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Course: Strategic Financial Management

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Semester-II

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Syllabus

STRATEGIC FINANCIAL MANAGEMENT

OBJECTIVE AND EXPECTED OUTCOME OF THE COURSE:

This Course aims at enabling the students to understand and develop keener understanding of financial market operations and make more informed analysis. Additionally, the Course aims at enabling students to manage basic corporate finance transactions besides investing more profitably and operate more effectively financially overall.

Block I (Financial Policy and Strategic Planning)

Unit I: Components of financial strategy; Strategy and Financial Policy,

Unit II: Financial Goals and Strategic Consequences. Agency Costs and theory of the firm

Unit III: Corporate Governance. Efficient Markets: Forms, Tests for return predictability, Event Studies andTests for Private Information.

Block II (Capital Structure Decisions):

Unit IV: Capital Structure in a Perfect Market, Debt Covenants and their Implications,

Unit V: Designing Convertibles, Mandatory Convertibles, Determinants of Corporate Leverage and Financial Distress,

Unit VI: Dividend Policies and Managerial Incentives**, s**tock BuybackDecisions Management motivations for share buyback, share buyback and firm value.

Unit VII: Financingchoices and Decisions: Differences in financing of venture firm, mature companies and firms inhigh growth stage

Unit VIII: Deal structuring and pricing, IPOs and their under pricing, Firms in FinancialDistress: Information problems, conflicts of interest and asset stripping.

Block III (Valuation and Value Based Management):

Unit IX: Putting Strategy into Shareholder Value Analysis,

Unit X: Basic Principles of Valuation, Free Cash Flows to the Firm, Free Cash Flows to Equity,

Unit XI: Relative Approach to Valuation, Capitalised Earning Method of Valuation, Unit XII: Valuation of Intangible Assets,Brands,

Unit XIII: Cyclical Firms, Firms in Distress and Private Firms.

Unit XIV: Black Schole sapproach to option Valuation. Value Based Management and Value Metrices.

Block IV (Expansion and Financial Restructuring):

Unit XV: Mergers and Acquisitions, Accounting for Mergers and Acquisitions,

Unit XVI: Corporate versus Financial Restructuring, Leveraged Buyout (LBO),

Unit XVII: ManagementBuyout (MBO), Sell-off, Spin-off, Demerger and reverse merger, Legal procedure for merger,benefits and cost of merger;

Unit XVIII: Determination of swap ratios; Evaluation of merger proposal; Corporate and distress restructuring and Divestitures.

SUGGESTED READINGS / BOOKS:

- Allen, D: An Introduction to Strategic Financial Management, CIMA/Kogan Page, London.
- Brealey, Richard A. and Myers, Stewart C, Principles of corporate finance, Tata McGraw Hill
- Chandra, Prasanna: Financial Management, Tata McGraw Hill, Delhi.
- Copeland, T., Koller, T and Murrin, J, Measuring and Managing the value of Companies, John Wiley,
International Edition, New York.
- Damodaran, Aswath, Valuation, John Wiley & Sons
- Foster, George, Financial Statement Analysis, Pearson Education Hampton, Jone, Financial Decision

Making, PHI, New Delhi.

- Grinblatt, Mark and Titman, Sheridan, Financial Markets and Corporate Strategy, Tata McGraw Hill.
- Kaplan, Robert S., and Cooper, Robin: Cost & effect: Using integrated cost systems to drive profitability and performance, Harvard Business Press.

LESSON – 1

Strategic Financial Management

Structure

1.1 OBJECTIVES

After reading this lesson, you should be able:

- To understand the concept of strategic financial management.
- To understand nature and scope of strategic financial management.
- To know financial policy, its need, importance and components.
- To know about financial goals of an business enterprises and its consequences.

1.2 INTRODUCTION

In all business organizations, finance is the blood of organization. Without finance, no firm can operate any task. So it is necessary for all the firms to have sufficient funds to survive in the corporate world and be able to compete with its competitors for a long time.

The main objective of every business is to maximize the shareholder's wealth by proper/full utilization of resources. To maximize profits, every firm give their best to widen the scope of its operations. In the world of economic uncertainty, investor wants to maximize their wealth by taking minimum risk. Since management is ultimately responsible to investors, and management should implement financing and investment decisions which should satisfy the shareholders. The aim of satisfaction to shareholders is achieved by maximization of shareholders wealth. Since capital is limited and the management have to choose from different investment opportunities by calculating risk and yield on investment so that the shareholder's wealth is increased. The shareholder wealth will increase if the return from the business is more than the cost of capital employed.

Strategic financial management is defined as ‗the application of financial techniques to strategic decisions in order to help achieve the decision- maker's objectives'. Strategic financial management requires the existence of objectives and acknowledges that financial techniques are an integral part of policy making and control. Strategic financial management is part of corporate strategic plan that embraces the optimum investment and financing decisions required to achieve overall financial objectives.

NATURE AND SCOPE OF STRATEGIC FINANCIAL MANAGEMENT

The identification of the possible strategies capable of maximizing an entity's net present value, the allocation of scare capital resources among the competing opportunities and the implementation and monitoring of the chosen strategy so as to achieve firm's objectives is the scope of strategic financial management. The organizations have limited sources of the funds. They have to give maximum returns to the shareholder so that shareholder wealth increases. The dilemma is that the management had to choose among different available projects to maximize the returns. Management needs to apply different financial tools to access the possible return with risk associated with the return.

Mainly strategic financial management aims on the critical decisions for the company which are as following:

Investment Policy of the Company: In investment policy, the company has to take decision regarding investment. Under this decision the firm should decide the following:

a) Company should invest in what type of projects /securities to maximize the wealth of shareholders. Choosing right type of the project with high returns and low risk is key role of the senior management.

b) Company should also decide that it should retain profit for reinvestment or distribute dividends among shareholders. Dividend is the cash payout to the shareholders; stable dividend policy increases the investor confidence and market price of share.

c) Setting up of new business unit or acquiring the existing company manufacturing similar products.

d) Regarding outsourcing also. The project can be outsourced if it is more advantageous. A comparative study of advantage and disadvantages of outsources need to be done for outsourcing a project.

Financial policy of the company: In this type of policy the company should take the decision regarding availability of funds, maintenance and proper utilization of funds. Availability of the funds at the right cost, at right time is the necessity to increase the returns for the shareholders. Financial policy dealt with the firm‘s investors and creditors of company. A sound financial strategy must compete corporate strategies

STRATEGY AT DIFFERENT HIERARCHY LEVELS

Different strategies are made in different levels according to planning needs. There are three level of corporate strategy.

a. **Corporate Level Strategy**: Corporate level strategy deals with decision of selection of business in which the company should compete and also development and maintain most appropriate portfolio of the business.
b. **Unit Level Strategy**: Unit may be any profit centre which is independent from other business units of the firm or company. The manager who is managing that unit is independently managing that unit. Business unit level strategies are about managing the operating units and developing and sustaining a competitive advantage for the products and services that are produced in business unit.
c. **Functional Level Strategies**: The functional level is the level of operating divisions and departments. The strategies in these are like strategies in research and development, production process, marketing, finance or human resources, involves the development and coordination of resources through business unit level strategies which can be executed effectively and efficiently. Functional units are involved by higher management in strategy formation, they can provide feedback of customers, product, difficulties that are faced. Once higher level strategy is formulated, the functional unit drafts the action plans to achieve the higher level strategy. The main objective of the financial strategy is to mobilize funds and effective use of funds to increase the shareholder‘s worth.

STEPS IN STRATEGIC DECISION MAKING

The following steps are to be taken in strategic decision making:

a) **Mission and Vision**: Determination of mission and vision of company is first step in strategic decision making. Mission statement is a statement of the purpose of company, organization, andits reason for existence. The mission statement should guide the actions of the organization explaining its overall goals and helps in decision making process. Vision statement is aspiration description of what an organization likes to achieve in mid-term or long term future.
b) **Environment Scanning**: Identification of available alternatives and gather information regarding various factors like political, social, economical, geographical, competitors strategies etc.
c) **Analyses**: Critically analyze the different alternatives on the basis of gathered information
d) **Implementation**: Implementation of the strategy
e) **Control:** Take effective steps to fill the gap and correct the errors if any.

Activity-1

Describe steps in strategic decision making---

Check Your Progress A

1. Strategic financial management deals with
   a. Financial policy of Firm
   b. Investment policy of firm
   c. Both a and b

d. None of above

2. Strategies are formed at different hierarchy these are

   a. Functional level

   b. Corporate level

   c. Unit level

   d. All of above

FINANCIAL POLICY

The main objective of financial policy is on the financial aspects of strategic decisions. Financial policy deals with the firm's investors and creditors of company. Firm's management must fulfill the needs of the shareholders/investors.

Financial policy can be defined as the draft of rules and regulations that describes the firm's preferences towards its capital structure, investment strategies for investing in future projects and business model for maximizing shareholder's wealth.

Need of Financial Policy

Financial policy play important roles in business. Every financial policy is mandatory for all firms's to perform certain functions:

a) It ensures the rate of return to shareholder's to maximize shareholder's wealth.
b) It ensures that main sectors of economy i.e. agriculture, services, manufacturing etc. should not be ignored while investment in securities/projects.
c) It tries to minimize the degree of risk.
d) It also tries to mitigate those practices in the business models that may have negative effect.

Factors Affecting Financial Policy

Financial policy draws strategic mapping regarding various functions of business. It depends upon the following factors:

a) Association of the industry.
b) Market share of firm.
c) Risk associated with business and future investment.
d) Net cash flow.
e) Financial policies of rivals with in industry and between industries.

Features of Financial Policy

The main features of financial policy are as follows:

a) It should be easy to understand.
b) Fulfill short-term and long-term goals.
c) Feasible.
d) Proper utilization of available resources.
e) Must compete future challenges.

COMPONENTS OF FINANCIAL POLICY

Financial policy maintain a balance between all aspects of business with the help of financial policy a firm easily improve the performance of business. The main components of financial policy are as follows:

a) **Financial Planning**: Financial planning means determination of total funds required by the firm for a particular time period. Financial planning is always done for a long -term period so that requirement of funds is calculated for planning and development according to firms planning and development strategies. It is very important for financial planning that proper cash flow statement is to be prepared. When financial manager_s plans, he should take into consideration all the factors like nature of business, economic circumstances, management' behavior, future development strategies and most important profitability of business.
b) **Financial Decision**: After financial planning is done, a firm has to take decision regarding proper allocation of funds according to business needs. This decision is related to capital structure of firm. Capital structure computes the ratio of debt and equity capital in the total funds required. It is necessary for the firm to maintain a proper balance between debt and equity . A minor change in the ratio of debt and equity would directly affect the value of firm. In the capital structure when debt securities are used it is called optimum capital structure. In optimum capital structure, market value of securities are always greater than cost of capital. The use of debt in capital structure increases the shareholder's wealth if cost of debt is less than the returns of the business. The more use of debt is also risky as it has a fixed liability, if the project does not give desired returns than interest is still to be paid, which reduces the profits for the shareholders.
c) **Investment Decision**: Investment decision means a firm has decides to invest firm's sources of funds in different type of securities according to their rate of return and finance manager should act rationally. Investment decisions involve profitable utilization of funds especially in long term projects. Since the future benefits associated with the projects are not known with certainty, investment

decision necessarily involve risk. So the projects are to be evaluated on the basis of risk and return basis. Investment policy of firm shows its risk taking appetite. While taking investment decision, a firm has to take risk through its investment or wants to be played safe if the firm focuses on short-term or long-term funds. It shows that financial manager is rationally invested the firm's resources. In other way, we can say that financing decisions of the firm is affected by Investment decisions.

d) **Dividend Policy**: Dividend policy plays an important role in financial policy of the firm. Every firm used the firm's income/profits in two ways which are:
   1) To pay dividend to its shareholders
   2) To retain its earnings in the form of accumulated profits.

   While determining dividend policy, it is decided by the firm that what part is to be retained or which part will be distributed among shareholders. Market price of shares is greatly influenced by dividend policy. Thus dividend policy is directly related to financing policy because dividend policy decides the total funds available from business earnings.

e) **Corporate Restructuring Policy**: At the time of computing financial policy, corporate restructuring policy is necessary to be kept in mind. Corporate restructuring policy of firm decides the following things:
   a) The firm is coming to invest in what type of securities in the future?
   b) Firm's expansion, acquisition, merger, takeover, modernization and diversification decision.

   A firm must keep in mind above citied investment decisions. It also has to take decisions regarding the funds through debt and equity.

f) **Credit Policy**: A firm's high quality receivable is only maintained by a good credit policy. A firm should adopt liberal credit policy when it is concentrating on market penetration or gaining market share. It helps the firm to provide high credit limit to its debtors. By adopting such type of policy, a firm must prepare itself to bear credit risk. On the other hand, if a firm has goodwill in the market then it should adopt conservative credit policy so that it provides lower credit limit for its customers.

g) **Risk Management Policy**: Risk Management policy involves identifying quantitatively analyzed and managing all risks that can affect firm's strategic and financial goals. At the time of determination of policy, a firm must include following risk:
   - Financial risk
   - Operation risk

- Legal risk

A firm must retain a part of its profits separate to handle such type of risks in future.

MEANING OF FINANCIAL STRATEGY

Strategy is the framework of implementation of policies in a firm. Financial strategy can be defined as having two main components which are as follows:

1) It is based on raising the funds needed by an organization in the most appropriate manner
2) To manage the employment of funds within the organizations.

While formulating strategy, a firm must consider all the available resourcing in the firm and their optimum utilization. Financial Strategy is that part of business strategy under which both the aspects of finance and investment involves.

According to William Rothschild,‘‘ what do you want to achieve or avoid? The answer to this question are objectives. How will you go about achieving your desire results? The answer to this you can call strategy‘‘.

Strategy can also be defined as, ‗A course of action that provides functional structure to the planning mode of business activities with the objective of achieving long term goal‘.

Objective of Financial Strategy

The main objectives of financial strategy are as follows:

-To improve return capital invested.

-To predict the resources of firm which help in raising funds at the time of investment.

-To develop a transparent financial environment which help to use financial resources for the benefit of the firm‘s long term goals and objectives.

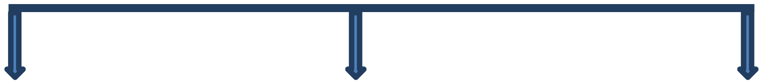
-To analyze the annual financial rules, regulations and other relevant policies and make ensure that firm is moving towards achieving its goals consistently.

-To evaluate the current and future business risks and growth opportunities by conducting market research.

COMPONENTS OF FINANCIAL STRATEGY

Financial Strategy consist three components which are as follows:

Components of financial strategy



Profit Distribution **Investment Strategy** **Financing Strategy**

1. **Profit Distribution:** The profit distribution is also called dividend strategy. There are two types of dividend, cash and in the shape of bonus shares. Bonus shares are given to equity shareholders of company instead of cash dividend as equity shareholder not received any type of cash dividend. The dividend always charges its future investment needs. The dividend policy depends upon the firm's retained earnings. Dividend payout ratio of firm is improved by payment of dividend to shareholders. Few small firms just for attraction of investors starts paying high rate of dividends but these firms suffers a lot after sometime because later on these are not able to pay such a higher rate of dividend. Economic conditions of a country influence the profit distribution strategy of a firm. If economic condition is not good, then the firm will gain less growth opportunities and firm will concentrate more on paying dividends to its shareholders. If economic condition is good, then there is lot of opportunities of growth and firm will consider on the retaining profit and invest in future projects also.
2. **Investment Strategy:** For the implementation of investment policy investment strategy is the action plan of the firm. Investment strategy depicts all rules and regulations/ guidelines which a firm must follow for investment purpose. A firm can investment by adopting two ways which are:

i) **Financial Investment:** Financial investments include fixed income investment and variable income investment

ii) **Real Investment:** Real investment includes investment in tangible or physical goods like land, building etc.

Factors affecting Investment Strategy

The following are the factors which affects investment strategy.

i) **Individual's Choice**: It's firm choice that which type of investment it wants. The investment may be surplus funds into highly risky assets or to invest in a constant rate of return. The invested assets may be stock, bonds, cash, real estates, etc.

ii) **Investment Size**: Investment size ensures the total amount of investment strategy.The firm must take into consideration that it has sufficient funds for its outside liabilities The highly risky projects needs high investment which firm has to take debt which also affects the financial policy.

iii) **Time of Investment:** Firms' financial policy measures the time of investment of firm. It determines whether the company is going to invest in long-term investment or short-term investment. In long-term investment high risk is involved but in short-term investment short losses are there. The firm should also analyze its current financial position to invest in any investment policy.

iv) **Expected Return**: Expected rate of return also affects the investment strategy of a firm. A firm always gives preference to those projects which has high rate of return than its cost of capital. High rate of return always involves high risk. Instead of investing in highly rate of return a firm can also invest in stable rate of return.

v) **Provision of Risk**: Provision of risk also affects the investment strategy of a firm. It depends upon the firm's capacity to bear the risk. If the firm take high rate of risk then it shows that the firm is aggressive and if the firm takes low rate of risks it shows that the firm is a conservative .Aggressiveness shows the high expectations where as conservativeness shows the stability of income.

vi) **Policy of Government**: Government polices affect the investment strategies a lot. Government rate of interest, repo rate, Cash Reserve Ratio (CRR) and other such policies affects the investment strategy of a firm. If government increases the rate of interest then it directly affects the borrowings of financial institutions and a firm invests lesser amount in future. High rate of interest gives more burden to investors. For this inconvinence a firm will always change its investment strategies.

3) **Financing Strategy**: Financial position depicts the financial strategy of a firm. It shows structure of finance. Every firm raises funds by two ways i.e.

a) By equity and
b) By debt

Both show the financial structure of the firm. It always shows the leverage position of the firm.

Activity-2

What are the components of financial strategy--

SOURCES OF FINANCE

There are two types of sources of finance.

SOURCES OF FINANCE

Long- term sources	Short- term sources
-Share capital	-Bank loan
-Debentures	- Trade credit
-Term loan	-Factoring
-Venture capital	-Accruals
-Ploughing back of profits	-Commercial paper
-Loan from specialized financial institutions	-Short-term loans

Financial Goals: Profit Maximization versus Wealth Maximization

Financial management is optimum use of scare resources to achieve maximum return with minimum amount of risk. Goal of the financial management can be divided into two parts

- Profit maximization
- Wealth maximization

It is generally agreed theory that the financial goal of the firm should be shareholder‘s wealth maximization, which is reflected in the market value of the firm‘s share price. We should understand both the concept of the profit maximization and wealth maximization.

Profit Maximization: The firm generates the profit by producing goods or services or adding value to goods and services. The profit is generated by firm by selling the goods and services at a price which is higher than its cost of production or cost incurred in providing services. The price of goods are determined either by the Government or determined by forces of demand and supply in perfect market. If the demand for the goods will be more than supply then prices of the goods will increase and will result in more profit for producer of the goods. The high profit situation will result into more producers for the same goods, which in turn will increase supply of the goods. If the supply of goods is more than the demand of goods the price of goods will come down and price will be stabilized by the forces of demand and supply. The goods and services which are not required by society, their prices and profit will fall. The producer of such goods will stop producing that goods and services, which in turn will reduce supply of goods.

The question arises that will the price system in perfect market conditions serve the interest of the society? It is held by economist Smith that in perfect competition businessman pursing own interest also serve the interest of the society. It is also assumed that when businesses pursue the interest of profit maximization, society resources are efficiently utilized. The profit maximization implies that a firm either produces maximum output from input or uses the minimum input for producing the maximum output. It is assumed that the profit maximization can be achieved by efficient use of resources.

Criticism of Profit Maximization: The profit maximization assumes the condition of the perfect competition, and if there is no perfect competition in the market like situation of monopoly where there is single producer and many buyer of their goods, the goal of profit maximization can be easily achieved by manipulating the prices of the goods produced.

It is also feared that the profit maximization behavior in perfect market may tend to produce goods and services which are not required by the society. The other situation like monopoly may lead to inequality in income and wealth, it is due to this reason that government needs to intervene in the business. These days monopolies and oligopolies are quite common phenomena in present society, so in these type of situations profit maximization does not lead to optimum social welfare.

1. **Meaning of Profit**: The precise meaning of profit maximization is unclear. The definition of profit is ambiguous. What is meaning of profit? Is It short term or long-term profit? Is it before tax or after tax profit? Is it operating profit or profit distributed to shareholders?
2. **Time Value of Money**: Profit maximization concept does not consider time value of money, it consider the profit received in different periods of time as same but in fact the money received today is more valuable than received a year later.
3. **Maximizing Profit after Taxes**: Profit maximization means maximizing profit after taxes, in the sense of net profit as reported in the income statement of the

firm. It can be easily understood that maximizing profit will not maximize the economic welfare of the owners. It is possible for the firm to increase profit after taxes by selling additional equity shares and investing in low yield assets like Government securities. Suppose the company has 20,000 issued equity shares and profit after taxes of Rs 1,00,000 which means earning per share is Rs 5 Supposes company raises another Rs 10,00,000 by issuing 20,000 shares of Rs 50 each and invests at 5%, the profit is increased to Rs 1,50,000 but earning per share will fall to Rs 3.75(150000/40000).

4. **Maximizing EPS**: If we assume that market value of the company‘s share is dependent on the earning per share then increasing EPS is financial goal, but this may not true in many cases. Maximization of earning per share means that firm should not make any dividend payments so long as fund can be invested internally at higher rate. Such dividend policy may not be good for investors.

Wealth Maximization: Wealth maximization is the new approach and claimed to be superior to profit maximization. Wealth maximization means increasing shareholder‘s wealth. The term wealth here is the market price of capital invested by shareholders. When the net worth of a business increases the wealth of shareholder are also increased. Unlike profit maximization, wealth maximization serves shareholder‘s objective; get good return and safety of their capital. If profit maximization is an objective of a business, wealth maximization is the tools to maintain the objectives. Wealth equals to present value of cash flows subtracted by cost. Since wealth maximization is based on cash flow, it can avoids any ambiguity in accounting the profit

Shareholder‘s wealth maximization is maximizing net present value(NPV) of a course of action to shareholders. NPV off course of action is difference between the present value of its benefits and present value of its costs. The financial action that creates the positive net present value creates the wealth for the shareholders and financial action resulting into negative net present value destroys the shareholder‘s wealth.

The shareholder wealth maximization also considers time value for the money, the appropriate rate of discount can be considered for the expected rate of future benefits. The future benefits are measured in form of cash flow in place of accounting profits.

The wealth maximization principle implies that the fundamental objective of the firm is to maximize the market value of the shares. The value of the company‘s share is represented by the price that, in turn is reflection of shareholder‘s perception about quality of firm ‗s financial decision. Market price of the share serves as firm‘s performance indicator.

Check Your Progress B

Note: Choose the correct option.

1. Credit policy deals with__________________________- - .
    a. High quality creditors
    b. High quality Debtors
    c. None of these
    d. Both a and b
2. Profit Distribution is also called------------------------------------ - - .
    a. Investment strategy
    b. Dividend strategy
    c. None of these
3. It is generally agreed theory that the financial goal of the firm should be- - - - - - - - - - - -- - --
    a. Profit Maximization
    b. Wealth Maximization
    c. None of these
4. Profit Maximization assumes the condition of the -------------------------------- - - - - - -.
    a. Imperfect competition
    b. Perfect competition
    c. Monopoly
    d. Oligopoly
5. The shareholder's ---------------------------------- also considers time value for the money.
    a. Profit maximization
    b. wealth Maximization
6. Which is not a long-term source of funds?

a. Venture capital

b. Debenture

c. Trade credit

d. Share capital

7. Which is not a short-term source of funds?

a. commercial paper

b. Trade credit

c. venture capital

d. Accruals

SUMMARY

The main objective of any business is to maximize the shareholder's wealth by proper/full utilization of resources. Since capital is limited and the management have to choose from different investment opportunities by calculating risk and yield on investment so that the shareholder's wealth is increased. Strategic financial management is defined as the application of financial techniques to strategic decisions in order to help achieve shareholder's wealth maximization. Strategic financial management aims on the two critical decisions for the company investment policy of company and financial policy of company. Different strategies are made in different levels according to planning needs and can be divided into three parts namely corporate level strategy, business unit level strategy and functional level strategy. Financial policy can be defined as the draft of rules and regulations that describes the firm's preferences towards its capital structure, investment strategies for investing in future projects and business model for maximizing shareholder's wealth. Financial planning, financial decision, Investment decision, dividend policy, corporate restructuring policy, credit policy, and risk management policy are main component of financial policy. Financial strategy is that part of business strategy under which both the aspects of finance and investment are involved. Profit distribution, investment strategy and financing strategy are main component of financial strategy. Goal of the financial management can be divided into two parts namely profit maximization and wealth maximization. It is generally agreed theory that the financial goal of the firm should be shareholder's wealth maximization. The precise meaning of profit maximization is unclear. The definition of profit is ambiguous. The wealth maximization principle implies that the fundamental objective of the firm is to maximize the market value of the shares. The

value of the company's share is represented by the price that, in turn is reflection of shareholder's perception about quality of firm_s financial decision.

Keywords:

Corporate Mission: Mission statement is a statement of the purpose of company, organization, its reason for existence.

Corporate vision: Vision statement is aspiration description of what organizations like to achieve in midterm or long term future.

Repo rate: Rate at which Central Bank(RBI) lends money to commercial Banks

Cash Reserve Ratio: It refers to the cash which banks have to maintain with RBI as certain percentage of their demand and time liabilities.

Wealth Maximization : Maximizing net worth of shareholder.

Strategic Financial Management: Application of financial techniques to strategic decisions

ANSWER TO CHECK YOUR PROGRESS

Answer to Check Your Progress A

1.c 2.d

Answer to Check Your Progress B

1.b 2.b 3.b 4.b 5.b 6.c 7.c

REFERANCES AND SUGGESTED READING

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- Brealey, Richard A. and Myers, Stewart C, Principles of Corporate Finance, Tata McGraw Hill.
- Chandra, Prasanna; Financial Management, Tata McGraw Hill, Delhi.
- I M Pandey; Financial Management, Vikas Publication, Delhi.
- Grinblatt, Mark and Titman, Sheridan, Financial Markets and Corporate Strategy, Tata McGraw Hill.

TERMINAL AND MODEL QUESTIONS

1. What do you mean by Strategic Financial Managements? Discuss the nature and scope of Strategic Financial Management.

2. What is financial policy? Discuss the component of financial policy.

3. What do you mean by financial strategy? Discuss the component of financial strategy.

4. What are the financial goals of the firms?

5. ¯Wealth Maximization is considered better than profit maximization‖ Discuss in detail.

6. What do you mean by financial strategy? Discuss the need and objectives of the financial strategy.

7. Discuss strategy at different level of hierarchy and also explain the steps in strategic decision making.

LESSON – 2

Corporate Governance

Structure

2.1 OBJECTIVES

After reading this lesson, you should be able:

- To understand the concept of corporate governance.
- To bring out importance and main issues of corporate governance.
- To explain the various theories of corporate governance.

2.2 INTRODUCTION

Business units are moving out from its traditional structure of proprietorship and partnership and large businesses are run in form of limited liability company. In limited liability company, the capital is provided by the shareholders and business is run by the professional managers or board of directors. The liability of shareholder is limited to the extent of the capital paid by shareholders. Share holder's interest is to get good return out of the capital invested by them in form of dividends or in form of appreciation of the share values. The key responsibility of the board of directors is to increase the wealth of the shareholders, but conflict arises when the board or management of the company does not work in the interest of the stakeholders. As the manager or board are the persons who run the business so they give priority to their own interest over the interest of the shareholder. They can pay more salary and incentive to them and can indulge into several malpractices to increase their earning. This conflict of the interest had given rise to the concept of corporate governance. One point of view is that only stakeholder are the share holder of the company but in real sense there are several stakeholders in the company like creditors, suppliers, employees, investors, customers, government, trade associations, society. So the corporate governance focuses on the welfare of all the stakeholders of the firm.

MEANING OF CORPORATE GOVERNANCE

Corporate governance refers to the set of systems, principles and processes by which a company is governed. They provide the guidelines as to how the company can be directed or controlled so that it can fulfill its goals and objectives in a manner that adds to the value of the company and is also beneficial for all stakeholders in the long term. Stakeholders in this case would include everyone ranging from the board of directors, management, shareholders, customers, employees and society. The management of the company hence assumes the role of a trustee for all the others. Corporate Governance means,'' Problem that result from the separation of ownership and control.

Definitions of Corporate Governance: Corporate governance cannot be exactly defined

According to Tray and Hagan,'' Corporate Governance is the system of directing and controlling the affairs of a corporation. It refers to the framework of rules and regulations that enable the stakeholders to exercise appropriate oversight of a company to maximize its value and to obtain a return on their holdings''.

According to Jim Janes,'' Corporate governance is not something that is put in plgace and then left. Ensuring its effectiveness depends on review. In the end that comes down to the shareholders. Outside assessment and self-assessment need to be regular events''.

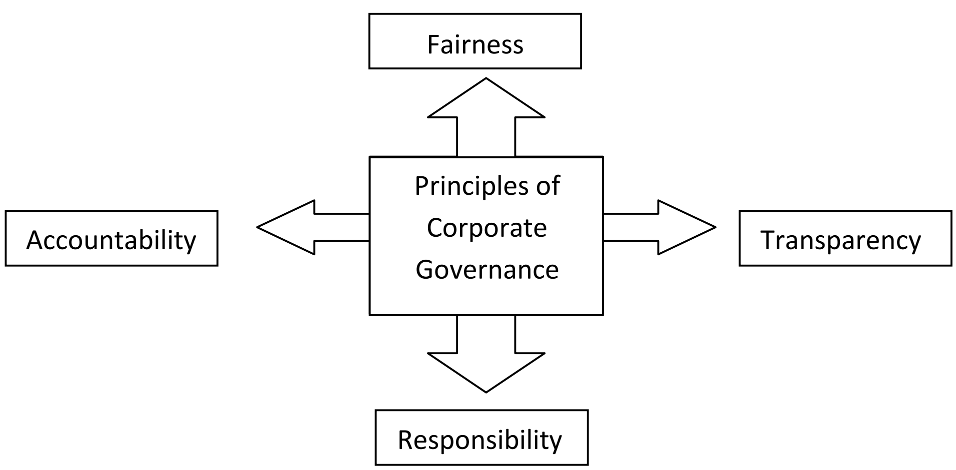
K M Birla Committee report on corporate governance states in its end note, ‗Corporate governance extends beyond corporate law. Its fundamental objective is not the mere fulfillment of the requirements of law but ensuring the board's commitment to managing the company in a transparent manner for the maximizating long term shareholder‘s value‘.

According to Cadbury Committee on financial aspect of corporate governance, ―Corporate governance is a system by which the companies are directed and controlled. The board of directors is responsible for governance of their companies. The shareholder‘s role in governance is to appoint directors and auditors and to satisfy themselves that appropriate governance is at place‖.

Principles of Corporate Governance

Corporate governance is based on principles such as conducting the business with all integrity and fairness, being transparent with regard to all transactions, making all the necessary disclosures and decisions, complying with all the laws of the land, accountability and responsibility towards the stakeholders and commitment to conducting business in an ethical manner. Another point which is highlighted in the SEBI report on corporate governance is the need for those in control to be able to distinguish between what are personal and what are corporate funds while managing a company. The role of Corporate Governance is very important in business organizations. Every business has its own rules, regulations and some ethics on which it work.

Corporate Governance has following principles:



Activity-1

Describe different principles of corporate governance --

BASIC ISSUES IN CORPORATE GOVERNANCE

Major issues in corporate governance reports have included the role of board, risk management and corporate social responsibility, the quality of financial reporting and auditing, directors' remuneration. Corporate Governance works on following basic Issues these are as Follows:

1) **Ethical Issues**: Ethical Issues are those issues which has a reverse impact on a person and on society as a whole. These issues involved fraud problems like commission offering to inspection team, gifts to customers, insider trading etc. Firms want to achieve their goal by adopting such kind of unethical issues which promotes corruption. Organizations should develop a code of conduct for their directors and executives that promotes ethical and responsible decision making. Many organizations establish Compliance and Ethics Programs to minimize the risk that the firm steps outside of ethical and legal boundaries.
2) **Efficiency Issue**: Efficiency issues are related with the performance of firm. Every investor want to get a good rate of return on money invested by them, so it is the responsibility of the firm's management to make sure that their investors always get a good rate of return.
3) **Accountability Issues**: Accountability issues show the transparency between the management and the stakeholders for firm's activities. Transparency results into good relation between the stakeholders and the management. Organizations should clarify and make publicly known the roles and responsibilities of board and management to provide shareholders with a level of accountability. They should also implement procedures to independently verify and safeguard the integrity of the company's financial reporting.
4) **Duties of Director**: The corporate governance reports have aimed to build on the directors' duties as defined in statutory and case law duties of directors. These include the fiduciary duties to act in the best interests of the company, use their powers for a purpose, avoid conflicts of interest and exercise a duty of with most care.

5) **Composition of Board**: The reason for many corporate governance scandals has been boards dominated by a single senior executive or small _cabinet of kitchen' with other member of board who are working just on remote control. It is possible that a single person may bypass the board directions to meet his own personal interests. In the case where the organization is not dominated by a single person, there may be other problem in the composition of board of directors. The organization may be run by a minority group revolve around CEO or CFO and recruitment and appointments may be done by personal recommendations rather than formal system. So the board composition should be adequate mix of talent, skill, and specialist in special types of issue faced by the company. The board should also consist of the directors of proper age mix so that the seniors should work with young directors and seniors should work for succession planning.
6) **Remuneration to Directors**: Directors being paid excessive bonuses and salaries have been identified as significant corporate abuses for a large number of years. It is, however, unavoidable that the corporate governance codes have been targeted on this significant issue.
7) **Risk Management**: If the board does not arrange the regular meetings in order to consider the organizational activities systematically it show that the board is not meeting their responsibilities. But this thing also occurred sometime when the board is not provided with full information to properly oversight on business activities. All this mess results into a poor system that may unable to report and measure the risks associated with business
8) **Financial Reporting and External Auditors**: Financial reporting and auditing issues are seen more critical to corporate governance by the investors because of their main consideration in ensuring management accountability. Whilst considering the corporate governance debate only on reporting and accounting issues is insufficient, the greater regulation of practices such as off-balance sheet financing has directed to greater transparency and a reduction in risks faced by investors. The necessary questioning may not be carried out by external auditor from senior management because the auditors may have threat of losing audit assignment. In the same way internal auditor may not question to senior members on objectionable issues because their employment matters are determined by the Chief Financial Officer. But generally the external auditors become the reason of corporate collapse, for instance, in the case of Satyam Computers that was poorly focused and planned audit failed to determine the illegal usage of monies from clients.

NEED AND IMPORTANCE OF CORPORATE GOVERNANCE

Large Corporations are multinational and transnational in nature. It means that these corporations have direct impact on citizens of several countries. If there is something wrong then it will affect many countries. It is, therefore compulsory to look at the international scene and examine possible international solutions to corporate governance difficulties. Corporate governance is known to be one of the criteria that foreign institutional investors are increasingly depending on when deciding on which companies to invest in. It is also known to have a positive influence on the share price of the company. Having a clean image on the corporate governance front could also make it easier for companies to source capital at more reasonable costs. Unfortunately, corporate governance often becomes the centre of discussion only after the exposure of a large scam. Corporate governance needs to create following things:

1) To create a corporate culture of consciousness, transparency and openness.
2) It refers to a combination of laws, rules, regulations, procedure and voluntary practices to enable companies to maximize shareholders long-term value.
3) It should lead to increasing customer satisfaction, shareholder value and Wealth.

