shareholder is required to pay less amount than the face value to the company. For example, acompany issues the shares having the face value of Rs.10 at Rs.10; it is the issue at par. If it is issued at Rs. 12, the issue is at premium. If it is issued at Rs.8, the issue is at discount.

The issue price of the shares can be received in one instalment or it can be received in different instalments. If the issue is in different instalments, it may be paid on application, allotment and on one or more calls. The amount on application is called application money, the amount dues on allotment is called allotment money and the rest amount is called call money. As per SEBI guidelines the application money on issue must not be less than 25% of issue price (as per Cos Act, it is 5%).

Allotment of shares

Allotment of shares means the acceptance of offer of the applicant for the purchase of shares. Directors have the discretionary power to reject or accept

the applications. But the public company cannot allot its shares unless the minimum subscription has been subscribed by the public and the amount of application has been received. After the allotment of shares to the applicants who will become the shareholders of the company.

Journal Entries for Share Issue

1. On receipt of application money:

Bank A/c Dr

To Share Application A/c

2. On acceptance of application:

Share application A/c Dr

To Share Capital A/c

3. On allotment money due:

Share allotment A/c Dr

To Share capital A/c

4. On receipt of allotment money:

Bank A/c Dr

To Share allotment A/c

5. On making first call due:

Share first call A/c Dr

To Share capital A/c

6. On receipt of first call money:

Bank A/c Dr

To Share first call A/c

(Note: similar entries may be passed for second call, third call, if any.)

Illustration 1

Bharat Trading Co.Ltd.with a registered capitalof Rs.100000 issued 5000 equity shares of Rs.10 each, payable Rs.2 on application, Rs.2 on allotment, Rs.3 on first call and Rs.3 on final call. Pass journal entries assuming the shares issued were fully subscribed and the money has been received.

Solution:

Journal

Bank A/c	Dr		10000	
To Share Application A/c				10000
(Application money received)				
Share application A/c	Dr		10000	
To Share Capital A/c				10000
(Transfer of application money to share capital)				
Share allotment A/c	Dr		10000	
To Share capital A/c				10000
(Allotment money due)				
Bank A/c	Dr		10000	
To Share allotment A/c				10000
(Allotment money received)				
Share first call A/c	Dr		15000	
To Share capital A/c				15000
(First call money due)				
Bank A/c	Dr		15000	
To Share first call A/c				15000
(First call money received)				
Share final call A/c	Dr		15000	
To Share capital A/c				15000
(Final call money due)				
Bank A/c	Dr		15000	
To Share final call A/c				15000
(Final call money received)				

Issue of shares at premium

Shares are said to be issued at premium when a shareholder is required to pay more than the face value to the company. The excess amount received over the face value is called share premium. It is a capital receipt. The share premium shall be transferred to "Securities Premium A/c". It should be shown on the liability side of balance sheet under the head "Reserves and Surplus".

Journal entries:

(a) If premium is received with application money:

(i) Bank A/c Dr

To Share application A/c

(ii) Share application A/c Dr (with total)

To Share capital A/c (application money)

To Securities premium A/c (premium)

(b) If premium is received with allotment money:

(i) Share allotment A/c Dr (total)

To Share capital A/c (allotment money due)

To Securities premium A/c (premium)

(ii) Bank A/c A/c

To Share allotment A/c

Issue of shares at discount

Shares are said to be issued at discount when the shareholder is required to pay less amount than the face value to the company. Discount on issue of shares is a capital loss and it should be debited to a separate account called "Discount on issue of shares A/c". It is shown on the assets side of balance sheet under "Miscellaneous Expenditure". The rate of discount should

not exceed 10% of nominal value of shares. Generally the discount on issue is recorded at the time of allotment. It is also noted that a newly registered company cannot issue shares at discount. The journal entry is

Share allotment A/c	Dr	(allotment money due)
Discount on issue of shares A/c	Dr	(discount)
To Share capital A/c		(Total)

Illustration 2

A Ltd. Issued 5000 shares of Rs.10 each at a premium of Rs.5 per share. The amount was payable as Rs.3 on application, Rs.7 on allotment (incl. Premium) and the balance on first and final call. All shares were subscribed and money duly received. Show the journal entries.

Solution:

Bank A/c Dr To Share Application A/c (Application money received)			15000	15000
Share application A/c Dr To Share Capital A/c (Transfer of application money to share capital)			15000	15000
Share allotment A/c Dr To Share capital A/c To Securities premium A/c (Allotment money due with premium)			35000	10000 25000
Bank A/c Dr To Share allotment A/c (Allotment money received)			35000	35000
Share first and final call A/c Dr To Share capital A/c (First and final call money due)			25000	25000
Bank A/c Dr To Share first and final call A/c (First and final call money received)			25000	25000

Illustration 3

Balu Ltd. Issued 20000 shares of Rs.10 each at a discount of 10% payable as Rs.2 on application, Rs.3 on allotment and Rs.4 on first and final call. 20000 applications were received and all were accepted. Pass journal entries.

Solution:

Date	Particulars	LF	Dr	Cr
	Bank A/c	Dr		
	To Share Capital A/c			40000
	(Application money received)			
			40000	
	Share application A/c	Dr	40000	
	To Share Capital A/c			40000
	Share allotment A/c	Dr	60000	
	Discount on issue of shares A/c	Dr	20000	
	To Share Capital A/c			80000
	(Allotment money due at 10% discount)			
	Bank A/c	Dr	60000	
	To Share allotment A/c			60000
	(Allotment money received)			
	Share first and final call A/c	Dr	80000	
	To Share capital A/c			80000
	(First and final call money due)			
	Bank A/c	Dr	80000	
	To Share first and final call A/c			80000
	((First and final call money received)			

When both Preference and Equity Shares are issued

When a company issues both preference and equity shares the journal entries are written separately for each type of share capital.

Under subscription of shares

Sometimes the applications for shares received will be less than the number of shares issued. This is called under subscription. In such a case, the allotment will be equal to the number of shares subscribed and not to the shares issued.

Over subscription of shares

Sometimes the applications for shares received will be more than the number of shares issued. This is called over subscription.When there is over subscription, it is not possible to issue shares to all applicants. In such a situation company shall reject some applications altogether, allot in full on some applications and make a pro?rata allotment on some applications.Pro?rata allotment means that allotment on every application is made in the ratio which the number of shares allotted bears to number of shares applied. In case of applications fully rejected will be returned to the applicants. In pro?rata allotment the excess application will be adjusted either on allotment and or on calls. Any surplus left even after the adjustment will be refunded to the applicants. Journal entries are

1. When application money is returned:

Share application A/c Dr

To Bank A/c

2. When excess application is adjusted towards allotment or call:

Share application A/c Dr (total)

To share allotment A/c (amount adjusted towards allotment)

To Call (if any) (amount adjusted towards call)

Illustration 4

Sun Ltd.makes an issue of 100000 equity shares of Rs.10 each payable Rs.3 on application, Rs.5 on allotment and Rs.2 on first and final call. Applications were received for 250000 shares. The company returned the applications on 24000 shares and excess application money from remaining applicants was carried forward in part satisfaction on amount due on allotment on the shares allotted to them. The balance of allotment was received. The company did not make the first and final call. Journalize the transactions.

Solution:

	Bank A/c Dr		750000	
	To Share Application A/c			750000
	(Application money received for 250000 shares)			
	Share application A/c Dr		372000	
	To Share Capital A/c			300000
	To Bank A/c			72000
	(Transfer of application money to share capital and 24000 applicants rejected and refunded)			
	Share allotment A/c Dr		500000	
	To Share capital A/c			500000
	(Allotment money due)			
	Share application A/c Dr		378000	
	Bank A/c Dr		122000	
	To Share allotment A/c			500000
	(Excess application money adjusted and balance received in cash)			

Calls in Arrears and Calls in Advance

Sometimes shareholders may fail to pay the allotment moneyand or call money. Such dues are called calls in arrears. It is shown in the balance sheet as a deduction from the called?up capital. Directors are authorized to charge interest on calls in arrears at a rate as per Articles. In its absence, the interest does not exceed 5% pa. When a shareholder pays more money than called up, the excess money is called calls in advance. The company must pay interest on calls in advance at a

rate prescribed by Articles. In its absence, the company is liable to pay interest @6% pa. But the shareholder is not entitled to any dividend on calls in advance.

5.3.1. TYPES OF CAPITAL AND SHARES

Types of Capital

The forms, classification or types of capital are:-

1. Fixed Capital
2. Working Capital
3. Circulating Capital
4. Sunk Capital
5. Floating Capital
6. Money Capital
7. Real Capital
8. Private Capital
9. Social Capital
10. National Capital
11. International Capital

1. Fixed capital : It refers to durable capital goods which are used in production again and again till they wear out. Machinery, tools, means of transport, factory building, etc are fixed capital. Fixed capital does not mean fixed in location. Since the money invested in such capital goods is fixed for a long period, it is called Fixed Capital.

2. Working capital : Working capital or variable capital is referred to the single use produced goods like raw materials. They are used directly and only once in production. They get converted into finished goods. Money spend on

them is fully recovered when goods made out of them are sold in the market.

3. Circulating capital : It is referred to the money capital used in purchasing raw materials. Usually the term working capital and circulating capital are used synonymously.

4. Sunk capital : Capital goods which have only a specific use in producing a particular commodity are called Sunk capital. E.g. A textile weaving machine can be used only in textile mill. It cannot be used elsewhere. It is sunk capital.

5. Floating capital : Capital goods which are capable of having some alternative uses are called floating capital. For e.g. electricity, fuel, transport vehicles, etc are the floating capital which can be used anywhere.

6. Money capital : Money capital means the money funds available with the enterprise for purchasing various types of capital goods, raw material or for construction of factory building, etc. it is also called liquid capital. At the beginning the money capital is required for two purposes one for acquiring fixed assets i.e. fixed capital goods and another for purchasing raw materials, payment of wages and meeting certain current expenses i.e. working capital.

7. Real capital : On the other hand, real capital is referred to the capital goods other than money such as machinery, factory buildings, semi-finished goods, raw materials, transport equipments, etc.

8. Private capital : All the physical assets (other than land), as well as investments, which bring income to an individual are called private capital.

9. Social capital : All the assets owned by a community as a whole in the form of non-commercial assets are called social capital e.g. roads, public parks, hospitals, etc.

10. National capital : Capital owned by the whole nation is called national capital. It comprises private as well as public capital. National capital is that part of national wealth which is employed in the reproduction of additional wealth.