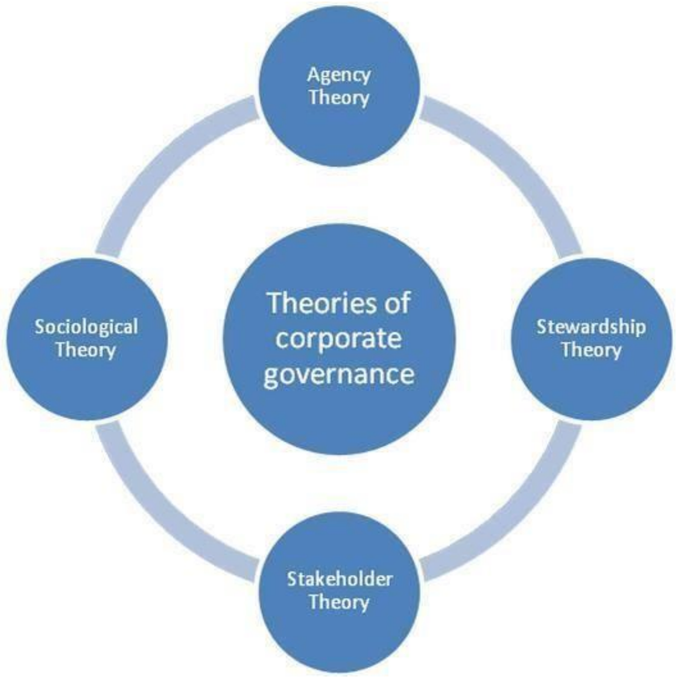
Check Your Progress A

Note: Choose the correct option

1. Corporate Governance is the system of directing and controlling the affairs of a corporation. (True/False)
2. Corporate Governance means,ʻʻ Problem that result from the separation of ownership and control. (True/False)
3. Which is not issue in corporate governance?
   a. Composition of board
   b. Partnership deed
   c. Remuneration to directors
   d. Efficiency in business
4. Corporate governance leads to increasing manager remuneration, decreasing shareholder‘s wealth. (True/False)

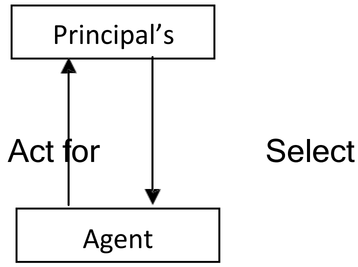
THEORIES OF CORPORATE GOVERNANCE

There are four theories to explain corporate governance these are as follows:



AGENCY THEORY

The debate about corporate governance is typically traced way back to the early 1930s and the publication of Berle and Means. Adolf Berle and Gardiner Means noted that with the separation of ownership and control, and the wide dispersion of ownership, there was effectively no check upon the executive autonomy of corporate managers. In the 1970s, these ideas were further refined in what has come to be known as Agency Theory. The fundamental theoretical basis of corporate governance is agency costs. This theory has been introduced by Adam Smith who identifies an agency problem. Shareholders are the owners of any joint stock limited liability company and are the principal of these companies. Agency theory describes the relationship between principal and agent. Principal expect that agent should act according to them and make decisions in the interest of them. This raises the prospect that the executive, as agent, will serve their own interests rather than those of the owner principal. To counter such problems, the principal will have to incur 'agency costs'; costs that arise from the necessity of creating incentives that align the interests of the executive with those of the shareholder, and costs incurred by the necessity of monitoring executive conduct to prevent the abuse of owner interests. Agents are always selected by principals. Agency theory works on the following Structure:



The main thrust of the agency theory runs like this. In modern society share ownership is widely held, managerial actions depart from those required to maximize shareholder returns.There are few issues which create problems among shareholder and agent which are defined as follows:

1) **Agency Problem**: This problem arises when agent are not able to take decision in the interest of principal. Agents become selfish and take care of their own interest as compared to interest of principal. Due to his selfishness and opportunistic behavior organization and principals goals cannot achieved.
2) **Agency Cost:** The cost which is inflicted by agency problem is called agency cost. This cost includes bonus schemes, incentives, fringe benefits, dividends etc.

There are two broad mechanisms that help to reduce agency costs and hence improve corporate performance through better governance which are as follows:

1) **Fair and Accurate Financial Disclosures**: Financial and non-financial disclosures which relate to the role of the independent statutory auditors appointed by shareholders to audit a company‘s accounts and present a ‗‘true and fair“ view of the financial health of the corporation. A company that discloses nothing can do anything. Improving the quality of financial and non-financial disclosures not only ensures corporate transparency among a wide group of investors, but also persuades behavior. This is also why a good deal of effort in global corporate governance return has been directed to improving the quality and frequency of disclosures

2) **Efficient and Independent Board of Directors**: A joint stock company is owned by the shareholders, who appoint directors to supervise management and ensure that it does all things that are necessary by legal and ethical means to make the business grow and maximize long-term corporate value. Directors are accountable only to the shareholders.

Agency theory assumptions have nevertheless been highly influential is shaping the reform of corporate governance systems. Here it is essential to distinguish between external, market-based governance mechanisms and board-based mechanisms. In relation to market governance then clearly the openness and integrity of financial disclosures is vital to the operation of the stock market in determining a company's shareprice and its underlying market valuation. Market governance relies for its effectiveness on the remote visibility such financial information creates, and, as importantly, on the effects on the executive mind of the knowledge of such visibility. Agency theorists point to the important disciplinary effects of two further market mechanisms. The first is the 'market for corporate control', the potential for takeovers to discipline executives by providing a mechanism whereby ineffective executive teams can be displaced by more effective executive teams. The second - 'the managerial labour market' - operates at an individual level; poor executive performance will threaten an individual's future employment potential whilst good performance will have positive reputational and hence career-enhancing effects.

In addition to these external market and monitoring mechanisms, agency theory has also informs the internal reform of boards of directors. One of its most significant direct contributions came in the form of the widespread adoption of employee stock option scheme. Such scheme follow directly from the agency assumption that the exercise of executive self-interest must be aligned with the interests of shareholders. The 'independence' of the non-executives directors who must placed on of the board, their lead role on audit, nominations and remuneration committees where conflicts of interest between executive and shareholder are potentially most acute, along with progressively more stringent provisions around the separation of the roles of chairman and chief executive, are all consonant with agency theory's assumption that the interests of the owner/ shareholder are potentially at risk from executive self-interest, in the absence of close monitoring by independent non-executives.

STEWARDSHIP THEORY

Stewardship theory was given by Donaldson and Devis. This theory is mainly based upon two fields of social sciences i. e. Psychology and Sociology. According to dictionary meaning, steward is a person who take care of others property and financial affairs.

Principles of Stewardship Theory

The stewardship theory assumes that managers are basically trustworthy and attach significant value to their own personal reputations .It defines situations in which managers are steward whose motives are aligned with the objective of their principal. A steward behavior will not depart from the interest of his/her organization. Contrary to agency theory's pessimistic assumptions about the self-interested and self-serving motives of executives, stewardship theory suggests the potential for what it calls the 'pro-organizational' motives of directors. What drives performance here is not the aligned greed of an executive but their personal identification with the aims and purposes of the organization. Stewardship theory refutes the assumption that executive aims and motives are opposed to those of the shareholder; both, it insists, have an interest in maximizing the long-term stewardship of a company and are therefore already well aligned control can be potentially counterproductive, because it undermines the pro-organizational behavior of the steward by lowering his/her motivation.

Basic issues in Stewardship Theory

This theory can be reduced to the following basic issues:

1) This theory defines situations in which mangers are not motivated by individual goals, but rather they are steward whose motives are aligned with the objectives of their principals.
2) This theory gives a choice between self- serving behavior and pro-organisational behavior.
3) It also controls potentially counter productive as it easily assess the pro-organizational behavior of steward.

The responsibility of board to shareholders in terms of stewardship and trusteeship cannot be overemphasized. These concepts of stewardship and trusteeship are not new. The scored scriptures, both in India and Christendom emphasis the almost filial relationships between the rulers and the ruled. Gandhiji too elaborated the concept of trusteeship to make Indian industrialists better understand and appreciative their roles and responsibilities towards their employees.

Difference between Agency Theory and Stewardship Theory

Though the Agency and Stewardship theories have something in common there are certain basic differences. The following table below summaries the main differences between the two as follows:

AGENCY THEORY	STEWARDSHIP THEORY
1. Managers act as agents	Managers act as Steward
2. Managers are motivated by own objectives	Mangers are motivated by principal's objectives
3. There is little attachment to the company	There is great attachment to the company

4. Time frame is short term — Time frame is long term

5. Risk orientation is done through a system of control — Risk orientation is done through trust

6. Social comparison is between compatriots — Social comparison is between principals

7. Management philosophy is control oriented — Management philosophy is involvement oriented

Activity-2

Principles of Stewardship Theory____

______________________________-______________________________

______________________________-______________________________

______________________________-______________________________

______________________________-______________________________

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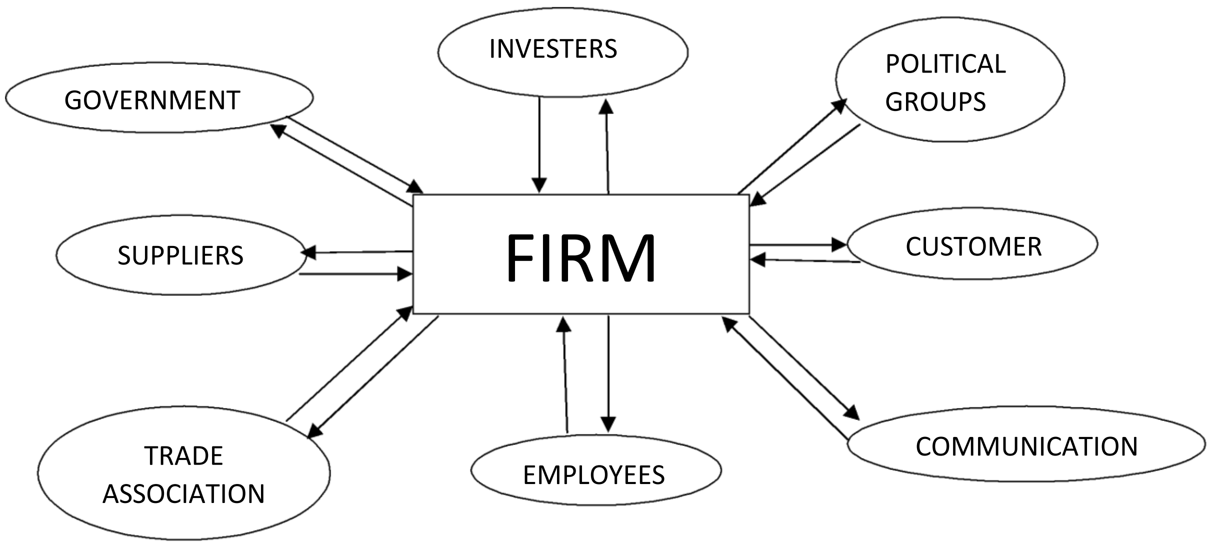
STAKEHOLDER'S THEORY

This theory is propounded by Donaldson and Preston in 1995. This theory has a lengthy history that dates back to 1930's. The theory represents a synthesis of economics, behavioral science, business ethics and the stakeholder concept.

This theory is grounded in many normative theoretical perspectives including ethics of care, the ethics of fiduciary relationships social contract theory, theory of property rights and so on. Stakeholder theory is often criticized mainly because it is not applicable in practice by corporations.

Stakeholder theory challenges agency assumptions about the primacy of shareholder interests. Instead it argues that a company should be managed in the interests of all its stakeholders. These interests include not only those of the shareholder but also a range of other direct and indirect interests. The employee is obviously a key stakeholder and there have been long-running arguments amongst governance academics such as Margaret Blair that employees just as much as shareholders are 'residual risk-takers' in a firm. An employee's investment in firm-specific skills means that they too should have a voice in the governance of the firm. But stakeholder theory would also insist that other groups - suppliers and customers - have strong direct interests in company performance while local communities, the environment as well as society at large have legitimate indirect interests.

This theory considers the firm as an input-output model by explicitly adding all interest groups-employees, customers, dealers, government and the society at large to the corporate mix.



THE STAKEHOLDER MODEL

The argument that is repeatedly raised against a stakeholder view of the firm is that it is hard to operationalise because of the difficulties of deciding what weight should be given to different stakeholder interests. In terms of corporate governance it is argued that, were executives to be made accountable to all of a company's stakeholders they would, in effect, be answerable to none. Enlightened stakeholder theory therefore suggests the practical value of accountability to shareholders even if a board takes other interests into account in its conduct of a firm.

In relation to company performance, however, stakeholder theory has made a number of key contributions. The recent profusion of interest in business ethics can be traced to stakeholder ideas. Excessive levels of executive pay and the way that these have often gone hand in hand with company downsizing and all its negative impacts on employees and local communities undermine the legitimacy of the demand for 'shareholder value'. Corporate failures and associated pension fund collapses threaten both the basis of the traditional psychological contract as well as the 'license to operate' that underpins the privileges afforded by society to corporate entities. Globalisation has also brought with it the rise of the single-issue pressure group and a heightened visibility to corporate practices - the use of child labour, environmental damage, corruption - that might formerly have remained hidden from sight. The importance that is now given to corporate value statements, as well as the board's role in creating corporate ethics codes, and social and environmental reporting all reflect an acknowledgement of a wider set of corporate obligations beyond the delivery of shareholder value, or at least insist that such performance must be realized within certain ethical constraints.

The most direct contribution of stakeholder ideas to company performance is to be found in Kaplan and Norton's (1992) ideas about the Balanced Scorecard and the revolution in performance measurement that this has encouraged. Kaplan and Norton acknowledge the power of measurement on performance, as well as the potential distortions on operational effectiveness that can arise from purely financial accounting measures like earnings per share or return on investment.

The Balanced Scorecard embodies key stakeholder interests in a firm-specific set of measures that link important operational drivers to financial performance. It therefore provides managers with a way to explore the inter-dependencies between customer‘s needs and what the company must do operationally to meet these needs and sustain competitive success. It has both an immediate performance focus as well as pointing to key areas for continuous improvement and innovation. Kaplan and Norton suggest that the orientation of traditional performance systems is the 'control' of individual behavior through measurement. By contrast, the focus of the Balanced Scorecard, they suggest, is 'strategy and vision', that establishes goals but then promotes initiative and learning - both individual, team, and across-functions - in pursuit of such goals. From this perspective, the key role of senior executives and the board lies in the setting of company strategies and vision. High performance depends on the board's understanding of the key business and competitive drivers, its capacities for strategic thought, as well as its communication and leadership skills in relation to staff, customers and financial markets

SOCIOLOGICAL THEORY

This theory is focused on board composition and the implications for power and wealth distribution in society. Problems of interlocking directors and the concentration of directorships in the hands of a privileged class are viewed as major challenges to equity and social progress. In this theory board composition, financial reporting, disclosure and auditing are compulsory to promote and growth of equity and fairness in society**.**

Check Your Progress B

Note: Choose the right option

1describes the relationship between principal
and agent. Principals expect that agent should act according to them and make decisions in the interest of them.

a. Sociological theory

b. Agency theory

c. Balanced score card

d. Stewardship theory

2focused on board composition
and the implications for power and wealth distribution in society.

a. Sociological theory

b. Agency theory

c. Balanced score card

3.assumes that managers are basically
trustworthy and attach significant value to their own personal reputations.

a. Sociological theory

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d. Stewardship theory

4---'strategy and vision', that establishes goals but then promotes initiative and learning or both individual, team, and across-functions in pursuit of such goals.

a. Sociological theory

b. Agency theory

c. Balanced score card

d. Stewardship theory

5. Balanced score card was given by **- - - - - - - -- - - - - - - - -**

a. Kaplan and Norton

b. Donaldson and Preston

SUMMARY

Corporate governance refers to the set of systems, principles and processes by which a company is governed. They provide the guidelines as to how the company can be directed or controlled so that it can fulfill its goals and objectives in a manner that adds to the value of the company and is also beneficial for all stakeholders in the long term. Stakeholders in this case would include everyone ranging from the board of directors, management, shareholders, customers, employees and society. Corporate governance is based on principles such as conducting the business with all integrity and fairness, being transparent with regard to all transactions, making all the necessary disclosures and decisions, complying with all the laws of the land, accountability and responsibility towards the stakeholders and commitment for conducting business in an ethical manner. Major issues in corporate governance reports have included the role of board, risk management and corporate social responsibility, the quality of financial reporting and auditing, director‘s remuneration. Agency theory describes the relationship between principal and agent. Principals expect that agent should act according to them and make decisions in the interest of them. This raises the prospect that the executive, as agent, will serve their own interests rather than those of the owner principal. To counter such problems the principal will have to incur 'agency costs'; costs that arise from the necessity of creating incentives that align the interests of the executive with those of the shareholder, and costs incurred by the necessity of monitoring executive conduct to prevent the abuse of owner interests. The stewardship theory assumes that managers are basically trustworthy and attach significant value to their own personal reputations,it defines situations in which managers are steward whose motives are aligned with the objective of their principals. Stakeholder theory suggests the practical value of accountability to shareholders even if a board takes other interests into account in its conduct of a firm. Sociological theory is based on the focused on board composition and the implications for power and wealth distribution in society.

Keywords:

Dividend: Distribution of profit to shareholders

Agency cost: Cost which is inflicted by agency problem is called agency cost

Agency problem: Problem when agents are not able to take decision in the interest of principal.

Agency Theory: Agency theory describes the relationship between principal and agent. Principals expect that agent should act according to them and make decisions in the interest of them. This raises the prospect that the executive, as agent, will serve their own interests rather than those of the owner principal

Stewardship theory: Stewardship theory defines situations in which managers are steward whose motives are aligned with the objective of their principles

ANSWERS TO CHECK YOUR PROGRESS

Check your Progress A

1. True
2. True
3. b
4. False

Check your Progress B

1. b
2. a
3. d
4. c
5. a

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TERMINAL AND MODEL QUESTIONS

1. What do you mean by corporate governance? Discuss its need importance and major issues in corporate governance.

2. Do conflict of interest in management and stakeholder can occur? Discuss agency theory.

3. Critically explain theories of corporate governance?

4. Explain agency theory and stewardship theory of corporate governance. What is major difference in these theories?

LESSON – 3

Capital Market efficiency

Structure

OBJECTIVES

After reading this lesson, you should be able:

- To understand the capital market efficiency.
- To explain different types of efficient market.
- To study relationship in information and price of security.
- To understand evaluation techniques of different type of efficient market.

INTRODUCTION

Price of security is sensitive to dissemination of company news. News which has positive impact on price of security is positive news and news which has the negative impact on price of security is negative news. News if distributed in public is public news and news that is not distributed to public is private new. In this topic we will study the relationship of the news on the price of the security. In efficient market, each and every news (public or private) has its impact on the price of the security.

MEANING OF EFFICIENT MARKET

The concept of efficient market with respect to information was introduced by Fama (1970). Efficient capital market is market where the price of a security (such as a share) accurately reflects all available information. If the new information is received in the market, the reaction of market prices to new information will be instantaneous and unbiased. An efficient capital market is characterized by the rapid adjustment of security prices to the arrival of new information so that they reflect this information and enable investors to make well-informed investment decisions. Investors enter a capital market to buy or sell a security at a certain price that is justified by the prevailing supply and demand. To determine appropriate price, the market participants should be able to acquire timely and accurate information on the volume and price of past transactions. These historical data determine current bids and offers.

Efficient Market as per

According to Fama (1970)

‗A market in which prices always `fully reflect` available information is efficient`.‖

According to Malkiel (1992)

"A capital market is fully efficient if it correctly reflects all information in determining security prices. Formally, the market is said to be efficient with respect to some information set… if security prices would be unaffected by revealing that information to all market participants. Moreover, efficiency with respect to an information set… implies that it is impossible to make economic profits by trading on the basis of [the information in that set].‖

The efficient market hypothesis (EMH) holds that investors, who buy securities at efficient prices, should be provided with accurate information and should receive a rate of return that implicitly includes the perceived risk of the security. The fundamental value of securities is the present value of the expected cash flows that investors will receive in the future. To anticipate these cash flows, the market should reflect all new available information in current security prices so that investors may use this information as the best forecasting tool of future value. The term "new information" implies information that was not known before and could not be predictable, because if it was predictable it would have been integrated in the security prices. In this aspect, securities trade at their fair value protecting investors from buying undervalued stocks or selling overvalued stocks.

Assumptions of Efficient Capital Market

In an efficient market, participants actively compete and seek for profit maximization on the grounds of accurate prediction of future cash flows of individual securities, EMH assumes that an efficient market requires

1. **Large Number of participant:** In an efficient market there are large number of buyer and seller of the securities, the aim of all the participant of buying and selling securities is to increase profitability from portfolio of securities. They try to predict the fair price of the securities.
2. **Information:** Price of the securities is affected by the market information. There is free flow of market information, and information keep on coming and there is immediate effect of information on price of securities.
3. **Profit-maximizing investors:** Profit-maximizing investors, who adjust security prices upon release of new information.

Different Price Reactions: There are two type of price reaction to the market information, these are;

1. **Instantaneous price reaction**: An instantaneous price reaction would, in practice, mean that after new information becomes available, it should be fully reflected in the next price determination in the market.
2. **Non-instantaneous price reaction**: If the market fails to react instantaneously, what simple rules can share traders follow to generate excess profits? So if the information does not have instantaneous reaction then investor either can gain heavily or loss heavily. There will be biasness in estimation of prices of securities. These can be

   Overreaction: A biased response of a price to information in which the initial price movement can be expected to be reversed.

   Under reaction: A biased response of a price to information in which the initial price movement can be expected to continue.

   TYPES OF EFFICIENT MARKET

   There are three types of efficient market

Weak-form efficiency **Semi-strong form efficiency** **Strong-form efficiency**

1. **Week Form of Efficiency**: The information contained in the past sequence of prices of a security is fully reflected in the current market price of that security.The weak-form efficient market hypothesis assumes that current security

prices reflect all the information available in the market including the historical price data, total trading volume data, and rates of return. Since the hypothesis assumes that security prices already reflect past information, it implies that the future rates of return should not depend on historical data, but instead, they should be independent. Consequently, in order to gain from buying or selling their securities, investors should not base their decisions on technical analysis or the study of past rates of return.

2. **Semi-Strong form Efficiency:** Semi strong form of market assumes that all publicly available information is fully reflected in a security's current market price.The semi-strong form efficient market hypothesis assumes that security prices adjust quickly to the new information available in the market and they reflect all public information, namely historical price data, total trading volume data, rates of return, earnings, dividend payments, Price/Earnings (P/E) ratios, book value (B/V) ratios, market value (M/V) ratios, stock splits, and economical and political news. Since the hypothesis assumes that security prices reflect all public information, it implies that investors, who buy or sell securities based on new public information, should expect profits that reflect an average risk-rate of return after trading costs are calculated since the new public information is already incorporated in security prices. Therefore, investors base their investment decision making on fundamental analysis and the study of a firm's financial statements.
3. **Strong-Form Efficiency:** Strong-form efficiency assumes that all information, whether public or private, is fully reflected in a security's current market price**.**The strong-form efficient market hypothesis integrates both the weak-form EMH and semi strong form EMH assuming perfect markets. Information is cost-free and no group of investors can control the market with monopolistic access to information. Therefore, investors cannot base their investment decisions on technical analysis, fundamental analysis or inside information, but on the other hand they should consistently expect profits that reflect an above average risk-rate of return.

   In strong form of the efficiency an investor cannot earn abnormal returns from having inside information. If this were true, investors would have no incentive to seek information. The information is useless for the investor if he is not able to generate the abnormal gain from the information, if the market is less than strong-form efficient, there are incentives for investors to seek information. Capital market can be efficient only if at least one investor believes it to be inefficient.

Activity-1

Describe types of efficient market____________________________________

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EVALUATION OF MARKET EFFICIENCY

Fama had classified the markets in three forms week form of efficiency, semi strong form of efficiency, and strong form of efficiency. He used the research methodology to evaluate the efficiency of capital market, he used the following methodologies:

1. Tests of returns predictability
2. Event studies
3. Tests for private information

1. Test of return predictability

The test of return predictability tries to predict the price of securities on the basis of past events. The present price of security is totally adjusted in efficient market by the past available information. There are three aspect of return predictability;

a. Relationship between past and future returns
b. Seasonal effects in returns
c. Predicting returns on the basis of some other forecast variable

a. Relationship between Past and Future Returns: In an efficient market, all information in past prices should be reflected in current prices. In week form of efficiency there are many tests for predicting the future return with the past information.

i. Random Walk Theory: Early tests focused on random walk hypothesis.

In 1900, a French mathematician named Louis Bachelier wrote a paper suggesting that the security price fluctuation were random. In 1970 Fama stated that the efficient market fully reflect the available information. If the market is efficient, the security price reflects the normal returns for the level of risk.

ii. **Serial Co-relation Test**: Serial dependence in daily returns can arise from end-of-day price quotes that fluctuate between bid and ask (Roll, 1984).To test the independence between the successive price change of security serial co-relation technique is used.Serial co-relation studies the co-relation co-efficient in series of number with the lagging value of the same series. The current change in price is correlated with the previous price change. Scattered diagram can be used to find out the correlation. But many studies conducted on security price movement have failed to show any correlation. Fama conducted serial correlation for 30 stocks for period 1958-62 with different t periods from t+1 to t+10. The result of serial co-relation are found to be insignificant, if there was some correlation between the prices still the chart was not able to predict the future price of security.

iii. **Runs Test**: Runs test are conducted to find out whether the series of price movements have occurred by chance. A run is an uninterrupted sequence of same observation. The consecutive rise in price was considered as positive run and decline is considered as negative run.

iv. **Short Term Predictability**: There were different test done by different researcher to predict the price of security in short run. Evidence from different researcher is mixed. Lo and MacKinlay (1988) find positive serial correlation in weekly returns.A re-examination of more recent data by Lo and MacKinlay (1999) finds the result is no longer as strong as previously found. Conrad and Kaul (1988, 1989) studied serial dependence in weekly stock returns.They point out that if the expected returns follow an autoregressive process, the actual returns would be described by the sum of an autoregressive process and thus follow the autoregressive and moving average (ARMA). The autoregressive and moving average coefficients would be expected to have the opposite signs.If current expected returns increase, it may signal that future expected returns are higher, but stock prices may fall in the short run because the future cash flows are discounted at a new higher rate. The two effects offset and returns could have small autocorrelations. Estimating ARMA models, they found that the autoregressive coefficient for weekly returns on stock portfolios is positive, near 0.5, and can explain up to 25% of the variation in the returns on a portfolio of small-firm stocks. Brailsford and Faff (1993) find positive serial correlation in daily returns for top 50 stocks on ASX. Brailsford (1995) examines returns over 5-minute intervals within a trading day He examine the strong evidence of positive serial correlation.

v. **Long Range Predictability**: There was another group of researchers had suggested that there might be other kinds of inefficiency that will be detected only by taking a long-term view. They have view that the pricing errors that are eliminated so slowly that it could take years for the market to eliminate the errors. Fama and French (1988) find evidence of this kind of behavior in stock returns. In a weak-form version of relative predictability, past stock prices or returns are used to form the groups.If past winner (loser) stocks have predictably higher (lower) returns, we have continuation or ‗momentum'. If past winner stocks can be predicted to have lower future returns, we have ‗reversals'. Relative predictability can be evaluated by viewing across-sectional regression – an approach taken by Jegadeesh (1990). Lehman (1990) finds some evidence for reversals in the weekly returns of US stocks. Jegadeesh(1990) finds some evidence for reversals at a monthly return frequency. Jegadeesh and Titman (1993) find that relatively high-past-return stocks tend to repeat their performance over 3 to 12 month horizons. They study US data for 1927–1989, but focus on the 1965–89 period. DeBondt and Thaler (1985) find that past high-return stocks perform poorly over the next 5 years, and *vice versa*, a form of relative predictability. They interpret reversalsin long-horizon relative returns as evidence that the market over-reacts to news about stock values, and then eventually corrects the mistake.Several studies have found evidence of long-run share return reversals: Lee and Swaminathan (2000) and Jegadeesh and Titman (2001) for the US, and Brailsford (1992) and Allen and Prince (1995) for Australia .

b. **Seasonal Effects in Returns:** There was presence of seasonal effect on returns of stocks; several studies were conducted to prove this. In USA, the average return on stocks were five times more than average returns in rest of 11 months. In Australia December and January together contribute more than half the yearly return given by stocks. Possible reason for this can be year end closing and adjustments of taxes for year. Investment strategy, in which the tax rules make it attractive for an investor to sell certain shares just before the end of the tax year, so that they can, do tax planning in better way. The studies were conducted to find out turn- of – the month on stock returns and it was found out that on average, share prices increases abnormally at the start of each month, Evidence of such effects in the US, Australia, UK, Switzerland and West Germany were noticed. Studies were conducted on daily price movement of stocks and return predictability and found out that the average return of market was negative on Mondays and positive on Friday. Study done by Rubenstein (2001) showed that the Monday provides best returns and Thursday provides the worst returns. There are large positive average returns on the days preceding public holidays. Few studies shows relationship of intraday movement of stock timing and return on stock, Hodgson (1992) finds positive returns in opening and closing trading intervals (10 minutes) and negative returns mid-morning and afternoon.Positive return on opening may be result of overreaction to news released during market‘s closure.

c. Predicting Returns on the Basis of Some other Forecast Variable: There are few more theories which show relationship to stock returns these are

i. Small Firm Effect: The theory of small firm effect maintains that investing in small firms or firms who have lesser market capital provides superior risk adjusted returns. Benz found that the size of the firm has been highly co-related with returns. Several other studies confirmed the relationship of return and small size of firm. The risk associated with the investment in small size firms is also to be calculated. The correct measurement of risk and return of portfolio of small size firm tends to eliminate at least 50% of the small size effect.

ii. Dividend Yield Effect: Dividend yield can be calculated by Dividend per or Market price per share. It was studied that when dividend yield is high the beta adjusted return on stock is also high. So this shows that there is relationship between the dividend yield of the stock and beta adjusted stock returns.

iii. Price Earning Effect: Price earning is ratio of earning per share and market price per share. Many studies have provided that the stock with low price earnings ratio yields higher returns than stock with higher PEs. This is known as low PE effect. The results show that low PE portfolios experienced the superior returns relative to the portfolio with higher PE ratio.

iv. Book to Market Value Effect: The firms have two valuation book value or market value. Book to market value of firm is book value of a company's equity divided by market value of the company‘s equity, even after adjusting for beta risk. There is a relationship between share returns and book-to-market ratios. Fama and French (1992) found that companies with low book-to-market ratios tended to earn low returns, while companies with high book-to-market ratios tended to earn high returns. Australian evidence of relationship of book to market value and return is mixed.Halliwell, Heaney and Sawicki (1999) finding no effect, while Faff (2001) using a later sample finds evidence of the book-to-market effect.

vi. Filter Effects: A filter rule states that a transaction for a security should occur when its price has changed by a given percentage over a specified period of time. For example, Alexander [1961] suggested that one might infer that a price increase of a given proportion indicated an upward trend, and should serve as a purchase signal. He concluded that there were identifiable trends in security prices, though his study was somewhat unsophisticated by today's standards. For example the stock price range is 20-30 and filter is placed at 10%. So the chances of high return is very increased when it crosses 22 and same way

3.5 CHECK YOUR PROGRESS A

Note: Choose correct option

1. When the price of the security reflects all the past information it is a ________ ___ _ _ _ __________ _ _ _ _ _.

a) Week form of efficiency

b) Strong form of efficiency

c) Semi strong form of efficiency

d) None of these

2. When all the information public or private is immediately reflected in the price of security it is a____________________________- ..

a) Week form of efficiency

b) Strong form of efficiency

c) Semi strong form of efficiency

d) None of these

3. When all the publically held information is immediately reflected in the price of security it is a________________________- ...

a) Week form of efficiency

b) Strong form of efficiency

c) Semi strong form of efficiency

d) None of these

chances of price fall are very high when it come from 30 to 27, or 10% fall from high.

2. Events study

3. Efficient market hypothesis requires security prices to adjust instantaneously to an event, such as a public announcement. As per semi strong form of market the price reaction to public information is very rapid. The prices not only reflects the past prices data, but also the available information regarding earning of corporate, dividend, bonus issue, right issue, merger, acquisition and so on. In semi strong market the few insiders can earn profits on short run price changes rather than investor who are not having insider information.

Event study is a research method that analyses the behavior of a security‘s price around the time of a significant event such as the public announcement of the company‘s profit. So price of the stock is determined by demand and supply of stock with increase in demand the price increases and with the decrease in demand price decreases in semi strong market if positive news is flashed then the demand of stock increase resulting increase in prices and if negative new is flashed the supply of stock increase and demand decreases, resulting in decrease in stock prices. So event study is research method, which shows the relationship of public new and its effect on price movement of stock. In event study the following questions are to be answered

- What is the (new) information?
- When was it announced?
- Were there abnormal returns associated with its announcement?

Fama, Fisher, Jensen and Roll were the forerunner in examining the semistrong form of EMH, they analysed the effect of stock split on share prices. The authors have developed a method to compute abnormal returns by using simple regression techniques. To estimate the returns, the security returns were regressed against the return of the stock market index. The equation is given below

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + u_{i,t}$$

where

$R_{i,t}$ = rate of return on security in period t

$R_{m,t}$ = rate of return on the market index in period t

α_i = constant in regression equation

β_i = slope of regression equation (beta of security i)

$u_{i,t}$ = Disturbanc e term for the time period t

The authors have reviewed the hundred of the cases of efficient corporations and dissimilar sample period to study the effect of the stock split. They examined the 940 cases of stock split. The price behavior was studied 29 months prior to and after the date of stock split. According to them the simple strategy of buying the stock after the stock split would not appear to produce abnormal returns. The study results of the authors provide evidence for the semi strong form of market efficiency.

Activity-2

Explain event study____-

3. Test of Private Information

The strong form of the market states that all the information is fully reflected in security price. This is extreme hypothesis which most of the observer believe not to be realistic. The strong form of the market efficiency believes that not only public information but private information is not relevant for investor and all the public and private information are immediately reflected in stock prices. So the information public or private does not give any chance to earn extra profit. The test of the private informationcan be done on the investors who consistently earn abnormal profits. These can be

a. **Corporate insider**: Corporate insiders include major corporate officers, directors, and owners of 10% or more of any equity class of securities who have more access to insider information. Insiders must report to regulatory authority each month on their transactions as insiders. These insider trades are made public about six weeks later and allow for study.
b. **Stock Exchange Specialists**: Stock exchange specialists have monopolistic access to information about unfilled limit orders of the stock that are traded on stock exchange. You would expect specialists to derive above-average returns because of their superior information about the trading of stock.
c. **Security Analysts**: Security analysts are the persons or firms who are having more access to private information; they keep on analyzing the stock movement they are also in touch with management of the company.
d. **Professional Money Managers**: Money manager are the person or firms which manages the money of investor and channelize money to earn extra returns for the investors. Most of the Risk-adjusted returns of mutual funds generally did not match aggregate market performance; mostly they beat the market performance.

Random Walk Model: Many of the test for the strong form of the efficient market hypothesis deal with mutual fund performance. Jensen had studied the 115 funds over a decade, He concluded that even through the analysts are well endowed with wide ranging contracts and associations in both business and financial committees, they are unable to forecast returns accurately enough to recover the research and transaction cost. According to random walk model all the publically available information is fully reflected in stock prices and further the stock prices instantaneously adjust themselves to the available new information. According to them the market may have imperfections like transaction cost and delay in disseminating the information's to all the market investors but these sources of inefficiency may not result into excess returns above the normal returns. The normal return is considered to be earned by naïve buy and hold strategy. The random walk model deals with the absolute price change and not with relative price change. The prices may move at random but this does not indicate the there would not be upwards or downward movement of prices.

BEHAVIORAL FINANCE AND THE EMH

Behavioral Finance is growing field of study in finance. The area of behavioral finance seeks to incorporate how humans actually behave rather than assuming ultra-rational behavior. Behavioral finance incorporates the ways in which psychology may impact investment decisions. It has been useful for explaining various ―anomalies‖ that we observe in decision-making that are difficult to reconcile with rationality. Behavioral finance is study of human fallibility in competitive markets. Behavioral finance suggests that arbitrage is risky when market participants are behaving irrationally. This irrational behavior can arise from a belief that a share price will continue to rise (fall) and if it is not purchased (sold) immediately a profit (loss) will be forgone. So Market sentiment plays a role in market inefficiency. Sometime when sentiment in market is negative investors sell the securities at lesser rate either they feel that price will go down further or will buy at lesser price again. This type of behavior can lead to the formation of what is often referred to as asset price bubbles. Price bubbles show a strong tendency to rise of prices for a period, possibly followed by a decrease, which may be quite sudden and the price of stock deviate from its fundamental price. Bubbles can be rational if there is a belief of high and increasing future profits. These beliefs justify rising share prices.

Implications of Market Efficiency

Overall results indicate the capital markets are efficient as related to numerous sets of information.There are substantial instances where the market fails to rapidly adjust to public information.

- So, what techniques will or won't work?
- What do you do if you can't beat the market?

Efficient Markets and Technical Analysis: Technical analyst believes that stock prices move in patterns that persist and are predictable to the informed investor. Technical analysts develop systems to detect trends and patterns in prices of stocks. If the capital market is weak-form efficient, a trading system that depends on past trading data can have no value. So in week form of the efficient market the future price reflects the past available information.

Efficient Markets and Fundamental Analysis: Fundamental analysis is based on the belief that the market either ignores some publicly available information, or systematically misinterprets that information. Therefore, careful analysis of available information may reveal mispriced securities and, therefore, excess returns can be made by the skilled fundamental analyst.

Efficient Markets and Portfolio Management: Research indicates that most money managers do keep pace with the market and keep upgrading the information and trade on information to beat the market returns. Passive management may outperform active management and Portfolio Manager build a globally diversified portfolio with a risk level matching client preferences and Minimize transaction costs (taxes, trading turnover, liquidity costs).

3.8 CHECK YOUR PROGRESS B

Note: choose correct options

1. tries to predict the price of securities on the basis of past events.
   a. Event studies
   b. Test of return predictability
   c. Test of private information
   d. None of these
2. shows the relationship of public new and its effect on price movement of stock.
   a. Event studies
   b. Test of return predictability
   c. Test of private information
   d. None of these

3. incorporates the ways in which psychology may impact investment decisions.

   a. Event studies
   b. Behavioral finance
   c. Test of return predictability
   d. Test of private information

4. can be done on the investors who consistently earn abnormal profits.

   a. Event studies
   b. Behavioral finance
   c. Test of return predictability
   d. Test of private information

SUMMARY

Efficient capital market is market where the price of a security (such as a share) accurately reflects all available information. The efficient markets are of three type's a week market, semi strong market and strong market efficiency. Week market is market where price of the security reflects the past information. Semi strong form of market is where price of security is immediately reflected by all the public information. The strong form of market is market where price of security is immediately reflected by all the public and private information, this is situation where investor does not earn abnormal profits. Test of return predictability tries to predict the price of securities on the basis of past events.Event studies show the relationship of public new and its effect on price movement of stock. Test of private information is test for strong form of efficiency. This test is done on the investors who earn abnormal profits.

Keywords:

Week Form of Efficient Market: Week market is market where price of the security reflects the past information

Semi Strong Form of Efficient Market: Semi strong form of market is where price of security is immediately reflected by all the public information

Strong Form of Efficient Market: The strong form of market is market where price of security is immediately reflected by all the public and private information

Security Analyst: Person who analysis the security

Event Study: Behavior of security on happening of significant event

ANSWERS TO CHECK YOUR PROGRESS

Answer to Check Your Progess A

1. a
2. b
3. c

Answer to Check Your Progress B

1 b

2.a

3 b

4 d

REFERANCE AND SUGGESTED READINGS

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TERMINAL AND MODEL QUESTIONS

1. What do you understand by efficient market? Discuss the different types of efficient market.
2. Discuss test of return predictability in detail.
3. Write note on

a. Event studies
b. Private information

4. What do mean by behavioral finance? Explain the relationship with EMH.

Lesson 4

CAPITAL STRUCTURE DECISION

Structure

Objectives of Study

Introduction

Meaning of Capital Structure

Capital Structure Theory in Perfect Market

Debt Covenant

Designing of Debt Covenant

Convertibles

Mandatory Convertibles

Summary

Answer to Check Your Progress

Glossary

References and Suggested Reading

Terminal and Model Questions

OBJECTIVES

After reading this lesson you will be able to learn following things

- **Meaning of capital structure**
- **Capital structure in perfect market**
- **Meaning of debt covenant**
- **Types of debt covenants**
- **Design of debt covenant**
- **Meaning and benefits of convertibles**
- **Meaning and suitability of mandatory convertibles**

INTRODUCTION

No business can be run without finance or without money. Finance is one of the key factors of production. There are several choices available with entrepreneurs for raising of finance for the business. It can be raised through equity capital, preference capital, borrowed capital (short term or long term). Businessman can raise finance through any one method or can use combination of various methods. Combination of various method of finance is capital structure. Each source of finance has its pros and cons, so the businessman or firm has to take decision by taking all these into consideration. Aim of the firm is to limit the cost of funding and also share the profitability with its stakeholder, which in turn increase the value of stakeholders. Equity and Debt both are key sources of finance for business or firm.

MEANING OF CAPITAL STRUCTURE

The major requirement for efficient running of business is requirement of finance or in other words money is required. There are different sources through which businessman can mobilize the money for business, it can be equity capital or can be debt. So capital structure is deciding the optimal mix of equity capital, preferred capital, short term borrowing or long term borrowing in fulfilling total financial needs of business. The term capital structure refers to the percentage of capital (money) at work in a business by type. Broadly speaking, there are two forms of capital: equity capital and debt capital. Each has its own benefits and drawbacks and a substantial part of wise corporate stewardship and management is attempting to find the perfect capital structure in terms of risk / reward payoff for shareholders. So the capital structure means deciding the optimal ratio for different sources of funds. The two principal sources of finance for companies are equity and debt. What should be the proportion of equity and debt in the capital structure of the firm? One of the key issues in the capital structure decision is the relationship between the capital structure and the value of the firm.

Capital Structure in Perfect Market: To understand the capital structure in perfect market it is necessary to know what is perfect market

Meaning of Perfect Market: Perfect market has following characteristics

1. Large number of individuals and companies are present in market; none of them is large enough to distort market prices or interest rates by their own action.
2. All the market participants are free to borrow or lend (invest), or to buy or sell shares.
3. There is no transactional cost other than interest rate in borrowing and lending the money.
4. All the investors have free access to all the financial information of projects of firms, or in other words investors are well informed.
5. Investors are rational.

6. Firms can be grouped into equivalent risk classes on the basis of their business risk and investors can invest in other companies of equivalent risk, in order to earn their required rate of interest
7. Tax system is neutral; there is no tax on income.

CAPITAL STRUCTURE THEORY IN PERFECT MARKET

Modigliani –Miller (MM) have given the theory for capital structure in perfect market. They assume to Prevail perfect market conditions in their theory and given all the assumptions which is mentioned above in perfect market.MM approach maintains that the weighted average cost of capital does not change with the change in debt and equity ratio or capital structure of the firm. It also gives the operational justification of the approach. This approach denies the optimum level of capital structure suggested by traditional view.

Propositions Given by MM:

MM derives the following three propositions

1. The total value of the firm is equal to its expected earning divided by discounted rate appropriate to its risk class. It is independent of leveraged class.

   $V=EBIT/K0$

   Where EBIT= Expected earnings before interest and taxes

   K0= Discount rate or overall cost of capital

   V= value of firm

2. The expected yield on equity is equal to capitalization rate plus premium. Premium is equal debt equity ratio times the difference of cost of equity and cost of debt.

   $Ke= K0 + (K0-Kd)\ D/S$

   Ke= Cost of leveraged equity

   K0= Cost of unleveraged equity

   Kd= Cost of debt

   D= market Value of debt

S= market value of equity

3. The cut off rate for investment decision making for the firm in a given risk class is not affected by the manner in which the investment is financed. It means that the cut-off rate for investment proposes is completely independent of the way in which investment is financed.

The MM approach maintains that the weighted average cost of capital does not change with the combination of equity and debt in capital structure and market value of firm is also not affected by leverage ratio of firm. As per the MM approach the total investment value of a firm depends upon its underlying profitability and risk. The operational justification for the MM approach is the arbitrage process discussed in following heading.

Arbitrage process: The term arbitrage means the buying security from one market where its price is less and selling that security to other market where its price is high so the price variability in different market is reduced. Suppose there are two firms equal in all respect, except the capital structure, the shareholders of overvalued company will sell their shares and will buy the undervalued the shares. This arbitrage will continue till the market price of two identical firms becomes identical. So the arbitrage opportunity makes the value of two homogenous companies equal if they are equal in all respect except capital structure.

Illustration

A firm XYZ limited has investment opportunity in project for 1,ooo lacs with following expected cash flow from project

Strong economy 1400 lacs

Weak economy 900 lacs

Risk free rate of interest is 5%

Case first total investment is financed through Equity

	Day 0	Day 1: cash flow (in lacs)		Returns	
	Initial investment(in lacs)	Strong economy	Weak Economy	Strong economy	Weak Economy
Unleveraged equity	1000	1400	900	40%	10%

So Expected return of project = 0.5(40%) +0.5(-10%) =15%

Capital structure 2: 50% Debt and 50% Equity (leveraged)

Borrowed Rs. 500 lacs at Rf 5% as debt is risk free

Remaining will be financed by equity what will be value for equity?

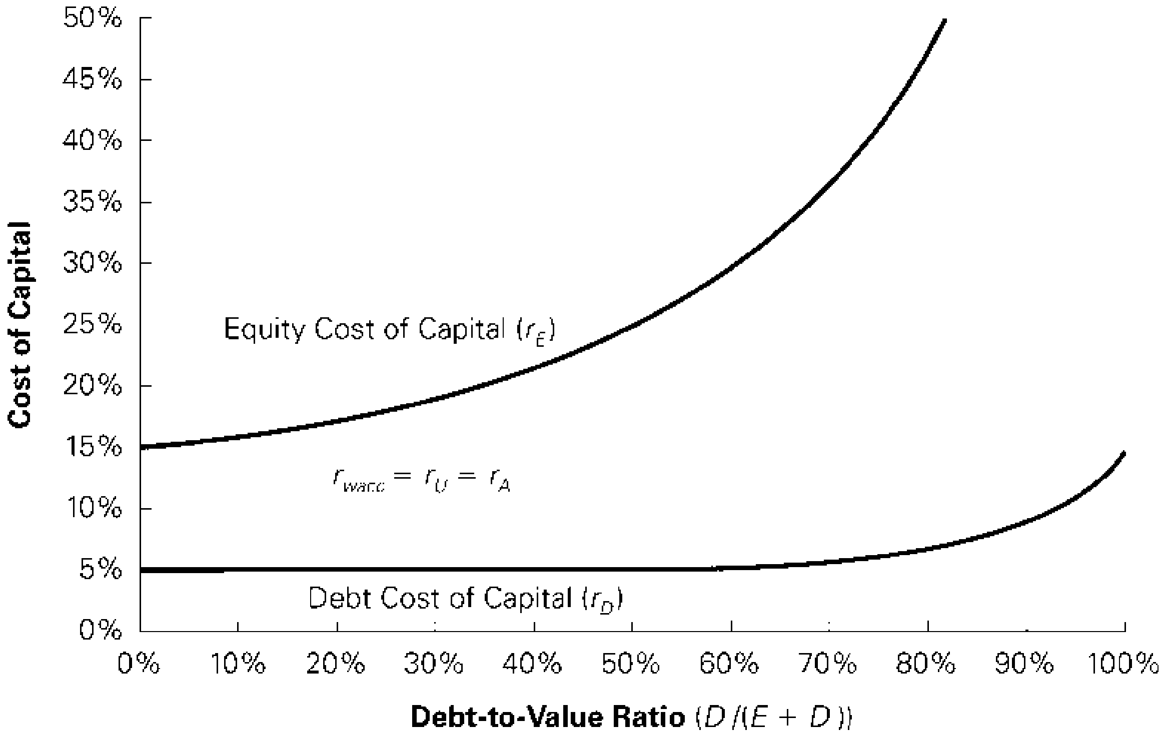
	Date 0 in Rs. lacs	Date 1 cash flow in Rs Lacs	
	Initial value	Strong Economy	Weak Economy
Debt	500	525	525
Leveraged Equity	E=?	875	375
Firm	1000	1400	900

In equilibrium the value of firm must be Rs.500 lacs.

Leveraged equity will have higher risk. The variability of return is higher. Therefore the expected rate of return on leveraged equity is higher than the unleveraged equity.

	Date 0	Date 1 Cash flow		Date 1 Returns		
	Initial value	Strong economy	Weak Economy	Strong economy	Weak Economy	Expected Returns
Debt	500	525	525	5%	5%	5%
Leverage equity	500	875	375	75%	-25%	**25%**
Unleveraged equity	1000	1400	900	40	-10	**15**

Debt is cheaper than equity so it increase the cost of equity. So while calculating the value it will be discounted with higher 25% instead of 15% in unleveraged firm.



E	D	r_E	r_D	$\frac{E}{E+D}r_E + \frac{D}{E+D}r_D$	$= r_{wacc}$
1000	0	15.0%	5.0%	$1.0 \times 15.0\% + 0.0 \times 5.0\%$	= 15%
800	200	17.5%	5.0%	$0.8 \times 17.5\% + 0.2 \times 5.0\%$	= 15%
500	500	25.0%	5.0%	$0.5 \times 25.0\% + 0.5 \times 5.0\%$	= 15%
100	900	75.0%	8.3%[4]	$0.1 \times 75.0\% + 0.9 \times 8.3\%$	= 15%

So as described above, the cost of capital remains same at 15%. If the return on equity increase with high leverage then the weightage ratio for calculating the cost of capital also increases.

Limitations of MM Approach

The limitations of MM approach are basically due to assumptions taken in this approach of perfect capital market due to which the arbitration process works. The arbitration process will fail to bring the equilibrium due to following reasons:

1. **Rate of Interest**: In this approach it is assumed that firms and individuals can borrow at same rate of interest or rate of interest is same for every type of borrower, but generally the loan which is safer or backed by more assets is

provided at lower rate of interest than less secured loan. If the rate of interest is not same for firm who has more asset base and individual with lesser asset base, then equilibrium process will fall short of completion.

2. **Transaction Cost**: The existence of transaction cost also interferes with the working of arbitrage, because of cost involved in buying and selling of securities, it would become necessary to invest greater amount of, in order to earn same return. As a result firm will have higher market value.
3. **Substitution for Corporate Leverage**: it is incorrect to assume that firms leverage is substitute of individual leverage. In case of firm's insolvency the liability of shareholder is limited, but in case of bankruptcy of individual his liability is unlimited.
4. **Levi of Taxes**: In MM approach it is assumed that tax system is neutral, there is no corporate income tax, but in reality there is existence of corporate income tax. Tax benefits can be availed by more usage of debt than equity which increases the value of firm and net cash flow.
5. **Institutional Restrictions**: Institutional restriction also impedes the working of arbitrage. Homemade leverage is not feasible as the institutional investor would not be able to substitute with homemade leverage with corporate leverage, simply because they are not allowed to engage in homemade leverage.

Corporate Taxes and MM Approach

MM approach assumes that taxes are not levied, but if taxes are levied then the interest payment on debt is deductible expenses but dividend paid to share is not deductible expenditure for calculation of taxes of firm. Tax benefit in debt financin g makes it more advantageous than equity. The effective cost of debt is therefore reduced by the percentage of tax saved on interest expenditure. The value of leverage firm would exceed that of unleveraged firm by an amount equal to the leveraged firm.

So the formula for calculation of valuation of firm will be

For unleveraged firm

Vu= (1-T) EBT/Ke

Where EBT= Earnings before taxes

T= Tax Rate

Vu= Value of unleveraged firm

Ke= Equity capitalization rate

For leveraged firm

V1=Vu+Dt

V1= value of leveraged firm

Vu is value of unleveraged firm

D= Amount of debt

t= Tax rate.

This can be better understood with following illustration:

A and B are identical firms with different capital structure. Both the firms have identical EBT of Rs. 1,20,000 each. Firm B have in its capital structure loan of 3,00,000 @ 6% p.a.The equity capitalization rate is 10% and corporate tax rate is 40%.

In the above case if we calculate the value of firm then the value will be different.

Value of firm A which is unleveraged

Vu= (1-t) EBT/Ke

Vu= (1-.40)*1,20,000/10%

Vu=Rs. 7,20,000

Value of leveraged firm

V1=Vu+Dt

V1=7,20,000+3,00,000*.40

V1=7,20,000+1,20,000

V1= Rs.8,40,000

So the value of firm A which is not leveraged have value of 7,20,000 and the value of firm B which is leveraged and has debt component of 3,00,000 @ 6% the value of firm is 8,40,000.

Check Your Progress A

Which of the following is correct?

1. Capital structure is deciding

a Mix of debt and equity

b Mixture Long term and short term borrowing'

c Mixture of preference capital or equity capital

d All of above

2. Perfect Market has

   a. Large number of buyer and seller

   b. Large number of buyer limited seller

3. Modigliani and Miller model is for

   a Perfect Market

   b Imperfect Market

4. Arbitrage opportunity is available in perfect Market

   a Yes

   b No

DEBT COVENANT

Debt covenants, also called banking covenants or financial covenants, are agreements between a company and its creditors that the company should operate within certain limits or certain conditions parameter which are fixed for borrowing. Debt covenant is a promise in an indenture, or any other formal debt agreement, that certain activities will or will not be carried out. Covenants in finance most often relate to terms in a financial contracting, such as loan documentation stating the limits at which the borrower can further lend or other such stipulations. Debt covenant conditions agreed to may vary from case to case basis. A company may, for example, agree to limit other borrowing or to maintain a certain level of gearing, other common limits include levels of interest cover, working capital and debt service cover. Debt covenants are agreed as a condition of borrowing. They may be changed if debt is restructured. Debt covenants can impose quite heavy obligations — a company may well be forced to sell assets in order to stay within a debt covenant on gearing. The purpose of debt covenants is to reduce the effect of a common agency problem. Equity shareholders (who appoint the management) can benefit by making the business riskier, to the determinant of creditor. Alternatives to debt covenants include the use of convertible debt, the issue of warrants bundled with debt, and the use of short term debt. If a debt covenant is breached usually it allows creditors to demand immediate repayment. This rarely happens in practice. The debtor is not usually in a position to make an immediate repayment. A breach of covenants therefore usually leads to a renegotiation of the terms of debt. In order to prevent companies from meeting the requirements by adjusting their accounting practices rather than by genuinely maintaining the required level of financial health, debt covenants not only specify the numbers that should be met, but also exactly how they should be calculated for the purposes of the debt covenant. The most common financial ratios used in debt covenants include the following: debt to cash flow, interest coverage, fixed charge coverage, tangible net worth, net worth, debt to tangible net worth, debt service coverage, leverage ratio, current ratio, senior debt to cash flow, cash interest coverage, debt to equity, etc.

In the above listed ratios, the same term can have different meanings in different debt agreements. For example:

- Debt: total debt, funded debt, funded debt less cash, etc.
- Cash flow: Cash from operations, EBIT, EBITDA, etc.

The Debt covenants are restrictions in debt agreements (indentures) that aim to protect the lender (creditor, debt holder, or investor) by restricting the activities of the borrower (debtor).

Benefit of Debt Covenant Security for Lenders

Following are the benefit of debt covenant

1. **Solution for Agency Problem**: Debt covenants are used to solve the agency problems among the management (i.e., of the borrowing company), debt holders, and shareholders that arise due to the differences in the objectives of the borrower and the lender.
2. **Reducing Risk of Default**: Investors in corporate bonds know that there is a risk of default. But they still want to make sure that the company plays fair. They do not want it to gamble with their money. Therefore, the loan agreement usually includes a number of debt covenants that prevent the company from purposely increasing the value of its default option.
3. **Prohibition against Increase in Debt**: Lenders worry that after they have made the loan, the company may pile up more debt and so increase the chance of default. They protect themselves against this risk by prohibiting the company from making further debt issues unless the ratio of debt to equity is below a specified limit.
4. **Limitations on Secured Debt**: All bondholders worry that the company may issue more secured debt. An issue of mortgage bonds often imposes a limit on the amount of secured debt. This is not necessary when you are issuing

unsecured debentures. As long as the debenture holders are given an equal claim, they do not care how much you mortgage your assets.

5. **Heavy Dividend by Sale of Asset**: A company could sell all its assets and distribute the proceeds to shareholders as a bumper dividend. That would leave nothing for the lenders. To guard against such dangers, debt issues may restrict the amount that the company may pay out in the form of dividends or repurchases of stock.
6. **Benefit to Borrower**: Debt restrictions could benefit the borrower by reducing the cost of borrowing (e.g., through lower interest rates and higher credit ratings.

Implication of Debt Covenant: The debt covenant as we know that are the conditions laid by the lenders in the borrowing agreement on borrower to do or not to do few things till the life of agreement. It also provides the penalties or action for violation of condition. Following are few implications of debt.

1. **Documentation:** A debt covenant is typically listed on two documents. It will first appear in the commitment letter issued upon approval of the credit. At closing, it is listed in the loan agreement. Covenants will be outlined in two sections: "affirmative covenants" (actions you can and should perform) and "negative covenants" (actions you can't perform). Debt covenants are usually located in "negative covenants." The terms used will be defined in accordance with generally accepted accounting principles (GAAP). The document will also detail the following things:
   a) The ratio you have to maintain. The most common financial ratios used in debt covenants includes debt to cash flow, interest coverage, fixed charge coverage, tangible net worth, net worth, debt to tangible net worth, debt service coverage, leverage ratio, current ratio, senior debt to cash flow, cash interest coverage, debt to equity, etc.
   b) How the ratio is calculated: How the ratio will be calculated so that chances of window dressing is reduced.
   c) When the covenant will be tested: It can be tested and when to provide updated financials to allow. As per agreement, it can be quarterly, yearly or any other time frame.
   d) It will also state the penalties for covenant violation
2. **Testing**: The loan agreement will detail the testing period and the ratio you must maintain. Banks typically test covenants upon receipt of the prior fiscal year end's financials. For example, a covenant for 2012 will be tested when the bank receives the borrower's 2012 tax returns, usually in 2013. When the financials are received, the bank will spread them. They will analyze the balance sheet and income statement and calculate the ratios to verify compliance with the covenant.
3. **Violation:** If a covenant is violated, the bank may impose a penalty. These penalties can range from pre-arranged fees to calling default on your loan. The penalty will be outlined in the loan agreement. A borrower will have the opportunity to review this agreement prior to closing. If a borrower knows they are going to fail to meet a covenant, they should inform the bank immediately.

A willingness to work with the bank and provide compensation such as deposits or additional collateral may circumvent the penalties.

DESIGNING OF DEBT COVENANT:

Debt covenants can be either positive or negative. Positive covenant means the conditions are laid down that the borrower will fulfill certain conditions or will do certain things. Negative covenant means that the borrower will not do certain things.

1. **Positive Debt Covenants:** Positive debt covenant states what the borrower must do and may include the following:
    a. **Maintain certain minimum financial ratios**: The common financial ratios in debt covenant can be debt to cash flow, interest coverage, fixed charge coverage, tangible net worth, net worth, debt to tangible net worth, debt service coverage, leverage ratio, current ratio, senior debt to cash flow, cash interest coverage and debt to equity
    b. Maintain accounting records in accordance with generally accepted accounting principles.
    c. Provide audited financial statements (normally within a specified amount of time after fiscal year-end),
    d. Perform regular maintenance of real assets used as collateral.
    e. Maintain all facilities in good working condition.
    f. Maintain life insurance policies on certain key employees.
    g. Pay taxes and other liabilities when due.
    h. Cross-default covenant (when the borrower is in default on any debt to any lender, the borrower is considered to be in default on all debts).
2. **Negative Debt Covenants** state what the borrower cannot do and may include the following:
    a. Incur additional long-term debt (or require that additional borrowing be subordinated to the original indenture).
    b. Pay cash dividends exceeding certain threshold.
    c. Sell certain assets (e.g., sell accounts receivable).
    d. Enter into certain types of leases.
    e. Combine in any way with another firm (i.e., business combinations).
    f. Compensate or increase salaries of certain employees.

Activity-1

Define debt covenant---
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CONVERTIBLES

Convertible is convertible debt that will be converted into equity. The borrower issues the promissory notes to lender of the money, so when these notes mature, for limited term, for one or two years, investor may cash the notes with interest or can convert these into the equity capital of borrower. So this is another source of getting finance from the lender of the money, where bonds issued by the borrower will be converted into the equity capital of the borrower at end of specified period. The lender gets the rate of interest of money lent during the tenure of the bonds then he gets the shares of borrower company.

Convertible debt is liability in balance sheet of the borrower until it is converted. Convertible debt is unsecured for start-ups, but can be secured in certain situations like distress situation. It is equity– but only if and when it converts into equity. Once converted, convertible notes or bonds are not debt it becomes equity of the borrower.

Convertible notes are typically thought of as equity investments because the investors take equity-type risk and seek unlimited, equity-type upside. The convertible note happens to be structured as a debt until it actually converts into equity. But it is real debt until it converts.

Advantages of Convertibles: There are many advantageous of issuing convertibles. These can be categorized into two categories investor and borrower.

Advantageous to Borrower

1. **Easy to get Finance in Early Stages of Business**: During startup of the business it is very hard to get finance for the projects; convertible debt is option in that case. Investor will get assured return and chances to get ownership if project is successful in shape of equity.
2. **Cost Efficient**: Convertible debt financing is cost effective and eliminates much of the legal complexity of traditional equity financing.
3. **Greater Flexibility**: Greater flexibility in case events at company change dramatically one way or another way, if there is deviation from planned versus actual performance there is less hit on valuation of company.
4. **Easy and Fast Funding**: This is relatively easy, fast, and cheap from a transaction cost perspective.

Advantageous to Lender

1. **Chances of Appreciation**: Bonds will be converted to equity, if the project started goes off well then it increases the value of shares so value of bonds also increase as they are going to be converted into equity.

2. **Risk Sharing**: As the new venture starts and there is loss still the bonds holders get the fixed rate of return, even if the project takes huge time to start and yielding return, still the convertible holder gets the interest.
3. **More Rights**: Convertible debt holder have more rights than normal debt holders as these are going to be converted into equity on later date.

MANDATORY CONVERTIBLES

Mandatory convertibles are type of bonds which are to be converted into equity stock or equity shares either on or before the conversion date fixed for its conversion. The investors of this must convert this into the equity shares at end of the conversion period. Mandatory convertible are hybrid securities that automatically convert to equity shares at a predetermined date. Mandatory convertible bond gets the fixed rate of interest on the face value of the bonds till these are not converted into equity and after that they get the chance to of getting appreciation in value after getting converted into equity shares.

So the mandatory convertible has two component, first is debt component where it gets coupon rate of interest and bears the interest rate risk, second component is equity after conversion where equity holder gets chance of appreciation and bears the equity risk. Mandatory convertible get both fixed interest and appreciation and also bears risk of interest and risk of equity.

Mandatory bond can be better under stood with example, Company XYZ may issue mandatory convertibles that pay a yield of 12% and are converted to common share one year after the issue date at a ratio of 1:1. Investors receive a 12% income stream for the next year. After the maturity date, these investors would then own one share of common XYZ stock in place of each bond held. The price of share was Rs 10 at the time of issue of bonds which had gone up to Rs.15 on date of the conversion and rises up to Rs.100. so the bond holder will get 12% rate of interest during first one year and chance to appreciate his money to 10 times in 3 years.

Types of Mandatory Convertible

a. **Preferred Equity Redemption Cumulative Stock (PERCS)**: PERCS preferred equity is issued that is converted into common stock.
b. **Debt Exchanged for Common Stock (DECS**): DECS is where debt instruments are issued and are converted into common stock.

Terms with Mandatory Convertibles: There are few terms which are used in mandatory convertibles

a. **Conversion ratio**: This is the ratio in which number of share which Is going to receive after converting bonds into equity, For example if face value of bond is 1000 market price of share is 30, bonds are converted at price of 40, then conversion ratio will be 1000/40=25 shares

b. **Conversion Value**: Conversion value is stock value multiplied by conversion ratio. In above example it will 30*25= Rs 750
c. **Conversion premium**: Conversion premium is difference between the convertible value and conversion value divided by conversion value. In above example it will be 1000-750/750=33.33%

Suitability of Mandatory Bonds: Mandatory bonds are suitable to corporate in following cases:

1. **Market is not Favorable**: A company want to raise funds through equity, but capital markets is not favorable and chances are very less for subscription of public issue then company can go for the mandatory convertible where interest will be paid during specified period then it will be converted Into equity at conversion ratio. Company feels that the fresh issue of the shares can bring volatility to its existing listed shares then they can issue the mandatory convertibles and pay interest till date of conversion and after wards covert into equity shares.
2. **Initial Phase of Business**: In initial phase of the project it is very difficult to get source of fiancé, equity partnership is more difficult in this case. Investors are ready to lend money if they are provided fixed rate of return on the investment. They are also ready to receive lesser interest if they are given chance to share future growth also. So mandatory debt will work fine in initial stages of business as borrower had to pay fix rate of interest, his cost of finance is also fixed. Borrower can take decision in more efficient ways because he is not worried about increase in value of stakeholders.
3. **High Yield for Investors**: Investor gets high yield in case of mandatory bonds as after conversion he gets chances of appreciation of share value. Investors gets benefit of providing money to business in initial phase in shape of value increase of shares.
4. **Only Interest Risk for Investor**: In pure debt investor faces two risk namely credit risk and interest risk, but in case of mandatory convertible he faces only the interest risk as principal will be converted into equity shares of firm.

Types of Mandatory Convertible

Activity-2
What are the different types of mandatory convertible-----------------------------------
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Check Your Progress B

Note: Choose correct option

1. Debt covenant can be__________.

   (a) Positive (b) Negative (c)Both positive and Negative

2. Convertible can be converted on_____________..

   a. On Maturity (b) Before Maturity (c) On or before Maturity

3. Mandatory convertible gives high yield to investor.

   (a) Yes (b) No

4. Mandatory convertible is more suitable In_____________________ stage of business.

   (a) Maturity (b)Initial

SUMMARY

The capital structure decision is key decision for the business and firm it decides the long term profitability of the firm. Modigliani and Miller had given their model for capital structure as per their approach combination of debt and equity does not have effect in perfect market and investor will take advantages of arbitrage. Debt is also key source of getting finance for the business, lender of the money will always be in worry for safety and security of money lent. Debt covenant are the restrictions raised in loan agreement to do or not to do few thing. Debt covenant can be of two type‘s namely positive and negative covenant. Combination of debt and equity is called convertible. Convertibles are the issued in shape of debt with option to convert these into equity on or before maturity of debt instrument. Mandatory convertibles are convertibles which must be converted into equity.

ANSWERS TO CHECK YOUR PROGRESS

Answers to check your progress A

1. d 2. a 3.a 4.a

Answers to check your progress B

1.c 2.c 3.a 4.b

Keywords:

Capital structure: Making of liabilities side of balance sheet debt and equity especially the ratio of debt and equity and mixture of short term and long term borrowing.

Covenant: Restriction placed in loan agreement to do or not to do few things.

Convertible: Hybrid instruments which get convertible from debt to equity.

Perfect Market: Large number of buyer and seller with full knowledge and opportunity.

REFERANCES AND SUGGESTED READINGS

1 Brealey, Richard A. and Myers, Stewart C; Principles of Corporate Finance, Tata McGraw Hill.

2 Chandra, Prasanna: Financial Management, Tata McGraw Hill, Delhi.

TERMINAL AND MODEL QUESTIONS

1. What do you mean by capital structure? Explain capital structure in perfect market.
2. What do you mean by debt covenant? What are types of debt covenant?
3. How mandatory convertible is good source of capital? What are its benefit to firm and investor of mandatory convertibles?
4. Explain Modigliani and Miller model of capital structure.

LESSON – 5

Pay out Policy

Structure

OBJECTIVES

After reading this lesson, you should be able:

- To understand meaning of dividend policy and process of dividend distribution
- To know Theories of payout policy
- To understand about repurchase of shares.

INTRODUCTION

The objective of the firms is profit maximization and wealth maximization for the shareholder. Shareholders can be given share of earning of the firms in shape of dividend, bonus, or repurchase of the share. The dividend policy of the company decides what should be the payout policy of the company? How much of earning is to be shared and what will be the method for sharing of the earning? Dividend payments increase the confidence of the shareholder‘s in the company. Dividend payments also signal the outside world about profitability and performance of the company. A few studies show that there is relationship between the dividend payment and market value of the share. Few have opinioned that with the high payment of dividend the price of share increase and few have opinioned that dividend payment does not affect the price of the share. Repurchase of the share is another way to pass the surplus cash to the shareholders.

MEANING OF DIVIDEND POLICY

The term ‗dividend' refers to that portion of profit which is distributed among the owners/shareholders of the firm and the profit which is not distributed is known as retained earnings. Dividend policy refers to policy of dividing the net earnings of the firm into retained earnings and dividends. Retained earnings provide the necessary cash to be used for the future operations of the company and works as tool for long -term growth of the company. Dividends are generally paid in cash and affect the working capital of the company.

Considerations in the Dividend Policy: The following are consideration to be kept in mind for deciding appropriate dividend policy:

1. **Financial Needs of the Company**: Retained earnings are a source of finance for creating profitable investment opportunities, when internal rate of return is more than the return required by the shareholders, it would be beneficial for the shareholders to reinvest their dividend. Mature companies having few investment opportunities distribute high dividends, share price of such companies are very sensitive to the dividend payout.
2. **Constraints on Paying Dividends**
   a. **Legal**: As per Companies Act dividend is to be paid out of current profits or past profits. Dividend is to be paid in cash but company can issue bonus shares out of retained earnings.
   b. **Liquidity**: Payment of dividend is outflow of cash. More liquid companies declare high rate of dividends, Mature companies does not have investment opportunities and have surplus cash so they have high payout ratio.
   c. **Investment Opportunities**: If the good investment opportunities are in hand with high returns then dividend can be withheld to invest in this opportunity.
   d. **Debt Covenant**: Debt covenants can also restrain from making heavy dividends, so dividend policy should be made considering debt covenant.
3. **Shareholder's Wish**: Dividend can be distributed considering the wishes of shareholders, These days dividend received from domestic companies are not taxable in India. Tax on dividend is borne by the corporate in shape of

dividend distribution tax in India. Many retired investors want regular income from shares in shape of dividends. So company should take care of wishes of its shareholders in forming dividend policy.

4. **Stability in Dividend Policy**: The companies should frame the stable dividend policies. Stable dividend policy can be drafted in two ways First policy is fix rate of dividend irrespective of the earning of the company. This policy balances the dividend payment in different phases of business like boom and recession period. Second policy is to fix percentage of earning which is distributed to the shareholder‘s in shape of dividend, Dividend increases or decreases with the earning capacity of the firm, but payout ratio remains the same.

Forms of Distributions of Profits to Shareholders: There are different ways to distribute the earning to the shareholders. These can be described as follows

1. **Cash Dividends**: Cash payment of dividend is made out of surplus funds with the company to the shareholders. Working capital reduces by making cash dividend. For stable dividend policy a cash budget may be prepared for the coming periods to manage the regular future dividends. Both assets and net worth of company are reduced when cash dividend is paid. According to Hastings, market price of share drops by the amount of cash dividend.
2. **Stock Dividends (Bonus or right shares):** It is distribution of share in place of cash dividends to the existing share holders. Such shares are distributed proportionately thereby retaining proportionate ownership of the company. The total net worth of the company is not affected by bonus issue of shares.
3. **Scrip or Bond Dividend**: A scrip dividend promises to pay the shareholder at future date. If the company is not having sufficient funds to pay dividends in cash then it may issue the bonds for the amount due to the shareholders.
4. **Property Dividend**: Property dividend is paid in form of some assets other than cash. Instead of cash some benefits in kind or some discounts on products are offered.

Benefits or Stock Dividends: Some of the advantages to shareholders and company for stock dividend is below

a. **Benefit to shareholders**: The following are the benefit to shareholders of stock dividend.:

1. **Tax Benefit**: In India presently dividend is tax free income, dividend distribution tax is levied on company paying the dividend to the shareholders. Shareholders have benefit of tax if tax is levied in any country.
2. **Increase in Future Dividends**: The policy of fixed dividend paying if continued even after bonus issue of shares, gives additional benefit to shareholders.
3. **Additional Value of Shares**: If investor requires the cash, he can sell the bonus shares in the market, or if he wants to hold he can hold for future appreciation of shares.

b. Advantages to Company: Following are the advantages to company on stock dividends:

1. It is the cheapest way to raise capital.
2. It makes the capital availability for future profitable business.
3. Dividend can be paid even if liquid cash is not available. Liquid resources remain intact in case of bonus shares.
4. The balance sheet of the company will reveal more realistic picture of company and its capacities.

Disadvantageous of Stock Dividends

Disadvantageous of stock dividend are as under:

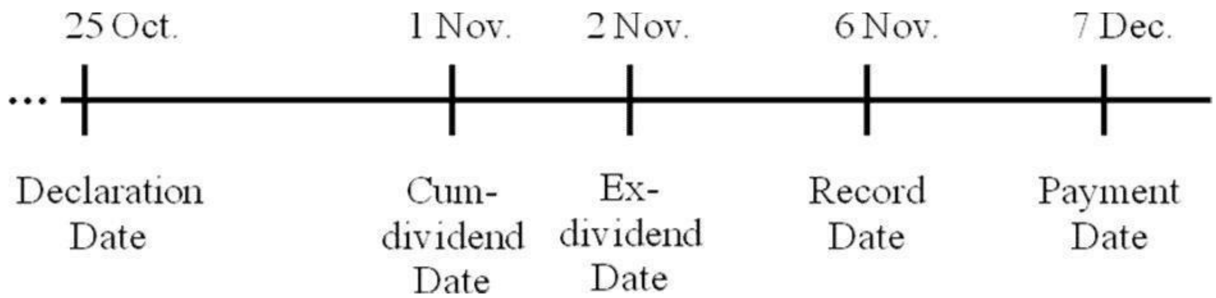
1. The stock dividend leads to drastic fall in future rate of dividends as it is only capital increase not the increase of resources.
2. The fall in future rate of dividend leads to fall in market prices of shares.
3. Reserve of the company declines and leads to lesser security for shareholders.

DIVIDEND DECLARATION PROCEDURE

There are two types of cash dividend

1. **Final dividend**: A final dividend is paid after the end of the accounting or reporting year.
2. **Interim Dividend**: An interim dividend can be paid any time before the final report is released, usually after the half-yearly accounts are released.

Dividend Declaration Procedure: Dividend declaration procedure can be described in following diagram.



Declaration Date: Dividend declaration is date of which the board of director declares the dividend.

Cum Dividend Date: Cum dividend date is the date; on which the buyer of a stock is entitled to dividend. In above example it will be 1st November any investor who buys shares from the stock exchange on or before 1st November will be eligible to get the dividend.

Ex dividend Date: The first day that the seller of a stock is entitled to the dividend.

Record Date: The Company prepares a list of all individuals believed to be stockholders as of 6 November.

Payment Date: When dividend is paid to shareholders.

DIVIDEND AND PAY OUT POLICIES

The value of the firm can be maximized with the maximization of wealth of the shareholders. There is the conflicting view regarding dividend impact on valuation of shares. There is one opinion which says with the high dividend the value of firm increases and other opinion is that dividend payment is irrelevant for the valuation of the shares. Managers have to decide on the dividend payout policies, following are the few dividend theories:

1. **Transaction Cost Theory**: Firms may incur costs in distributing dividends while investors may incur costs in collecting and reinvesting these payments. Moreover, both firms and investors may incur costs when, due to paying dividends, the firm has to raise external finance in order to meet investment needs. On other hand, it is argued that dividend save cost of transaction on selling of shares for consumption purposes. As per Millerand Rock's (1985) model the cost of dividends arise from cutting or distorting the investment decision. However, more typically, the transaction cost theory of dividend retains the assumption of a given level of investment and focuses on the costs of raising external funds when the firm increases its dividend payment. Transaction costs include flotation costs to the firm of raising additional external finance such as underwriter fees, administration costs, management time, and legal expenses.