11. International capital : Assets owned by international organizations like

UN, WTO, World Bank, etc., constitutes an International Capital.

Types of Shares

The shares which can be issued by a company are of two types - Preference shares and Equity shares.

i. Preference Shares

The preference shares are those which have some preferential rights over the other types of shares. A share to be preference share must have two preferential rights:

a. They have a preferential right to be paid dividend during the life time of the company.

b. They have a preferential right to the return of capital when the Company goes in to liquidation.

The preference shares are of the following types:-

1. Cumulative and Non - cumulative Preference shares - Cumulative preference shares are those its dividend accumulated until it is paid off. The arrears of one year are carried forward to next year. If dividend not to accumulate and carried forward to next year are called non-cumulative preference shares. Preference shares are always cumulative unless otherwise stated.

2. Convertible and Non-Convertible Preference shares - The holders of the shares have a right to get their preference shares converted into equity shares within a certain period is called Convertible preference shares. If the preference shares cannot be converted in to equity shares then it is said to be Non- convertible preference shares.

3. Participating and Non-participating preference shares - In addition to the fixed dividend, balance of profit (after meeting equity dividend) shared by some preference shares. Such shares are participating preference shares. The holders of the preference shares are entitled to a fixed dividend and not in the

surplus profits; they are called Non-participating preference shares.

4. Redeemable and Irredeemable preference shares - If preference shares are returned after a specified period of time to share holders are called redeemable preference shares. If preference shares are not redeemed (it is continue till the winding up) known as irredeemable preference shares.

ii. Equity Shares

Equity shares, with reference to any company limited by shares, are those which are not preference shares [(Sec. 85(2)]. Equity shares are also known as Ordinary shares. Equity share holders will get dividend and repayment of capital after meeting the claims of preference share holders. There will be no fixed rate of dividend to be paid to the equity shareholders and its rate may vary from year to year. The rate of dividend is determined by the directors of the company.

Sweat Equity Share

Sweat equity share means the equity shares issued by a company at a discount or for consideration other than cash for providing know-how or making available rights in the nature of intellectual property rights.

5.4 VARIOUS TYPES OF PREFERENCE SHARES

Shares which enjoy the preferential rights as to dividend and repayment of capital in the event of winding up of the company over the equity shares are called preference shares.

The holder of preference shares will get a fixed rate of dividend.

According to Section 85 of The Companies Act, 1956, a preference share is one, which fulfils the following conditions :

(a) That it carries a preferential right to dividend to be paid either as a fixed amount payable to preference shareholders or an amount calculated by a fixed rate of the nominal value of each share before any dividend is paid to the equity shareholders.

(b) That with respect to capital it carries or will carry, on the winding up of the company, the preferential right to the repayment of capital before anything is paid to equity shareholders.

However, notwithstanding the above two conditions, a holder of the preference share may have a right to participate fully or to a limited extent in the surpluses of the company as specified in the Memorandum or Articles of the company. Thus, the preference shares can be participating and non-participating. Similarly, these shares can be cumulative or non-cumulative, and redeemable or irredeemable.

Types of Preference Shares

Following are the major types of preference shares:

1. **Cumulative and Non-cumulative Preference shares:** Cumulative preference shares enjoy the right to receive the dividend in arrears for the years in which company earned no profits or insufficient profits, in the year in which company earns profits. In other words, dividend on these shares will go on accumulating until it is paid in full with arrears, before any dividend is paid on equity shareholders. In case of non-cumulative preference shares dividend does not accumulate and therefore, no arrears of dividend will be paid in the year of profits. If company does not have any profits in a year, no dividend will be paid to non-cumulative preference shareholders.

2. **Redeemable and Irredeemable Preference Shares:** Redeemable preference shares can be redeemed on or after a period fixed for redemption under the terms of issue or after giving a proper notice of redemption to preference shareholders. The companies Act, however, imposes certain restrictions for the redemption of preference shares. Irredeemable preference shares are those shares which cannot be redeemed during the lifetime of the company.

3. **Convertible and Non-convertible preference shares**: Where the preference shareholders are given a right to convert their holding into

ordinary shares, within a specified period of time, such shares as known as convertible preference shares. The holders of non-convertible preference shares have no such right of conversion.

4. **Participating and Non-participating Preference Shares:** The holders of participating preference shares have a right to participate in the surplus profits of the company remained after paying dividend to the ordinary shareholders and preference shareholders at a fixed rate. The preference shares which do not have such right to participate in surplus profits, are known as non-participating preference shares.

Advantages of Preference Shares

The advantages of Preference shares are as follows:

(A) Advantages from Company point of view:

The company has the following advantages by issue of preference shares.

I. Fixed Return: The dividend payable on preference shares is fixed that is usually lower than that payable on equity shares. Thus they help the company in maximizing the profits available for dividend to equity shareholders.

II. No Voting Right: Preference shareholders have no voting right on matters not directly affecting their right hence promoters or management can retain control over the affairs of the company.

III. Flexibility in Capital Structure: The company can maintain flexibility in its capital structure by issuing redeemable preference shares as they can be redeemed under terms of issue.

IV. No Burden on Finance: Issue of preference shares does not prove a burden on the finance of the company because dividends are paid only if profits are available otherwise no dividend.

V. No Charge on Assets: No-payment of dividend on preference shares does not create a charge on the assets of the company as is in the case of debentures.

VI. Widens Capital Market: The issue of preference shares widens the scope of capital market as they provide the safety to the investors as well as a fixed rate of return. If company does not issue preference shares, it will not be able to attract the capital from such moderate type of investors.

(B) Advantages from Investors point of view:

Investors in preference shares have the following advantages:

I. Regular Fixed Income: Investors in cumulative preference shares get a fixed rate of dividend on preference share regularly even if there is no profit. Arrears of dividend, if any, is paid in the year's) of profits.

II. Preferential Rights: Preference shares carry preferential right as regard to payment of dividend and preferential as regards repayment of capital in case of winding up of company. Thus they enjoy the minimum risk.

III. Voting Right for Safety of Interest: Preference shareholders are given voting rights in matters directly affecting their interest. It means, their interest is safeguarded.

IV. Lesser Capital Losses: As the preference shareholders enjoy the preferential right of repayment of their capital in case of winding up of company, it saves them from capital losses.

V. Fair Security: Preference share are fair securities for the shareholders during depression periods when the profits of the company are down.

Disadvantages of Preference Shares

The important disadvantages of the issue of preference shares are as below:

(A) Demerits for companies:

The following disadvantages to the issuing company are associated with the issue of preference shares.

I. Higher Rate of Dividend: Company is to pay higher dividend on these shares than the prevailing rate of interest on debentures of bonds. Thus, it usuallyincreases

the cost of capital for the company.

II. Financial Burden: Most of the preference shares are issued cumulative which means that all the arrears of preference dividend must be paid before anything can be paid to equity shareholders. The company is under an obligation to pay dividend on such shares. It thus, reduces the profits for equity shareholders.

III. Dilution of Claim over Assets: The issue of preference shares involves dilution of equity shareholders claim over the assets of the company because preference shareholders have the preferential right on the assets of the company in case of winding up.

IV. Adverse effect on credit-worthiness: The credit worthiness of the company is seriously affected by the issue of preference shares. The creditors may anticipate that the continuance of dividend on preference shares and suspension of dividend on equity capital may depreive them of the chance of getting back their principal in full in the event of dissolution of the company, because preference capital has the preference right over the assets of the company.

V. Tax disadvantage: The taxable income is not reduced by the amount of preference dividend while in case of debentures or bonds, the interest paid to them is deductible in full.

(B) Demerits for Investors:

Main disadvantages of preference shares to investors are:

I. No Voting Right: The preference shareholders do not enjoy any voting right except in matters directed affecting their interest.

II. Fixed Income: The dividend on preference shares other than participating preference shares is fixed even if the company earns higher profits.

III. No claim over surplus: The preferential shareholders have no claim over the surplus. They can only ask for the return of their capital investment in the company.

IV. No Guarantee of Assets: Company provides no security to the preference capital as is made in the case of debentures. Thus their interests are not protected by the assets of the company.

5.5 DEBENTURES

The term 'debenture' has been derived from the Latin word 'debere', which means 'to borrow'. Debenture is an instrument in writing given by a company acknowledging debt received from the public.

The Companies Act defines debenture as "debenture includes debenture stock, bonds or any other securities of a company, whether constituting a charge on the assets of the company or not".

In other words, Debentures are creditor ship securities representing long-term indebtedness of a company. A debenture is an instrument executed by the company under its common seal acknowledging indebtedness to some person or persons to secure the sum advanced. It is, thus, a security issued by a company against the debt. A public limited company is allowed to raise debt or loan through debentures after getting certificate of commencement of business if permitted by its Memorandum of Association. Companies Act has not defined the term debenture.

Debentures, like shares, are equal parts of loan raised by a company. Debentures are usually secured by the company by a fixed or floating debentures at periodical intervals, generally six months and the company agrees to pay the principal amount at the expiry of the stipulated period according to their terms of issue. Like shares, they are issued to the public at part, at a premium or at a discount. Debenture-holders are creditors of the company. They have no voting rights but their claims rank prior to preference shareholders and equity shareholders. Their exact rights depend upon the nature of debentures they hold.

Salient Features of Debentures

The most salient features of Debentures are as follows:

- A debenture acknowledges a debt.
- It is in the form of certificate issued under the seal of the company (called Debenture Deed). It usually shows the amount and date of repayment of the loan.
- It has a rate of interest and date of interest payment.
- Debentures can be secured against the assets of the company or may be unsecured.
- Debentures are generally freely transferable by the debenture holder. Debenture holders have no rights to vote in the company's general meetings of shareholders, but they may have separate meetings or votes e.g. on changes to the rights attached to the debentures.
- The interest paid to them is a charge against profit in the company's financial statements.

Advantages of Debentures:

Following are some of the advantages of debentures:

(a) Issue of debenture does not result in dilution of interest of equity shareholders as they do not have right either to vote or take part in the management of the company.

(b) Interest on debenture is a tax deductible expenditure and thus it saves income tax.

(c) Cost of debenture is relatively lower than preference shares and equity shares.

(d) Issue of debentures is advantageous during times of inflation.

(e) Interest on debenture is payable even if there is a loss, so debenture holders bear no risk.

Disadvantages of Debentures:

Following are the disadvantages of debentures:

(a) Payment of interest on debenture is obligatory and hence it becomes burden if the company incurs loss.