Further, when a firm pays dividend and then it has to raise additional external finance, existing shareholders suffer dilution of control. Thus to maintain control or for other reasons, existing shareholders may subscribe to the new issue, incurring trading costs such as stamp duty and stockbrokers‘ commissions. Ultimately all these transaction costs are reflected in the share price and firm value. Due to the costs associated with raising external finance, the transaction cost theory of dividend suggests that firms should utilise retained earnings to the extent possible. Rozeff (1982) suggests that firms that have greater dependency on external finance would maximise shareholder wealth by adopting lower payout policies. Small companies have to incur more cost on raising the money, and issued shares are less in small companies, further issue of shares loses control in the company. So smaller companies should work for maximization of value of shares by paying less dividends.

2. **Tax Theories**: The tax theories propose that corporate tax on distributions and taxes on dividends in the hand of investors are important costs to be considered when deciding on a dividend policy. While deciding the payout policy the difference between tax on dividends and on capital gains should be considered as well as the difference between corporate tax on distributed and on retained earnings. For example, if corporate tax on distributions is higher than those on retained earnings, this may reduce expected earnings of a firm that pays dividends relative to a firm that does not. Similarly, if dividends in the hands of shareholders are taxed higher than capital gains, investors should evaluate expected returns on an after tax basis and share prices will vary inversely with the firm‘s payout level. The basic tax hypothesis supports a conservative dividend policy, and proposes that if the firm wants to return cash to shareholders then this should be done through share repurchases.

3. **A bird in Hand Theory**: A bird in hand is better than two on the bush is the traditional argument in favour of dividend, is the idea that dividends reduce risk because they bring shareholders‘ cash inflows forward. The risk reduction or bird in the hand argument is associated with Graham and Dodd (1951) and with Gordon (1959) and it is often defended as follows. By paying dividends the firm brings forward cash inflows to shareholders, thereby reducing the uncertainty associated with future cash flows.

4. **The Signaling Theory**: The signaling theory tells relationship between signaling and information asymmetries in the market. It is based on the idea of information asymmetries between the different participants in the market and in particular between managers and investors. Under such conditions, the costly payment of dividend is used by managers, to signal information about the firm‘s prospects to the market. The signaling hypothesis can explain the preference for dividends over stock repurchases in spite of the tax advantage of the repurchase. Repurchases and special dividends can be used to signal prospects without long-term commitment to higher payouts. Therefore announcements of increases in regular dividends signal permanent improvements in performance, and should

be interpreted as confidence in the firm on behalf of managers thus triggering a price rise, if announcements is made for decreases in dividend, it can be interpreted as signaling poor performance and lack of managerial confidence and should therefore trigger drops in prices. Signaling function of dividend may be more important in less efficient market where there is less free flow of information. Many studies hold the view of Grullon et.al. (2002) approach known as maturity hypothesis– i.e. companies typically increase dividends when they are more mature and less risky.

5. **Agency Theory of Dividend**: Agency theory suggest high payment of dividend, as per agency theory managers are not keen to pay dividend they want to retain the earnings so that they can invest and earn more profit out of this. Salaries of managers increase with the increase in profits. The problem here is the separation of ownership and control which gives rise to agency conflicts as defined in Jensen and Meckling (1976). Accordingly when the levels of retained earnings are high managers are expected to channel funds into bad projects either in order to advance their own interests or due to incompetency. So generous dividend policy enhances firm's value. Because dividend can be used to reduce the amount of free cash flows at the discretion of management.

6. **Modigilani and Miller Theory (Irrelevance Theory Approach)**: According to Modigilani and Miller value of firm is determined solely by the earning power of the firm's assets and shareholder's net worth is not effected by decision in which the earnings of the firm is split between dividends and retained earnings. So payout of dividend and retaining of earning does not have impact on the shareholder's worth. The dividend payout ratio does not affect the wealth of shareholders.value of shares depends upon investment decision of the firm.

Assumptions of Modigilani and Miller Approach

1. **There is perfect market condition**: Firms operates in perfect market condition where there is free flow of information and investors are rational.
2. **Taxes**: There are no taxes like corporate tax, capital gains etc.
3. **Fixed policy**: The firm has fixed investment policy
4. **Transaction cost**: There is no transaction cost and no floatation cost.
5. **Risk of uncertainty**: There is no risk of uncertainty. Investors are able to forecast future prices of dividends with certainty and one discount rate is appropriate for all securities and all time periods.

Views of Modigliani and Miller: Dividend policy is a trade-off between higher or lower dividends, issuing or repurchasing ordinary shares to replace cash paid out. Receiving high dividend is just like selling high quantity of share and receiving low dividend is like selling less quantity of shares. Paying dividend or issuing new shares to replace cash does not change the value of the company and does not change the wealth of the old shareholders because the value of their shares falls by an amount equal to the cash paid to them. So as per approach if the value of share before dividend is Rs 50 and Rs.5 dividend is paid then market value of the share after ex-date will be Rs.45. If a company increases its dividends, it must replace the cash by making a share issue if they don‘t want to reduce the funds of company. Old shareholders will receive a higher current dividend, but due to fresh issue of share to compensate high dividend, proportion of future dividends must be diverted to the new shareholders. The present value of these forgone future payments is equal to the increase in current dividends. The MM dividend irrelevance proposition is valid in a perfect capital market with no taxes. Therefore, if the dividend policy is important in practice, the reasons for its importance must relate to factors that MM excluded from their analysis.MM hypothesis is primarily based on the arbitrage argument. Through the arbitrage process, The MM hypothesis discusses how the value of the firm remains the same whether the firm pays dividend or not.

6. **De Angelo & De Angelo Approach:** De Angelo & De Angelo approach argued that concept of full payout is a more logical starting point for discussion of payout policy. He argued that full present value of company‘s free cash flow should be paid out to shareholders. Hence, MM irrelevance theorem is itself irrelevant but not wrong analysis. In a frictionless market full payout means that the present value (PV) of free cash flow (FCF) should be paid-out over the life of the enterprise.

Activity-1

Modigilani and Miller Theory (Irrelevance Theory Approach) --------------------------------
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CHECK YOUR PROGRESS A

Select the right option

1. Dividend policy is choosing to retain or distribute the earning. (True/ False)

2. Dividend can be paid in cash only.(True/ False)
3. Dividend irrelevance theory states that payment of dividend increase value of firm.(True/False)
4. De Angelo and De Angelo approach recommends full payment of dividends(True/False)

REPURCHASE OF SHARES

Instead of declaring cash dividends, firms can rid itself of excess cash through buying shares of their own stock. Recently share repurchase has become an important way of distributing earnings to shareholders. A share buy-back is when a company purchases its own shares on the stock market and then proceeds to cancel them.

Buy back of shares can be understood as the process by which a company buys its share back from its shareholder. Share repurchases are cash offers for outstanding shares of common stock. Share repurchases change the book capital structure of the firm by reducing the amount of common stock. Relationship of dividend payout and repurchase can be understood through following example.

A Limited want to distribute Rs 1,00,000 to its shareholder before distribution following is balance sheet.

Balance sheet of A limited

Liabilities	AMOUNT	Assets	AMOUNT
	In Rupees		In Rupees
1,00,000 issued shares of Rs10 each	10,00,000	Cash	3,50,000
Reserves	3,00,000	Fixed assets	9,50,000
Total value	13,00,000		13,00,000
Value of share: Value/ No of shares	13,00,000/1,00,000=13		

If A limited distribute Rs. 1,00,000 through repurchase the balance sheet will be:

Balance sheet of A limited after repurchase

Liabilities	AMOUNT	Assets	AMOUNT

	In Rupees		In Rupees
90,000 issued shares of 10 each	9,00,000	Cash	2,50,000
Reserves	3,00,000	Fixed assets	9,50,000
Total value	12,00,000		12,00,000

Value of firm: 12,00,000/90000=Rs.13.33

If A limited distribute Rs1,00,000 as dividend then

Liabilities	AMOUNT	Assets	AMOUNT
	In Rupees		In Rupees
1,00,000 issued shares of 10 each	10,00,000	Cash	2,50,000
Reserves	2,00,000	Fixed assets	9,50,000
Total value	12,00,000		12,00,000

Value of the share 12,00,000/1,00,000=rs.12

Return to share holder X having 100 shares if dividend is paid

Market value of share 12*100	1200
Total	1200

Return to share holder X having 100 shares if Repurchase is done

Market value of share 13.33*90	1200
Total	1200

In case of dividend payoff shareholder receives the Rs. 100 as dividend, but in case of buyback his future rate of dividend will increase as number of shares are reduced from 1,00,000 to 90,000.

Activity-2

Explain repurchase of shares____

Buy Back in India: Buy back of shares can be understood as the process by which a company buys its share back from its shareholder. Prior to the amendment of the Companies Act in year 1999, there was no way a company could buy its shares back from the shareholders without a prior sanction of the court *(except for the preference shares).* The laws as to the buying of its share by the companies were very stringent. Some of the ways by which a company could buy its shares back were as follows:-

i. Reduction of share capital as given in Sections 100 to 104;

ii. Redemption of redeemable preferential shares under Section 80;

iii. Purchase of shares under an order of the Court for scheme of arrangement under Section 391 in compliance with the provisions of sections 100 to 104;

iv. Purchase of shares of minority shareholders under the order of the Company Law Board under section 402(b);

Though there were ways by which a company could buy its shares back from the shareholders but it could not be done without the sanction of the Court. This was done to protect the rights of the creditors as well as the shareholders. But the need of less complex ways of buying its shares back by the company was always felt. The much needed change in the Companies Act was brought about by the companies' Amendment Act 1999. Sections 77A, 77AA and 77B were inserted in the Companies Act by this amendment. In line with this, SEBI also came out with SEBI (Buy Back of Securities) Regulations, 1998 applicable to listed Companies The Private Limited Company and Unlisted Public Company (Buy Back of Securities) Rules, 1999 are applicable to Private Companies and Unlisted Public Companies.

Modes of Buy Backs

From the existing security holders on a proportionate basis; or tender offer or

1. From the open market, through ;

   a) Stock market.

   b) Book building process or

3. From odd lots, that is to say where the lot of securities of a public company, whose shares are listed on a recognized stock exchange, is smaller than such marketable lot, as may be specified by the stock exchange; or

4. By purchasing the securities issued to employees of the company under a scheme of stock option or sweat equity

Sources of Buy Back: Following are the sources of share repurchase**:**

1. **Free Reserves** - A company may buy back out of its free reserves but a sum equal to the nominal value of the shares so purchased must be deposited in the Capital Redemption Reserves Account.
2. **Securities Premium Account** - Though Section 78 of Companies Act, 1956 does not mention buy back of securities as one of purpose, however by virtue of clause in Section 77A, i.e. ―Notwithstanding anything contained in this act‖, funds in Securities Premium Account can be used to buy back shares.
3. **Proceeds of Fresh Issue** - No buy back of any shares or securities shall be made out of the proceeds of an earlier issue of the same kind of shares or same kind of securities.

MANAGEMENT MOTIVES TO BUYBACK OF SHARE

Question arises why the management buyback the share? There are several reasons for buying back of the shares which are as follows:

1. **Dividend Substitution**: Share repurchase is one of the methods of distribution of earning to shareholders. In dividend share holder receives cash, same is with repurchase of the shares. But repurchase has more value if the tax rate is higher than capital gain. In India dividend is tax free income in hands of individuals, but dividend distribution tax is levied on companies for financial year 2013-14 Dividend Distribution TAX(DDT) is 15% surcharge is 10% and cess is 3% which comes out to be 16.995%. There is no long term capital gain in India if securities transaction tax is paid.
2. **Improved Performance Measures:** Earning per share will rise, but if cash is returned rather than used to retire debt, financial risk is increased and P/E ratio along with share price will fall. Return of funds that cannot be profitably used will raise share price.
3. **Signaling and Undervaluation**: Managers of buying back company stock indicates that they believe the stock is undervalued by the market. Non-participation of officers and directors in buyback programs may signal that stock price is undervalued. Buying back of the shares Cash flows are likely to increase in the future.
4. **Resource Allocation and Agency Costs**: Share repurchases returns capital to shareholders, who can reallocate funds into profitable activities through the capital market. As per agency theory, if the firms have surplus cash then the

manager can park these funds to risky projects or projects with less return, so repurchase reduces the potential for managers to inefficiently use free cash.

5. **Financial Flexibility:** Payment of dividends is a long-term commitment and sudden major changes (especially decreases) in dividend policy are unappreciated by market. Stability of the dividends if key issue for the companies in boom cycle, the companies earn more and can distribute earning in way of buyback of shares. Buy-backs offer an alternative way to make distributions that may not be permanent.
6. **Employee Share Options:** Share repurchases do not lead to the ex-dividend price drop-off unlike paying dividends. Management prefers a share repurchase to a dividend payout as a means of distributing profits to shareholders.

SHARE BUY BACK AND FIRM VALUE

Share repurchases change the book capital structure of the firm by reducing the amount of common stock. Share buyback increase the future earnings per share and increases the chances to get higher dividends next year onwards. Share buyback increase the book value as well as market value of the shares. This can be understood with following example:

A Limited want to distribute Rs 1,00,000 to its shareholders before distribution following is balance sheet.

Balance sheet of A limited

Liabilities	AMOUNT In Rupees	Assets	AMOUNT In Rupees
1,00,000 issued shares of 10 each	10,00,000	Cash	3,50,000
Reserves	3,00,000	Fixed assets	9,50,000
Total value	13,00,000		13,00,000

Value of share: Value/ No of shares 13,00,000/1,00,000=Rs.13

If A limited distribute Rs. 1,00,000 through repurchase the balance sheet will be:

Balance sheet of A limited after repurchase

Liabilities		Assets	
90,000 issued shares of 10 each	9,00,000	Cash	2,50,000
Reserves	3,00,000	Fixed assets	9,50,000

Total value	12,00,000	12,00,000

Value of firm: 12,00,000/90000=Rs.13.33

Case study :Mastek Limited valuation:-

The Company had announced buyback of shares in 2007 at Rs.750per Share through open market route. As of June 30, 2008, the

- Company had bought back 14,83,232 equity shares of Rs. 5/-each at an average price of Rs. 393.58 per share(14,83,232 X 393.58 = 5837.70 Lacs)

- ## Buyback – Case Study valuation

PARTICULARS (Mastek)	BEFORE BUYBACK (Rs. In Lacs)	ADJUSTMENTS (Rs. In Lacs)	AFTER BUYBACK (Rs. In Lacs)
	(Face Value Rs.5)		*(Face Value Rs.5)*
Share Capital	1423.21	(74.16)	1349.05
Free Reserves	11664.54	(4681.08)	6983.46
Share premium A/c	1156.64	(1156.64)	-
CRR	-	74.16	74.16
EPS - Basic	44.10		45.56
M.P			**362**

Check Your Progress B

Select the right option

a. Share repurchases change the book capital structure of the firm by increasing the amount of common stock.(True/ False)

b. Stock market purchase is a method of share repurchase.(True/False)

c. Funds in Securities Premium Account can be used to buy back shares.(True/False)

d. Share repurchase returns capital to shareholders. (True/false)

e. Managers buying back company stock indicates that they believe the stock is overvalued by the market.(True/False)

SUMMARY

The payout policy refers to policy of dividing the net earnings of the firm into retained earnings and dividends. Dividend can be paid in cash or in shape of stock, property or gifts. There are different theories for dividend policy. The transaction cost theory discuss on transaction cost on company as well as investors for dividend distribution. The tax theories propose that corporate tax on distributions and taxes on dividends in the hand of investors are important costs to be considered when deciding on a dividend policy. The signaling theory tells relationship between signaling and information asymmetries in the market. As per agency theory managers are not keen to pay dividend they want to retain the earnings so that they can invest and earn more profit out of this. According to Modigilani and Miller value of firm is determined solely by the earning power of the firm's assets and shareholder's net worth is not effected by decision in which the earnings of the firm is split between dividends and retained earnings. So payout of dividend and retaining of earning does not have impact on the shareholder's worth. DeAngelo & De Angelo argued that full present value of company's free cash flow should be paid out to shareholders. Share repurchase is an important way of distributing earnings to shareholders. Buy back of shares can be understood as the process by which a company buys its share back from its shareholder.

Keywords:

Debt covenant: Covenants are the condition levied in loan agreement for safety of principal and interest by lender.

Final dividend: A final dividend is paid after the end of the accounting or reporting year.

Interim Dividend: An interim dividend can be paid any time before the final report is released, usually after the half-yearly accounts are released

ESOP: Employee stock option scheme, where shares are issued to employees

Buyback of shares: As the process by which a company buys its share back from its shareholder.

ANSWERS TO CHECK YOUR PROGRESS

Answers to Check your Progress A

1. True 2. False 3.False 4. True

Answers to Check your Progress B

a False b True c True d True e False

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TERMINAL AND MODEL QUESTIONS

1. What do you mean by payout policy? Can dividend be paid in cash only? What are the sources for dividend payment?

2. Discuss dividend irrelevance approach.

3. Discuss different theories of dividend payout.

4. What do you mean by share repurchase? Discuss buyback procedure in India.

5. What are the benefits of share repurchase?

LESSON – 6

Financial Choices and Decisions

Structure

Objectives

Introduction

Need of Finance

Sources of Funding

Growth Stage and Choice of Source of Finance

Deal Structuring and Pricing Venture Capital

Initial Public offer (IPO

Summary

Glossary

Answer to Check Your Progress

References and Suggested Readings

Terminal and Model Questions

OBJECTIVES

After reading this lesson, you should be able:

- To know the need of finance by an entrepreneur and various sources of finance
- To know about major source of equity funding.
- To discuss about deal structuring and pricing venture capital.
- To explain exit strategies for Venture capital.

INTRODUCTION

When an entrepreneur wants to start the business, he is in the need of finance, without finance the project planned could not be completed. There are different sources of raising finance for the business. Need of the finance is not at the initial stage of the business, but it is a activity that is to be carried out in each stage of the business, whenever the company want to expand its business activity or want to increase its product line. A wrong choice of source of finance can lead to bankruptcy of the business, so choosing right source of finance is very important for survival of the business.

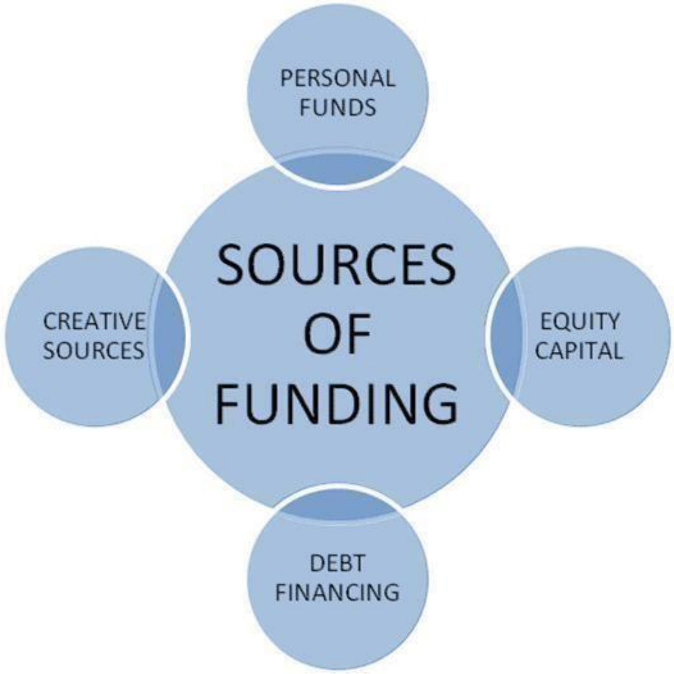
NEED OF FINANCE

Whenever an entrepreneur wants to start new venture, he requires the funding for that venture or business projects. This is the first basic step to start new venture. Few entrepreneurs take the help of financial expert to arrange finance for them but most of the entrepreneur take the decision of financing in a very haphazardly manner because they have lack of experience. Wrong financing choice can kill the total project of the entrepreneurs. The major question arises why there is need of funding for the business? There are three main reasons for this

1. **Working Capital Requirement**: Working capital is the capital required for the day to day operation of the business. Money is required to purchase the raw material and to produce the goods. Money is required for training of labour and for the payment of wages to the labour. Advertising and branding is required to be done before the selling of the products. Finances are required for meeting up the expenses from the start of manufacturing process till the product is sold. Revenue is generated only after selling of the manufactured product.
2. **Capital Investment**: Capital expenditure is the amount spent to acquire long term assets like plant and machinery. Finance or funding is required for the capital investment like purchase of plant and machinery, purchase of furniture, purchase of building, purchase of land etc.
3. **Product Development Cycle**: Product development cycle is the period that is required by the project from start of project to finish of the project. This is the period starting from development of the product till the sale of the product. Few products are under development for the years till they start generating the earning. The upfront cost often exceeds the firm‘s ability to fund these activities of its own, so outside source of funding is required.

SOURCES OF FUNDING

We have understood the need of funding for the project; there are many sources to generate the funding. The following are sources of funding



1. **Personal Funds**: Most of the new projects are started with own funds of the entrepreneurs. The vast majority of founders contribute personal funds, along with sweat equity, to their ventures. Sweat equity is the value of the time and effort that a founder puts into a new venture.

a. **Own Funds**: The personal funds can be own funds that is major source of financing new venture.

b. **Family and Friends**: Friends and family are the second major source of funds for many new ventures.

c. **Boot Strapping**: The third source of seed money for a new venture is referred to as bootstrapping. Bootstrapping is finding ways to avoid the need for external financing or funding through creativity, ingenuity, thriftiness, cost-cutting, or any means necessary. As said necessity is mother of invention, many entrepreneurs bootstrap out of necessity. Examples of boot strapping:

   Leasing equipment instead of buying
   Buying used instead of new
   Obtaining payment in advance from the customer
   Sharing office and employees with other business
   Hiring interns
   Avoiding unnecessary expenses
   Coordinating purchases with other business.

1. **Equity Capital**: Equity capital is the issuing share of ownership to the public. It is exchanging the partial ownership in the firm, usually in form of stock, to public to raise funds from the public.The conventional way for a publicly traded firm to

raise equity is to issue common stock at a price the market is willing to pay. For a newly listed company, this price is estimated by the issuing entity (such as an investment banker) and is called the offering price. For an existing publicly traded company, the price at which additional equity is issued is usually based on the current market price. In some cases, the common stock issued by a company is uniform; that is, each share receives a proportional share of both the cash flows (such as dividends) and the voting rights. In other cases, different classes of common stock will provide different dividends and voting rights.

2. **Debt**: Debt is raising loan for the financing and generally taken for a fixed period with fixed commitment to pay interest to pay on amount raised.
3. **Creative sources of funding**: Creative sources of funding include Angel investors or Venture capital etc.

Steps in Financing: There are different sources of finances available with entrepreneurs. To decide the financing need the following steps to be taken

1. Quantity of Money Needed: The first step is to quantify the amount of money required for the venture. The proper budgeting is to be done on the basis of working capital requirement and capital required for asset financing.

2. Sources of Funding: Second step in financing is deciding the source of finance. Sources can be any one of the source discussed above.

3. Raising Finance: Third step in financing is raising finance, if it is equity capital then issuing shares to public and raise capital.

GROWTH STAGE AND CHOICE OF SOURCE OF FINANCE

There are majorly two sources of finance namely Debt or Equity

Choosing debt and equity is the major area of concern in choosing appropriate source of finance. For deciding the sources of finance the nature of venture is to be characterized on basis of risk and returns.

Type of company	Characteristic	Recommended source of

		funding
Low growth companies	Week Cash flow Low to moderate growth High leverage High risk Unproven management	Personal funds Family and friends Bootstrapping
High growth companies	High Growth Unique business idea Niche market Proven Management	Equity
Mature companies	Strong cash flow Low leverage Audited financial Good management Healthy balance sheet High volume Stable Margin	Debt

Check Your Progress A

Select the right option

1. Bootstrapping is finding ways for external financing (True/False)
2. Personal funding, boot strapping is suitable for low growth companies (True/False)
3. Debt is most suitable for high growth companies (True/False)
4. Equity is suitable for mature companies (True/False)

Sources of Equity Funding: There are different sources of equity funding. These are as follows:

1. **Investment Angels**: Investment angels are wealthy, entrepreneurial individuals who provide capital in return for a proportion of the company equity. They take a high personal risk in the expectation of owning part of a growing and successful business. A Business Angel investor uses their personal disposable finance and

business or professional experience to invest in the growth of a small business, generally in start-up or early stage. Angel investors can make investments on their own or as part of a group (syndicate).

An Angel would make their own decision about making the investment and would normally take shares in the business in return for providing equity finance. In so doing, he will be sharing not only his money, but also his own expertise and knowledge in running a business. Not only he has the potential to gain a return on his investment, but he will have the personal satisfaction of seeing an enterprise succeed.

There are many entrepreneurs across India with great business ideas and growth potential. Providing equity finance, combined with access to skills, advice and market contacts can be the most effective way to help them to accelerate their development and achieve commercial success.Business Angel investing can be both enjoyable and rewarding. Nevertheless Angel investing does carry risks as well as rewards, as with all financial investments and you should always take professional advice.

Business Angels are individuals who invest in their personal capital directly in start-ups of the business. The prototypical business angel is about 50 years old, has high income and wealth, is well educated, has succeeded as an entrepreneur, and is interested in the startup of new business projects. Business angels are valuable because of their willingness to make relatively small investments in initial stage of business,Business angels are difficult to find.

2. **Venture Capital**: Venture capital is the fund/initial capital provided to businesses typically at a start-up stage and many times for new/ untested ideas. Venture capital normally comes in where the conventional sources of finance do not fit in. Venture capital is money put into an enterprise which may all be lost if the enterprise fails. A businessman starting up a new business will invest venture capital of his own, but he will probably need extra funding from a source other than his own pocket. However, the term 'venture capital' is more specifically associated with putting money, usually in return for an equity stake, into a new business, a management buy-out or a major expansion scheme

   Venture capital funds are mutual funds that manage venture capital money i.e. these funds aggregate money from several investors who want to provide venture capital and deploy this money in venture capital opportunities.Venture-capital firms are limited partnerships of money managers who raise money in ―funds‖ to invest in start-ups and growing firms. The funds, or pool of money, are raised from wealthy individuals, pension plans, university endowments, foreign investors, and similar sources.The institution that puts in the money recognizes the gamble inherent in the funding. There is a serious risk of losing the entire investment, and it might take a long time before any profits and returns materialize. But there is also the prospect of very high profits and a substantial return on the investment. A venture capitalist will require a high expected rate of return on investments, to compensate for the high risk.

A venture capital organisation will not want to retain its investment in a business indefinitely, and when it considers putting money into a business venture, it will also consider its "exit", that is, how it will be able to pull out of the business eventually (after five to seven years, say) and realize its profits

Generally speaking, the capacity to raise funds from alternative sources and/or to go public will increase with large sized firms and decreases with the uncertainty about its future prospects. Thus, smaller and riskier businesses are more likely to seek venture capital and are also more likely to be asked to give up a greater share of the value of the firm when receiving the venture capital.

When a company's directors try to get finance from venture capital institution, they must recognize that:

- The institution will take an equity stake in the company
- Directors need to convince venture capital institution that the company will be successful
- It may want to have a representative appointed to the company's board, to look after its interests.

The directors of the company must then contact venture capital institutions, to try and find one or more which would be willing to offer finance to the project. A venture capital organisation will only give funds to a company that it believes can succeed, and before it will make any definite offer, it will desire from the company management

a) A business proposal.

b) Details of how much finance is requiredand how it will be utilized?

c) The most recent financial results of the company, a balance sheet, a cash flow forecast and a profit forecast

d) Details of the management team, with evidence of a wide range of management skills, qualification, experience relating to project

e) Details of majority shareholders

f) Details of the company's current banking arrangements and any other sources of finance

g) Any sales literature or publicity material that the company has issued.

DEAL STRUCTURING AND PRICING VENTURE CAPITAL

Private firms can approach venture capitalists and private equity investors. Venture capital can prove useful at different stages of a private firm‘s existence. Seed-money venture capital, for instance, is provided to start-up firms that want to test a concept or develop a new product, whereas start-up venture capital allows firms that have established products and private firms that need more equity capital that cannot be provided by their owners can approach venture capitalists and private equity investors. Venture capital varies from investment to investment but most venture capital deals are structured using the same concepts. The venture capital deal will majorly cover four issues

- Return on investment
- Security of investment
- Management of investment
- Exit strategies

The following provides a summary of a typical venture capital deal structure where the investor purchases less than a controlling interest in a growing privately held company.

1. **Return on Investment**
   a. **Preferred Returns**: Venture investors usually purchase convertible preferred stock or convertible debentures from a company. These securities give them preferences over the other stockholders of the company and are typically convertible, at the investor's option, into common stock. Usually, conversion is mandatory when the company goes public. The preferred stock is entitled to a fix percentage of dividend payable when and if declared by the board of directors, but prior to common stock dividend and dividends are generally cumulative. If firm gets successful in its venture the VC has right to covert preferred stock into common stock, which gives VC both fix returns as well as right in appreciation.
   b. **Liquidation and Dividend Preferences**: Investors usually build into the securities they purchase preferences that entitle them to receive a predetermined amount (typically their investment amount plus a predetermined return) before other shareholders in the event the company is liquidated. These same securities typically entitle the investor to receive dividends before dividends are issued to holders of common stock and convertible preference gets priority in claim settlement at times of liquidation of company. For example, The series X preferred will have a liquidation preference such that the proceeds of merger, sale or liquidation (including non cumulative dividends) will first to be paid to series X and will include a 12% annum compounding guaranteed return calculated on total amount invested. The preference can be of two types

   n **Straight" Liquidation Preference**: The Preferred stocks receives its original investment amount plus accrued dividends (if any) before common stock holders receive anything at time of liquidation.

   n **Participating ("Double Dip") Preferred**: The Preferred first gets its liquidation preference and then shares any remaining proceeds with common.

c. **Pricing and Valuation**: The amount invested and the number of shares of common stock into which an investor's security is convertible determines the price, or value of the investment. Investors often phrase their investment proposals in terms of purchasing a percentage of a company's fully diluted stock ownership for a given amount of money. For example, a deal's term sheet may express that the investor will invest Rs 200 lakh to purchase 100 lakh shares of convertible preferred stock which is to be convertible into 100 lakh shares of common stock representing 25% of the company's fully diluted capital stock after investment. This would price the deal, in terms of company valuation, at Rs 800 lakh pre-money and Rs 1000 lakh post-money.

Activity-1

Define venture capital____

____

2. Security of Investment

a. **Full Disclosure**: The financing agreements prepared by venture capital investors are detailed and include extensive representations by the company and, sometimes, individual management members are respecting all aspects of the company's operations. Ten to twenty pages of single spaced representations are not unusual.

b. **Conversion Rights**: The investor's right to convert his preferred stock into common stock is usually coupled with the company's right to require conversion in the event of an initial public offering or less frequently, sale of the company. The conversion price is usually equal to the purchase price of the preferred stock but is subject to downward revision (resulting in giving the investor more common shares upon conversion of the preferred shares) after a subsequent sale of stock by the company at lower prices.So conversion right can be segregated into two parts:

i) **Conversion Events**: Conversion events can be voluntary, forced or automatic. Voluntary conversion is done with consent of VC and firms. Forced conversion is when some percentageof preferred is forced to be converted in case of merger etc. Automatic conversion is when initial public offer is issued by firm.

ii) **Conversion Ratio**: Conversion ratio is generally 1:1 which means amount of investment made is converted into equal ratio of shares. Sometime the conversion is done at lower ratio.

c.Antidilution Rights*:* Antidilution rights typically entitle the investor to additional shares of common stock on conversion of the investor‘s convertible preferred stock when the conversion occurs after diluting events such as stock splits and stock dividends. Most antidilution provisions also entitle the investor to additional shares on conversion if the company later sells stock at a price lower than the investor‘s price. Ratchets, which are less common, provide investors with the most protection by lowering their conversion price to the lower sale price given to otherinvestors. Weighted average antidilution provisions reduce the conversion price less by using a formula that factors in the number of shares sold at the lower price as well as the lower price. Antidilution adjustments increases the number of shares received on conversion of preferred stock. Antidilution adjustment is triggered by:

- Issuance or ―deemed issuance‖ of common at less than preferred issuance price
- ―Deemed issuance‖--adjust upon issuance of derivative security; if common never issued

d.Preemptive Rights and First Refusals*:* Preferred stock investors frequently require the preemptive right to buy stock in future rounds of company funding, typically to the extent needed to preserve their ownership percentage. These rights are usually supplemented with first refusal agreements that entitle them to purchase shares sold by management, usually at the price management negotiates with a willing outside buyer. The company and investors have right of first refusal with respect to employee‘s share are resold. The first refusal right gives investor right to acquire shares offered by the firm on prorata bases may be partial or all. Co sale right gives the investors right to sell the shares in prorata basis if the firm sells the shares to others.

e. Co-Sale Rights*:* Investor co-sale agreements entitle investors to include some of their shares of stock in a sale of stock made by a company manager or founder. The purpose of the agreement is to provide the investor with some protection against a sell out by the company‘s management, the investors have the right to participate in the sale of any such shares to third party(co- sale right) which right will terminate upon public offering. Co- sale right gives the investors right to sell the shares in prorate basis if the firm sells the shares to others.

3. Management of Investment

a. **Voting Rights***:* Investor voting rights preferences usually include the right to elect a representative to the company‘s board of directors and to approve certain types of actions such as the amendment of the company‘s charter, the sale of the business or the issuance of new or preferential securities. Sometimes the voting preferences extend to other matters as well.

b. **Participation and Information Rights***:* The voting rights negotiated by venture investors are frequently supplemented with rights to participate in developing or approving the company‘s business plan, to participate in certain board of director committees and to receive regular financial reports from company management. Venture investors who do not join a company‘s board of directors will often request a separate agreement giving them rights to attend board meetings and confer with management.

c. **Management not to compete***:* Founders and management are usually required to enter into agreements with the company that require their full time attention to the company‘s business, protect its trade secrets and prevent the founders and managers from going into competition with the company.

d. **Information Property Agreements***:* All company employees are usually required to sign agreements as a condition to the closing of a venture financing which protect the company‘s intellectual property and require the employee to keep the company‘s secrets confidential.

3. Exit Strategies

a. **Registration Rights**: Venture investors typically negotiate agreements that entitle them to require the company to register their shares for resale to the public. The purpose of the agreements is to provide the investor with a mechanism to liquidate his shares. Investors usually require two types of registrations rights namely demand right and piggy back right. Demand rights is right that entitle them to force the company to register their shares and piggyback rights is right that entitle them to include their shares in a stock registration initiated by the company.

b. **Investor Stock Redemptions**: Investor preferred stock is frequently subject to one or both of two types of redemptions. The first requires the company, usually after a fixed period of time and at the direction of the investor, to redeem (i.e. repurchase) the investor‘s preferred stock at a fixed price. The other entitles the company to require the investor to either redeem his preferred stock or convert into common stock, usually after a fixed period of time. The first provides a mechanism for an investor to liquidate his investment in a company that is not meeting expectations. The second enables management to release the company from some investor preferences (many of which are contained in the terms of the preferred security) by forcing the investor to redeem or convert into common stock:

INITIAL PUBLIC OFFER

An Initial Public Offering (IPO) is a company‘s first sale of stock to the public. When a company goes public, its stock is traded on one of the major stock exchanges. A private firm is restricted in its access to external financing, both for debt and equity. As firms become larger and their capital needs increases, some of them decide to become publicly traded and opt to raise capital by issuing shares of their equity to financial markets. An IPO is an important milestone for a firm.Typically, a firm is not able to go public until it has demonstrated that it is viable and has a bright future.

Reasons for Going Public: A private firms have limited access to fulfill its financial needs, but public firms have large access to source capital from market. Following are few reasons for going public;

1. **Current and future needs of funds**: A company issues IPO to fulfill its current and future need of funds. Mostly IPO is issued when the company have succeeded in its operations and want to expand its business, To expand its business, funds are required which can be sourced by raising public issue.
2. **Raising profile of Firm**: When a firm goes from private to public by raising funds through IPO, it raises its public profile, making it easier to attract high profile customers and business partner.
3. **Liquidity to investor**: The IPO gives the liquidity to investor, it provides exit opportunities to private investors so that they would be able to convert their shareholding into cash. IPO provides transferability of shares from one investors to other investors.The owners of the private firm are able to cash in on their success by attaching a market value to their holdings
4. **Easy transferability of shares**: The public company shares are listed on stock exchanges which makes easy buy and sell of stock of firms and free transferability of share from one investor to other.

Trade off to Go Public: There is little loss that the firm had to bear for going public. These are:

1. **Information Disclosure Requirements**: A private firm experiencing challenging market conditions (declining sales, higher costs) may be able to hide its problems from competitors or outside world, whereas a publicly traded firm has no choice but to reveal the information as this is statutory requirement.
2. **Investor Relationship**: As the number of investor in public company increases, due to which the firm has to spend a significant portion of its time on investor relations. Firm have to interact with analysts and discuss growth prospectus of the firm to maintain the share price of the firm.

   Loss of Control:

   When a company goes public they loss control on business. As firms get larger and the owners are tempted to sell some of their holdings over time, the owner's share of the outstanding shares will generally decline.

Under pricing of share: Underpricing on the issue provides a windfall gains to the investors, who get the stock at the IPO price and sell it at the much higher market price.so when the firms launches the IPO the firm price it as underpriced so that the subscriber to the IPO gets the benefit of under pricing of shares. Although precise estimates vary from year to year, the average IPO seems to be underpriced by 10 to 15 percent. Investment bankers are fairly open about the fact that they under price IPOs and they subscribe the IPO and IPO gets fully subscribed. Under pricing gives rise to two questions

1. Why companies issue the underpriced shares?
2. Can investor take advantage to subscribe the underpriced IPO?
3. Why investor get benefit out of underpriced IPO

Companies issue the IPO as underpriced because they need finance and wants that its IPO should be subscribed in full. The undervalued IPO gets more subscription than overpriced IPO. To solve this problem the companies can issue the small portion of the total capital say 10% or 20%, when the IPO gets fairly priced then they can again come up with sale of another 10-20% of share capital. The companies can raise the price in second issue of shares seeing the response of first issue of the shares.

Investors can or cannot take advantage of under pricing of shares. If the investors subscribes the dozen of IPO then all the IPO may not be underpriced, few can be overpriced, so the investors gets average return of the IPOs. The IPO's which are underpriced are generally oversubscribed and investor does not get the total shares investor had applied. Suppose investor A subscribes 1000 shares of underpriced shares, and IPO gets oversubscribed by 10 times and investor A get allotment of 100 shares on proportionate basis.

Investors who subscribe the IPO in infant stage of company should get benefit of under pricing. Underpricing is compensation for the winner's curse in initial public offerings, i.e., that less informed investors over subscribe to overpriced offerings and that the winners therefore have to offer their shares at a discount to keep these investors from dropping out of the game. Thus, informed investors in the IPO game will walk away with excess returns.

Activity-2

Describe initial public offer____

Check Your Progress B

Note: Select the right option

1. Venture capital is money put into an enterprise which may all be lost if the enterprise fails. (True/False)
2. Conversion right can be segregated into two parts conversion event and conversion ratio (True/False)
3. Company employees are usually required to sign agreements as a condition to the closing of a venture financing which protect the company's intellectual property (True/False)

SUMMARY

The sources of finance can be divided into personal funds, equity funds, debt financing and other innovative sources. The personal funds can be borrowed from family or friends. Bootstrapping is finding ways to avoid the need for external financing or funding through creativity, ingenuity, thriftiness, cost-cutting, or any means necessary.Equity can be raised through business angels, venture capital or through initial public offer. A angel would make investment in initial stage of business and would normally take shares in the business in return for providing equity finance. Venture Capital is the fund/initial capital provided to businesses typically at a start-up stage and many times for new/ untested ideas. Venture capital deal will majorly covers four issues of return on investment, security of investment, management of investment and exit strategies.An initial public offering (IPO) is a company's first sale of stock to the public. Under pricing on the issue provides a windfall gains to the investors who get the stock at the IPO price and sell it at the much higher market price. When the firms launch the IPO underpriced it intends IPO should be fully subscribed.

Keywords:

IPO: Initial Public offer is the first sale of stock to public.

Venture Capital: Venture capital is the fund/initial capital provided to businesses typically at a start-up stage

Boot Strapping: Finding ways to avoid the need for external financing.

Business Angels: Business Angels are individuals who invest in their personal capital directly in start-ups of the business

ANSWERS TO CHECK YOUR PROGRESS

Check your Progress A

1.	False
2.	False
3.	True
4.	False

Check your Progress B

1.	True
2.	True
3.	True

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TERMINAL AND MODEL QUESTIONS

1. Discuss mains sources of finance? How to choose a right source of finance?

2. Write a note on

   a. Boot strapping

   b. Business angels

   c. Venture capital

3. What is venture capital? Discuss the process of deal structuring and pricing of venture capital.

4. Discuss initial public issue with special reference to under pricing of the IPO.

LESSON – 7

Firms in Financial Distress

Structure

OBJECTIVES

After reading this lesson, you should be able:

- To understand Meaning of financial distress
- Reasons of financial distress
- Events of financial distress.
- Capital structure in financial distress
- Bankruptcy cost
- Theories of financial distress.
- How to overcome financial distress.

INTRODUCTION:

The firms have to choose the optimum capital structure; this can be optimum mix of debt and equity**.** Shareholders are the owners of the business, managing the business in indirect way through the managers; they are vested with the more power than debt holder to control the business. Managers have to choose from different projects in hand, with varying rate of risk and return, high risk give high return. Shareholders want the high return, so the managers can choose the risky project, if the firm is leveraged then money in use is not only of shareholders but also for debtholder. Risky project gives high returns to the shareholders and return increase manifolds when firm is leveraged. Risky project can give positive returns as well as negative returns, if the chosen project continuously keep on giving negative return, it effects adversely to the value of the share and they are not able to get dividend or appreciation, but debtholder interest is to be paid on time. Negative return reduces the cash balances which causes default in payment of interest as well as principal, this is called the situation of financial distress. The managers of the firms should take steps to improve financial distress otherwise it will cause insolvency of firm.

MEANING OF FINANCIAL DISTRESS

Financial distress is a situation when a firm is not able to meet up its liabilities on time. Financial distress is a situation where a firm‘s operating cash flows are not sufficient to satisfy current obligations, and the firm is forced to take corrective action. The creditors of the firm lose faith in debt paying capabilities of the firm. Financial distress is condition where a company cannot meet or has difficulty paying off its financial obligations to its creditors. Financial distress situation is faced by the firms when there is huge gap between the expected inflow of cash and expected outflow of the cash. For example the firm A is expecting cash inflow of Rs.100 lacs in next three months and have cash obligation of the Rs.500 lacs, this will be situation of financial distress. Financial distress occurs when promises to creditors are broken or honored with difficulty. Sometimes financial distress leads to bankruptcy.

Financial distress can be somehow linked to bankruptcy or insolvency. Insolvency happened when individual is not meeting up the obligations to creditors and value of the assets is less than the value of debts. So the insolvency can be of two types flow based or asset based, Flow based insolvency occurs when operation cash flow is not sufficient to meet up the current obligations and value based insolvency occurs when the firm had negative net worth or assets are less then outside liabilities.

Reasons of Financial Distress: There can be several reasons for financial distress

few of the reason are below:

1. High cost of borrowing

2. Less revenue
3. Risky projects
4. High expenses
5. Inefficient management

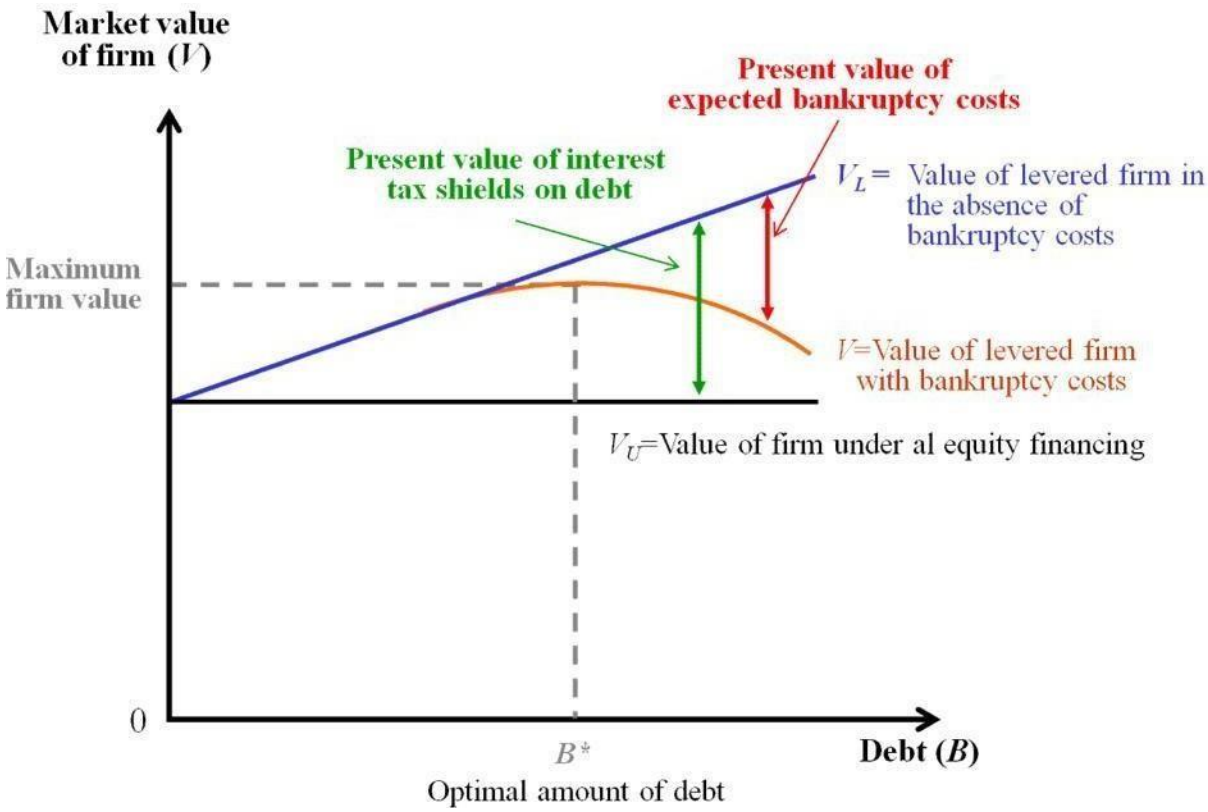
Events in Financial Distress: There are varity of events that happens in firms having financial distress a few of them are listed below:

1. Dividend Reduction
2. Plant closing
3. Losses
4. Lay off
5. Top management resignation
6. Falling market value of shares

So financial distress is a situation where a firm's operating cash flows are not sufficient to satisfy current obligations, and the firm is forced to take corrective action .Financial distress may lead a firm to default on a contract, and it may involve financial restructuring between the firm, its creditors, and its equity investors.

COST OF FINANCIAL DISTRESS (TRADE OFF THEORY, CAPITAL STRUCTURE AND DISTRESS)

Financial distress can be faced by the firms which are highly leveraged; the unleveraged firm uses only equity as its source of finance. The use of debt in capital structure gives benefit of saving in taxes. Value of highly levered is more than unleveraged firms. Value of the firms can be divided into three parts, value off equity, value of debt and tax benefit received by use of debt as source of finance. The costs of financial distress depend on the probability of distress and the magnitude of costs encountered if distress occurs. The trade-off between the tax benefits and the costs of distress could determine optimal capital structure can be shown in following diagram. As per Trade off Theory of capital structure theoretical optimum level of debt is reached when the present value of tax savings due to further borrowing is just offset by increases in the present value of costs of distress.



In the above diagram present value in initial cases increase with increase in debt portion In capital structure due to tax shield, at moderate debt levels the probability of financial distress is trivial, and so Present Value(cost of financial distress) is small and tax advantages dominate. But at some point the probability of financial distress increases rapidly with additional borrowing; the costs of distress begin to take a substantial bite out of firm value. If the firm cannot be sure of profiting from the corporate tax shield, the tax advantage of additional debt is likely to dwindle and eventually disappear.The theoretical optimum is reached when the present value of tax savings due to further borrowing is just offset by increases in the present value of costs of distress. This is called the Trade-off Theory of capital structure.

As per Trade off Theory the value of the firm is equal to its value if all-equity-financed plus present value tax shield minus present value costs of financial distress. According to the Trade-off Theory of capital structure, the manager should choose the debt ratio that maximizes firm value. So managers should keep on increasing the debt portion in capital structure till the tax shied is equal to cost of distress.

BANKRUPTCY COST

Bankruptcy is the legal mechanism allowing creditors to take over when a firm defaults. There is difference between the bankruptcy of individuals and companies. Limited liability companies limits the liability of the shareholder to the extent of paid up value of the share, they are being provided so many powers or right by which shareholders can indirectly control the business of the companies with a right that they have limited liability . Corporate bankruptcies occur when stockholders exercise their *right to default*. That right is valuable; when a firm gets into trouble, limited liability allows stockholders simply to walk away from it, leaving all its troubles to its creditors. The former creditors become the new stockholders, and the old stockholders are left with nothing. Let us take the example that there are two entities A and B, A with limited liability and B with unlimited liability. They have assets worth Rs.500 lacs and Liability worth Rs.1000 lacs. Suppose both A and B goes bankrupt, shareholders of A had limited liability so assets will be sold for Rs. 500 lacs and 50% liability of the debt of Rs.1000 lacs will be settled, rest the loss is to be borne by the Debt or bond holders, in case of bankruptcy of B the assets will be sold out to Rs.500 lacs and balance outstanding Rs.500 lacs will be recovered from the personal assets of owner of B firm. So in case of corporate bankruptcy the burden of difference between assets and outside liabilities is shifted from shareholders to debt holder, shareholder of limited liability company cannot be made liable for settling the outstanding debt from the personal assets of the shareholders.Comparison of limited and unlimited liability for two otherwise identical firms A and B, If the two firms' asset values are less than Rs1,000lacs, ALimited stockholders default and its bondholders take over the assets. B Unlimited stockholders keep the assets, but they must reach into their own pockets to pay off its bondholders. The total payoff to both stockholders and bondholders is the same for the two firms.

We said that bankruptcy is a legal mechanism allowing creditors to take over when a firm defaults. *Bankruptcy costs* are the costs of using this mechanism. The expenses of legal, auditing, court fee and all the administration charges for bankruptcy are included in cost of bankruptcy. Suppose in above case if the assets of A limited is for Rs.500 lacs and expenses incurred in bankruptcy is Rs.50 Lacs then cost of bankruptcy is Rs.50 lacs. One more question will the value of both the shareholder of A and B will be same. No value of shares of A Limited will be higher than B limited because they have the right of limited liability and loss of bankruptcy is borne by the debtholder and value of debt of A Limited will be less. Value of Debtholder of B will be higher than value of debt of A limited as personal assets of owner can be attached to payback outstanding debt.

Bankruptcy cost reduces the total payoff to bondholders and stockholders. A Limited, by issuing risky debt, has given lawyers and the court system a claim on the firm if it defaults. The market value of the firm is reduced by the present value of this claim. Increased leverage affects the present value of the costs of financial distress. If A Limited borrows more, it increases the probability of default and the value of the lawyers' claim. It increases present value (costs of financial distress) and reduces A's present market value.The costs of bankruptcy come out of stockholders' pockets. Creditors foresee the costs and foresee that they will pay them if default occurs. For this they demand compensation in advance in the form of higher payoffs when the firm does not default; that is, they demand a higher promised interest rate. This reduces the possible payoffs to stockholders and reduces the present market value of their shares.

Direct Cost of Bankruptcy: This is the cost incurred doing all the formalities of bankruptcy. These costs can be expenses of legal, auditing, court fee and all the administration charges for bankruptcy. Bankruptcy cost come to 1-3% on the average assets of the firm and 20% to value of last year's assets of the firms. Highly leveraged firms estimated costs of financial distress amounting to 10% to 20% of pre-distress market value, although they found it hard to decide whether these costs were caused by financial distress or by the business setbacks that led to distress. Bankruptcy cost is higher in case of smaller companies, than the larger companies. The smaller companies bankruptcy cost can even go upto 10 to 20% of the net assets of the firm.

Indirect Cost of Bankruptcy: Indirect cost of bankruptcy is much more important than direct cost of bankruptcy, even the volume of the indirect cost is much higher than the direct cost of the bankruptcy. The bankruptcy takes place several years, different approvals are required to be taken, During this period revenue come to halt, but expenses keeps on increasing. During period of bankruptcy the impaired ability to conduct business reduces e.g. Loss of sale, Non availability of raw material, non availability of credit, loss of faith of creditor, labour distress. Managerial distraction is another indirect cost of bankruptcy, most of the efficient manager or productive managers leave firm or competitors gives them better offer to leave to job. Indirect cost is just like taking slow poison for suicide, where death is sure but a lot of pain is suffered from taking poison till the death.

Activity-1

Explain bankruptcy cost____
-
_____________-___________________-___________________-___________________-____
_____________-___________________-___________________-___________________-____
_________________________________-___________________-___________________-____
_____________-___________________-___________________-___________________-____
_____________-___________________-___________________-___________________-____
_____________-___________________-___________________-___________________

CHECK YOUR PROGRESS A

Select the right option

1. Financial distress mean unable to pay the creditor on time. (True/False)
2. Financial distress creditor faith in firm increase (True/False)
3. Which is the events of financial distress (select right option)

    a. Dividend reduction
    b. losses

c. Top management resignations
d. All of above

4. Which is reasons of financial distress (select right option)

    a. High profits
    b. High cost of borrowing
    c. efficient management
    d. safe projects

5. Trade off Theory gives the relationship in capital structure, tax shield and cost of distress. (True/False)
6. Direct cost of bankruptcy includes (select any one)

    a. Court fee
    b. Administration expense of insolvency
    c. Legal expenses
    d. All of above

CONFLICTS OF INTEREST

All the financial distress does not result into insolvency, as long as the firm can spare up enough cash to pay the interest on its debt, it may be able to postpone bankruptcy for many years. Eventually the firm may recover, pay off its debt, and escape bankruptcy altogether. But the mere threat of financial distress can be costly to the threatened firm. Customers and suppliers are extra cautious about doing business with a firm that they were dealing since long time. Customers worry about resale value and the availability of service and replacement part. Supplier of the goods can deny the credit supply of the goods, and can ask for immediate cash payment on delivery of goods. The firms with high debt are not able to manage the financial distress and move to next step of bankruptcy.

Both bondholders and stockholders want it to recover from financial distress situation, but in other respects their interests may be in conflict. Financial distress is costly when these conflicts of interest get in the way of proper operating, investment, and financing decisions. Stockholders are tempted to the usual objective of maximizing the overall market value of the firm and to pursue narrower self-interest instead. They are tempted to play games at the expense of their creditors. This can be better understood with the following example The firm as assets of Rs 30 lacs and they debt obligation is of Rs 60 lacs next year, the shareholder who have voting rights and more power to control the business of the firm will try to increase the net worth in next year one to more than Rs 60 lacs to pay debt by taking the riskier project, If they succeed in this then their net worth will increase and will be out of financial distress, and will also be able to raise fresh loan next year, But if they fail the assets can be of Rs 30 lacs against debt liability of 60 lacs, In case of failure the shareholder had not to lose more than paid up equity value of the shares. The shareholders, who controls the business, takes up the riskier project at cost of bond holders.

GAME THEORIES

There are few game theories adopted in financial distress. Following are these.

ASSET STRIPPING OR RISK TRANSFER

Shareholders of levered firms gain when business risk increases. Financial managers who act strictly in their shareholders' interests (and *against* the interests of creditors) will favor risky projects over safe ones. They may even take risky projects with negative NPVs.For example A is a leverage firm, it had outstanding debt of Rs 120 lacs payable in one month and they have cash assets worth Rs 100 lacs only. The Manager appointed by shareholders control the firm, if this situation continues next month the firm will go in insolvency and the bond or debtholder will control assets of Rs 100 lacs against their claim of Rs 120 lacs, shareholder will get nothing and the value of shares will be zero. Manager‘s of the firm appointed by the shareholder comes across two projects to be completed in next one month and both require Rs 100 lac investment.

Project X: Has safe NVP of 2% with zero risk, payoff is 102 lacs.

Project Y: Risky offer, 25% chances of Rs 130 lacs Pay off, 75% chances of Rs 75 lacs payoff.

Expected average value 25%*130+75%75=88.75

As the manager‘s are the agents of the share holder they will try to increase the value of shareholder and try to accept the project X, but the debt holder want project Y to be accepted as it increases it value from Rs 100 lacs to Rs 102 Lacs. Let us discuss outcome of accepting the project X, which is less riskier, Value of share will be zero in one month but the debtholder‘s security is increased from Rs 100 lacs to Rs 102 lacs, if project Y is accepted then shareholder‘s value can increase from zero to Rs 10 lacs (130 lacs-120 lacs) and firm will be out of distress and continue to work and more chances to increase of value, if there is negative return then shareholder‘s value is still zero but the asset value with debt holder reduces from Rs 100 lacs to Rs 75 Lacs . So the shareholder will try to shift the assets from debtholders to them by taking the riskier project and they will try to pass out the risk to debtholder, In above example with positive outcome of project Y shareholder‘s value will increase and assets will be transferred from the debtholders to shareholder, but if negative outcome occurs then shareholder are at zero risk and bondholder had to face 25% reduction in its value. So with positive return assets are transferred and with negative return risk is transferred.

UNDER INVESTMENT THEORY

When a firm is facing the financial distress the shareholder‘s will refuse to contribute fund for the positive NPV projects, as it will reduce the value of the shareholder and increase the value of the bondholder or debtholders. Let us take example to understand the problem For example A is a leverage firm, it had outstanding debt of Rs 120 lacs payable in one month and they have cash assets worth Rs.100 lacs only. The Manager appointed by shareholders control the firm if this situation continues next month the firm will go in insolvency and the bond or debtholder will control assets of Rs 100 lacs against their claim of Rs 120 lacs, shareholder will get nothing and the value of shares will be zero. Manager‘s of the firm appointed by the shareholder comes across two projects to be completed in next one month and both require Rs 100 Lac investment.

Project X: Has safe NVP of 2% with zero risk, payoff is 102 lacs.

Project Y: Risky offer, 25% chances of Rs 130 lac Pay off , 75% chances of Rs 75 lac payoff. Expected average value 25%*130+75%75=88.75

We have discussed the one solution of the problem above and second solution is that the another Rs 50 Lac is raised from the shareholder by giving proportional shares to shareholder and the raised amount of Rs 50 lacs is invested in project X. The payoff will be 10 lacs. After one month, the firm will again be insolvent with the value of debt holders will be increase from 102 Lacs to 112 lacs and value to the shareholder‘s will again be zero and their risk increases further with fresh investments, so the shareholder will refuse to give fresh money to firm in distress, but if the firm was only financed by shareholder (unleveraged firm) , then shareholder could have contributed additional money to save the firm from insolvency.

INFORMATION PROBLEM

The managers of the firm who are the agents of the shareholders have more access to information containing the financial health of the firm; they came to know first about financial distress of the firm. Signaling and information asymmetry effect the decisions of the investors the manager who have information of the financial health of the firm signals good health of the firm and try to increase value of the firm and try to raise fresh debt. There are three theories in this.

1. **Cash in and run**: The manager‘s of the company have first information about the financial distress of the company; they try to adopt cash and run policy. They signals that firm is performing very well by giving signal like heavy spending, by doing big budget parties, increasing expenditure, by giving all these signal assets of the company is sold and heavy amount of dividend is paid to the shareholders. Dividend received by shareholder is actually indirect transfer of cash on their investment to them. The market value of the firm's stock goes down by less than the amount of the dividend paid, because the decline in firm value is shared with creditors. So the market value of the share decrease as risk taken by equity holders is reduced, but this act reduces the assets for the debtholders and with

the reduction in assets for the debtholder the chances of distress increases and the value of debt decreases.

2. **Taking Time**: When the firm is in distress the Manager have first information, they work in interest of shareholders and try to delay as long as possible the insolvency situation. There are various methods to do this few of these are:
   a. Through change in accounting policy designed to conceal the financial distress
   b. Show off research and development activities
   c. Giving false hopes of financial health
   d. Showing big fake order
   e. Cutting corner on maintenance
   f. Giving high dividends
   g. Big showoff by spending a lot

   So through all the above techniques the insolvency is postponed by the manager and efforts are made to keep intact stock value.

   3.Bait and Switch: This game is also played in financial distress but this is more dangerous and is a quick way to enter into insolvency through distress. As the managers have the information of the financial distress, they first issue the safe debts with limited amount to cover up the financial distress. They show of financial soundness of the firm by all of the method discussed above and gives signal in the market the firm is very sound, and issue heavy dividends by selling of the assets which causes reducing in the share price. Reduced share attracts the debt holders and they are induced to further invest in the firm with larger amount and later on the debtholders are induced to convert their debt into the equity which causes the value of share to increase and increase in debt reduces the market value of debt. The increase in debt and reduced stake of shareholders cause the insolvency of the firm.

METHODS FOR RECOVERING THE DISTRES

Not every firm in financial distress goes for bankruptcy. As long as the firm can spare cash to pay the interest on its debt, it may be able to postpone bankruptcy for many years. Eventually the firm may recover, pay off its debt, and escape bankruptcy altogether. There are various ways through which the firms in financial distress can take for recovery. The manager‘s should work on both side of balance sheets i.e. assets and liabilities. The steps for recovery from financial distress can be divided into two parts:

1. **Asset Restructuring**: The risk of insolvency can be reduced by the asset restructuring of financially distressed firm or company. Assets structuring can be done in following ways.
   a. **Selling Major Assets:** Selling the major assets will generate cash for payment of interest and investing the surplus cash in the profitable project will pull the firm out of distress. For example the Firm A is having a land

worth Rs.100 lacs the book value of which is Rs.10 lacs so selling of this land which is not in use will generate more cash to firm in distress.

b. **Merger with the Another Companies**: The merger with other companies will increase the more cash flow and economies to scale and economies to scope will improve the operational efficiencies of the firm So the collective synergy of both the firms will increase the cash flow and firm will come out of financial distress.

c. **Reducing the Capital Spending**: The reduction in capital spending will generate the cash surplus to the firm, with that cash surplus the debt liability can be meet up, Suppose firm a is under financial distress, the firm can improve profitability by introducing new technology, which require capital expenditure, so instead of buying machines of new technology the firm can take this on lease also.

d. **Reduction in R & D Expenditure**: Research and development cost is not going to increase the profitability immediately, the cost incurred today in research will benefit in coming years, so when firms are in financial distress, the research and development expenditure can be postponed.

2. **Financial restructuring**: Financial restructuring is another way to postpone the insolvency by firms in financial distress. Following can be done in financial restructuring:
   a. **Issuing New Securities**: Raising of the fresh capital will generate fresh capital for the firm, with that timely interest payment can be given to the debtholders and insolvency can be postponed. Efficient management of fresh funds will generate more cash and will pull the firm out of financial distress situation.
   b. **Private Negotiation**: The firm in financial distress can do the private negotiations with banks and other creditors and can request more time for payment of interest and principal. The firm can renew the debt agreement also with the fresh terms and conditions. The firm can also request the creditors to reduce the rate of interest, so that more cash can be generated in coming years to pay-off the creditors. The firm can also payoff the higher interest rate debt by taking the low interest loan from other banks or creditors. Creditors and banks will also welcome this initiative due to direct and indirect cost of insolvency, with renegotiated terms they can get full payment of obligation.
   c. **Exchanging Debt to Equity**: Exchanging debt obligation to the equity is another solution for bringing the firm out of financial distress. Banker and creditors are allotted share of the company, they become shareholder and get several rights to manage the business. Reduction in fixed interest cost generates more amounts of cash for the firms. Creditors also favor this as they can get the equity shares with increase in cash flow due to reduction

in interest cost, the profitability of the firm increase, which result into increase in value of share

Activity-2

Explain methods for recovering the distress____

Check Your Progress B

Select the right option

1. Bankruptcy cost can be direct and indirect (True/False)
2. There is no conflict of interest in creditors and shareholder in distress(True/ False)
3. Cash and run is theory where cash is paid to creditor by selling assets (True/False)
4. There is no scope of private negotiation in distress(True/False)

: SUMMARY

The financial distress is a situation where a firm fails to meet its commitment to pay to creditor on time. The major reason for financial distress is more use of debt in capital structure. Debt financing has tax advantage and increase the EPS and ROE for shareholders. Trade off theory tells that debt in capital structure should be increased to the extent till tax shield is equal to cost of distress. Bankruptcy cost of are of two types namely direct and indirect, Direct cost is expenses incurred in insolvency proceeding, while indirect cost is indirect effect on reduction in value of assets due to insolvency. In financial distress there is conflict of interest in creditors and shareholder, Both want to increase their value. Shareholders want to take risk on funds of creditors and creditors wants to take safe projects to protect assets. Management signals and tries to save financial distress with information asymmetry. Every distress does not result into insolvency, There are several ways of negotiations through which insolvency can be saved.:

7.14 Keywords:

Cash and Run Theory: Managers have first information about distress, they give positive signal to public like heavy spending, big budget parties and reduce their stake and run**.**

Financial distress: Where firm is not able to meet debt obligation on time.

Private Negotiation: Doing private negotiation with creditors and banks to request more time for payment of interest or principal

Net worth: Net worth is Asset minus outside liabilities.

Insolvency: Default in debt followed by liquidation of assets of firm

Bankruptcy Cost: Bankruptcy cost of are of two types namely direct and indirect, Direct cost is expenses incurred in insolvency proceeding, while indirect cost is indirect effect on reduction in value of assets due to insolvency.

7.12 ANSWERS TO CHECK YOUR PROGRESS

Check your Progress A

1. True 2. False 3.d 4.b 5 True 6.d

Check your Progress B

1. True 2. False 3.False 4. False

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TERMINAL AND MODEL QUESTIONS

1. What do you mean by financial distress? How to solve the situation of financial distress?
2. Discuss the Trade off Theory in financial distress.
3. What is relationship between the capital structure and financial distress?
4. Critically Examine the Signaling and Information Asymmetry Theory.
5. Write note on
   a. Cost of bankruptcy
   b. Direct cost of bankruptcy
   c. Indirect cost of bankruptcy
6. Discuss the Game Theories of financial distress.

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LESSON – 8

Value Based Management

Structure

Objectives

Introduction

Meaning of Value Based Management

Elements of Value Based Management

Value Metrices

Marakon Approach

ALCAR Appreach

Mckinsey Approach

Economic Value Added Approach

Market Value Added Approach

BCG Approach

Cash Flow Return on Investment (CFROI) Approach

Summary

Answer to Check Your Progress

Glossary

References and Suggested Readings

Terminal and Model Questions

OBJECTIVES

After reading this lesson, you should be able:

- To understand the concept of value based management
- To know elements of value based management
- Explain the different value Metrices

INTRODUCTION

The value of a company is determined by its discounted future cash flows. Value is created only when companies invest capital at returns that is higher than the cost of that capital. Value of the company will increase when return of capital is higher than the cost of capital. Value Based Management (VBM) extends these concepts by focusing on how companies use them to make both major strategic and everyday operating decisions. Properly executed, it is an approach to management that aligns a company's overall aspirations, analytical techniques, and management processes to focus management decision making on the key drivers of value.

MEANING OF VALUE BASED MANAGEMENT

Value based management is management approach that ensures that the corporations are managed consistently on value normally, maximizing shareholder‘s value. A firm creates value to its shareholders when the investment made by it gives positive return to its shareholders and it boosts the wealth maximization principle. Discounted cash flow method is an important tool to measure the value creation by the firm.

According to Marsh,―Value based management is a framework for measuring and managing the business to create superior long-term value for shareholders. The reward is measured in terms of enhanced share price performance and dividend growth‖

According to Sinms, ‖Value based management is essentially a management approach whereby companies driving philosophy is to maximize shareholder value by providing return in excess of cost of capital‖.

ELEMENTS OF VALUE BASED MANAGEMENT

Value based management have three elements which are as follows:

1. **Creating Value**: On the basis of value based management the company can increase its maximum future value by applying appropriate strategy.
2. **Managing Value**: Managing value on the basis of governance, change management, organization culture, communication and leadership.
3. **Measuring Value**: Measuring value on the basis of valuation.

Value based management is dependent on both corporate purpose and values. These are utilized for measuring the shareholder‘s value and also aims at other constituents directly associated with stakeholder‘s value.

Importance of Value Based Management: The value based management has its importance in different ways in different organizations. These can be explained as follows:

1. Value based management had played an important role in market for its products and services.
2. Value based management had played important role in market for corporate management and competition, It determines who is responsible for an organization, fear/threat of takeover/ restructuring / leveraged buyout.
3. Value based management had played an important role in capital market for competing purposes for investor favor and money.
4. Value based management helps in making image of the company which in turn helps to bring top talent in the organization.

Any lack for achieving this competition in one of these market causes a danger of survival. Chances of corporation value based management can help organization to achieve in above market.

Value Metrices

In modern time historical accounting methods and metrics are become unreliable. These have turned into new value based metrics which are as follows:

8.51 MARAKON APPROACH:

Marakon is an international consulting firm which is formed in 1978. It has done pioneering work in the area especially in value based management. It determines the difference between the ROE and required rate of return on equity. This model is basically based on market to book value ratio. Every firm tries to maximize the shareholder's wealth, by getting success in achieving its goals is known as the value addition by the firm.

Steps in evaluation: Marakon approach model has following steps while evaluating firms value addition.

a. Determine the Financial value
b. Clarity of strategic Driver Value
c. Calculating higher strategic value
d. Development of higher level of organization capabilities.

The above mentioned steps help the organization to evaluate their value addition to the shareholder's wealth.

a. Determining the Financial Value: In this firstly determines the determinants which the firm used to evaluate the firm's value addition. As this is approach based upon market to book value ratio which is also function of dividend growth rate, cost of equity and return on equity. The following formula is used to determine the market to book value of firm,

$$m/b=(r-g)/(k-g)$$

Where m= market value
b=Book value
r=Return on equity
g=Dividend growth rate
k=Cost of capital

Equity Spread: For an equity firm both equity value and equity spread method will provide identical values because there are no interest charges and debt capital to consider. The difference between return on equity and cost of equity is known as equity spread. If the equity spread gives the positive results, it means the firm is growing and offers positive returns to the shareholders. It means

$m/b>1$

The equity spread is always positive when return on equity is more than the cost of equity. In other words when the firm gets positive returns on its investments the market value becomes higher than the firms book value.

Book value of the firm means capital invested by the shareholders to the firm and market value of the firm represents how effectively firm uses shareholder's capital. Share price of the firm determines the market value of the firm. Market value of the firm can be calculated as follows

Market value of the firm= Market value of the share x Outstanding share in market

While calculating the market value of the firm the following points need to be kept in the mind:

1. m-b= +ve

If the market value of the firm is greater than the book value of the firm it shows that firm has added value to the shareholder's wealth and effectively utilized its funds. The positive return on investment leads to increase in the share price which in turn increase the market value of the firm

2. m-b= -ve

If the market value of the firm is less than book value of the firm, it shows that firm has not added value to the shareholder's wealth and firm did not utilized the funds provided by the shareholder in prudent way.

3. m-b= 0 or m=b

If market value of the firm is equal to the book value of the firm, it shows that firm did not added value to shareholder's wealth and shareholder's wealth neither increased nor decreased.

b. Clarity of Strategic Driver Value: The financial determinant of the firm is based upon macro environment of business which includes the market and economic conditions in which the firm operates. If the market is booming and economy is developing then the return on investment will be positive. If the market value is not good and economy is facing downward trends then the return on investment will be negative. Strategic drivers of value of the firm determines the market economics and competitive positioning of the firm.

i. **Meaning of Market Economics**: Structural factors like growth of industry and firm determine the marketing environment and profitability of the firm. On the basis of Marakon these can be divided into two parts:
   1. Limiting forces: The limiting forces of the firm depend upon the factors like intensity of direct competition, threat of entry, supplier pressure and regulatory pressures.
   2. Direct forces: Direct forces depend upon intensity of direct competition and customer pressures.

ii. **Meaning of Competition Position**: The competition position of the firm refers to the positioning of firms products, services in customer's mind as compared to competitors products and services. A firm can achieve the competitive position of the firm by follows prefers three generic strategies.
   1. **Product Differentiation**: A firm can get cutting edge over its competitors through product differentiation strategy. A firm can

differentiate its products and services by adopting latest technology, superior product design, adding new feature, attractive packaging etc.

2. **Cost Leadership**: A firm can get its upper hand over its rivals by cost leadership by adopting a competitive cost Leadership strategy .includes access to cheap raw material, forward and backward integration and skilled labour etc.
3. **Focus Strategy**: The firm can have cutting edge over its competitors on the basis of focus strategy; it is combination of cost differentiation and cost leadership.

c. Calculating Higher Value Strategies: Under this strategy two types of strategies are considered which are as under

i. **Participative Strategy**: This strategy shows the choice of business by the firm in which it wants to operate/ adopt. The firm selects its target market segment, whether the firm selects the niche market or competitive market. Firms also chose the business it wants to continue due to saturation of the business.

ii. **Competitive Strategy**: This strategy shows that the strategies adopted by the firm to get competitive advantage over its rivals which includes positioning, differentiation, cost leadership, after sales services with the help of these strategies firms try to carve a niche in the business.

d. Development of Top Level Organizational Capabilities: A firm must develop top level organizational capabilities so that the management of the firm can perform better in achieving its goals. These top level organizational capabilities acts as complementary tool to higher value strategies. The firm cannot create a balance between the firm‘s goal and shareholder‘s goal. So the top level organizational capabilities plays a significant role.

The basic desired organizational capabilities are as follows:

i. The top level management must be determined to maximize the value of shareholders. They should create a balance between goal of a firm and shareholders, so that the chief executive which provides emphasis on enhancing the maximization of values must be part of them.

ii. Performance based package principal should be implemented in the firm under this principal Employer should be paid according to their performance.

iii. Resource allocation system: Resource allocation system is to be adopted by the firm which is based on following principles:

1. **Zero Based Budget Principle**: According to this type of principle a firm starts the budget by calculating process from zero. No previous data base is considered for any activity of the firm. New fresh budgets

are allocated. Zero based budget helps in better allocation of resources and their full utilization of resources.