(b) Debentures are issued to trade on equity but too much dependence on debentures increases the financial risk of the company.

(c) Redemption of debenture involves a larger amount of cash outflow.

(d) During depression, the profit of the company goes on declining and it becomes difficult for the company to pay interest.

Issue of Debentures

Debentures can, be issued in three ways.

- At par: Debenture is said to have been issued at par when the amount collected for it is equal to the nominal value of debentures. e.g. the issue of debentures of Rs. 100/- for Rs. 100/-
- **At Discount:** Debenture is said to have been issued at discount when the amount collected is less than the nominal value, for e.g., issue of debentures of Rs. 100/- for Rs. 95/-. The difference of Rs. 5/- is the discount and is called discount on issue of Debentures. This discount on issue of debentures is a capital loss.
- **At Premium:** When the price charged is more than its nominal value, a debentures is said to be issued at a premium. e.g., issue of debentures of Rs. 100 each for Rs. 120, the excess amount over the nominal value i.e., Rs. 20 is the premium on issue of debentures. Premium received on issue of debentures is a capital gain. Please note that this Premium on issue of debentures cannot be utilised for distribution of dividend. Premium on debentures is shown under the head Reserves and Surplus on the liability side of the Balance Sheet.

Journal Entries:

Issue of debentures can be studied in the following two points of view:

1. From consideration point of view:

a. For consideration in cash: Debentures can be issued either at par, at premium or at discount. The entry will be:

Bank A/c		Dr
Discount on issue of debentures A/c		Dr (if issue at discount)
	To Debentures A/c	
	To Security premium A/c	(if issue at premium)

b. For consideration other than cash: The entries are

i. For purchase of assets

Sundry Assets A/c		Dr
	To Vendor A/c	

ii. For issuing debentures for payment of purchase consideration

Vendor A/c		Dr
	To Debentures A/c	

c. As collateral security: When debentures are issued as subsidiary or secondary security in addition to the principal security against a loan or bank over draft such an issue of debentures is called issue of debentures as collateral security.

2. From price point of view:

From this point of view debentures can be issued either at par, at premium or at discount.

a. When debentures are issued at par

Bank A/c Dr (with face value)

To debentures A/c

b. When debentures are issued at discount

Bank A/c Dr (net amount received)

To Discount on issue of Debentures A/c (amount of discount)

To Debentures A/c (with face value)

c. When debentures are issued at premium

Bank A/c Dr (total amount)

To Debentures A/c (with face value)

To Security premium A/c (amount of premium)

Illustration1 : X Ltd issued 1000, 9% debentures of Rs.100 each. Write journal entries when they are issued (a) at par, (b) at 20% premium and (c) at 10% discount.

Solution:

(a)	Bank A/c Dr		100000	
	To 9% debentures A/c			100000
	(issue of 1000, 9% debentures at Rs.100)			
	Bank A/c Dr		120000	
(b)	To 9% debentures A/c			100000
	To Security premium A/c			20000
	(issue of 1000, 9% debentures at Rs.100 at 20% premium)			
(c)	Bank A/c Dr		90000	
	Discount on issue of debentures A/c Dr		10000	
	To 9% debentures A/c			100000
	(issue of 1000, 9% debentures at Rs.100 at 10% discount)			

Difference between Debentures and Shares

The key difference between a share and a debenture is that while share represents part of ownership of a company, debenture acknowledges loan or debt to the company. Thus, a shareholder is a participant in the profits as well as losses of the company but a debenture holder is paid interest over the life time of the debenture and principal amount at the end of life. The following table further documents the difference between shares and debentures.

Shares	Debentures
Share capital is an ownership capital.	Debentures capital is credit to the company.
A shareholder is the owner of the company.	A debenture holder is the creditor of the company
Share capital is not returnable in the life time of the company. However, the redeemable preference shares are refunded during the life-time of the company.	Debenture capital returnable during the lifetime of the company. The exception is the irredeemable debentures which are not redeemable during the life-time of the company.
Equity Shareholders enjoy the voting rights.	Debentures holders do not have the voting rights.
Dividend is payable on shares & it is an appropriation of profits	Interest on debentures is payable at a fixed rate on specified date irrespective of profits of the company.
Dividend depends on the profit of the company	Interest is paid on debentures & it is a charge on the revenue of the company.
Shares are unsecured.	Debentures are generally secured.
In the event of winding up of the company shareholders are the last person in re-fund of their capital.	Debenture holder being the creditors are paid prior to the shareholders. If secured they have priority even over the unsecured creditors.

5.5.1 VARIOUS TYPES OF DEBENTURES

There are various different types of debentures which are discussed as under:

Redeemable and Irredeemable Debentures: Redeemable debentures are those which can be redeemed or paid back at the end of a specified period mentioned on the debentures or within a specified period at the option of the company by giving notice to the debenture holders or by installments as per terms of issue. Irredeemable debentures are those which are repayable at any time by the company during its existence. No date of redemption is specified. The debenture holders cannot claim their redemption. However, they are due for redemption if the company fails to pay interest on such debentures or on winding up of the company. They are also called perpetual debentures.

Secured and Unsecured Debentures: Secured or mortgaged debentures carry either a fixed charge on the particular asset of the company or floating charge on all the assets of the company. Unsecured debentures, on the other hand, have no such charge on the assets of the company. They are also known as simple or naked debentures.

Registered and Bearer Debentures: Registered debentures are registered with the company name, address and particulars of holdings of every debenture holders are recorded on the debenture certificate and in the books of the company. At the time of transfer, a regular transfer deed duly stamped and properly executed is required. Interest is paid only to the registered debenture holders. Bearers debentures on the other hand, are transferred by more delivery without any notice to the company. Company keeps no record for such debentures. Debentures-coupons are attached with the debentures-certificate and interest can be claimed by the coupon-holder.

Convertible and Non-convertible Debentures: Debentures are also classified as convertible debentures or non- convertible debentures. Convertible debentures are those which can be converted into equity shares either wholly or in part at the option of the debenture holder. Nowadays convertible debentures are very

popular. Non-convertible debentures are those which cannot be converted into equity shares.

5.6 CONCEPT OF PRIVATE PLACEMENT

Any business needs funds in order to make it successful or at least run that business. Initially, the money comes from the subscription of the members but as the company grows, it definitely needs more funds. A popular mode of raising funds for unlisted companies is through private placement. A private placement is where the offer of share subscription is made to a limited group of persons who comprise a number less than 50 according to Provision to Section 67(3) of the erstwhile Companies Act, (1956) as opposed to a public offer where the shares are offered to the public at large. Since private placement involves raising capital from a small group investors, companies raising money through this mode are exempt from the jurisdiction of Securities Exchange Board of India ("SEBI") and its disclosure requirements.

However, the Sahara case has demonstrated how unlisted companies can circumvent the provisions of private placement to escape SEBI disclosure requirements and investor protection norms to raise money from a large number of people.

Two unlisted companies of the Sahara group - Sahara Real Estate Corporation Ltd. ("SIRECL") and Sahara Housing Investment Corporation Limited ("SHICL")- under the garb of raising money through private placement, raised INR 20,000 crores from almost 22 million investors between 2008 and 2011. Their defence was that the offer of subscription was addressed to only close friends and relatives of the promoters and directors of the Sahara group and only they could accept or reject the offer. It was argued that it was not a public offer and hence was exempted from the jurisdiction of SEBI under Section 55-A of the erstwhile Companies Act, 1956 and compliance with its disclosure-related and investor protection norms.

The Supreme Court did not accept Sahara's arguments. It noted that, by virtue of the Proviso to Section 67(3) of the 1956 Act, any offer made to more than 49 persons is deemed to be a public offer irrespective of the fact that it may be addressed to specific people. The Court held that Sahara had made a public offer under Section 67(3) and therefore the company's shares were mandatorily required to be listed on any of the stock exchanges The Court was of the view that the offer made by Sahara fell within the purview of SEBI jurisdiction by virtue of Section 55A of 1956 Act.

In the appearance of private placement, a large number of people were offered Optionally Fully Convertible Debentures ("OFCDs") while bypassing all disclosure and investor protection norms. While the Supreme Court has recently passed directions against Sahara to pay back all the investors with an interest of 15%, the 2013 Companies Act has introduced and specifically incorporated provisions relating to private placement in order to prevent another Sahara debacle.

Section 42 of the Companies Act, 2013 allows for private placement of shares and has to be read together with Rule 14 of the Companies Prospectus and Allotment of Security Rules, 2014.

A conjoint reading of the provision and the rule suggests that the new rules allow for private placement of shares to up to 200 people in an aggregate financial year. This number excludes the qualified institutional buyers such as banks, financial institutions etc. and employees of the company given shares under Employee Stock Option Plans ("ESOPs"). However, according to Section 42 of the Act, an offer to invitation to subscribe through private placement mode cannot be made to more than 50 persons in one go. If at a single instance it is made to more than 50 people, then irrespective of the fact that payment for securities has been received or not or the company is willing to list its securities on a stock exchange, it will be deemed to be a public offer. This number excludes the securities offered to qualified institutional buyers and employees.

If a company intends to raise capital through a further issue of securities within

the limit of 200 persons, Section 62(1)(c) of Act, 2013 will applicable. According to this section, if authorized by a special resolution existing shareholders have a pre-emptive right to purchase the new shares offered which includes the right to renounce the shares in favour of someone else.

According to Rule 14 of the Companies Prospectus and Allotment of Securities Rules, 2014, the value of such offer per person should be a minimum investment size of INR 20,000 of face value of securities.

The procedure set out within the relevant rule and provision is as follows-

- A private placement letter of offer is addressed to specific persons.
- This letter is required to be filed with the Registrar within 30 days
- All money payable is required to be paid through a banking channel and not by way of cash.
- Within 60 days of invitation of offer of shares such shares must be allotted; if unable to so after the expiry of 60 days, the money should be returned within a period of 15 days.
- Within 30 days the letter of allotment of shares should be filed with the Registrar.
- If the money is not repaid within 15 days then interest payable at 12% is imposed.
- Non-compliance with the above provisions will make the company liable to pay a penalty that may extend to the amount of offer or invitation or INR 2 crore, whichever is higher. This amount is payable within 30 days.
- According to the Rule 14 of the Companies Prospectus and Allotment of Security Rules, 2014, minimum investment by each purchaser should be to the tune of INR 20,000.
- Shares must be valued by an independent expert to determine their price.