2. **Funding Strategies Principle**: In this principle a firm must consider the different resources from where funds would be available. The firm must understand all the barriers to calculate to fund its current liabilities. Management must make sure that there is appropriate distribution of funds to each project in the firm.
3. **No Capital Rationing**: When the firms have new profitable projects but has limited resources of funds is called capital rationing. In this situation, a firm cannot afford all the projects through the return is good. It must rank the projects according to its affordability.
4. **Zero Tolerance for Bad Debt**: The firm should adopt the zero tolerance to the bad debt principle, Under this principal firms adopts credit control procedures and limited credit amount to avoid the loss in bad debts.

Activity-1

Define Zero Based Budget principle____

____

ALCAR APPROACH

This is an important tool which is used to measure the value added by the firm to its shareholder's wealth. This model was introduced by ALCAR group which is management education and Software Company. This approach is based upon discounted cash flow method. In this method, future cash inflow of the firm is calculated over a specified period of time in terms of present value and it is subtracted from the current year's debt. If it gives the positive result then it means the firm has added value to shareholder's wealth, if it gives negative results then a firm has depreciated the shareholder's wealth.

Factors Affecting Shareholder's Value: According to ALCAR Approach, the following factors are affecting the shareholder's value.

- **Role of turnover**: With the increase in the turnover the profit increase and with the reduction in turnover profit decrease which in turn will increase cash flow

- **Operating profit margin**: Higher the profit margin more will be the profit
- **Rate of income tax**: Lower the tax rate will generate more cash flow.
- **Investment in working capital**: Proper management of working capital will increase the cash flow.

ALCAR Approach has been well received by the financial analysts for following reasons

a. It is conceptually sound as it employs discounted cash flow method.
b. It had made available computer software to popularize the approach

Shortcoming of ALCAR Approach: This approach seems to suffer from the following short comings

a. In the ALCAR Approach, profitability is measured in terms of profit margin on sales. It is generally recognized that this is not a good index for comparative purpose.
b. Being an essentially a verbal model it is very cumbersome. Hence it requires fairly involved computer software.

MCKINSEY APPROACH

Mckinsey and Company, a leading international consulting firm has developed an approach to value based management. Today most of the firms adopt this model while implementing the value based management systems in their firms. Properly executed value based management is an approach to management whereby the company's overall aspirations, analytical techniques and management processes are all aligned to help the company maximize its value by focusing on decision making on the key drivers of the value.

According to this model, corporate organization has to follow by adopting a suitable procedure while adopting value based management systems For implementing that procedure, following steps has to follow up:

a. Focus on Value Maximization: To maximize the shareholder's wealth is the prime motive of every firm. Every shareholder while investing in any firm want to get back a positive return, To access whether a firm is creating value for its shareholders a firm must adopt discounted cash flow approach. By analyzing the firm must find out whether its cash inflow is more than cash outflow and the result is profitable business.

b. Setting Value Drivers: In every corporate firm there are three levels of value drivers that has reasonable impact on firm's business:

1. **Generic Level**: These types of value drivers are mostly related to the finance level. Return on investments and operating margins are considered in these types of levels.
2. **Business Level**: These types of value drivers includes product portfolio, operating leverage.
3. **Grass Root Level**: This type of level includes capacity utilization, revenue per visit, cost per delivery etc.

c. **Setting up Appropriate Managerial Process**: For setting up appropriate managerial process every firm has to adopt following procedure.

1. Every firm must set up its goals and objectives that a firm has to achieve during the business life
2. Every firm has to develop a strategy which should be able to fulfill its objectives and able to handle various issues like allocation of funds, investment strategies etc.
3. Firms must measure the performance after implementing the strategies and provide incentive systems of objectives.

d. **Implementation of Value Based Management**: Every firm must implement value based management to ensure maximization shareholder‘s wealth.

Companies that are adopting VBM: These are few examples of the companies which are adopting value based management systems these are

- Tata group
- Reliance group

Tata group: Tata group adopted value based management systems on the basis of following parameters

- Tata ethos- ideals, customs and traditions
- Sound and smooth business principles
- Commitment towards interest of shareholders
- Health and wealth of employees
- Generous towards people

Reliance group: Reliance group adopted value based management on the basis of following parameters:

- Bulk production and provide superior quality of output at reasonable price
- Think big, think fast, think ahead

Check Your Progress A

Note: Select the right option**.**

1 --------------------------is element of value based management.

a. Creating Value

b. Managing Value

c. None of above

d. Both a and b

2. Value based management is essentially a management approach whereby companies driving philosophy is to --------------------------------------shareholder value by providing return in excess of cost of capital.

a. Maximize

b. Minimize

c. Maintain

d. Evaluate

3. In the ALCAR Approach profitability is measured in terms of profit margin on ------ - - - - - - - - - - - - - - - - -

a. Cost of goods sold

b. sales

c. capital employed

4. Marakon Approach determines the difference between the ---------------------------- -

a. Required rate of return on equity and ROE

b. ROE and required rate of return on equity

ECONOMIC VALUE ADDED APPROCH

Economic value added approach had been developed by Stern Steward consulting firm. Economic value added approach is an evaluation model through which it is analyzed whether the firm is adding value to the wealth of its shareholders or not. It is an internal measure for firm's performance. Economic value added analyze whether operating profit after tax is sufficient to cover cost of capital or required rate of return. If net operating profit after tax is higher than required rate of return on capital then we can say firm is creating value for its shareholder. If required profit after tax is less than the required rate of return than firm is depreciating the wealth of shareholders.

Computation of Economic Value Added: Economic value added is essentially the surplus left after making on appropriate charge for capital employed in the business. It may be calculated by using following formula:

EVA= Net operating profit after tax- Cost charges of capital employed

EVA = NOPAT – (c X capital employed)

Net operating profit after tax = Income available to common equity+ increase in equity equivalent + interest expenses after taxes + preferred dividends + minority interest provisions

or

Sales –{operating expenses(including depreciation) – Taxes}

Capital employed = Common equity + Equity equivalent + Debt + Preferred stock + minority interest

k= cost of capital (This is weighted average cost of capital WACC)

Characteristic of Economic Value Added (EVA) Approach: Economic value approach is a performance measuring approach which ties directly, theoretically as well as empirically, to the shareholders wealth creation. It has following characteristics:

1. It converts the accounting information into economic reality that is readily grasped by non-financial managers. It is a simple but effective way of teaching business literacy to everyone.
2. It serves as guide to every decision from strategic planning to capital budgeting to acquisitions to operating decisions.
3. It is an effective tool for investor communication because
    - It is closest in both theory and construct to the net present value of a project in capital budgeting as opposed to IRR

- The value of the firm in Discounted Cash Flow(DCF) terms can be written in terms of the EVA of projects in place and the present value of the EVA of future projects.

Implementation of EVA: The EVA can be implemented in following steps

1. In computation of EVA, it can be amended with the help of following formula:
   EVA=NOPAT-(k x Capital)
   So by increasing the value of NOPAT, the difference will be positive. It leads to increase EVA.
2. The more the positive difference between required rate of return and cost of capital higher the EVA
3. If the firm invests in a projects where the cash inflow is higher than cash outflow then EVA would be higher.

Advantages of EVA: EVA has following advantages:

1. It is helpful in measurement and determination for the shareholder's that a firm is adding their value and wealth or not
2. It reduces irregularities of accounting system and offers appropriate financial results.
3. It is helpful in decision-making process.
4. It is helpful to managers and employees for offering better incentive plans
5. It is helpful for top management for gathering information to the firm that provides helps in improving performance.

Disadvantages of EVA: Although EVA has to play important role yet it faces certain disadvantageous which cannot be neglected.

1. It gives less emphasis on long-term goals and concentrates on short-term goals only.
2. In calculating the EVA, manipulation is very easy. Managers can easily manipulate in accounting methods and shows the desired results.
3. It does not provide any solution to take the problems but provides only financial information of various departments of firm.

MARKET VALUE ADDED APPROACH

For external measurement of the firm's market value added approach is helpful. Market value added measure is helpful to management how it adds value to firm's market value. It is some total of all the present value of future EVA.

Computation of market value added:

Following formula is used for computing the value as per market value approach

MVA={EVA/(1+C)}+{EVA/$(1+C)^2$}+{EVA/$(1+C)^3$}+ --------------------------

It may be calculated as follows also

MVA= Market value of equity- Book Value of the equity

or

MVA=Current market value of the firm-book value of capital employed by firm

If MVA has a positive value it means a firm is adding value to the shareholder's wealth. If MVA has negative value it means the firm is adding nothing to shareholder's wealth.

Limitations of MVA: MVA has certain limitations which are as follows:

- It does not consider the opportunity cost of capital invested in a firm
- It does not consider the intermediate cash returns to shareholders
- It can be calculated at divisional level and cannot be used for private held companies

BCG APPROACH

BCG means Boston Consulting Group which has also constructed a value based management approach. According to this the main factors that are measured and evaluated are shareholder's return and cash flow of business.

Computation of BCG Approach

In this approach total shareholder's return is computed by analyzing the profitability and growth of shareholders wealth.

Total shareholder's return (TSR)= D/PO + $\{(P_1-P_0)/P_0\}$

Where D= Expected dividend

P_0 = Initial Market price

P_1= Current market price

And Total business returns (TBR)= $(F/P_0)+\{(P_1-P_0)/P_0$

Where F = Free cash flow

P_0 = Initial market price

P_1= Current Market Price

CASH FLOW RETURN ON INVESTMENT (CFROI) APPROACH

Cash flow return on investment approach is a discounted cash flow based model. Cash flow return on investment is helpful to measure real cash flow on capital invested. It is also known as average of internal rate of return on firm‘s different investments. It is adjusted for controlling inflation. Cash flow means inflow and outflow of cash. Availability of cash with the firm shows net cash flow for its various financial utilizations.

Computation of CFROI: It is calculated with the help of following formula

CFROI= Inflation adjusted discounted cash flow/ Inflation adjusted market value of capital Employed or investment

Steps in Calculating CFROI: The following steps are helpful for computation of CFROI

- Compute gross cash flow means cash inflow and cash outflow of the project
- Adjust cash flow with inflation
- Compute CFROI same as calculated IRR

If the value of CFROI, is positive it means the firm has higher earnings. If the value of CFROI is negative, it means the firm has negative earnings.

Advantageous of CFROI: The following are advantages of CFROI

- It is based upon the firm‘s real income and inflation is adjusted while computing income.
- It provides superior information to the investors as inflation effect are eliminated from income.
- It depicts the true picture of project life cycle.
- It is useful tool to measure value of target firm during takeover of firm.

Disadvantageous of CFROI: There are few disadvantageous of CFROI

- It is very complicated system because it requires lot of adjustments.
- It is time consuming process because it needs a lot of calculations.
- Any change in investments does not offer for change in any provision for CFROI.

Activity-2

Explain market value added approach____
____________-__________________-__________________-__________________-____
____________-__________________-__________________-__________________-____
______________________________-__________________-__________________-____
____________-_____ ____________-_____ ____ _______-_____ ____________-_-

Check Your Progress B

Note: Select the right option

1. Economic value added analyze whether ----------------------------after tax is sufficient to cover cost of capital or required rate of return
   a. Net profit
   b. Gross Profit
   c. Operating profit
2. CFROI is a discounted based ---------------------------------------model
   a. Rate of return
   b. Cash flow
   c. Net profit
3. Market value added measure is helpful to management how it adds value to firm's ----------------------
   a. Book value
   b. Market value
   c. Economic Value

SUMMARY

Value based management is management approach that ensures that the corporations are managed consistently on value normally, maximizing shareholder's value. Value based management is a framework for measuring and managing the business to create superior long-term value for shareholders. The reward is measured in terms of enhanced share price performance and dividend growth. Value based management is a framework for measuring and managing the business to create superior long term value for shareholders. The reward is measured in terms of enhanced share price performance and dividend growth. Value based management has three elements namely creating value, managing value and measuring value. Value based management is dependent on both corporate purpose and values. These are utilized for measuring the shareholder's value and also aims at other constituents. Marakon approach determines the difference between the ROE and required rate of return on equity. This model is basically based on market to book value ratio. Every firm tries to maximize the shareholder‘s wealth, by getting success in achieving its goals is known as the value addition by the firm. ALCAR approach is based upon discounted cash flow method. In this method, future cash inflow of the firm is calculated over a specified period of time in terms of present value and it is subtracted from the current year‘s debt. If it gives the positive result, then it means the firm has added value to shareholder‘s wealth, if it gives negative results then a firm has depreciated the shareholder‘s wealth. Mckinsey approach is an approach to management whereby the company‘s overall aspirations, analytical techniques and management processes are all aligned to help the company maximize its value by focusing on decision making on the key drivers of the value. Economic value added analyses whether operating profit after tax is sufficient to cover cost of capital or required rate of return. If net operating profit after tax is higher than required rate of return on capital then we can say firm is creating value for its shareholder. If required profit after tax is less than the required rate of return than firm is depreciating the wealth of shareholders. Market value added measure is helpful to management how it adds value to firm‘s market value. It is sum total of all the present value of future EVA. According to BCG Approach the main factors that are measured and evaluated are shareholder‘s return and cash flow of business. Cash flow return on investment is helpful to measure real cash flow on capital invested. It is also known as average of internal rate of return on firm‘s different investments. It is adjusted for controlling inflation. Cash flow means inflow and outflow of cash. Availability of cash with the firm shows net cash flow for its various financial utilizations.

8.15: Keywords:

Zero based budgeting: When budgeting is done from scratch

EVA: Economic value added

MVA: Market Value added

Working capital: Difference of current asset and current liabilities

Value based management: Value based management is a framework for measuring and managing the business to create superior long-term value for shareholders.

Equity Spread: The difference between return on equity and cost of equity is known as equity spread.

Participative strategy: Participative strategy shows the choice of business by the firm in which it wants to operate/ adopt. The firm selects its target market segment, whether the firm selects the niche market or competitive market.

Capital rationing: When the firms have new profitable projects but has limited resources of funds is called capital rationing.

Capital Employed: Capital employed is sum total of equity, Equity equivalent, Debt, Preferred stock , Minority interest

ANSWERS TO CHECK YOUR PROGRESS

Answers to check your progress A

1.d 2.a 3.b 4.b

Answers to check your progress B

1.c 2.b 3.b

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8.18 TERMIANAL AND MODEL QUESTIONS

1. What do you mean by value based management? What are the elements of value based management?

2. Discuss value based management and also explain value metrices.

3. Discuss the Marakon approach of value based management in detail.

4. Discuss the model given by ALCAR group for value based management.

5. Discuss economic value added and market value added approach of value based Management.

6. Discuss a value based management approach given by Boston Consulting Group.

7. Discuss the Cash Flow Return on Investment Approach of value based management.

8. Discuss the Mckinsey approach of value based management.

LESSON – 9

Valuation Methods -1

Structure

9.1 OBJECTIVES

After reading this lesson, you should be able

- To understand various methods of valuation of firm.
- To understand the concept of relative valuation approach.
- To explain capitalization of earning approach
- To calculate valuation of firm on cash flow basis.

9.2 INTRODUCTION

Market value of the firm is important to know the worth of the firm. Value of good is the price that a person pays to buy the goods. The firm or a company had different stakeholders, and stakeholders want to know the worth of their stake in the firm. To know the worth of the there are different valuation techniques that are adopted. In a firm valuation is key issue when a partner wants to transfer his stake to another person or wants to sell his holding in the firm**.** The objective of the financial management is to maximize the wealth of the stakeholders. The wealth of the stakeholder increases with the increase of the value of the firm and decreases with the decrease value of the firm. In this chapter we will discuss various method of valuation of the firm and equity.

VALUATION METHODS OF FIRM

There are different methods to calculate the value of the firm, broadly we can categorise them in following four categories.

- Relative valuation approach
- Capitalisation of earning approach
- Cash flow based earning approach
- Asset based valuation approach

RELATIVE VALUATION OF FIRM

This approach involves valuing a company by comparing it with the valuation of the other company in same industry. The most commonly used valuation multiples includes price to earnings, price to book, price to sales, enterprise value to EBITDA and enterprise value to revenues. The multiples are calculated to as ratio of the value to some normalizing metric such as income, EBITDA or revenues. Multiples are calculated from the price of other companies with characteristic compared to the company being valued.

Value of the firm=Comparable multiple * Firm-specific denominator value

Where, the denominator value can be earnings, book value, sales, etc.

A firm is considered over-valued (under-valued) if the calculated price (or multiple) is greater (less) than the current market price (comparable firm multiple).

Assumptions for the relative valuation of firm:

- Comparable firms, on average, are fairly valued.
- Comparable firms have similar fundamental characteristics to the firm being valued.

Price Earnings Ratio: The most commonly used multiple is, price earnings ratio, obtained by dividing the share price of company by earning per share. P/E ratio shows the earning capacity of firm with respect to price of the share. Here the two companies are compared on the basis of their P/E ratio. The firm is undervalued if P/E ratio is less than its expected growth rate. The firm is overvalued when the P/E ratio is more than the expected growth rate in the future.

Advantages of P/E method

- Earnings power is the chief driver of investment value.
- Main focus of security analysts.
- The P/E is widely recognized and used by investors.

Drawbacks

- If earnings are negative, P/E does not make economic sense.
- Reported P/Es may include earnings that are transitory.
- Earnings can be distorted by management.

P/B Ratio: Price to book value ratio of the firm can be used to gauge the value of the company for which the book value provides a reasonable estimates of replacement value of the assets of firm. Price to the book value is ratio of price and book value of firm.

Advantages

- Since book value is a cumulative balance sheet amount, it is generally positive.
- Book value is more stable than EPS, therefore P/BV ratio may be more meaningful when EPS is abnormally low or high.
- P/BV ratio is particularly appropriate for companies with primarily liquid assets (financial institutions).

Disadvantages

- Differences in asset age among companies may make comparing companies difficult.

Price to Sales Ratio: Price to sales ratio is calculated by price of the share divided by sales. Price to sales ratio is used to make comparison of the two firms. Price to earnings or price to book value can be negative also so becomes ineffective in comparison. Price to sale cannot be negative and this ratio can be used for firms in distress also. Price to sales is not affected by accounting policies such as depreciation policy, inventory valuation methods.

Advantages

- Sales are generally less subject to distortion or manipulation.

- Sales are positive even when EPS is negative.

- Sales are more stable than EPS, therefore price to sales (P/S) ratio may be more meaningful when EPS is abnormally low or high.

Disadvantages

- High growth in sales may not translate to operating profitability.

- P/S does not reflect differences in cost structure.

Enterprise Value: Enterprise value (E/V) is the market capitalization of the company plus debt. The enterprise value is sum of the fair value of assets and liabilities of the company. The key performance metrics to evaluate the enterprise value are:

a. **EV/EBITDA Ratio**: This is the ratio between enterprise value and earnings before interest tax depreciation and allowances. This shows the time period in which the unit has to yield operating profit to return to basic investment made by investor.
b. **EV/Revenue Ratio**: This is the ratio of enterprise value and revenue. This ratio shows how many periods the enterprise value can be covered by profits. It is just like payback period.
c. **EV/Sales**: This is ratio of enterprise value to sales. This shows the times the value of firm is covered by sales.

Advantages

- This represents a valuation indicator for the overall company and not just equity.

- It is more appropriate for comparing companies that have different capital structures since EBITDA is a pre-interest measure of earnings.

- Appropriate for valuing companies with large debt burden: while earnings might be negative, EBITDA is likely to be positive.

Disadvantages

- Differences in capital investment are not considered.

Approaches to comparison: There are three approaches to comparison

- Peer comparison
- Industry/ sector comparison

- Own historical

1. **Peer Comparison**: Peer comparison is the comparison of the company's key data with the comparable companies. Comparable companies are the companies which are closely related to each other. The companies can be comparable if their business model, growth rate, risk elements in their business is same.
2. **Industry/ Sector Comparison**: In this case the P/E ratio or other factor of a company will be compared with the P/E ratio of the industry to which it belongs.
3. **Own Historical**: In this case the P/E ratio or other factors of the company will be compared with its own P/E ratio of previous years.

Activity-1

Explain different type of ratios____

Check Your Progress A

Select the right option

1. If PE ratio of firm is less the firm is more valuable. (True/False)
2. Peer comparison is the comparison of the company key data with the comparable companies. (True/False)
3. Price to sales ratio is affected by accounting policies such as depreciation policy, inventory valuation methods. (True/False)
4. Enterprise value is the market capitalization of the company (True/False)

CAPITALIZATION OF EARNING METHOD

The capitalization of earning method is based on the earning capacity of the firm. Capitalization of earning method is an income-oriented approach. In this method future earning capacity of the firm is estimated. These estimated future benefits are then capitalized using an appropriate capitalization rate. These methods assume all of the assets, both tangible and intangible, are parts of the business and do not attempt to separate their values. In other words, the critical component to the value of the business is its ability to generate future earnings/cash flows. Capitalization of earnings method determines the business value using expected business economic benefit as the numerator. This is divided by the capitalization rate that represents the risk associated with receiving this benefit in the future. This method expresses the relationship between the following:

- Estimated future benefits (earnings or cash flows)
- Yield (required rate of return) on either equity or total invested capital (capitalization rate)
- Estimated value of the business

It is to be noted that non-operating income and expenses are not considered in calculating earning of the firm, On the basis of the earning of the firm, the value of firm is derived by capitalizing the earning. The fair market value of net non-operating assets and liabilities is then added to the value of the business derived from the capitalization of earnings.

This method is more theoretically sound in valuing a profitable business where the investor's intent is to provide for a return on investment over and above a reasonable amount of compensation and future benefit streams or earnings are likely to be level or growing at a steady rate.

Example

Company ABC has five-year weighted average earnings on an after-tax basis of Rs 5,10,000. It has been determined that an appropriate rate of return for this type of business is 20% (after-tax). Assuming zero future growth and non-operating assets of Rs.7,70,000 the value of ABC Company based on the capitalization of earnings method is as follows:

Net earnings to equity	5,10,000
Capitalization rate	20%
Total value of firm	5,10,000*100/20= 25,50,000
Add Value of non-operating assets	7,70,000
Marketable controlling interest value	Rs 33,20,000

Limitations of capitalization of earning method:

- This approach does not directly value cash flow what is important to shareholders.
- It is not accounting profit but the cash flow that determines the valuation of company.
- Accounting profit does not reflect the cash generating ability. Accounting profit is calculated on accrual basis. Non- cash items like depreciation amortization are considered.
- This approach takes earning for short period say one or two years.
- Capitalization approach does not factor the growth of working capital required to generate growth in revenues.
- It does not factor in the requirement of additional capital expenditure for achieving growth in revenues and EPS.
- Finding Capitalization rate is not easy.

9.3.3 DIVIDEND DISCOUNT MODEL

Dividend discount model begins with the argument that the value of equity share today, is the net present value of dividends that an investor(investing today) would receive over the holding period plus the net present price he will realize at end of holding period. This can be mathematically described as follows

$$P_o = \frac{D1}{(1+r)} + \frac{D2}{(1+r)^2} + \frac{D3}{(1+r)^3} + \text{———} + \frac{Dn}{(1+r)^n} + \frac{Pn}{(1+r)^n}$$

Po is the value of equity share today

Pn is the price that is expected to realize at end of holding period, n is number of years for which the shares are planned to hold,

D1 to Dn are dividend received or expected to receive during this period and

r is rate required by investor for making this investment

Dividend discount model when there is no growth in dividend: When there no growth in dividends is expected or constant growth model is

- Po=D/r
- Where Po is value of equity share today
- D is Dividend

- r is rate of return required by investor.

Example: If dividend paid by XYZ last year is Rs.3 and there is no growth expected in dividend and investor needs 20% rate of return on investment, What will be value of shares of XYZ?

Value of shares will be 3/20*100=Rs15

Dividend discount model when perpetual growth in dividend: When perpetual growth at a constant rate is expected in future dividend

- Po=D1/(r-g)

  Where Po is value of equity share today

  D1 is Dividend expected in next year

  r is rate of return required by investor

  g is constant expected growth

Dividend discount model when super natural growth is expected for initial year followed by perpetual normal growth at constant rate or two stage growth model: This is also called two stage growth model. In this model there are two stages one is super normal growth in initial years followed by perpetual growth at constant rate. The formula is as follows:

$$P_o = \frac{D1}{(1+r)} + \frac{D1(1+gs)^1}{(1+r)^2} + \frac{D1(1+gs)^2}{(1+r)^3} + \frac{\qquad}{} + \frac{D1(1+gs)^n-1}{(1+r)^n} + \frac{Pn}{(1+r)^n}$$

where Po is value of equity share today

D1 is Dividend expected in next year

r is rate of return required by investor

gs is super natural growth rate of dividend till n th year

Pn is value of equity share at end of nth year

This formula can be divided into two parts by adding

$$D1 \times \frac{1-\{(1+gs)/(1+r)\}^n}{r-gs} \qquad \frac{Dn+1}{r-gn} \times \frac{1}{(1+r)^n}$$

Check Your Progress B.

1. Company ABC has five-year weighted average earnings on an after-tax basis of Rs 5,50,000. It has been determined that an appropriate rate of return for this type of business is 25% (after-tax). Assuming zero future growth and non-operating assets of Rs.4,00,000. Calculate the value of ABC Company based on the capitalization of earnings method.
2. If dividend paid by XYZ last year is Rs.4 and there is no growth expected in dividend and investor needs 10% rate of return on investment what will be value of shares of XYZ?

DISCOUNTED CASH FLOW METHOD

The discounted cash flow method is important method of valuation of the firm. The basic difference between the dividend discount model and discounted cash flow method is that dividend discount model is based on the premise that the only cash flow received by the shareholder are dividend. The cash flow to equity model consider the cash flow left after meeting all financial obligations, including debt payment, and after covering capital expenditure and working capital needs. Thus the primary difference in dividend discount model and free cash flow model is definition of cash flow. The discounted cash flow method takes into account the time value of the money. A rupee received today is of more value than received tomorrow, as the rupee can be invested from today till tomorrow to earn interest on this. The main features of the dividend discount method are

- Cash flows
- Time value of money
- Opportunity cost
- Financial statement analysis

Discount Cash Flow (DCF) method is calculated as follows:

- Estimate expected free cash flows of the target including any synergies resulting from the takeover
- Discount it at the appropriate cost of capital
- Terminal value
- This yields enterprise value

The two things are required for the calculating the Discounted cash flow valuation method.

- Free cash flow (FCF)
- Weighted average cost of capital (WACC)

Free Cash Flow Methods: Cash flow of the company is sum of income plus depreciation and other non cash items are subtracted while calculating net income. The cash flow is net available cash for the distribution if it is invested in buying of assets or invested for future growth of company in part or full. Free cash flow is the cash available for distribution to the investors after adjusting all capital expenditure and taxes. The cash flow reflects the cash flow generated by the company's operation that is available to company's capital provider equity and debtholders. The cash flow can be divided into two parts namely cash flow for equity shareholder and cash flow available for debtholders. The cash flow calculation can be understood by following chart

Revenue

Less Costs

Less Depreciation

Profits from asset sale

Taxable income

Less Tax

NOPAT

Add back Depreciation

Less Profits from asset sale

Operating cash flow

Less increase in working capital

Less capital expenditure

Cash from sale of assets

Free cash flow (or unlevered CF)

The cash flow can be divided into three parts

- An Operating Income Statement
- Adjustments for non-cash items included in the Operating Income Statement to calculate taxes
- Capital items, such as capital expenditures, working capital, cash from asset sales, etc.

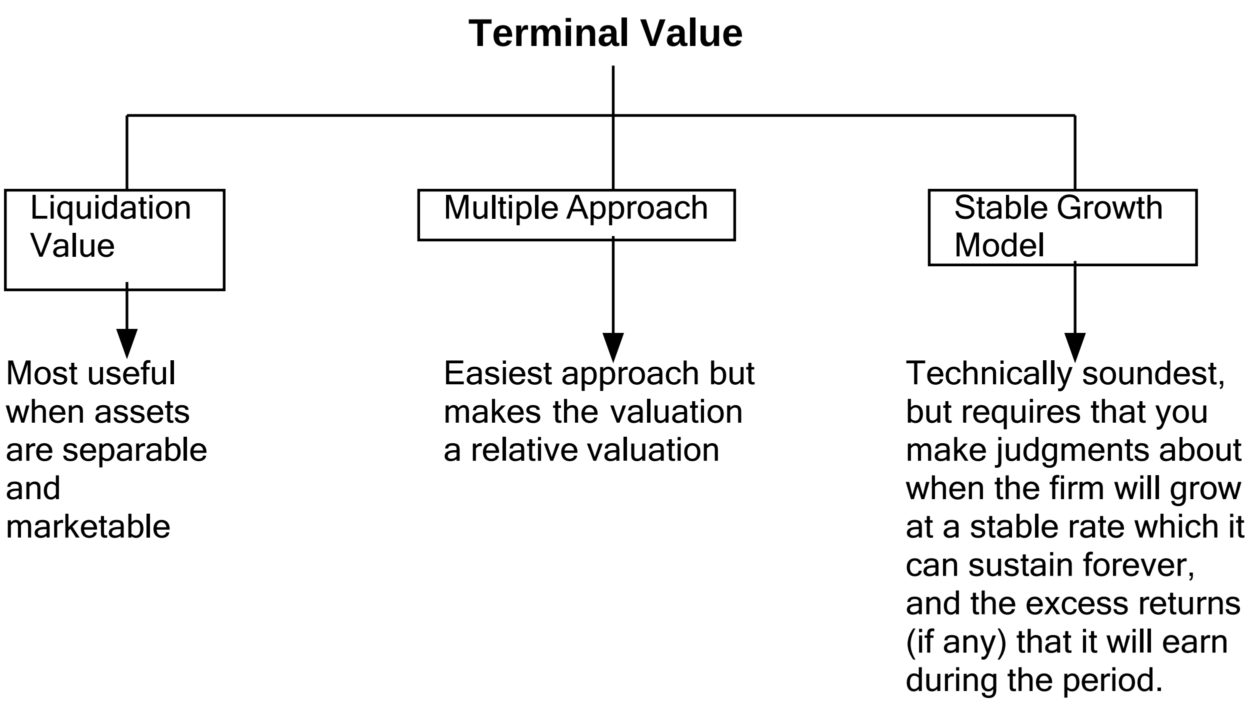
The Operating Income Statement portion differs from the usual income statement because it ignores interest. We need to include only additions to capital (both fixed and working) since the capital originally invested is still employed in the project. The way to calculate FCF can be summarized as.

Revenue
Less Costs
Less Tax
Less increase in working capital
Less capital expenditure
Cash from asset sale
Free cash flow (or unlevered CF)

Forecast Period: We have understood from the above how to calculate the cash flow for calculating the value of the firm, now the question arises the time horizon for which the cash flow is to be calculated. The firms or project which has finite life then the value of the cash flow is to be calculated for that period. Since a company is assumed to have infinite life, so it is necessary to estimate forecast period of cash flow. The estimation for the forecast period depends upon industry to industry.

- Estimate FCF on a yearly basis for about 5 years.
- After that, calculate a ¯Terminal Value‖, which is the ongoing value of the firm.

Terminal Value: Terminal value is the value of the asset of firm after the life or after the forecast period. Suppose if the cash flow is taken for 5 years for valuation of firm, the residual value of the firm on 6th year will be the terminal value. The terminal value can be calculated as follows:



Liquidation Value: liquidation value is that can be received in sale at time of liquidation, this is most useful when assets are separable and marketable.

Multiple Approach: This is easiest approach but makes a value a relative value.

Stable Growth Method: Terminal value is to be calculated for the period till the growth rate is stabilized. Stable growth method is technically sound but requires judgment to be taken about when the firm will grow at a stable rate which can sustain forever. Mature industries use the stable growth model till a long-term growth is closer to economy growth rates. High growth companies have the higher growth rate in initial 5-10 years but growth starts declining after that, In these types of companies two stage or three stage model of valuation can be used. The terminal value estimates the company‘s value after it has entered ―steady state‖. Terminal value at N+1 years can be calculated as follows:

$$\text{terminal value} = \frac{FCFE_{N+1}}{r_e - g_s}$$

Where g is stable growth rate.

Weighted Average Cost of Capital: Weighted average cost of capital can be determined by cost of equity and cost of debt.

Cost of Equity: To find out appropriate rate for discounting the cash flow cost of capital is to be found out. Cost of capital is the minimum acceptable of rate of return on new investment that an investor expect while making investment in new project. Calculating cost of capital is issue of capital budgeting. The main problem in estimating proper rate of cost of capital is estimating proper risk premium that investor wants in holding the investments. There are several methods of estimating cost of equity.

- Capital asset pricing model (CAPM)
- The Fama/French three factor model
- Arbitrage pricing for the theory

1. **Capital Asset Pricing Model (CAPM)**: CAPM shows the relationship between the risk and expected rate of return on risky security. The essence of CAPM is that investor always combine the risk free assets with market portfolio of risky investments. They will invest in risky assets in proportion to their market value. The investor will be compensated for the risk they cannot diversify. This is market related risk.Beta is the ratio of covariance between the asset returns and market returns divided by market variance. There is linear relationship between the asset expected rate return and its beta. According to CAPM model, the combination of optimal risk portfolio depends upon investor‘s assessment of future prospectus of the securities and not on the investor‘s attitude towards risk. The later is reflected in the choice of combination of risk portfolio and risk free investment. The cost of capital can be calculated as follows

$r_a = r_f + B_a (r_m - r_f)$

where:
r_f = the rate of return on risk-free securities (typically Treasuries)
B_a = the beta of the investment in question
r_m = the market‘s overall expected rate of return.

For example

The risk free rate of interest r_f is 3%

Market expected rate of return is r_m is 10%

The beta of investment is 0.75

So cost of equity will be $r_a = r_f + B_a (r_m - r_f)$

3+.75(10-3)

3+5.25=8.25

2. **Fama and French Three Factor Model**: Fama and French in three stage model added two more factors namely size of the company and book value to market value. As per Fama and French, the average return of the small size firms is higher even after accounting for the beta and the average return of the firms having higher ratio of book to market value is higher even if accounting for the beta. Size of the firm is determined by its capitalization. The FAMA and French model can be expressed in following formula.

$$r_{it} - r_{ft} = \alpha_i + \beta_{im}(r_{mt} - r_{ft}) + \beta_{is}SMB_t + \beta_{ih}HML_t + \epsilon_{it}$$

where SMB_t is the "Small Minus Big" market capitalization risk factor and HML_t is the "High Minus Low" value premium risk factor.

3. **Arbitrage Pricing Theory**: Arbitrage Pricing Theory was given by Ross. Ross found that four factors explain expected return- level of industrial activity, These are rate of inflation, spread between long term and short term interest rate and spread between the yields of low and high risk corporate bonds. Macroeconomic factors plays key role in explanation of expected rate of return. The APT can be expressed in following formula:

$$k_s = r_f + E(F_1) - r_f \;\beta_1 + E\,F_2 - r_f \;\beta_2 + \ldots$$

WhereE(Fk) = the expected rate of return on a portfolio that mimics the k^{th} factor and is independent of all others.

Beta k = the sensitivity of the stock return to the k^{th}

Value of the debt: For calculating weighted average cost of capital valuing debt is important part, The debt can be valued as below:

$$K_d = (\text{Risk Free Rate} + \text{Credit Risk Premium})*(1-\text{tax}\%)$$

Risk Free Rate (e.g. 10 year government bond) Nominal or real – must harmonize with forecasts

Appropriate Credit Risk Premium

Weighted Average Cost of Capital: Weighted average cost is calculated on the basis of cost of debt and cost of equity. Weighted average is calculated on the basis on weight of debt and equity in total capitalization. The formula for calculating WACC is as follows:

$$WACC = K_e *\left(\frac{E}{D+E}\right) + K_d\left(\frac{D}{D+E}\right)$$

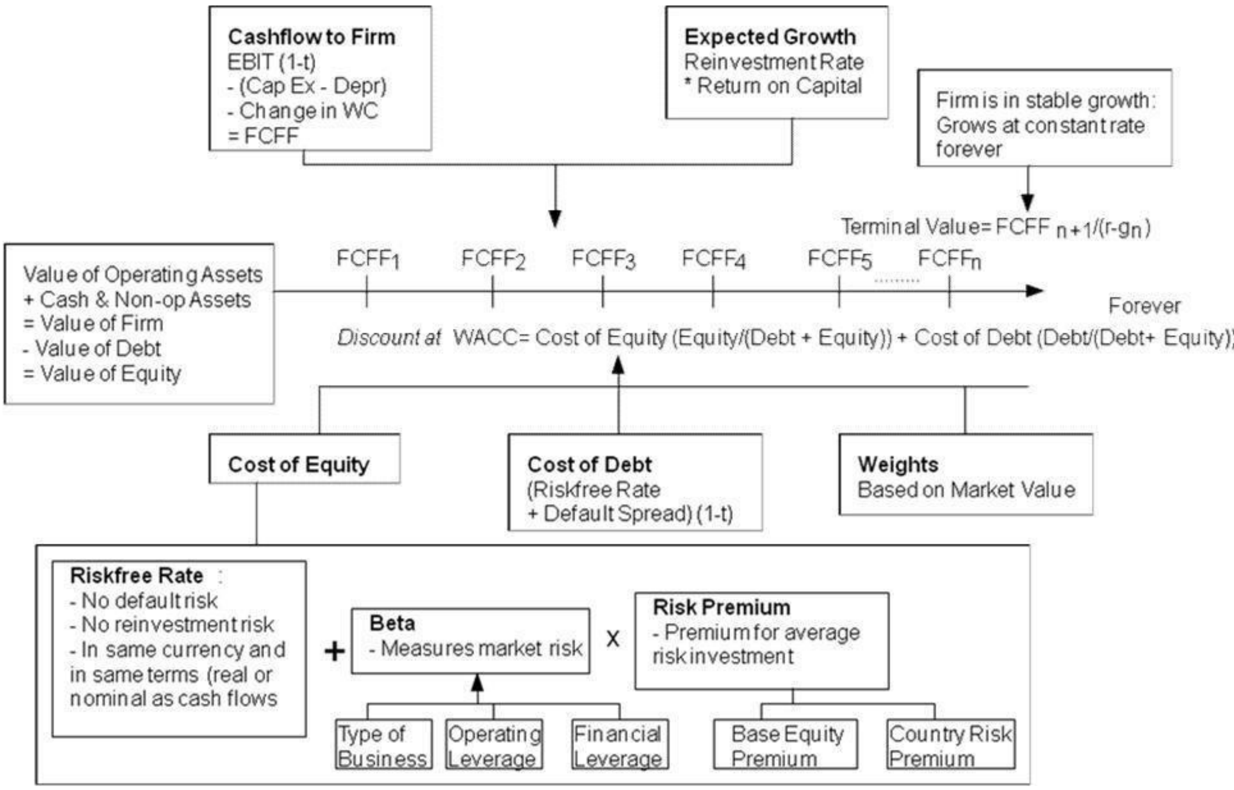
Ke is cost of equity

kd is cost of debt

Steps in calculating the value of the firm: The following are the steps in calculating the value of the firm:

- Estimate the WACC or discount rate
- Estimate the current free cash flow to equity
- Estimate growth rate(s) to estimate future cash flows
- Estimate a terminal value
- Compute the firm's equity value and estimated stock price

We have already discussed the each step in detail in earlier in this chapter. The process of calculating the value of the firm can be described in following chart.