Although both 1956 Companies Act and 2013 Act allow for private placement, the 2013 Act when supplemented with the Companies Prospectus and Allotment of Securities Rules, 2014 has brought clarity in the provision of private placement in the Act and is a welcome change that is likely to result in transparency and accountability in the system.

How is Private Placement Different from a Public Offer?

While in case of private placement there is a limit of 50 persons to whom the offer for securities can be made, there is no such limit in case of a public offer. If a company makes an offer, or enters into an agreement to allot securities to more than 50 persons, it shall be deemed to be an offer to the public and thus shall be governed by the provisions of Part I of chapter III of the Companies Act, 2013 in contrary to the provisions laid down by Part II of chapter III of the Act.

Conditions For Private Placement:

- The law for the private placement of securities is codified under sections 42 and 62 of the Companies Act, 2013 and the Companies (Prospectus and Allotment of Securities) Rules, 2014. However, Rule 13 of the Companies (Shares Capital and Debentures Rules), 2014 lays down certain mandatory secretarial compliances in case of various modes of issue of shares under section 62.
- A private placement offer cannot be made to more than 200 people in aggregate in a financial year excluding "qualified institutional buyers"[10] and employees of the company being offered securities under a scheme of employee's stock option as per provisions of clause (b) of sub-section 1 of section 62 of the Act of 2013.
- If a company, listed or unlisted, makes an offer to allot or invite subscription, or allots, or enters in to an agreement to allot, securities to more than 200 persons, whether the payment for the securities has been received or not or whether the company intends to list its securities or not on any recognized

stock exchange in or outside India, the same shall be deemed to be an offer to the public and shall accordingly be deemed to be an offer to the public and shall accordingly be governed by the provisions of Part I of chapter III of the Companies Act, 2013.

- No fresh offer or invitation under this section shall be made unless the allotments with respect to any offer or invitation made earlier have been completed or that offer or invitation has been withdrawn or abandoned by the company.
- Any allottee under a private placement offer/invitation shall not transfer his/its securities to more than 20 persons during a quarter and the company shall not register any transfer which is not in conformity with this requirement.

  The number of such offers or invitations shall not exceed 4 in a financial year and not more than once in a calendar quarter with a minimum gap of 60 days between any 2 such offers or invitations.
- The value of such offer or invitation shall be with an investment size of not less than 20,000 Rupees of the face value of the Securities.
- No company offering securities under this section shall release any public advertisements or utilise any media, marketing or distribution channels or agents to inform the public at large about such an offer.
- Any offer or invitation not in compliance with the provisions of section 42 shall be treated as a public offer and all provisions of this Act, and the Securities Contracts (Regulation) Act, 1956 and the Securities and Exchange Board of India Act, 1992 shall be required to be complied with.
- The payment for the subscription should be made through cheque or demand draft or other banking channels but not by cash.
- A company making an offer or invitation under section 42 shall allot its securities within sixty days from the date of receipt of the application money for such securities and if the company is not able to allot the securities

within that period, it shall repay the application money to the subscribers within fifteen days from the date of completion of sixty days and if the company fails to repay the application money within the aforesaid period, it shall be liable to repay that money with interest at the rate of twelve per cent per annum from the expiry of the sixtieth day.

- All offers covered under section 42 shall be made only to such persons whose names are recorded by the company prior to the invitation to subscribe, and that such persons shall receive the offer by name, and that a complete record of such offers shall be kept by the company in such manner as may be prescribed.
- Complete information about the offer made shall be filed with the Registrar within a period of thirty days of circulation of relevant private placement offer letter.
- Whenever a company makes any allotment of securities under section 42 of the Act of 2013, it shall file with the Registrar a return of allotment in such manner as may be prescribed, including the complete list of all security-holders, with their full names, addresses, number of securities allotted and such other relevant information as may be prescribed.

Advantages and Disadvantages:

The primary advantage of the private placement is that it bypasses the stringent regulatory requirements of a public offering. Another advantage of private placement is the reduced time and reduced cost of issuance. Issuance of securities publically can be time consuming and may require certain expenses.

There are also some disadvantages of using private placement as a method of raising funds for the Companies. For example, there will be the need to place the bonds or shares at a substantial discount to compensate investors for their greater risk and longer-term returns.

Hence we see, that like every coin has two sides, private placement has its own advantage and disadvantage. But, this method of raising funds is the

most preferred and commonly used method by the companies because it gives more flexibility and gets capital much faster than searching for venture capitalists, or waiting for shares to sell on the public market.

5.7 ZERO COUPON BONDS

A zero-coupon bond (also discount bond or deep discount bond) is a bond bought at a price lower than its face value, with the face value repaid at the time of maturity. In other words, zero-coupon bonds have a finite life that ends on the bond's maturity date. Zero-coupon bonds do not, however, offer periodic interest payments during the life of the bond. The only cash flow offered by a zero-coupon bond is a single payment equal to the bond's par value that is paid on the bond's maturity date.

Zero-coupon bonds are issued at a discount to the bond's par value-that is, at an issue price that is lower than the par value. The difference between the issue price and the par value received at maturity represents the investment return earned by the bondholder over the life of the zero-coupon bond, and this return is received at maturity.

Many debt securities issued with maturities of one year or less are issued as zero-coupon debt securities. For example, Treasury bills issued by the US government are issued as zero-coupon securities. Companies and governments sometimes issue zero-coupon bonds that have maturities of longer than one year. Because of the risk involved when the only payment is the payment at maturity, investors are reluctant to buy zero-coupon bonds with long terms to maturity. If they are willing to do so, the expected return has to be relatively high compared to the interest rate on coupon-paying bonds, and many issuers are reluctant to pay such a high cost for borrowing. Also, if the buyer of a zero-coupon bond decides to sell it prior to maturity, its price could be very different because of changes in interest rates in the market and/or changes in the issuer's creditworthiness.

5.8 DEEP DISCOUNT BONDS

The financial accounting term deep discount bonds refers to indentures that are sold at a price significantly lower than face value, typically 20% or more. Deep discount bonds can also include zero coupon bonds, which do not pay a rate of interest to the holder.

Since deep discount bonds are usually issued for a term of five years or more, they represent a long term obligation of the company, and are shown in the long term liabilities section of the balance sheet.

Explanation

Issuing long-term bonds represents an important source of financing for many large companies. Deep discount bonds typically carry maturities of five years or longer and are classified as long-term debt obligations. (Treasury bills are one exception to the above rule, maturing in as few as 28 days.)

Generally, deep discount bonds take one of two forms:

Interest Bearing Debt: These indentures provide the investor with periodic interest payments; however, the security is sold at a discount of 20% or more from the bond's par value. This can occur because the coupon rate on the bond is considerably lower than prevailing rates offered by securities of similar risk. This will oftentimes happen when interest rates are rising, whereby newly issued securities carry higher coupon rates. A deep discount can also be the result of an increase in the risk of non-payment, or credit risk.

Zero Coupon Bonds: These securities do not provide the investor with periodic interest payments. Instead, they are sold at a discount to par value, and provide the investor with a return as calculated by its yield to maturity. Zero coupon bonds are favoured by investors that do not need a near term source of income, but have a longer-term goal. Since this bond's yield is solely based on the difference between the market price and its face value, its price will fluctuate more than bonds that provide periodic interest payments too.

Difference between Deep Discounted Bonds and Zero Coupon Bonds:

Deep Discount Bonds (DDB's) are in the form of zero interest bonds. These bonds are sold at a discounted value and on maturity, face value interest is paid to investors. In such bonds, there is no interest payout during lock-in period. Whereas, a Zero Coupon Bond (ZCB) does not carry any interest but it is sold by the issuing company at discount. The difference between discounted value and maturity or face value represents the interest to be earned by the investors on such bonds.

5.9 ESCROW A/C TRUST

Escrow is a legal concept in which a financial instrument or an asset is held by a third party on behalf of two other parties that are in the process of completing a transaction. The funds or assets are held by the escrow agent until it receives the appropriate instructions or until predetermined contractual obligations have been fulfilled. Money, securities, funds, and other assets can all be held in escrow.

When parties are in the process of completing a transaction, there may come a time when it is only interesting to move forward for one party if it knows with absolute certainty that the other party will be able to fulfill its obligations. This is where the use of escrow comes into play.

For example, a company selling goods internationally wants to be certain that it will get paid when the goods reach their destination. Conversely, the buyer wants to pay for the goods only if they arrive in good condition. The buyer can place the funds in escrow with an agent and give irrevocable instructions to disburse them to the seller once the goods arrive. This way, both parties are safe, and the transaction can proceed.

Escrow transactions are also frequent in the real estate market and the stock market.

Purpose of an Escrow Account

An escrow account is a type of bank account held by a third party for the

benefit of two other parties. While escrows can be used in just about any transaction, they're frequently used in real estate dealings. Having a separate account for the money helps to protect both parties.

Real Estate Transactions: When you buy or sell a home, your title, escrow or closing company almost always will open an escrow account. This account holds any money that comes in during the transaction that's in a state of limbo, meaning it's neither the buyer's nor the seller's. At the time of closing, the closer uses the escrow account to receive the funds from the buyer and the buyer's bank, pay off the seller's bank and any other charges, and give the seller his profit, if any.

Refinancing: When you refinance your mortgage, the title company typically opens an escrow account, the key function of which is to facilitate the process of paying off your old loan with the proceeds of the new loan. The account is designed to hold any good-faith deposit that you put into the deal. At the end of the process, leftover money will be disbursed it back to you.

Mortgage: A mortgage escrow account pays your taxes and insurance. When you make your monthly mortgage payment, a portion goes toward the principal and interest. The remaining funds get deposited into the escrow account so the mortgage servicer can withdraw the money periodically in order to make property-insurance and property-tax payments.

Non-Real Estate Transactions:

Beyond real estate, escrow accounts typically get used in larger transactions where trust is an issue. For example, if you bought a car over the Internet, the seller is unlikely to ship you the car until you send her payment. On the other hand, you wouldn't want to send her money until you had the car. Using a third-party escrow provider eliminates this problem. Once you send your money into the escrow service, the seller is notified. Once you confirm that you have the car, the money is released to the seller.

TRUST ACCOUNT

An account in which a bank or trust company (acting as an authorized

custodian) holds funds for specific purposes such as to pay property taxes and/ or insurance premiums associated with a mortgaged property. It is also known as escrow account. On the other hand, a savings account established under a trust agreement whereby a trustee administers the funds for the benefit of one or more beneficiaries.