Valuation of Firm: The value of the firm is calculated by discounting the cash flow after meeting all the operating expenses and taxes but prior to debt payment. The discounted can be done at weighted average cost of capital, which is cost of different component of financing used by the firm weighted by market value proportion. The valuation of firm can be calculated as follows:

$$\text{Value of Firm} = \sum_{t=1}^{t=\infty} \frac{FCFF_t}{(1+WACC)^t}$$

Where,

$FCFF_t$ = Free Cashflow to firm in year t

WACC = Weighted average cost of capital

Stable State FCFF Model: A firm with free cash flow growing at a stable growth rate can be valued as follows:

$$\text{Value of firm} = \frac{FCFF_1}{WACC - g_n}$$

Where,

$FCFF_1$ = Expected FCFF next year
WACC = Weighted average cost of capital

g_n = Growth rate in the FCFF (forever)

Two stage FCFF model: The firm reaches the steady state after n number of year of abnormal growth and starts growing at a stable growth rate, the value of the firm can be calculated as follows:

$$\text{Value of Firm} = \sum_{t=1}^{t=n} \frac{FCFF_t}{(1+WACC)^t} + \frac{[FCFF_{n+1} / (WACC - g_n)]}{(1+WACC)^n}$$

Activity-2

What is Capital Asset Pricing Model__________ --------__________ --------___

DCF METHOD FOR VALUATION OF EQUITY

The value of the equity is obtained by discounting expected cash flow to equity, which is residual cash flow after meeting all expenses, tax obligations and interest and principal payments at the cost of equity.

$$\text{Value} = \sum_{t=1}^{t=n} \frac{CF_t}{(1+r)^t}$$

Where,

- n = Life of the asset

- CF_t = Cash flow in period t
- r = Discount rate reflecting the riskiness of the estimated cash flows

The intrinsic value of equity is obtained by discounting free cash flow to equity, i.e., the residual cash flows after meeting all expenses, tax obligations and interest and principal payments, at the cost of equity, i.e., the rate of return required by equity investors in the firm.

$$\text{Value of Equity} = \sum_{t=1}^{t=\infty} \frac{FCFE_t}{(1+r_e)^t}$$

Stable Growth FCFE Model: The stable growth FCFE method is used to value the equity when the growth of the firm is stable. The value of the firm under this can be calculated as follows:

$$V_0 = \frac{FCFE_1}{r-g_n}$$

Vo is value of equity

FCFE1 is expected FCFE in next year

r is cost of equity

gn is growth rate in FCFE

Two Stage FCFE Model: The two stage model valuate the firm on the basis of two stages first stage is when the firm grows at much faster rate in initial years then growth becomes stable. So the formula for calculating the value of the firm is also divided into two parts first is when there is abnormal growth then terminal value is calculated.

$$\sum_{t=1}^{t=n} \frac{FCFE_t}{(1+r)^t} + P_n/(1+r)^n$$

FCFEt is the free cash flow for t period

Pn is price at end of super normal growth.

Terminal Value at end of period can be calculated as follows:

$$P_n = FCFE_{n+1} / (r_n - g_n)$$

Three Stage FCFE Model: The three stage model calculated the value of the firm in three stages, first stage is when growth rate is high in initial stages, second is when growth rate declines and third is when growth rate becomes stable.

$$V = \sum_{t=1}^{t=n_1} \frac{FCFEt_t}{(1+r)^t} + \sum_{t=n_1+1}^{t=n_2} \frac{FCFEt_t}{(1+r)^t} + \frac{Pn_2}{(1+r)^n}$$

$$Pn_2 = FCFEn_2 + 1/(r - g_n)$$

Limitation of DCF Model: Discounted cash flow method is based on expected future cash flow and discount rate. DCF method fails to value a firm when it is in distress. The future cash flow of the distressed firm is difficult to measure as there is always possibility of negative return and bankruptcy. DCF Model also fails to calculate value of cyclical firms as their cash flow is positive in boom and negative in the recession period.

Check Your Progress C

Select the right option

1. CAPM shows the relationship between the risk and expected rate of return on risky security. True/False
2. Beta is the ratio of covariance between the asset returns and market returns divided by market variance True/False
3. Discounted cash flow method is based on present cash flow and discount rate True/False
4. Terminal value is the value of the asset when growth becomes steady.(True/False)

SUMMARY

There are different methods to calculate the value of the firm. Relative valuation approach involves valuing a company by comparing it with the valuation of the other company in same industry. The most commonly used valuation multiples includes price to earnings, price to book, price to sales, enterprise value to EBITDA and enterprise value to revenues. The capitalization of earning method is based on the earning capacity of the firm. Capitalization of earning method is an income-oriented approach. In this method future earning capacity of the firm is estimated. These estimated future benefits are then capitalized using an appropriate capitalization rate. Dividend discount model begins with the argument that the value of equity share today, is the net present value of dividends that an investor (investing today) would receive over the holding period plus the net present price he will realize at end of holding period. Discounted cash flow method is most appropriate method for valuation of firm, In this method future cash flow from business is discounted with weighted average cost of capital.

9.6 Keywords:

EBITDA: Earnings before interest, taxes, Depreciation and allowances.

Enterprise Value: Enterprise value (E/V) is the market capitalization of the company plus debt. The enterprise value is sum of the fair value of assets and liabilities of the company.

P/E Ratio: Ratio of market price per share and earnings per share

Terminal value: value of the asset when growth becomes steady

CAPM: Capital asset pricing model

Cost of Capital: cost of equity and cost of debt

Weighted Average cost of Capital: Cost of capital adjusted according to weight of equity and debt.

ANSWERS TO CHECK YOUR PROGRESS

Answer to check Your Progress A

1. True
2. True
3. False
4. False

Answer to Check Your Progress B

1. 26,00,000
2. 40

Answer Check Your Progress C

1. True
2. True
3. False
4. True

REFRENCES AND SUGGESTED READINGS

Copeland, T., Koller, T and Murrin, J, Measuring and Managing the value of Companies, John Wiley,International Edition, New York.

Damodaran, Aswath, Valuation, John Wiley & Sons.

Finance for Strategic Decision Making, M. P. Narayanan & Vikram Nanda, Published by Jossey-Bass.

TERMINAL AND MODEL QUESTIONS

1. Discuss the various method of valuation of firms.

2. ―DCF Method is considered to be most appropriate for valuation of company‖.How this is different from other methods?

3. ―Earning capacity of the business plays key role in its valuation‖, Discuss.

4. Do dividend payment have any effect on valuation of company? Discuss.

LESSON – 10

Valuation Methods-2

Structure

Objectives

Introduction

Asset Based Valuation Approach

Brand Valuation

Valuation of Intangible Assets

Valuation of a Private Firm

Valuation of Distressed Firm

Valuing the Cyclical Firm

Summary

Glossary

Answer to Check Your Progress

References and Suggested Readings

Terminal and Model Questions

OBJECTIVES

After reading this lesson, you should be able:

- To understand valuation of a company on the basis of assets.
- To describe the procedure valuation of private firm.
- To know about valuation of firm in distress.
- To do valuation of cyclical firms.

INTRODUCTION

In last chapter we discussed few methods of valuation of firm and equity. Valuation can be done on the basis of assets possessed by the firm. The assets can be tangible as well as intangible. In this chapter we will discuss valuation techniques of tangible and intangible assets. DCF method is one of the most appropriate methods of the valuation of the firm still the value of the firm in distress cannot be done accurately with the DCF method. In cyclical firms the cash flow varies with the business cycle so DCF method will not give appropriate result of valuation.

ASSET BASED VALUATION APPROCH

In asset based valuation approach, value of the assets is determined. The assets can be tangible or intangible assets. It is assumed that more the value of the assets the firm has more value of the firm. The asset based valuation method can be divided as follows:

1. **Book value**: The book value is the net worth of a company as shown on the balance sheet. It is essentially the accounting concept, where the assets are recorded according to historic cost less depreciation. In relation to equity shares, it means net worth divided by number of equity shares. Net worth means book value of assets less book value of liabilities and outstanding preference shares. The value does not actually reflect worth of share so this concept is of not of much relevance.
2. **Replacement Value or Reinstatement Value**: This is an amount the company had to spend if it had to replace all of its existing assets with identical assets of identical conditions and of identical capacity. There are many flaws like non availability of identical assets, non-availability of identical capacity, if new asset is purchased, cost adjustment to reach at identical conditions, non valuing of intangible assets, and future cash flow from existing assets. This concept is not relevant for non-manufacturing sector like IT. This method does not value the human assets or talent of the employees of the company. Value of company is not in replacement of assets but in effective use of its existing assets. The ratio worked out by dividing market capitalization of a company by its replacement value is known as Tobin Q ratio, if Q is less than 1 then company is considered valuable.
3. **Liquidation Value**: This means value of the firm is market value of all the assets if sold piecemeal after closure of business. This method assumes market value of intangible as zero. The concept assumes the closure of business and therefore is not relevant at all for valuing company, wherein one needs to find out its intrinsic value on going concern basis. However if the company is having non operating asset like land of substantial value then liquidation value of such assets is to be added to calculate the value arrived which increase its value not profitability. Suppose A company which is running into losses since long, had bought a land for Rs. 5 lacs 20 years back value of which has risen to Rs. 500 lacs, in liquidation method value of the firm will be very high but in actual terms the value is only of the land.
4. **Market Value**: Market value of an asset or security is the price at which it is currently being traded in market. Market value of company means number of outstanding shares multiplied by market price. This is also not a true value of the company. Long term investor need to take care of long- term sustainable value than short term perspective. Market price is not true representative of intrinsic value a) Though over long -term period of time the marker price would track intrinsic value but in short term it deviates from its value b) It is affected by macro Parameters or by market volatility measured by beta. c) Speculation effect and d) Price is decided by small quantity of shares that are traded than all the shares.

BRAND VALUATION

Brand valuation measures following two criteria:

- The potential profitability of the brand
- Non- financial factor like brand recall. It gives edge in sale of product over competitors.

Brand has valuation as it increases the credibility of the products and increases sale. In India, there are business houses like Tata group who has several companies dealing in different products, the brand valuation is the royalty that the group charges to the its different companies for using the name of parent. In multinational companies like Pepsi, Coca Cola spend large amount on advertising and sales promotion for creating brand awareness. Mostly when the company is sold above the market value, then the excess amount is called as brand value. The brand value is basically the premium that a company can get over its book value when it is acquired by another company. Recently famous Whatsapp company is acquired by the face book at very high price (over its book value of assets) .The excess amount paid was brand value of whatsapp.

Valuation of brand: There is different method for valuation of brand. These are:

1. **Royalty Method**: Under this method it is assumed the business does not own its brand but it licenses it from another business at market rate. The royalty rate can be expressed in terms of percentage of sales. The valuation consists the first the two steps

- Calculating the royalty rate
- Useful life of the assets or years when the benefit is going to accrue.

The royalty rate is higher in the consumer product marketing companies and lesser in case of industrial supplying companies. The quantitative factors that should be considered are market share, product differentiation, inventions, consumer recognition.

2. **Premium Profit Method**: The premium profit method calculates difference in the profit that a company earns having the brand while it is compared with same type of company without brand. Same type of company means the company with same type of product in quality. Brand value is calculated by capitalization of the additional future profits that the company with brand possesses.
3. **Residual value of Asset**: The residual value method relies on first calculating the value of intangible assets by subtracting the value of tangible assets from value of the business.

VALUATION OF INTANGIBLE ASSETS

When valuation is based on the assets of the company, both tangible and intangible assets need to be evaluated as both gives return to the firm. The value of the intangible assets can be done by the economic addition given by these assets to the firm. The following is the list of intangible assets of a firm:

1. Goodwill
2. Trademarks
3. Patents
4. Location
5. Customer lists
6. Employment contracts
7. Covenants not to compete
8. Franchise agreements
9. License agreements
10. Leasehold interests (favorable)
11. Relationships
12. Copyrights
13. Going concern value
14. Software codes

Valuation of the intangibles: The following are the few methods for valuation of intangibles assets:

1. **Residual value**: This approach assumes the purchase price of a business represents its full fair market value. The assumption is then made that the fair market value of the goodwill and/or going concern value is equal to the purchase price of the business less the fair market value of all tangible assets and all identified intangible assets, net of all liabilities.

Example of this is a firm is sold at Rs. 50,00,000 lacs having net tangible assets of Rs. 30,00,000 after adjusting liabilities then the value of intangible assets will be calculated as follows

Sale value of the firm	Rs.50,00,000
Net tangible assets of the firm	Rs.30,00,000
Value of the intangible assets	Rs.20,00,000

When using this method, questions may arise as to whether the sales price accurately reflects fair market value and whether tangible and intangible assets are accurately appraised.

2. **Capitalization of Earning Approach**: Capitalization of earning based method is frequently used in valuation of intangible assets. The following are the formulas for calculating the value of intangibles.
   i. Value of intangible: Excess earning/capitalization rate
   ii. Value of intangibles: Excess earning x Earning multiple
   iii. Value of intangible: Present value of the excess earnings
3. **Royalty Avoidance Approach:** Royalty avoidance approach is the method for determining the fair market value of intellectual property right like patents trademarks and copy rights. This approach determines the value of Intellectual Property assets by estimating what it would cost the business if it had to purchase the Intellectual Property (IP) it uses from an outsider.This approach requires the valuator to:
   (a) Project future sales of the products that use the technology,
   (b) Determine an appropriate reasonable royalty rate, and
   (c) Determine either a present value factor or an appropriate discount rate.

The result is the present value of the Intellectual Property to the company.

4. **The Value Using R&D Expenditure:** The research and development The R&D costs incurred by a company to develop an intangible asset are an attractive metric to use in setting the market value of an intangible asset by a valuator. Unfortunately, over reliance on R&D costs to establish fair market values can result in an inaccurate conclusion of the fair market value(FMV) of an intangible asset. This is due to the fact that there is normally little correlation between a company's R&D expenditures and the future economic benefits it receives from those expenditures.

Activity-1

Explain valuation of intangible assets____

Check Your Progress A

Note: Select the right option

1. is the value of the firm in books of account
   a. Market value
   b. Book value
   c. Replacement Value
   d. Liquidation value
2. is an amount the company had to spend if it had to replace all of its existing assets with identical assets of identical conditions and of identical capacity.
   a. Reinstatement value
   b. Market value
   c. Book Value
   d. Liquidation value

3. of the firm is market value of all the assets if sold piecemeal after closure of business.
    a. Reinstatement value
    b. Market value
    c. Book Value‘
    d. Liquidation Value
4. assumes the purchase price of a business represents its full fair market value.
    a. Residual value method
    b. Capitalisation of earning approach.

VALUATION OF A PRIVATE FIRM

Private company stocks are very illiquid. As the quantity of shares is less and they are not listed on the stock exchange so the shares of the private firm is very illiquid. Liquid shares price are higher than illiquid shares. As the stock of private firm is illiquid.Private company stocks also will sell at a discount. Now question arises if the private companies are not listed and its shares are rarely transferred then what is need for valuation of private company shares, so need can be expressed in the following points:

Need of valuation of private company:

- Legal purposes: Estate tax
- Sale or prospective sale
- Sale to a public company
- Pricing for an initial public offering

A. **Legal Purposes**: The valuation of the private firm or company is done for legal purposes like implementing taxes, estate duties etc. Few times in divorce cases also the valuation is necessary for giving proper share to the spouse.
B. **Sale or Prospective Sale**: The purpose of the valuation of the private firm is the selling it to other person in part or full. The valuation is also necessary when share in private firm of one stakeholder is taken by another stakeholder.
C. **Sale to Public Company**: Valuation is necessary when a public company want to acquire the private company. The method of valuation should be proper so that the deal can reach to final stages.
D. **Pricing for initial Public Offer**: Valuation of private company helps in deciding the price of its share. In Initial Public Offer, when a firm wants to become public limited company.

Method of Valuation of Private Company: Private company owners are likely to be less diversified. Therefore, they bear both the market risk and the company-specific risk, increasing their cost of capital and decreasing the value of the firm to them. The typical method of valuing a private company is to value it as if it is a public company and then apply a discount because of risk associated with private company. The process of the valuation of private company can be as follows

A. Estimating a Discount Rate
   - Cost of Equity

     Estimating Betas

   - Cost of Debt

     Estimating Default Risk

     Estimating an after-tax cost of debt

   - Cost of Capital

     Estimating a Debt Ratio

B. Estimating Cash Flows
C. Completing the Valuation:

A. **Estimating a Discount Rate**: The capital structure of a firm can be divided into two parts debt and equity. Valuation of cost of capital requires valuation of debt and valuation of equity.

i) **Cost of Equity**: Most of the method of valuation of the equity like CAPM and other uses the risk premium as beta on the basis of past prices of the share, but in private company the shares are not traded so the beta value can be estimated on the basis of comparable publically traded company. The unleveraged beta for the business can be calculated by estimating the average market value of debt equity ratio of these companies. The unleveraged beta can be calculated as follows:

$b_{unlevered} = b_{levered} / (1 + (1 - \text{tax rate}) (\text{Debt/Equity}))$

The debt equity ratio of the of the private firm can be calculated by in consideration of one of two assumptions:

1. The private firm will move to the industry average debt ratio.This can be calculated as follows:

   $b_{private\ firm} = b_{unlevered} (1 + (1 - \text{tax rate}) (\text{Industry Average Debt/Equity}))$

2. Estimate the optimum level of debt ratio of the private firm on the basis of operating income and cost of capital. This can be calculated as follows:
   $b_{private\ firm} = b_{unlevered}$ (1 + (1 - tax rate) (Optimal Debt/Equity

Cost of equity is calculated on the basis of industry beta.

ii) **Cost of Debt:** The estimating cost of debt for the private firm is not easy as most of the private firms are not raising debts and they are not rated. Most of the public companies that raise the debt are rated and have easy access to debt market. Most of the debts in private companies are loan raised from bank which does not give appropriate cost of debt. Cost of debt can be obtained for private firm by taking following assumptions:

1. Assume that the private firm can borrow at the same rate at which firm of same size in industry.
2. Assume that the private firm can have the same rating as the firm of same financial standard can have in the industry.
3. Assume that If the debt on the books of the company is long- term and recent, the cost of debt can be calculated using the interest expense and the debt outstanding.

Cost of Debt for Private firm = Interest Expense / Outstanding Debt

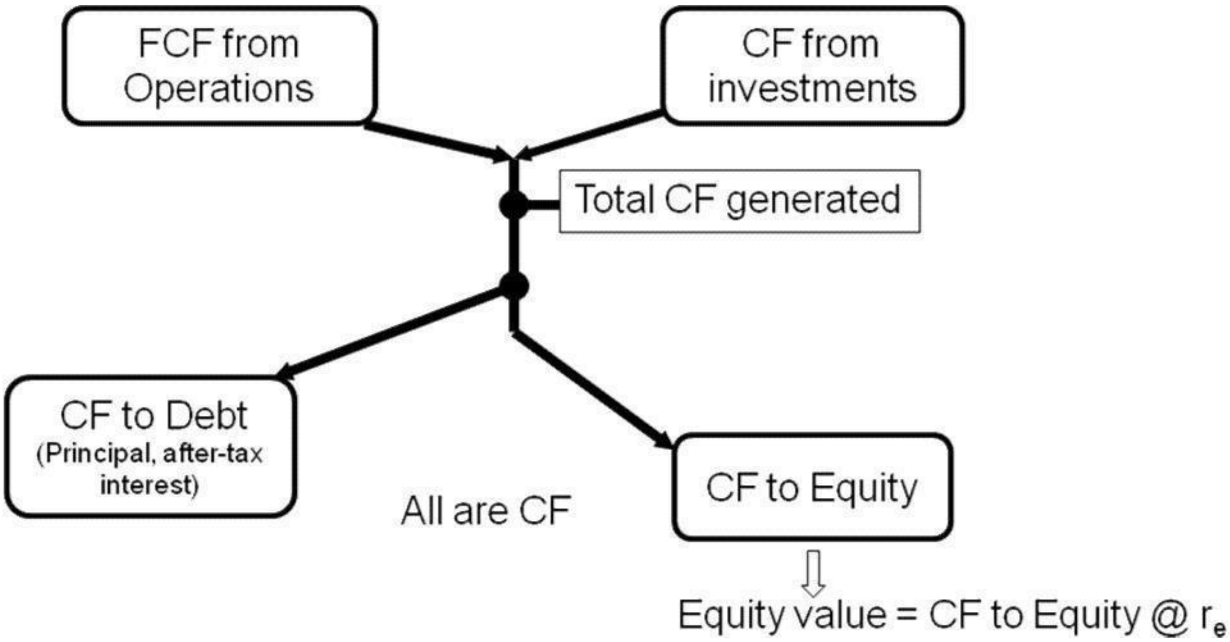
Iii) **Estimating Cost of Capital**: In private firm the value of the debt is based on book value than market value. The debt ratio of the private company will change if it is a public company. The value can be calculated by taking following assumptions:

1. The private firm will reach to the same debt ratio that industry have.
2. The private firm will reach to the optimal level of debt.
3. The debt ratio assumptions used to calculate the beta, the debt rating and the cost of capital weights should be consistent.

B. **Estimating Cash Flow**: There is difficulty in measuring the cash flows of private firm, as private companies does not follow proper accounting standards. There is no difference in drawing and salaries mostly both goes to the owner of the firm. There is less difference in personal and business expenditure. These can be corrected in following ways:

1. The cash flow should be rectified by following constant accounting standards over period of time.
2. The personal expenses and business expenses should be adjusted.
3. The appropriate salary to the owner should be allocated.

C. **Value of the Firm**: After completing all the process the value of the firm can be calculated in the same way as the value of public company is calculated. the process can be described in below chart:



Activity-2

Explain method of valuation of private company ---

VALUATION OF DISTRESSED FIRM

The discounted cash flow method is developed on the assumption that the firm will survive in the future and will keep on generating positive cash flow. In DCF model we calculate the future cash flow till the time growth become steady and terminal value is calculated at end of the period for valuation of the firm. When there is expectation that the firm will not survive in future, the traditional method fails to find value of firm. The firm may be in distress. The distress is a situation when firm or company fails to fulfill its debt obligations on time. Most of times the reason for distress of the firm is that firm is too much dependence on debt. The distress can result into bankruptcy, insolvency or liquidation. When distress happens the life of the firm comes to an end, so in DCF model we estimate cashflow and terminal value, but in distress the cashflow can cease to exist and firm can reach at terminal value much before expected time. The value of the firm in distress will be less than the value of the firm which has hopes to generate cash flow in future.

Equity in most of the public company has two features First is that the equity holder have powers to run the business, and the claim of the equityholder is settled in last in liquidation after paying all the other shareholders. Second is that liability of the equity shareholder is limited. The unsettled claim amount could not be recovered from shareholder in excess of the amount of capital contributed by them. So the distressed firm should be valued considering this. There are different methods of valuing the distressed firm.

A. **Simulation Method**: In simulation method, the valuator can use probability distributions for the inputs into DCF valuation, run simulations and allow for the possibility that a string of negative outcomes can push the firm into financial distress. The following are the step for calculating value of the firm in simulation method:
    - Preliminary Step: The primary step in valuation is to define the circumstances under which valuator would expect a firm to be pushed into financial distress.
    - Step 1: First step to be taken by valuator is to choose the variables in the DCF valuation that he wants to estimate probability distributions on.
    - Steps 2 & 3: Second and third step is to define the distributions (type and parameters) for each of these variables.
    - Step 4: Step four taken by valuator is to run a simulation, where he draws one outcome from each distribution and compute the value of the firm. If the firm hits the ―distress conditions‖, value it is a distressed firm.
    - Step 5: Repeat step 4 as many times as he can.
    - Step 6: Estimate the expected value across repeated simulations.

B. **Modified Discounted Cash flow Valuation**: If there is probability of financial , then the cash flow is to be estimated at all the possible outcomes. On could estimate the expected cash flow in each period and also show the cash flow in case of distress This can be discounted by:
    - Using bottom-up betas and updated debt to equity ratios (rather than historical or regression betas) to estimate the cost of equity.
    - Using updated measures of the default risk of the firm to estimate the cost of debt.

If it is difficult to estimate the entire distribution, one can at least estimate the probability of distress in each period and use as the expected cashflow as

Expected cashflow$_t$ = Cash flow$_t$ * (1 - Probability of distress$_t$)

C. **Going Concern DCF Value with Adjustment for Distress**: In this method the the value of the firm is calculated as per going concern concept If there is a significant likelihood of the firm failing before it reaches stable growth and if the assets will then be sold for a value less than the present value of the expected cashflows (a distress sale value), DCF valuations will understate the value of the firm.

Value of Equity= DCF value of equity (1 - Probability of distress) + Distress sale value of equity (Probability of distress)

Following are steps in this method:

1. The first step is to calculate the value of the firm as going concern.
2. The second step in this is to estimate the cumulative probability of distress in DCF span. The probability of distress can be found out on the basis of bond rating, on the basis of market value of the bond and on the basis of data available in market of insolvent firms.
3. The third step is estimating the distress sale value of the assets. In normal DCF method we estimate the terminal value but if the distress happens the value received can be less than terminal value. Distress sale value can be calculated as percentage of the book value or can also calculated as percentage of DCF value.
4. The forth step is calculating the value of distress firm by putting the values calculated in the above three steps.

D. **Adjusted Present Value Method**: In adjusted present value method the value of the firm is calculated as the firm is having no debt, debt effect is adjusted with the value of the firm. The value of the firm can be calculated as follows:
Firm Value = Unlevered Firm Value + (Tax Benefits of Debt - Expected Bankruptcy Cost from the Debt)

- The value of unleveraged firm can be calculated as calculated in DCF model.
- Tax benefit is to be calculated for using debt. This can be done as follows
  Tax Benefit = Tax rate * Debt
- The expected bankruptcy cost is to be calculated from the debt. The bankruptcy cost is the cost or expenses that are incurred in bankruptcy and the difference of the value of assets and realization value at time of bankruptcy. This can be calculated as follows:
  Expected Bankruptcy Costs = (Unlevered firm value - Distress Sale Value)* Probability of Distress.

E. **Value of the Firm as Call Option**: Equity in most of the public company has two features first is that the equityholder have powers to run the business, and the claim of the equityholder is settled in last at time of liquidation after paying all the other shareholders. Second is that liability of the equity shareholder is limited. The unsettled claim amount could not be recovered from shareholder in excess of the amount of capital contributed by them. So in case of the insolvency, if the value of the assets is more than the claims shareholder get claim out of assets and if the value of the assets is less than the claim amount they need not to pay further. So the payoff to the share holder in case of insolvency can be described as follows:

Payoff to equity on liquidation	$= V - D$	if $V > D$
	$= 0$	if $V \leq D$

Where,

V = Value of the firm

D = Face Value of the outstanding debt and other external claims

The payoff to the shareholder is almost similar to the pay off in case of buyer of the call option. Suppose A buys a call option at strike price K for security having market value M then the payoff to buyer of the call at time of exercise is

Payoff on exercise	$= M - K$	if $M > K$
	$= 0$	if $M \leq K$

The value of the firm can be calculated as value of call is calculated as per Black-Scholes model.

VALUING THE CYCLICAL FIRM

Discounted Cash Flow (DCF) valuation technique should provide managers and investors with an accurate value of a company. However, the valuation of companies in industries prone to significant swings in profitability presents special difficulties. These so-called cyclical industries - e.g. airline travel, hotel industry, woolen garments etc. The earnings of the firm increase at high rate in boom period and earning comes down sharply during the recession. The valuation of the firm can be done by normalizing the returns of the firm.

Normalization of earning can be done in three ways:

A. Company‘s history: The return of the company at peak and at worst time can be normalized by averaging out the earning or operating profits of the company. For averaging out of the earning or operating profits the company‘s historic earning and operating profit can be used. This can be understood by
B. Industry average: In this method average industry earning and operating profit is used to normalized the earning of the firm when firm has very high profit or very less profit.

C. Normalized prize: If the company is a commodity company then the prize of the commodity can be normalized across cycle to apply to the production in the year when there is high variation in price of commodity.

Negative Earning Due to Initial Stage of Life Cycle: When the earning of the company is negative due to the reason that company is in its initial stage of lifecycle then for valuation following adjustments can be done:

a. **Estimate Growth Rates in Revenues Over Time**: The future growth rate is calculating as per historic data of the company, then this growth is reduced to adjust the larger size of the firm and appropriate achievable growth is calculated.
b. **Estimate expected operating margins each year**: The firm will set the target for the future profit margin and current profit margin is adjusted to achieve future target profit.
c. **Estimate the capital that needs to be invested to generate revenue growth and expected margins**: In this method capital to sales ratio is calculated to estimate the investment required for generating the desired revenue

Check Your Progress B

Select the right option

1. Beta value in case of private company is calculated by comparable Public company (True/False)
2. Pay off to shareholder in distress firm is just like payoff of call option (True/False)
3. In valuation of cyclical firm the cash flow are normalized (True/False)

SUMMARY

Asset based valuation approach determines the value of assets. There are different ways to calculate assets based approach like book value, market value, liquidation value, and reinstatement value. Value of intangible assets can be determined by many methods like capitalization of earning approach, Residual value, Royalty Avoidance Approach, the Value Using R&D expenditures. DCF methods is one of the best method for valuation of the company but still it fails in valuation of some special cases like value of company in distress, value of private company and value of cyclical companies. Valuation of the private companies can be done as if it is a public company. Valuation of the firm in distress can be done with Simulation method, modified discounted cash flow method, Going concern DCF with adjusted value for distress, Adjusted present value, Valuing equity as option. The valuation of the cyclical firm can be done by normalization of the returns of the firm.

Keywords:

Book value:Value is the net worth of a company as shown on the balance sheet

Liquidation value: Market value of all the assets if sold piecemeal after closure of business.

Replacement value: This is an amount the company had to spend if it had to replace all of its existing assets with identical assets of identical conditions and of identical capacity

Net worth: The book value is the net worth of a company as shown on the balance sheet

Brand Value: Brand value is the potential profitability of the brand and non- financial factor like brand recall. It gives edge in sale of product over competitors.

DCF: Discounted cash flow

Bankruptcy cost: Direct and indirect expenses incurred in insolvency

Distress: Distress is situation when the company fails to meets debt obligations on time

ANSWER TO CHECK YOUR PROGRESS:

Answers to Check Your Progress A

1.b

2.a

3.d

4.a

Answers to Check Your Progress B

1 True

2. True

3. True

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TERMINAL AND MODEL QUESTIONS

1. Does assets possessed by company helps in its valuation? How to value the tangible and intangible assets?

2. What is need for valuation of private company? Discuss the procedure to valuate private company.

3. What are the methods for valuations for firms in distress? Explain

LESSON – 11

Option Valuation

Structure

Objectives

Introduction

Meaning of Options

Driver to the Option Pricing

Models of Option Valuation

Black and Scholes Model

Binomial Option Pricing Model

Summary

Glossary

Answers to Check Your Progress

References and Suggested Readings

Terminal and Model Questions

OBJECTIVES

After reading this lesson, you should be able

- To understand meaning of options and discuss various types of options
- To explain factor effecting valuation of option.
- To evaluate the options.

INTRODUCTION

Equity is the key source of finance for companies. Because of the emergence of limited liability Company, shares are issued to public for financing the equity. These shares are generally transferable and are listed on various stock exchanges. Trading of security becomes easy if the appropriate value of the equity is known. In last lesson we have discussed the various methods for valuation of equity. There are different instruments that are traded in stock exchanges related to security and derivative is one of them. Derivative market are for those assets or instruments, which are synthetic financial products derived from the real assets or stocks or commodities. This new product has combination features of existing real products and can be separately independent of the instruments or stocks, from which they derive. So derivative consists of forward, future and option. Forward is contract to buy or sell a fixed amount of security or goods on a specified future date at a predetermined price. Future is refined form of forwards in which every contract is exchange traded, standardized and have counter party guarantee.

Option is another form of derivative contracts. To trade in options it is very necessary to determine the actual valuation of option. This lesson tries to explain the methods of valuation of options.

MEANING OF OPTIONS

A Modern corporate financial manger has to interact in capital market dealing with share price, interest rate and exchange rates respectively. In all these financial instruments have been developed and these are popular as financial derivatives are the instruments whose prices are derived from the prices of other financial instruments. Options are also financial derivatives.

An option is the right, but not the obligation to buy or sell something on a specified date at a specified price. In the securities market, an option is a contract between two parties to buy or sell specified number of shares at a later date for an agreed price. There are three parties involved in option in option prices which are as follows:

a) Option seller
b) Option buyer
c) Option broker

a) **Option Seller**: Option seller, also called writer, is a person who grants someone else the option to buy or sell. He receives a premium on its price.
b) **Option Buyer**: Option buyeris a person who pays a price to the option writer to induce him to write the option.
c) **Option Broker**: Option broker acts an agent to find the option buyer and the seller, and receives a commission or fee for it.

TYPES OF OPTION

There are two types of options whish are as follows:

Types of Option

Call Option

Put Option

1) **Call Option:** A call option is a contract giving the right to buy by the seller to the buyer of call. A describes the following information
a) Name of buying company
b) Number of shares purchased
c) Purchase price of the shares

d) Expiration date on which option expires

The call option can be better understood with the example: Suppose A investor expects that price of the XYZ Company will go up, current price of XYZ company is Rs. 1,000 on January 1st. A expects that at end of January price will go up to Rs. 1,200, then he can buy call of XYZ by paying the premium of Rs 20 per share. He bought the call for 1000 shares for strike price of Rs. 1000 by paying premium of Rs. 20,000 expiring on 31st January. Suppose on 31st January price of XYZ company is Rs.1,100 then the A will earn profit of 100*1000=100000-20000(Premium paid)=Rs.80,000 profit. Suppose the price of XYZ comes down at 700 then the loss of A will be Rs. 20,000 premium paid only. In this case, A had bought call where he has right to profit with no obligation of loss, the loss is only the premium paid by A. The person who has sold call to A is B. B will be the writer of the option. Suppose B is having 1,000 shares of XYZ, He wants to sell this at Rs. 1,000, but instead of selling the shares he sells the option of 1,000 shares for price of Rs.1,000 at premium of Rs. 20. Suppose the price of XYZ goes up to Rs.1,100 on 31st January then B share price will also increase so he will not suffer any loss, but if B was not holding shares of XYZ then he could have suffer loss of 100*1000=1,00,000-20,000(premium received)= Rs. 80,000. If the investors sell the call by holding shares of that company then it is called covered call, but if investor sells the call without holding the shares of company then it is called naked call. Suppose price of the XYZ on 31st December comes down to Rs.700 then B had earned Rs. 20,000 as premium. The writer of the call by taking premium gives assurance to the buyer of the call to pay the unlimited amount of profit above strike price during period of contract. This could be easily linked to general insurance when we buy insurance by giving premium to insurance company. Insurance company in case of accident compensates the insured, but in case of non-accident the premium is earned by insurance company and lost by the insured. So in case of call option also if the price of the security increase above strike price then he can gain unlimited amount but in case price does not increase then he losses the premium paid.

2) **Put Option :**Put option is the contract giving the right to sell shares. It is not an obligation but an option. It also describes following information:-

a) Name of selling company
b) Number of shares sold
c) Selling price of shares
d) Expiration date of the option

The put option can be better understood with the example: Suppose A investor expects that price of the XYZ Company will go down. Current price of XYZ Company is Rs.1,000 on January 1st. A expects that at end of January price will go down to Rs.800, then he can buy put of XYZ by paying the premium of Rs 20 per share. He bought the put for 1000 shares for strike price of Rs.1000 by paying premium of Rs.20,000 expiring on 31st January. Suppose on 31st January price of XYZ company is Rs.900 then the A will earn profit of 100*1000=Rs.100000-Rs. 20000(Premium paid)=Rs.80,000 profit. Suppose the price of XYZ goes up at Rs.1,200 then the loss of a will be Rs.20,000 premium paid only. In this case A had bought put where he has right to profit with no obligation of loss, the loss is only the premium paid. The person who has sold put to A is B. B will be the writer of the option. B will loss Rs.80,000 if the price comes down to Rs. 900 but will gain Rs.20,000 premium if the price of the XYX goes to Rs.1,100.