Difference Between a Trust Account and an Escrow Account

The term trust account can have a different meaning depending on how it is used. A trust account is identical to an escrow account when an owner deposits funds with a third party as a prepayment or deposit for a specific purpose, such as payment for mortgage insurance. The term trust account also describes a trust account that is established for estate planning purposes to hold funds for designated beneficiaries, such as minors.

Trust Accounts in Business

Trust, or escrow, accounts are used in numerous business activities. If you have ever been involved in buying or selling real estate, you are probably acquainted with escrow accounts. Most states require that all monies received by an attorney or real estate broker acting as a "fiduciary" be deposited in a trust or escrow account within a specified period, usually 72 hours. Fiduciary is the legalese for an entity acting as agent for the owner of the money. For instance, if you secured your offer to purchase a house with $5,000 earnest money, your fiduciary is legally obliged to place your earnest money in an escrow account until the transaction is completed or the money is returned to you.

Escrow Rules

Most states regulate the management of escrow accounts by fiduciaries. However, relevant escrow laws may depend on who the fiduciary is. Lawyers acting as fiduciaries in California are regulated by the California State Bar Association. Real estate brokers and agents are regulated by the State of California Department of Real Estate. Independent escrow companies are governed by the California Department of Corporations, while title companies are regulated by the California

Department of Insurance. Though the regulations for each profession tend to be quite similar, such as the prohibition against commingling of funds, there are some differences.

Trusts in Estate Planning

Trusts in estate planning are quite common, because people have a variety of reasons for wanting to control the distribution of their wealth after death. The trust concept is straightforward. You, the property owner, called the "trustor," transfer legal ownership of your property to another person or institution, called the "trustee." The trustee has a fiduciary responsibility to manage that property for a third party, called the "beneficiary," for which the trustee is compensated.

Types of Trusts

Testamentary and living trusts are the two basic kinds of trusts. Testamentary trusts transfer assets into the trust after the trustor dies. This type of trust is attractive because it allows the trustor to spread the trust benefit payments over a period of time as opposed to having a lump sum payment. For instance, a trustor may want to spread the payments to a minor over a number of years until the beneficiary attains a specified age. Living trusts become effective while the trustor is alive, but may continue after the trustor's death. Trustors can change the terms and conditions of "revocable living trusts" while they are alive. Terms and conditions of "irrevocable living trusts" become fixed at when the trusts become effective.

5.10 DIFFERENCE BETWEEN SHARES AND DEBENTURES

Shares are a type of equity investment or financing and are a unit of financing. Debentures are a medium to a long term investment that allows companies to raise finance by borrowing money from citizens.

Shares and debentures are common terms when it comes to investing in a business or a firm. These both are two different types of investment that a person can make or a company can issue in order to raise capital.

Shares are a type of equity investment or financing and are a unit of financing. The term shares refer to the ability of a company to share its ownership in order to raise capital. The investor usually purchases a company's stocks or shares, which gives him an ownership stake in the company. It is a means through which a company divides its capital.

The way an equity works is basically the investor pays the owner of the business using cash or cheque, which entitles him to shares or stocks of the company. Basically, the investor purchases these stocks or shares. The higher the number of stocks or shares, the more input the investor gets in how the business is run. The profit is usually the percentage of the required income. However, if the company is liquidated, the investors also suffer as the price of the shares would fall.

Debentures are a medium to a long term investment that allows companies to raise finance by borrowing money from citizens. They are a type of debt financing. A company issues debentures in exchange for money. This debenture is basically a promissory note stating that the company will return the principal amount, along with a percentage of the principal amount on as a monthly interest to the issuer at a future date. For example, if a debenture of 50,000 dollars is issued, with a yearly interest rate of 10% and a maturity date of 10 years. The debenture holder would receive an annual dividend of 5,000 dollars for 10 years, and upon maturity of the debenture, the debenture holder will receive the 50,000 dollars back.

The following are the main difference between a debenture and a share:

1. 2The shares are the owned funds of the company whereas debentures are the borrowed funds of the company.
2. Shares represent the capital of the company. Debentures represent the debt of the company.
3. A person having the debentures is called debenture holder whereas a person holding the shares is called shareholder.
4. Debenture holder is a creditor of the company and cannot take part in the

management of the company while a shareholder is the owner of the company. It is the basic distinction between a debenture and a share.

5. The holders of shares have voting rights whereas the holders of debentures do not have any voting rights.

6. Debenture holders will get interest on debentures and will be paid in all circumstances, whether there is profit or loss will not affect the payment of interest on debentures. Shareholder will get a portion of the profits called dividend which is dependent on the profits of the company. It can be declared by the directors of the company out of profits only.

7. Shares cannot be converted into debentures whereas debentures can be converted into shares.

8. Debentures will get priority is getting the money back as compared to shareholder in case of liquidation of a company.

9. There are no restriction on issue of debentures at a discount, whereas shares at discount can be issued only after observing certain legal formalities.

10. Convertible debentures which can be converted into shares at the option of debenture holder can be issued whereas shares convertible into debentures cannot be issued.

11. There can be mortgage debentures i.e. assets of the company can be mortgaged in favour of debenture holders. But there can be no mortgage shares. Assets of the company cannot be mortgaged in favour of shareholders.

5.11 BUY BACK OF SHARES

Buyback of shares means that any company may purchase their own shares or other specified securities. According to section 77A (1) of the companies Act 1999, a company may purchase its own shares or other securities out of:

(i) Its free reserves or

(ii) The securities premium account or

(iii) The proceeds of any shares or other specified securities.

Specified securities include employee's stock option or other securities as may be notified by the Central Government from time to time. Buyback of shares of any kind is not allowed out of fresh issue of shares of the same kind. In other words, if equity shares are to be bought back, preference shares or debentures may be issued for buyback of equity shares. Companies are allowed to buy back their own shares if they fulfil certain conditions as given in section 77A (2) of the companies Act 1999.

No company shall purchase its own shares or other specified securities unless:

(a) The buyback is authorised by its articles.

(b) A Special resolution has been passed in general meeting of the company authorising the buyback.

(c) The buyback is for less than 25% of the total paid up capital and free reserves of the company.

(d) It also provides that buyback shall not be exceeding 25% of total paid up capital.

(e) The debt equity ratio should not be more than 2:1 after such buyback.

(f) All the shares or other specified securities for buyback are fully paid up.

(g) The buyback of the shares or other specified securities listed on any recognised stock exchange is in accordance with the regulations made by the Securities and Exchange Board of India in this behalf.

(h) The buyback in respect of shares or other specified securities other those specified in clause

(i) The buyback should be completed within 12 months from the date of passing the special resolution.

Journal Entries:

1. Entry for Assets sold for Buyback:

Bank A/c	Dr.	
Profit & Loss A/c	Dr.	(In Case of Loss)
To Assets A/c		
To Capital Reserve A/c		(In case of Profit)

2. Entry for issue of debentures or other securities for the purpose of buyback

Bank A/c	Dr.	
Discount on issue	Dr.	
To Debentures A/c		
To Other securities A/c		
To Securities Premium A/c		

3. Entry for the cancellation of shares bought back :

Equity Share Capital A/c	Dr.	
Free Reserves or Securities Premium A/c	Dr.	
To Shareholders A/c		

4. Entry for transfer of nominal value of shares bought back to CRR

General Reserves A/c	Dr.	Or
Profit & Loss A/c	Dr.	Or
Any other reserve A/c	Dr.	
To Capital Redemption Reserve		

5 Entry for making the payment of buyback shares:

Shareholders A/c Dr.

To Bank A/c

6 Entry for expenses incurred in buyback of shares:

Buyback Expenses A/c Dr.

To Bank A/c

7 Entry for transfer of buyback of expenses to P & L A/c

Profit & Loss A/c Dr.

To Expenses A/c

Objectives of buy back

1. To return surplus cash to investors
2. To improve the financial health
3. To increase the EPS
4. To increase the market price of the share

Advantages of Buy Back of Shares:

1. The buyback facility enables the companies to manage their cash effectively. Many co's in this country are faced with a problem of surplus cash without having any idea of where to invest them. It would be better for them to return surplus cash to shareholders rather than to go on spending simply for want to alternative.
2. Companies having large amount of free reserves are free is use funds to acquire shares and other specified securities under the buyback process.
3. Buyback shares in helpful co. to reduce its share capital.
4. Buyback of shares is helpful to improvement in the values of shares.
5. Avoid high financial risk and ensure maximum return to the shareholders.

6. Buyback of shares helps the promoters to formulate an effective defence's strategy against hostile takeover bids.

Disadvantages of buy back of shares:

1. All the control of buy back of shares in the hands of promoters, so results of co.'s which the position of minority shareholders in weak.
2. The promoters before the buy back, may understand the earnings by manipulating accounting policies and highlight other unfavourable factors affecting the earnings.
3. High buy back of share may lead to artificial manipulation of stock price in the stock exchange. Confusion is much more.

Methods of buy back

As per SEBI guidelines, there are two methods of buy back of shares. They are:

1. **Buy back through tender offer:** Under this, a company can buy back its shares from its existing shareholders on a proportionate basis.
2. **Buy back from the open market:** A company can also buy back its shares from the open market either through stock exchanges or book building process.

5.12 REDEMPTION OF SHARES AND DEBENTURES

Redemption of Preference Shares:

Under section 100 of the Companies Act, a company is not allowed to return to its shareholders the share money without the permission of the court. But permission of the court is not necessary, if the refund is to be made to the preference shareholders.

When the capital is raised by issuing redeemable preference shares, it is to be paid back by the company to such shareholders after the expiry of stipulated period whether the company is to be wound up or not. Preference shares which

are repayable after the expiry of a stipulated period are called redeemable preference shares. As per the latest amendment, all preference shares are to be redeemed within ten years.

The following are the important provisions regarding the redemption of preference shares which are given under Section 80 of the Companies Act:

1. The shares shall be redeemable only if they are fully paid up. If the shares to be redeemed are partly paid up, they should be made fully paid up before they are redeemed.
2. Shares shall be redeemed either out of profits of the company available for dividends or out of proceeds of fresh issue of shares made for the purpose of redemption.
3. Premium if any, payable on redemption, should be provided out of the profits or out of the share premium account of the company.
4. Where any such shares are redeemed out of profits, an amount equal to face value of shares redeemed must be transferred to capital redemption reserve account.
5. The Capital Redemption Reserve Account can be utilised for issuing fully paid bonus shares to the shareholders.

The redemption of preference shares should not be regarded as a reduction of the authorised capital of the company and as such the reduced shares should remain as part of the authorised capital and must be shown in the balance sheet.

Capital Redemption Reserve (CRR)

If the preference shares are redeemed out of accumulated profit, it will be necessary to transfer an amount equal to the amount repaid on the redemption to Capital Redemption Reserve Account. If the company issues any fresh shares for redemption purpose, the transferred amount will be the difference between nominal value of shares redeemed and the nominal value of shares issued (i.e.

amount transferred to CRR = Nominal value of shares redeemed - Nominal value of shares issued). The capital redemption reserve account can be used for issuing fully paid bonus shares.

The importance of creation of capital redemption reserve account is to a) protect the interest of creditors and b) maintain working capital. Redemption of preference shares involves repayment of capital before paying creditors of the company. It may affect the interest of creditors. In addition to that the working capital of the company will be depleted as a result of outflow of cash due to redemption. The amount is capitalized by creating the capital redemption reserve account. As a result this amount will not be available for distribution of dividend. It helps to protect the interest of creditors and on the other hand it replenishes working capital.

Methods of Redemption of Preference Shares

There are three methods for redemption of preference shares. They are:

(a) Redemption out of fresh issue of shares

(b) Redemption out of profits

(c) Redemption partly out of fresh issue and partly out of profit

Accounting Entries

The redeemable preference shares can be redeemed by a) the proceeds of a fresh issue of equity shares/ preference shares, b) the capitalization of undistributed profit i.e. creating capital redemption reserve account, or c) a combination of both (a) and (b). Let us see the accounting entries required for redemption of preference shares.

i) When new shares are issued at par:

Bank A/c .....Dr.

To Share Capital A/c.

ii) When new shares are issued at premium:

Bank A/c ……Dr.

To Share Capital A/c

To Securities Premium A/c

iii) When new shares are issued at a discount:

Bank A/c ……Dr.

Discount on Issue of Share Capital……Dr.

To Share Capital A/c.

iv) Conversion of partly paid shares into fully paid shares:

a) Share Call A/c ……Dr.

To Share Capital A/c

b) Bank A/c ……Dr.

To Share Call A/c.

v) When preference shares are redeemed at par:

Redeemable Preference Share Capital A/c ……Dr.

To Preference shareholders A/c.

vi) When preference shares are redeemed at a premium:

Redeemable Preference Share Capital A/c ……Dr

Premium of Redemption Preference Share Capital A/c….Dr.

To Preference shareholders A/c.

vii) Adjustment of premium on redemption:

Profit and Loss A/c……..Dr.

Securities Premium A/c ……Dr.

To Premium of Redemption Preference Share Capital A/c

viii) Transferring the amount to Capital Redemption Reserve Account:

General Reserve A/c …….Dr.

Profit and Loss A/c …….Dr.

To Capital Redemption Reserve A/c

ix) Expenses on issue of shares:

Expenses on Issue of shares A/c…….Dr.

To Bank A/c.

x) When payment is made to preference shareholders:

Preference Shareholders A/c …….Dr.

To Bank A/c.

xi) When the fully paid bonus shares are issued:

Capital Redemption Reserve A/c ……. Dr.

General Reserve A/c ……..Dr.

Securities Premium A/c ……Dr.

Profit & Loss A/c …….. Dr.

To Bonus to Shareholders A/c

xii) Capitalization of profit:

Bonus to Shareholders A/c ……Dr.

To Equity share capital A/c

Illustration 1: ABC Co. Ltd. had part of its share capital in 2000 preference shares of Rs.10 each fully paid up and these have become due for redemption. The preference share capital was to be redeemed out of a fresh issue of equity

shares at par made particularly for this purpose and the general reserve of the company stood at Rs.25,000. Show the journal entries for the above transactions.

Solution:

Journal entries

Date	Particulars	L.F	Dr.(Rs.)	Cr.(Rs.)
2010 April 1	Preference share capital A/c Dr. To Preference shareholders A/c (Being amount payable on redemption of 2000 preference shares)		20,000	20,000
2010 April 1	Bank A/c Dr. To Equity Share Capital A/c (Being the amount received on issue of 2000 equity shares of Rs.10 each made for the purpose of redemption of preference shares as per Board's Resolution dated).		20,000	20,000
2010 April 1	Preference shareholders A/c Dr. To Bank (Being the amount due to preference shareholders paid)		20,000	20,000

Illustration 2: X Co. Ltd. Issued 50,000 Equity shares of Rs.10 each and 3000, 10% Preference shares of Rs.100 each, all shares being fully paid. On 31.3.08, Profit and Loss Account showed an undistributed profit of Rs..50,000 and General Reserve Account stood at Rs.1,20,000. On 2.4.08, the directors decided to issue 1500, 6% Preference shares of Rs.100 each for cash and to redeem the existing preference shares at Rs.105 utilizing as much as would be required for the purpose. Show the journal entries to record the transactions.

Date	Particulars	LF	Dr.(Rs.)	Cr.(Rs.)
2008 April 2	10% Preference share capital A/c Dr. Premium on Redemption of Preference shares capital A/c Dr. To Preference shareholders A/c (Being amount payable on redemption of 3000 preference shares, with premium of 5%).		3,00,000 15,000	3,15,000
"	Bank A/c Dr. To 6% Preference Share Capital A/c (Being the amount received on issue of 1500, 6% Preference shares of Rs.100 each made for the purpose of redemption of preference shares as per Board's Resolution dated.....).		150,000	150,000
"	General Reserve A/c Dr. To Premium on Redemption of Preference shares capital A/c (Being the amount written off against general reserve)		15,000	15,000
"	General Reserve A/c Dr. Profit & Loss A/c Dr. To Capital Redemption Reserve A/c (Being amount transferred equal to the difference between the nominal value of shares redeemed and proceeds of new issue).		105,000 45,000	150,000
"	Preference shareholders A/c Dr. To Bank (Being the amount due to preference shareholders paid).		315,000	315,000

Solved Journal entries

REDEMPTION OF DEBENTURES:

Redemption of debentures refers to the discharge of liability on account of debentures. It simply means repayment of debentures. As per Companies Act, the debentures should be redeemed in accordance with the terms and conditions of issue.

The following entries are passed for redemption of debentures.

a. When debentures are redeemed at par

i. Debentures A/c Dr

To debenture holders A/c

ii. Debenture holders A/c Dr

To Bank A/c

b. When debentures are redeemed at premium

i. Debentures A/c Dr

Premium on redemption A/c Dr

To debenture holders A/c

ii. Security premium/ General reserve/P&L A/c Dr

To Premium on redemption A/c

iii. Debenture holders A/c Dr

To Bank A/c

Sources of redemption of debentures

Debentures can be deemed out of the following sources

1. Redemption out of fresh issue.

A company may issue new shares or debentures or both for redeeming the existing debentures.

Illustration 1

Moon Ltd 10%, 5000 debentures of Rs.100 each, redeemable at 5% premium. The company issued 40000 equity shares of Rs.10 each at 10% premium and 1000, 9% debentures of Rs.100 each at par for the purpose of redemption. Pass journal entries.

Solution:

10% Debentures A/c	Dr		500000	
Premium on redemption A/c	Dr		25000	
To Debenture holders A/c				525000
(10% debentures due for redemption)				
Bank A/c	Dr		440000	
To Equity share capital A/c				400000
To Security premium A/c				40000
(issue of 40000 equity shares at 10% premium for redemption)				
Bank A/c	Dr		100000	
To 9% Debentures A/c				100000
(issue of 1000 debentures of Rs.100 each)				
Security premium A/c	Dr			
To Premium on redemption A/c			25000	
(provision for redemption premium)				25000
Debenture holders A/c	Dr			
To Bank A/c			525000	
(payment to debenture holders)				525000

2. Redemption out of Capital

If debentures are redeemed out of capital, no amount of divisible profit is kept aside for Redeeming debentures. Redemption out of Capital reduces the liquid resources available to the company. As per the guidelines issued by SEBI, a company has to create Debenture Redemption Reserve (DRR) equivalent to 50% o the amount of debenture issue before redemption of debentures commences. But the creation of DRR is not required in the following cases:

a. Debentures with maturity of 18 months or less

b. Fully convertible debentures.

3. Redemption out of profit

When sufficient profits are transferred from P & L Appropriation A/c to the Debenture Redemption Reserve A/c at the time of redemption of debentures, such redemption is said to be out of profits. It reduces the profits available for dividend. The following entry is passed for transfer of profit:

P & L Appropriation A/c Dr

To Debenture Redemption Reserve A/c

As per guidelines of SEBI, creation of DRR (50% of amount of debentures issued) is compulsory for debentures with maturity period of more than 18 months. On the completion of redemption of all debentures, the DRR A/c is close by transferring it to general reserve. The entry is as follows:

Debenture Redemption Reserve A/c Dr

To General Reserve A/c

Illustration 2

Abin Ltd issued 12000 debentures of Rs.100 each on 1 October 2010 in the

terms of redemption that 1/3 of debentures are redeemable every six months. Journalize the transaction.

Solution:

Date	Particulars LF	Dr	CR
2010 Oct 1	Bank A/c Dr To 8% Debentures A/c (issue of 12000, 8% debentures)	1,20,000	 1,20,000
2011 Mar 31	P & L Appropriation A/c Dr To Debenture Redemption Reserve A/c (Transfer of amount for debenture redemption)	4,00,000	 4,00,000
	8% Debentures A/c Dr To Debenture holders A/c (amount due to debenture holders)	4,00,000	 4,00,000
	Debenture holders A/c Dr To Bank A/c (payment to debenture holders)	4,00,000	 4,00,000
2011 Sep 30	8% Debentures A/c Dr To Debenture holders A/c (amount due to debenture holders)	4,00,000	 4,00,000
2012 Mar 31	P & L Appropriation A/c Dr To Debenture Redemption Reserve A/c (Transfer of amount for debenture redemption)	8,00,000	 8,00,000
	8% Debentures A/c Dr To Debenture holders A/c (amount due to debenture holders)	4,00,000	 4,00,000
	Debenture holders A/c Dr To Bank A/c (payment to debenture holders) Debenture Redemption Reserve A/c Dr To General Reserve A/c (transfer of DRR to GR after redemption)	4,00,000 1,20,000	 4,00,000 1,20,000

Note: Amount equal to the value of debentures redeemed is transferred from P&L Appropriation A/c to DRR A/c.

4. Redemption by Sinking Fund

Under this method of redemption, every year a part of the profit (fixed amount) is set aside and sinking fund (Debenture Redemption Fund) is created. Sinking fund I invested in outside securities. The interest received in such investments along with the amount set aside from profit will again be invested as usual. It continues till the date of redemption of debenture. The investment will be sold and the cash thus realized will b used to repay the debentures. Under this method, sinking fund A/c (Debenture Redemption Fund A/c) and sinking fund investment A/c (Debenture Redemption Fund Investment A/c) will be opened. After the redemption, balance of sinking fund A/c is transferred to general reserve. The following entries are required under this method.

At the end of first year:

i. For the amount set aside every year

P & L Appropriation A/c Dr

To Sinking Fund A/c

ii. For investment of sinking fund

Sinking Fund Investment A/c Dr

To Bank A/c

At the end of second and subsequent years:

i. For interest received on investment

Bank A/c Dr

To Interest on Sinking Fund Investment A/c

ii. For transferring interest to sinking fund

Interest on Sinking Fund Investment A/c Dr

To Sinking Fund A/c

iii. For annual amount set aside

P & L Appropriation A/c Dr

To Sinking Fund A/c

iv. For investment of annual installment and interest

Sinking Fund Investment A/c Dr

To Bank A/c

At the end of last year:

All the entries except entry (iv) in second and subsequent year should be passed.

i. For amount realized on sale of investment

Bank A/c Dr

To Sinking Fund Investment A/c

ii. For profit on sale of investment

Sinking Fund Investment A/c Dr

To Sinking Fund A/c

(Note: if loss the above entry is reversed)

iii. For amount due to debenture holders

Debentures A/c Dr

Premium on redemption A/c Dr (if redemption at premium)

To Debenture holders A/c

iv. For amount paid to debenture holders

Debenture holders A/c Dr

To Bank A/c

v. For transfer of balance in sinking fund A/c

Sinking Fund A/c Dr

To General Reserve A/c

Illustration 3

On 1 January 2007, Balu Ltd issued 1000, 6% debentures of Rs.100 each repayable at the endof 4 year at a premium of 10%. It is decided to create a sinking fund for thepurpose; the investment is expected to yield 5% net. Sinking fund table shows that Re.0.232012 invested annually amounts to Re.1 at 5% in 4 years. Investments were made in multiples of 100 only. On 31 December 2010, the balance at the bank was Rs.40000 and the investment realized Rs.82000.the

debentures were paid off. Give journal entries and show ledger accounts except for debenture interest.

Solution:

Amounts annually set aside = (100000+10% premium)x 0.232012 = Rs.25521

Date	Particulars	L.f.	Amt.	Amt.
2007 Jan 1	Bank A/c Dr		100000	
	Loss on issue of debentures A/c Dr		10000	
	To 6% Debentures A/c			100000
	To premium on redemption of dentures A/c			10000
	(Issue of 1000, 6% debentures of Rs. 100 each redeemable at 10% premium)			
Dec 31	P&L Appropriation A/c Dr		25521	
	To Sinking Fund A/c			25521
	(Transfer of profit to sinking fund)			
2008 Dec 31	Sinking Fund Investment A/c Dr		1275	
	To Bank A/c			1275
	(investment made to nearest multiple of 100)			
.....	Bank A/c Dr		1275	
	To Interest on Sinking Fund Investment A/c			1275
	(interest received @ 5% on investment)			
.....	Interest on Sinking Fund Investment A/c Dr		25521	
	To Sinking Fund A/c			25521
	(transfer of interest to sinking fund)			
.....	P&L Appropriation A/c Dr		26800	
	To Sinking Fund A/c			26800
	(transfer of profit to sinking fund)			
.....	Sinking Fund Investment A/c		2615	
	To Bank A/c			2615
	(investment with interest 25521+1275)			
2009 Dec 31	Bank A/c Dr		2615	
	To Interest on Sinking Fund Investment A/c			2615
	(interest received @ 5% on investment)			
.....	Interest on Sinking Fund Investment A/c Dr		25521	
	To Sinking Fund A/c			25521

.....	P&L Appropriation A/c Dr	28100	
	To Sinking Fund A/c		28100
	(transfer of profit to sinking fund)		
.....	Sinking Fund Investment A/c	4020	
	To Bank A/c		4020
	(investment with interest 25521+1275)		
.....	Bank A/c Dr	4020	
	To Interest on Sinking Fund Investment A/c		4020
	(interest received @ 5% on investment)		
2010	Interest on Sinking Fund Investment A/c Dr	25521	
Dec. 31	To Sinking Fund A/c		25521
	(transfer of interest to sinking fund)		
.....	P&L Appropriation A/c Dr	82000	
	To Sinking Fund A/c		82000
	(transfer of profit to sinking fund)		
.....	Bank A/c Dr	1600	
	To Sinking Fund Investment A/c		1600
	(sale of investment)		
.....	6% Debentures A/c Dr	100000	
	Premium on redemption of debentures A/c Dr	10000	
	To Debenture holders A/c		110000
	(amount due to debenture holders)		
.....	Debenture holders A/c	10000	
	To Bank A/c		10000
	(amount paid to debenture holders)		
.....			
.....	Sinking Fund A/c Dr	10000	
	To loss on issue of debentures A/c		10000
	(redemption provided out of sinking fund)		
.....	Sinking Fund A/c Dr	101594	
	To General Reserve A/c		101594

	To Debenture holders A/c (amount due to debenture holders)		110000
.....	Debenture holders A/c To Bank A/c (amount paid to debenture holders)	10000	 10000
.....			
.....	Sinking Fund A/c Dr To loss on issue of debentures A/c (redemption provided out of sinking fund)	10000	 10000
.....	Sinking Fund A/c Dr To General Reserve A/c	101594	 101594

6% Debentures A/c

2007 Dec 31	To Balance c/d	100000	2007 Jan 1	By Bank	100000
2008 Dec 31	To Balance c/d	100000	2008 Jan 1	By Balance b/d	100000
2009 Dec 31	To Balance c/d	100000	2009 Jan 1	By Balance b/d	100000
2010 Dec 31	To Debenture holders A/c	100000	2010 Jan 1	By Balance b/d	100000

Premium on Redemption of debentures A/c

2007 Dec 31	To Balance c/d	10000	2007 Jan 1	By loss on issue of debentures A/c	10000
2008 Dec 31	To Balance c/d	10000	2008 Jan 1	By Balance b/d	10000
2009 Dec 31	To Balance c/d	10000	2009 Jan 1	By Balance b/d	10000
2010 Dec 31	To Debenture holders A/c	10000	2010 Jan 1	By Balance b/d	10000

Debenture holders A/c

2010 Dec 31	To Bank A/c	110000	2010 Dec 31	By 6% Debentures A/c	100000
				By premium on redemption of debentures A/c	10000
		110000			110000

Sinking Fund A/c

2007 Dec 31	To Balance c/d	25521	2007 Jan 1	By P&L Appn A/c	25521
				By Balance b/d	25521
				By interest on S.F.I	1275
	To Balance c/d	52317		By P&L Appn A/c	25521
		52317			52317
					52317
2008 Dec 31	To Balance c/d	80453	2008 Jan 1	By Balance b/d	2615
				By interest on S.F.I	25521
			Dec 31	By P&L Appn A/c	
		80453			80453
					80453
2009 Dec 31	To loss on issue of debentures	10000	2009 Jan 1	By Balance b/d	4020
				By interest on S.F.I	25521
	To general reserve (balance transferred)	101594	Dec 31	By P&L Appn A/c	1600
		111594		By S.F.I(profit on sale)	111594

Sinking Fund Investment A/c

2007 Dec 31	To Bank	25500	2007 Dec 31	By Balance c/d	25500
2008 Jan 1	To Balance b/d	25500			
Dec 31	To Bank	26800	2008 Dec 31	By Balance c/d	52300
		52300			52300
		52300			
2009 Jan 1	To Balance b/d	28100			80400
Dec 31	To Bank	80400	2009 Dec 31	By Balance c/d	80400
		80400			
2010 Jan 1	To Balance b/d	1600			82000
Dec 31	To Sinking Fund A/c (profit)	82000	2010 Dec 31	By Bank	82000

Bank A/c

2010 Dec 31	To Balance b/d	40000	2010 Dec 31	By Debenture holders A/c	110000
	To S.F.I A/c	82000		By Balance b/d	12000
		122000			122000

5. Redemption by Insurance Policy

This is an alternative to sinking fund method. Under this method, an insurance policy is purchased by paying annual premium. Such policy will mature on the date of redemption. This method provides funds for redemption and covers the risk involved in the transactions. Under this method the following entries are passed.

During all the years till the policy maturity:

i. For amount of premium paid at the beginning of the year

Debenture Redemption Policy A/c Dr

To Bank A/c

ii. For setting aside the profit at the end of the year

P & L Appropriation A/c Dr

To Debenture Redemption Fund A/c

During the last year in addition to the above two entries

i. For realizing the insurance policy

Bank A/c Dr

To Debenture Redemption Policy A/c

ii. For the transfer of profit on realization

Debenture Redemption Policy A/c Dr

To Debenture Redemption Fund A/c

(Note: if loss the entry is reversed)

iii. For amount due to debenture holders

Debentures A/c Dr

Premium on redemption A/c Dr (if redemption at premium)

To Debenture holders A/c

iv. For amount paid to debenture holders

Debenture holders A/c Dr

To Bank A/c

v. For transfer of balance in Debenture Redemption Fund A/c

Debenture Redemption Fund A/c Dr

To General Reserve A/c

Illustration 4

Athul Ltd issued 1000, 6% debentures of Rs.100 each at par redeemable after 5 years at premium of 10%. An insurance policy was taken at the time of issue of debentures on 1 April 2006 for the amount in order to provide for the necessary funds required for the redemption. The annual premium paid at the beginning of every year Rs.18280. show the accounts for redemption.

Solution:

6% Debentures A/c

2007 Mar 31	To Balance c/d	100000	2006 Apr 1	By Bank (first year)	100000
2011 Mar 31	To Debenture holders A/c	100000	2010 Apr 1	By Balance b/d	100000

Premium on redemption of debentures A/c

2007 Mar 31	To Balance c/d	10000	2006 Apr 1	By loss on issue of debentures A/c	10000
2011 Mar 31	To Debenture holders A/c	10000	2010 Apr 1	By Balance b/d	10000

Debenture Redemption Policy A/c (Investment)

2006 Apr 1	To Bank	18280	2007 Mar 31	By Balance c/d	18280
2007 Apr 1	To Balance b/d	18280			
	To Bank	18280	2008 Mar 31	By Balance c/d	36560
		36560			36560
2008 Apr 1	To Balance b/d	36560	2009 Mar 31	By Balance c/d	54840
	To Bank	18280			
		54840	2010 Mar 31		54840
2009 Apr 1	To Balance b/d	54840		By Balance c/d	73120
	To Bank	18280			
		73120			73120
2010 Apr 1	To Balance b/d	73120	2011 Mar 31	By Bank (realization of policy)	110000
	To Bank	18280			
2011 Mar 31	To Deb. Red. Fund (profit-B.F)	18600			
		110000			110000

Debenture Redemption Policy A/c (Investment)

2006 Apr 1	To Bank	18280	2007 Mar 31	By Balance c/d	18280
2007 Apr 1	To Balance b/d	18280			
	To Bank	18280	2008 Mar 31	By Balance c/d	36560
		36560			36560
2008 Apr 1	To Balance b/d	36560	2009 Mar 31	By Balance c/d	54840
	To Bank	18280			
		54840	2010 Mar 31		54840
2009 Apr 1	To Balance b/d	54840		By Balance c/d	73120
	To Bank	18280			
		73120			73120
2010 Apr 1	To Balance b/d	73120	2011 Mar 31	By Bank (realization of policy)	110000
	To Bank	18280			
2011 Mar 31	To Deb. Red. Fund (profit-B.F)	18600			
		110000			110000

Debenture holders A/c

2011 Mar 31	To Bank A/c	110000	2011 Mar 31	By 6% Debentures A/c	100000
				By premium on redemption of debentures A/c	10000
		110000			110000

6.Redemption by Conversion

Sometimes the debenture holders of a company are given the option to convert their debentures into the shares or new debentures within a stipulated period. The new shares or debentures can be issued either at par or at premium or at discount. The following entry will be made for the purpose.

Old Debentures A/c Dr

Discount on issue of shares/debentures A/c Dr (if issue at discount)

To New Share Capital/ Debenture A/c

To Premium on issue of shares/ debentures A/c (if issue at premium)

Illustration 5

On 1 April 2009, Fast Ltd issued 800, 12% debentures of Rs.1000 each at Rs.950 each. Debenture holders had an option to convert their holdings into 6% preference shares of Rs.100 each at a premium of Rs.25 per share. On 31 March 2010, one year's interest had accrued on these debentures which were not paid. A holder of 50 debentures notified his intention to convert his holding into 13% preference shares. Journalize the transactions and prepare the Balance sheet as on 31 March 2010.

2009	Bank A/c	Dr		760000	
Apr 1	Discount on issue of debentures A/c	Dr		40000	
	To 12% Debentures A/c				800000
	(issue of 800, 12% debentures of Rs.1000 each at Rs.950)				
2010					
Mar	Interest on debentures A/c	Dr		96000	
31	To sundry debenture holders A/c				96000
	(interest due on debentures)				
	12% Debentures A/c	Dr		50000	
	To 13% Preference Share Capital A/c				40000

To security premium A/c (conversion of 50 debentures to 400,13% preference shares of Rs.100 each at a premium of Rs. 25)				10000
Sundry debenture holders A/c To Bank A/c (interest on 50,12% debentures paid on conversion)	Dr		6000	6000
P&L A/c To interest on debentures A/c (interest on debentures transferred to P&L A/c)	Dr		96000	96000

Liabilities	Amount	Assets	Amount
Share capital:	40000	Bank (760000-6000)	754000
400 13%		Discount on issue of	40000
preference shares	750000	debentures	
of Rs.100 each		P & L A/c	96000
750 12% Debentures			
of Rs.1000 each			
Sundry debenture holders	90000		
Security premium	10000		
	890000		890000

5.13 SUMMARY

Total capital of the company is divided into units of small denominations; each one is called a share. According to Sec 2(46) of the Companies Act 1956, share has been defined as a share in the share capital of the company; and includes stock except where a distinction between stock and share is expressed or implied. It consists of Authorized (Registered or Nominal) Capital, Issued Capital , Subscribed Capital , Called?up Capital , Paid?up Capital,Reserve Capital.Preference Shares Shares which enjoy the preferential rights as to dividend and repayment of capital in the event of winding up of the company over the equity shares are called preference shares. The holder of preference shares will get a fixed rate o dividend. It includes Cumulative preference shares, Non?cumulative preference shares, Participating preference shares,Non?participating preference shares,Redeemable preference shares,Convertible preference shares.Equity shares are those which are not preference shares. Equity shares do not carry any preferential gain in respect of dividend or repayment of capital. So these are known as ordinary shares. There will be no fixed rate of dividend to be paid to the equity shareholders and this rate may vary from year to year. In winding up, the equity capital is repaid last. However, equity shareholder gets full voting power. Debenture' has been derived from the Latin word 'debere', which means 'to borrow'. Debenture is an instrument in writing given by a company acknowledging debt received from the public. The main types of debentures are: Secured or Mortgage debentures, Unsecured or Naked debentures, Registered debentures,Bearer debentures,Redeemable debentures,Perpetual or Irredeemable debentures, Convertible debentures, Non?Convertible debentures. Private placement (or non-public offering) is a funding round of securities which are sold not through a public offering, but rather through a private offering, mostly to a small number of chosen investors. A zero-coupon bond is a debt security that doesn't pay interest (a coupon) but is traded at a deep discount, rendering profit at maturity when the bond is redeemed for its full face value. Some zero-coupon bonds are issued as such, while others are bonds that have been stripped of their coupons by a financial

institution and then repackaged as zero-coupon bonds. Because they offer the entire payment at maturity, zero-coupon bonds tend to fluctuate in price much more than coupon bonds. A deep-discount bond that sells at a significant discount from par value. A bond that is selling at a discount from par value and has a coupon rate significantly less than the prevailing rates of fixed-income securities with a similar risk profile. A trust account is identical to an escrow account when an owner deposits funds with a third party as a prepayment or deposit for a specific purpose, such as payment for mortgage insurance. The term trust account also describes a trust account that is established for estate planning purposes to hold funds for designated beneficiaries, such as minors. The main difference of the share and debentures are: The shares are the owned funds of the company whereas The debentures are the borrowed funds of the company. Shares represent the capital of the company. While Debentures represent the debt of the company. The holder of shares is known as shareholder. The holder of debentures is known as debenture holder. Buy-back of shares is a method of financial engineering. It can be described as a procedure which enables a company to go back to the holders of its shares and offer to purchase the shares held by them. Buy-back helps a company by giving a better use for its funds than reinvesting these funds in the same business at below average rates or going in for unnecessary diversification or buying growth through costly acquisitions. When a company has substantial cash resources, it may like to buy its own shares from the market particularly when the prevailing rate of its shares in the market is much lower than the book value or what the company perceives to be its true value. This mode of purchase is also called 'Shares Repurchase'. A company can utilize its reserves to buy-back equity shares for the purpose of extinguishing these or treasure operations. The former option results in reduction of the paid up capital, and consequently higher earnings and book value per share. Naturally, the market price of equity goes up. Redemption is the process of repaying an obligation at predetermined amounts and timings. The redeemable preference shares are issued on the terms that share holders will at a future date be repaid amount which they invested in the company. According to the Companies Act, 1956, a company can issue only redeemable shares i.e. at present a company cannot issue

irredeemable preference shares. Debentures are invariably redeemable. The Companies Act has not laid down any conditions for the redemption of debentures. Of course, the terms laid down for the redemption of the debentures in the prospectus at the time of issue of the debentures will have to be complied with by the company.

5.14 GLOSSARY

Share Capital: According to Sec 2(46) of the Companies Act 1956, share has been defined as a share in the share capital of the company; and includes stock except where a distinction between stock and share is expressed or implied.

Preference Shares: Shares which enjoy the preferential rights as to dividend and repayment of capital in the event of winding up of the company over the equity shares are called preference shares. The holder of preference shares will get a fixed rate o dividend.

Equity Shares: Equity shares are those which are not preference shares. Equity shares do not carry any preferential gain in respect of dividend or repayment of capital. So these are known as ordinary shares.

Private Placement: Private placement involves raising capital from a small group investors, companies raising money through this mode are exempt from the jurisdiction of Securities Exchange Board of India ("SEBI") and its disclosure requirements.

Debentures: Debenture is the acknowledgements of debt. It is a loan capital raised by the company from general public. A person/holder of such a written acknowledgement is called 'debenture holder'.

Zero Coupon Bond: A zero-coupon bond (also discount bond or deep discount bond) is a bond bought at a price lower than its face value, with the face value repaid at the time of maturity.

Deep Discount Bond: Deep discount bonds can also include zero coupon bonds,

which do not pay a rate of interest to the holder.

Escrow A/c: Escrow is a legal concept in which a financial instrument or an asset is held by a third party on behalf of two other parties that are in the process of completing a transaction.

Trust A/c: An account in which a bank or trust company (acting as an authorized custodian) holds funds for specific purposes such as to pay property taxes and/ or insurance premiums associated with a mortgaged property.

Buy Back of Shares: Buy back is a method of cancellation of share capital. It simply means buying of own shares. It leads to reduction in the share capital of a company.

5.15 SELF ASSESSMENT QUESTIONS

1. Explain the various types of preference shares.

2. List out the types of debentures.

3. Distinguish between a debenture and a share. Why debenture is known as loan capital? Explain.

4. G. Ltd. issued 75,00,000, 6% debentures of Rs 50 each at par payable Rs 15 on application and Rs 35 on allotment, redeemable at par after 7 years from the date of issue of debentures. Record necessary entries in the books of Company.

5. A. Ltd. issued 4,000, 9% debentures of Rs 100 each on the following terms: Rs 20 on Application; Rs 20 on Allotment; Rs 30 on First call; and Rs 30 on Final call. The public applied for 4,800 debentures. Applications for 3,600 debentures were accepted in full. Applications for 800 Debentures were allotted 400 debentures and applications for 400 Debentures were rejected.

5.15 LESSON END EXERCISE

1. Define Zero Coupon Bonds.

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2. What is meant by Buy Back of Shares?

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3. How would you deal with 'Premium on Redemption of Debentures?

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5.16 SUGGESTED READING

1. Accounting and Financial Management: S.N. Maheshwari

2. Fundamentals of Financial Management : Sharan

3. Financial Management: Text and Problems: M.Y Khan & P.K Jain.

4. Fundamentals Of Financial Derivatives : N.R. Parasuraman