Activity-1

Explain different types of option---

DRIVERS TO THE OPTION PRICING

The following are the primary drivers for option pricing

1. Current stock price
2. Intrinsic value
3. Time value
4. Volatility
5. Risk free interest rate

1. **Current Stock Price**: The movement of the price of the stock (up or down) has a direct - although not equal - effect on the price of the option. As the price of a stock rises, the more likely the price of a call option will rise and the price of a put option will fall. If the stock price goes down, then the reverse will most likely happen to the price of the calls and puts.
2. **Intrinsic Value**: Intrinsic value of the option is the value that will be received today by exercising the option. The exercising price is the current price. Intrinsic price is the difference between the strike price and current price in case of put option. The intrinsic value of an option reflects the effective financial advantage that would result from the immediate exercise of that option. Basically, it is an option's minimum value. The intrinsic value can be calculated as follows:

Call Option Intrinsic Value = Underlying Stock's Current Price – Call Strike Price

Put Option Intrinsic Value = Put Strike Price – Underlying Stock's Current Price

The call/put can be divided into as follows

a. **In the money**: In the money call is the exercising the option gives cash at the time is buying of the option. This can be better under stood with the example: Suppose the price of XYZ is Rs. 1000 Mr. A bought call of Rs 900 by paying the premium of Rs. 120. The call is in the money as current price is Rs.1000 and strike price is Rs.900 on exercise the return will be

Rs.100. Suppose price of XYZ is Rs. 1,000. Mr. A buys the put for XYZ of strike price of Rs.1,100 then immediate exercise of put will fetch him Rs.100.

b. **Out of the money**: Reverse of the in the money is out of the money. If in the following equation value is negative then it is out of the money option.

Call Option Intrinsic Value = Underlying Stock's Current Price – Call Strike Price

Put Option Intrinsic Value = Put Strike Price – Underlying Stock's Current Price

3. **Time Value of the Money**: Time value is basically the risk premium that the option seller requires to provide the option buyer the right to buy/sell the stock up to the date the option expires. It is like an insurance premium of the option; the higher the risk, the higher the cost to buy the option. The time value can be under stood by following table.

One month call Price of XYZ is 34.5 Six month call

Intrinsic value	Time value	Price	Strike price	Intrinsic value	Time value	
4.5	0.5	5	30	4.5	2.2	6.7
0	0.60	0.60	35	0	3.75	3.75

In the above table if the call period increases from one month to six month the time value of the call increase from the 0 .5 to 2.2, for the call of XYZ limited of strike price Rs. 30 having market price of Rs.34.5.

one month Put Price of XYZ is 34.5 six month put

Intrinsic value	Time value	Price	Strike price	Intrinsic value	Time value	
5.5	0.5	6	40	5.5	2.4	7.9
0	0.60	0.60	34	0	2.75	2.75

The above table shows that the time value for the put option of Rs 34 increase from .60 to 2.75 when time period increase from one month to six months.

4. **Volatility**: Option can expect to receive a higher premium due to the volatile nature of the market of particular stock. Basically, when the market believes a stock will be very volatile, the time value of the option rises. On the other hand, when the market believes a stock will be less volatile, the time value of the option falls. It is this expectation by the market of a stock's future volatility that is key to the price of options. The effect of volatility is mostly subjective and it is difficult to quantify. Fortunately, there are several calculators that can be used to help estimate volatility. The volatility can be classified into two categories:

a. **Historic Volatility**: When investors look at the volatility in the past, it is called either historical volatility or statistical volatility. Historical Volatility helps to determine the possible magnitude of future moves of the underlying stock. Historical volatility looks back in time to show how volatile the market has been. This helps option investors to determine which exercise price is most appropriate to choose for the particular strategy they have in mind.

b. **Implied Volatility**: Implied volatility is what is implied by the current market prices and is used with the theoretical models. It helps to set the current price of an existing option and assists option players to assess the potential of an option trade. Implied volatility measures what option traders expect future volatility will be. As such, implied volatility is an indicator of the current sentiment of the market. This sentiment will be reflected in the price of the options helps options traders to assess the future volatility of the option and the stock based on current option prices.

The effect of volatility can be understood by following table where comparison of the two stock XYX and ABC is done with same market price and strike price.

XYZ one month Put Price of both stock is 34.5 ABC one month put

Intrinsic value	Time value	Price	Strike price	Intrinsic value	Time value	price
5.5	0.5	6	40	5.5	2.1	7.1
0	0.60	0.60	34	0	2.10	2.10

The stock ABC has more volatility that is the reason the time value is more. The time value of XYZ less volatile stock is 0.60 and ABC is 2.10.

5. **Risk free interest rate**: The time value in option increases with the increase of risk free interest and decreases with the decrease in interest rates.

Check Your Progress A:

Note: Select the right option

1. Right to buy with no obligation to sell is -
   a. Put option
   b. call option
   c. Both a and b
   d. None of a and b
2. Right to sell with no obligation to buy is - - - - - - - -- - - - - - - - - - -
   a. Put option
   b. Call option

c. Both a and b

d. None of a and b

3. Intrinsic value of call option is - - - - - - - -- - - - - - - - - - - - - - - -

a. Market price - strike price

b. Strike price – market price

c. None of these

d. Both a and b

4. Intrinsic value of put option is - - - - - - -- - - - - - - - - - - - - - - -

a. Market price - strike price

b. Strike price – market price

c. None of these

5.is basically the risk premium that the option seller requires to provide the option buyer the right to buy/sell the stock up to the date the option expires.

a. Volatility

b. intrinsic value

c. Time value

d. None of these

6. When the market believes a stock will be very volatile, the time value of the option ------------

a. Increases

b. Decreases

c. None of these

d. remains constant

Models of option Valuation

There are two types of Models of option valuation which are as defined:

Option Valuation Model

Black and Scholes | Binomial Model

11.5.1 BLACK AND SCHOLES MODEL

The Black and Scholes Model was published in 1973 by Fisher Black and Myron Scholes. It is the most frequently used option pricing models. It is widely used for it's relatively simplicity and its fast mode of calculations.

The Black and Scholes Option Pricing Model did not appear overnight infact, Fisher Black stated out working to create a Valuation Model for stock warrants. This work involved calculating a derivative to measure how the discount rate of a warrant varies with time and stock price. The result of this calculation held a striking resemblance to well-known heat transfer equation. This model proves that the risk free interest rate is the correct discount factor and with the absence of assumptions regarding investor's risk preference.

ASSUMPTIONS OF BLACK AND SCHOLES MODEL

The basic assumptions of this model is defined as under:

i) No dividends in option 's life

All companies paid dividends to their shareholder so it may be become a limitation to the model considering the observation that higher dividend yields elicit lower call premiums. A common way of adjusting the model for this situation is to subtract the discounted value of a future dividend from the stock price.

ii) Usefulness of European terms

European exercise terms dictate that the option can be only be exercised on the expiration date, American exercise term allow the option to be exercised at any time during the life of option making. American options are more valuable due to their greater flexibility. This limitation is not a major concern because very few calls are ever exercised before the last few days of their life .This is true because when you exercise a call early, you forfeit the remaining time value on the call and collect the intrinsic value. Towards the end of the life of a call, the remaining time value is very small, but the intrinsic value is the same.

iii) Efficient Markets

This assumption suggests that people cannot predict the direction of the market or an individual stock.

iv) Commission are not Charged

Usually market participants do have to pay a commission to buy or sell option. Even floor trader's pay same kind of fee. But it is usually very small. The fees that individual's investors pay is more substantial and can often distort the output of the model.

v) Constant Interest Rates

This Model uses the risk-free rate to represent this constant and known rate. In reality there is no such thing as the risk-free rate, but the discount rate on U.S. Government treasury Bills with 30 days left until maturity is usually used to represent it. During periods of rapidly changing interest rates, these 30 days rates are often subject to change, there by violating one of the assumptions of the model.

vi) Distribution of returns

This assumption suggests that returns on the underlying stock are normally distributed which is reasonable for most assets that offer options:

$$C = SN(d_1)\text{-}ke^{(-rt)}\ N(d_2)$$

Where C = Theoretical call premium or call option price

S = Current Stock Price

t= time unit option expiration (in years)

K= option striking price

r = risk- free interest rate

N= cumulative Standard normal distribution

E= exponential term (2.7183)

$$D_1 = \frac{\ln(S/k)+(r+s^2/2)t}{s\sqrt{t}}$$

$$D_2 = d_1 - s\sqrt{t}$$

S= Standard deviation of stock returns

ln= natural logarithm

The expression (e^{-rt}) is a discount term like $1/(1+r)^t$ and as such determine the present value of a future sum of money.

- Value of $e^{(-rt)}$ is available in Table-continuous Compounding of Rs.1 e^{x} and continuous discounting of Rs.1''
- Value of N (d_1) and N(d_2) can be seen from Table Cumulative distribution function for the Standard normal Random variable''
- This can be explained with the help of following example

On 20th March the share of Ramesh Products Ltd, Sells at Rs100. The next option expiry date is May 21. The two month interest rate is 6% p.a. The share volatility has been calculated at 10% per annum with the help of Black – Schole's Model Calculated fair price for at the money call option expiring in May.

Solution

$$d_1 = \frac{\log(s/k)+(r+s_2/2)^t}{s\sqrt{t}}$$

Since it is at the money call optin s=k

t=61 days i.e. 0.167 year

$$d_1 = \frac{[ot(0.06)+(0.1)^2/2])}{0.1 \text{ x } \sqrt{0.167}}$$

= 0.2660

$d_2 = d_1 .s\sqrt{t}$

= 0.2660 -0.0408

=0.2252

Now value of option c=S.N(d_1) –$ke^{(-rt)}$.N(d_2)

= 100.N(.2660)-100.$e^{-0.06 \text{ x} 0.167}$. N(0.02252)

From concerned table N(.2660) = .6

N(.2252) = .5888

$E^{-0.01002}$ = 0.990

Thus c= [100.(0.6047)]-(100x0.990x0.5888)

= 60.47 – 58.29

= 2.18 per share

Simplecity of Black Scholer Model

To increase use of this model for option traders “Call option data” table has been developed on the basis of this model. Pair steps are required to calculate value of option. This can be described with the help of following example:

If you want to value 6 month call option on DCM share and the standard deviation of the continuously compounded share price charge is 32 percent per year. The exercise price and share price is

Rs.65 when the interest rate is 2.5 percent for 6 months Find value of call option .

Solution:

Step 1: Multiply the standard deviation by the square root of time to the option’s expiration.

St.deviation x $\sqrt{}$time

= 32 x $\sqrt{}$0.5 = 0.0226

Step 2: Calculate the ratio of the stock price to the present value of the options exercise price.

Share price / [v (exercise price)

=65 / 65 /1.025 = 1.025

Step 3: Consult “Call option data” table fit percentage relationship between value of the call option and the stock price using result of step 1 and step 2. This value for DCM comes as 10.2 percent. So value of call option’s is 10.2 percent of Rs. 65.

0.102 * 65 = 6.63

Steps 4: To find out put option

Value of put= value of call + pv –share price

6.63+65/1.025 -65 = Rs, 5.04

Activity-2

Explain Black and Scholes model--

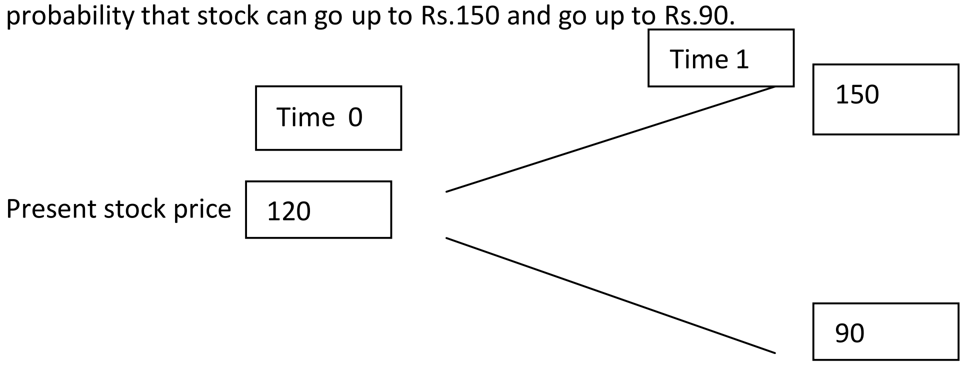
11.7 BINOMIAL OPTION PRICING MODEL

The Binomial Option Pricing Model is an option valuation method developed by Willian Sharpe in 1978. It is a very simple model that uses an iterative procedure to price options, allowing for the specification of nodes, or points in time, during the time span between the valuation date and the options expiration date. When compared to the Black Scholes model and other complex models, the binomial option pricing model is mathematically simple and easy to use. According to this model, at expiration, if option is not exercised its value is zero if it is exercised the value of call will be exercise price – underlying price. Calculating option value in this method is just like process solving of the decision tree, you start at some future date and work back through the tree to present, checking at each decision point to determine best future action.

Assumptions of Binomial pricing model: Following are the assumptions of binominal pricing model:

1. There are only two possible prices for the underlying asset on the next period. From this assumption, this model has got its name as Binomial option pricing model (Bi means two)
2. The two possible prices are the up-price and down-price
3. The underlying asset does not pay any dividends
4. The rate of interest (r) is constant throughout the life of the option
5. Markets are frictionless i.e. there are no taxes and no transaction cost
6. Investors are risk neutral i.e. investors are indifferent towards risk.

To understand the binomial method, let us take a simple example, Stock ABC has present price of Rs.120. There is call option and put option listed on the stock with strike price of Rs.100. It is equal probability that stock can go up to Rs.150 and go up to Rs.90.



Assume interest rate is at 0% then Time1 stock prices are Rs.150 or Rs.90 at time Rs.0 price is Rs.120. There are two possibilities either stock to move to Rs.150 or to reduce to Rs. 90. The intrinsic value of the option at Rs.150 will be 150-100= Rs.50 . In time period 1 or at time 0 price is Rs.120= 0.5x150+0.5x90

Value of the call option: Now let us proceed further in above example and assume the risk free rate of interest is 10%. In the above case the value of the call will be either 150-100=50 or zero. Without taking into effect of 10% rate of interest the value of call option will be:

(0.50X50) + (0.50x0) = Rs 25.

Then we should discount this rate with 10% risk free rate of interest between current times 0 to time 1. We should divide the undiscounted call value with (1+10%).

Value of the call will be 25/(1+10)= 22.73

Value of the put option: In the above example the valuation of put can be calculated as follows:

The profit side is 100-90=10

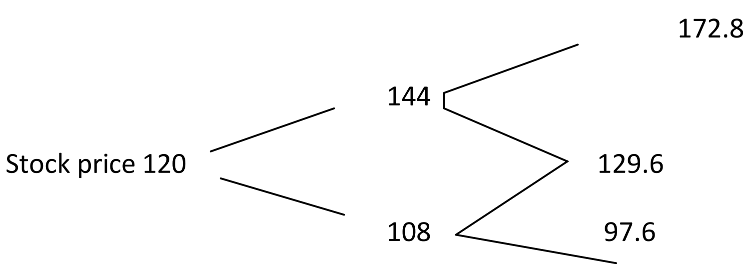
So value of put (10X0.50)+(0x0.50)=5

Now discounting this with 10% rate of interest

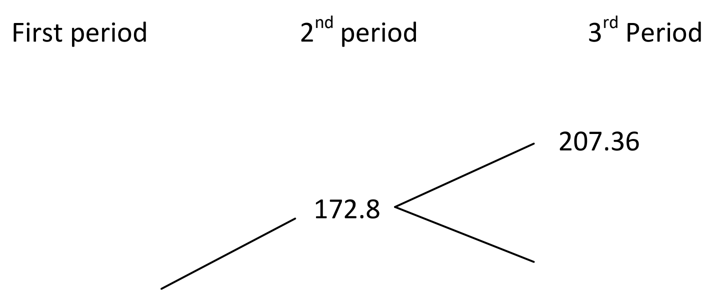
5/(1+10)= 4.55.

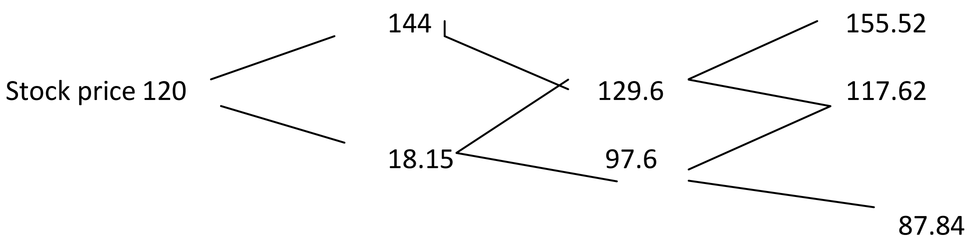
Now In above example we had assumed the price can go up 25% from present price of 120 and go below to Rs.90 which are 25% less we had calculated the value for one period only. Let us take example of three period with current price Rs.120 and price increase by 20% and decreases by 10%.

In first period, the stock price increase by 20% and in second period stock price will again increase by 20% and in first period the chances are to decrease the price by 10% and again the price reduce by 10%. So the upper price will be 120*1.2=144, 144*1.2= Rs.172.8 and lower price will be 120*.90=Rs.108, 108*.90=Rs.97.2. This can be shown as below:



Not let us assume that stock prices passes through third phase and increases 20% and decreases 10%



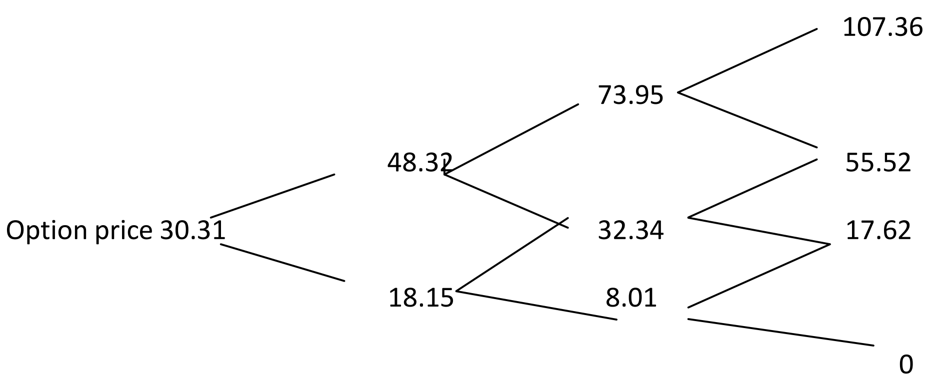


The 3rd Period stock prices again increase by 20% and decreases by 10%. 172.8x1.2=Rs.207.36

129.6*1.2=Rs.155.52, 97.6x1.2=Rs.117.62, 97.6x.9=Rs.87.84.

Evaluation of stock option prices: The price can be derived from 3rd period to first period. The following diagram will show the option pricing for call option of Rs100. 207.36-100=107.36

First period 2nd period 3rd Period



The value can be derived as follows (1/1+interest rate) x {(3rd period call value x probability of attaining it)+(Third period lower call value x probability of attaining it)}

1/1.10 x {(107.36 x .50)+(55.52 x.50)} = 1/1.10 (53.58+27.76)= 73.95

1/1.10 x {(55.52 x .50)+(17.62 x.50)}= =1/1.10 (26.76+8.81)= 32.34

1/1.10 x {(17.62 x .50)+(0 x.50)}= =1/1.10 (8.81+0)= 8.01

1/1.10 x {(73.95 x .50)+(32.34x.50)}= =1/1.10 (36.98+16.17)= 48.32

1/1.10 x {(32.34 x .50)+(8.01x.50)}= =1/1.10 (16.17+4.01)=18.35

1/1.10 x {(48.32 x .50)+(18.35x.50)}= =1/1.10 (24.16+9.18)=30.31

The value of the call option is 30.31. The same way the value of the put option can also be obtained.

Check Your Progress B

Note: Select the right option

1. Which of these is not assumption of Black and Scholds model?
   a. Efficient market
   b. Changing interest rate
   c. No transaction cost
   d. No dividend in life of option
2. Which of these is not assumption of Binomial model?
   a. Many possible prices of options
   b. Constant interest rate
   c. No transaction cost
   d. No dividend in life of option
3. When price of stock is Rs.110 it can go up by 30% and can go down by 20% with equal probability. What will be the value of Rs 100 call at risk free rate of interest of 10% during call period?
   a. 21.50
   b. 19.55
   c. 6
   d. 5.45

11.6 SUMMARY

An option is the right, but not the obligation to buy or sell something on a specified date at a specified price. In the securities market, an option is a contract between two parties to buy or sell specified number of shares at a later date for an agreed price. Call option is right to buy with no obligation to sell and put option is right to sell with no obligation to buy. There are many drivers in pricing of the option like current stock price, intrinsic value, time value, volatility and risk free rate of interest. Intrinsic value of the money is payoff that is received on immediate exercise of option. Time value is the risk premium a seller of the option wants from buyer of the option. Time value will be less for shorter duration of calls and will be high for longer duration of call. Volatility is the increase in risk premium due to volatile nature of the stock, if the volatility of stock increase time value in call increases. The Black Scholes Model involves calculating a derivative to measure how the discount rate of a warrant varies with time and stock price. The result of this calculation held a striking resemblance to well-known heat transfer equation. This model proves that the risk free interest rate is the correct discount factor. Binomial option value is just like process solving of the decision tree, you start at some future date and work back through the tree to present, checking at each decision point to determine best future action.

Keywords:

Derivative : A derivative contract where the value of the contract is derived from an underlying assets.

Call option: Right to buy with no obligation to sell

Put option: Right to sell with no obligation to buy

Forward : A contract involving the sale by one party and the purchase by another party of a pre-defined amount of an underlying asset, at a pre-defined price and at pre-defined date in the future.

ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress A

1 b
2. a
3. a
4. b
5. c
6. a

Check Your Progress B

1. b
2. a
3. b

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12.12 TERMINAL AND MODEL QUESTIONS:

1. **What do you mean by options? Discuss types of options and drivers for options valuation.**
2. **Discuss the Black and Scholes methods for option valuation.**

3. **Discuss Binomial method for option valuation.**
4. **Explain the option valuation method prescribed by Blank and Scholes by taking practical example.**

LESSON – 12

Merger and Acquisitions

Structure

12.1 OBJECTIVES

After reading this lesson, you should be able

- To understand meaning of merger and acquisitions
- To know objective of merger and acquisitions
- To explain takeover and anti-takeover tactics
- To understand accounting aspect of merger

12.2 INTRODUCTION

Merger and acquisition is strategy for inorganic growth of organization in developed economies, corporate merger and acquisitions are regular feature. In Japan, Europe and US hundred of mergers and acquisitions take place in a year. In India, too, merger and acquisition have become part of corporate strategy today. Merger and acquisition are one of key corporate restructuring exercise. Corporate restructuring focuses on reallocation of corporate resources to optimize its value, either by adding the related or divesting the unrelated businesses.

MEANING OF MERGER

Merger is combination of two or more business entities into a single entity. Usually merger takes place in friendly setting where executive of two companies participate in due diligence to ensure successful combination of all parts. The shareholder of each company must agree to this. All the assets and liabilities of merged company are taken over by new company. The shareholders of company or companies that are merged are then issued shares of new company.

There are two forms of merger, one is Amalgamation and other is Absorption. Amalgamation is when two entities combines together and form a new company and entity of existing companies comes to an end, in second form absorption one company is absorbed by the another company, latter does not lose its identity. So in any type of merger one entity loses its identity. So this can be understood by following example

X+Y= Z is case of amalgamation where X and Y are merged to form new entity of Z.

X+Y=X is case of absorption where Y is absorbed by X.

Categories of Merger

The mergers can be broadly classified into following two categories:

- Co-generic merger
- Conglomerate merger

1. **Co-generic Merger**: Co-generic merger is where the merging companies are within same industry, but have no mutual buyer or supplier relationship. Merger of Bank of Rajasthan with ICICI bank was example of co-generic merger. Co-generic mergers are of two types:

- Horizontal merger
- Vertical merger

Horizontal Merger: This type of merger happens when two merging companies produce same product or service. Horizontal merger is a merger between the business competitors who are producing or distributing the same type of products or render similar or same type of services. Horizontal merger reduces the number of competitors in an industry, increases the scope of economies to scale. The main drawback of horizontal merger is that it reduces the competition in market and promotes the monopolistic practices and firms try to take benefit by price manipulation.

Vertical Merger: Vertical merger happens between the companies which are complementary to each other, e.g. one of company is manufacturing a product other company is consumer of that product or expert in marketing of that product. In this merger the two companies merge and control the production and sales of that product. Vertical merger are of two types

a. **Forward Merger**: When a firm combines with the customer it is called forward merger.
b. **Backward Merger**: When a firm combines with the raw material supplier then it is called backward merger.

2. **Conglomerate merger**: Conglomerate merger is merger between unrelated companies. This type of merger occurs when the companies are from different industries or services. There businesses are neither vertically or nor horizontally related to each other. These are the type of merger where the companies are neither competitor to each other nor providing complimentary product or services for each other. This type of merger is neither horizontal merger nor the vertical merger.

Activity-1

Explain different categories of Merger________________________________

MEANING OF ACQUISITIONS

Acquisition is a process by which a company or individual or group of individuals acquires the control of other company known as target company. Acquiring control of other company means right to control its management and policy decisions. All of the policy decisions in a company are taken by board of directors and if the company acquires the right to appoint or remove majority of director then it is said the company has power to control other company.

The major difference between the acquisition and merger is that the entity of the company remains intact in acquisition but in merger entity of one of company comes to an end. The acquiring company gets the power to control board of directors of Target Company.

Acquisition is also known as takeover, is buying one company by another. An acquisition may be friendly and hostile. In former case companies cooperate in negotiation and in later case the takeover target is unwilling to be bought or the target board has no prior knowledge of takeover. Acquisition is generally referred as purchase of small firm by large firms. In reverse acquisition small firms buys large firms and keep its name to take benefit.

Hostile takeover: Hostile takeover happens when the board of director of the acquiring company decides to approach the shareholders of the target company directly or by giving public announcement to buy the shares through tender offer.

Tender offer: Tender offer is an offer to buy current shareholders' stock at a specified price, often with the objective of gaining control of the company. The offer is often made by another company and usually for more than the present market price. Tender offer allows the acquiring company to bypass the management of the company it wishes to acquire. The tender offer is usually communicated through financial newspapers and direct mailings if shareholder lists can be obtained in a timely manner.

Two Tier Tender Offer: Two Tier tender offer occurs when the bidder offers a superior first-tier price (e.g., higher amount or all cash) for a specified maximum number (or percent) of shares and simultaneously offers to acquire the remaining shares at a second-tier price. Two tier offers may be made with the first tier receiving more favorable terms. This reduces the free-rider problem. Two tier offer increases the likelihood of success in gaining control of the target firm and benefits those shareholders who tender ―early.‖

TAKEOVER STRATEGIES OR TACTICS

Other than the tender offer the acquiring company can also use the following tactics for acquisition:

1. **Street Sweep**: Street sweep refers to the technique where the acquiring company buys large number of shares of target company from market before giving tender offer. The advantage is that the target company is left with no choice but to agree to the proposal of the acquirer for takeover.
2. **Bear Hug**: In this the acquirer company makes a very good tender offer to the management of target company for latter's shareholders and ask them to consider this offer in interest of shareholder. The acquirer threatens the target to make an open offer, the board of directors of target company agrees to a settlement with the acquirer for the change of management and control.
3. **Strategic Alliance**: Strategic alliance involves disarming the acquirer by offering a partnership rather than buyout. The acquirer should assert control from within and takeover the target company.

4. **Brand Power**: Brand power refers to entering into alliance with powerful brands to displace the target's brands and as a result, buyout the weakened target company.
5. **Down Raid**: In this tactic broker active on behalf of acquirer or raider swoops down on stock exchanges at the time of its opening and buys all the available shares before target or prey wakes up. Indian takeover law prohibits taking more than 15% and had to give public offer at highest acquired price.
6. **Saturday Night Special**: This is same as bear hug but offer is given on Friday or Saturday night last working day of week asking for decision by Monday, So giving very less time to management to think.
7. **Proxy contest or proxy fight**: Proxy contest is strategy that may accompany a hostile takeover. A proxy contest occurs when acquiring company attempts to convince the shareholder to use their proxy votes to install new management that is open to takeover. The technique allows the acquired to avoid paying premium for the target. This is also known as proxy fight.

ANTI TAKEOVER TACTICS

We have discussed the takeover tactics where by the acquirer adopts strategies to buy the target, but there is some anti takeover tactics also which can be used by target to defend the takeover these are as below:

1. **Crown Jewel**: The target company sells its highly profitable or attractive business so to make takeover bid less attractive.
2. **Blank Cheque**: The target company makes a preferential allotment to existing promoter or friendly shareholders. Promoter can take 5% & who are holding 15% to 55% without public offer above 55 to 75 promoters can take 5% in any financial year through stock market without offering. Price to be paid is average of 26 week price.

3. **Shark Repellents**: The target company amends its charter like memorandum of association and articles of association and like to makeover takeover expensive or impossible.

4. **Poison Pill**: The term ‗poison pill' is generally used to refer to any strategy which upon successful acquisition by acquirer creates a negative financial results and leads to value destruction. Like issuing share to public, issuing share to public at more than double price on takeover, target company can take long term loans to be paid immediately on takeover, by paying large dividend from borrowing funds, in last case company can increase stake by borrowed funds.

5. **Poison Put**: Poison put is leveraged recapitalization and leveraged cash out. In poison put the target company issues bonds that encourages the holder to cash in at higher prices, the cash drainage will make the target unattractive.

6. **People Pill**: Current management team of target company threatens to quit on acquisition.

7. **Scorched Earth**: Its military tactics that involves destroying anything that might be useful for the enemy while retreating from area

8. **Pac-man:** Target company start acquiring sizable holding in raider company. This strategy aims at the target company making a counter bid for acquirer company. This would force the acquirer either to increase price for takeover or may call off its proposal for the takeover.

9. **Green Mail**: Target company arrange through friendly investor to accumulate large stock which increases price and takeover cost.

10. **Standstill Agreement**: Standstill agreement is a form of hostile takeover defense in which target company acquires a promise from an unfriendly bidder to limit the amount of stock the bidders buys or holds in target company. By obtaining this type of agreement the target company gets more anti-takeover steps.

11. **Whiteknight**: White knight is when target company enlists services of other company to take stake in acquiring company.

12. **Grey Knight**: Grey knight is when services of friendly company or group of investor are used to acquire stake in Raider Company.

13. **Golden Parachute**: Golden parachute is when large sum of compensation or guarantee to be paid if services are terminated of promoter group in case of takeover.

Check Your Progress A

Note: Select the Right Option

1. Merger is combination of only two business entities into a single entity (True/False)

2. Merger between unrelated companies is co-generic merger.(True/False)

3. Vertical merger happens between the companies which are complementary to each other.(True/False)

4. Tender offer is an offer to buy current shareholders' stock at a specified price, often with the objective of gaining control of the company. (True/False)

5. Green Mail is tactic when Target Company arrange through friendly investor to accumulate large stock which increases price and takeover cost. (True/False)

OBJECTIVE OF MERGER AND ACQUISITION

Following are the objective of the merger and acquisitions:

1. **Growth Objective**: Setting up of new business or branches requires time and energy, merger and acquisition helps to save that energy and time taken in organic growth. Merger and acquisition enables the firms to grow at a faster rate than organic. The acquiring company needs not to spend time on purchasing building, site, setting up of plant and machinery, developing market, and recruiting persons etc. Growth objective can be achieved in following three ways:

a. **Market Penetration**: Market penetration involves a company intending to increase the sales for its present products in present market through more aggressive and marketing efforts. This involves activities like distributor and retailer network, launching advertising campaign, giving gifts and incentives. Every company has to continuously do these activities and in this process they have to fight with its competitors. Marketing wars between Vodafone and Airtel, Pepsi and Coca-cola are well known. Market penetration goals can be achieved through merger and acquisition.

b. **Market Development**: Market development consists of a company seeking increased sales by taking its existing products into new market. Market development strategy is followed if a regional company launches its products in another states or a domestic company launches its products in international market. Daink Bhaskar expanded from its parent states to other states. Companies intends to develop market can do it through merger and acquisitions. Centurion bank merged Bank of Punjab who has its good branch network in Punjab as market development strategy. Tata steel acquired Corus to expand its operation outside India.

c. **Product Development**: Product development consists of a company intending to increase sales by developing new products for its existing market. Surf was very renowned brand of Hindustan lever in detergent segment and in 1990 Hindustan lever launched Surf excel as product development strategy. Growth through product development can be achieved through merger and acquisition. Nicholas

Piramal acquired Hoechst's R&D centre at Muland as product development strategy.

2. **Taxsation:** Set off and carry forwards of losses as per income tax provision are one of strong reason for merger and acquisition. The losses incurred by Target Company can be set off against the profits of acquiring company. Accumulated depreciation of Target Company can also be carried over to acquiring company. Thus, there will be tax saving and reduction of tax liability of merged firms. If profit making entity is merged with the loss making entity to achieve the benefit of carry forward and set off of losses, it is called reverse merger.
3. **Synergy Effect**: Synergy is when value of merged entity is more than the value of their individual entities.

$$V(XY) > V(X) + V(Y)$$

The value increased after merger can be achieved through economies of scale or through economies of scope. Economies of scale occur when with the increase in scale of production there is reduction of cost. The economies to scale can be arrived with better bargain in purchases of material due to better order size, bulk buying at discounted rate etc. Economies of scope arise when with the increase in scale of production unutilized capacities are utilized. A company is paying rent of 10000 sq feet and using 5000 sq feet only, after merger total 10000 sq feet is used, is an example of economies of scope. The synergies can be divided as follows:

a. Manufacturing Synergy: It involves combination of core competencies of merged company with merging company in different areas of manufacturing like R&D, technology, procuring etc. Daichii Sankayo and Ranbaxy deal has synergy effect in manufacturing of drugs with effective utilization of R&D strength of Daiichi with efficient manufacturing of Ranbaxy.

b. Operating Synergy: This involves rational utilization of common services like warehouse, transport system, software utilization, finance and accounts, HR, administration, after merger. Duplication of common services is avoided to increase operational efficiency. Jet Airways acquired Sahara Airlines with the motive to achieve substantial saving through operational synergies like sharing of ground handling staff, reduction in combined number of airplanes.

c. Marketing Synergy: It involves using either the common distribution network or common sales force to sell the products of both Target Company and Acquirer Company, so after merger sales and marketing force is commonly used to reduce expenses on marketing. Other than these, marketing synergy can involve acquiring better pricing power on account of two companies coming together. When Hindustan Lever acquired Lakme the motive was to increase marketing synergy by selling Lakme brand through its vast network of distributors.

d. **Financial Synergy**: It involves that the combined balance sheet of Target Company and acquiring company will reduce weighted average cost of capital or improves gearing ratio, or improving financial parameter. Improvement in financial parameter will fetch loans at lower interest rate. JSW steel acquired Ispat Industries and consolidated balance sheet was improved which reduced the interest rate on loans taken by Ispat industries.

4. **Diversification**: Diversification of business reduces the business risk. The merger between the two unrelated companies would lead to reduction in business risk, which in turn will increase the value of the firm. Normally, the greater the combination of statistically independent or negatively correlation between the merged companies, there will be higher reduction in the business risk in comparison to companies having income streams which are positively correlated to each other. Suppose A and B totally independent companies are merged at the time of merger A was doing very good but B was in bad shape but due to change in economic scenario A suffered and B started performing so overall profitability remains stable due to diversification.
5. **Consolidation**: Merger has objective of consolidation of production capacities and increasing the market share. Production capacity is increased by merger of two or more plants. HCL technologies acquired UK based Axon Group PLC to bring new capabilities to the market with truly global delivery model.

Activity-2

What are the objective of merger and acquisition --

ACCOUNTING FOR MERGER

Meaning of Amalgamation: Amalgamation in the nature of merger can be fulfilled/satisfied the following conditions

i) All the assets and liabilities of the transferor company become after merger the assets and liabilities of transferee company.

ii) Shareholders holding not less than 90% of the face value of the shares of Transferor Company become equity shareholders of the transferee company by virtue of the amalgamation.

iii) The consideration for amalgamation receivable by those equity shareholders of the transferee company is discharged by the transferee company is discharged by the transferee company wholly by the fresh issue of equity shares in the transferor company except that cash may be paid in respect of any fractional shares.

iv) The business of Transferor Company becomes after amalgamation Transferee Company.

v) There is no need any type of adjustment to the book values of assets and liabilities of the transferor company when they are incorporated in the financial statement of the transferee company except to ensure uniformity of accounting policies.

According to Accounting Standard-14 pooling of interest has been used for amalgamation in the nature of mergers.

POOLING OF INTEREST METHOD

According to pooling of interest method following procedure is adopted:

i) The balance sheet items and profit and loss items of merged firms are combined without recording the effects of merger.

ii) All the assets and liabilities of transferee company are recorded by the transferee company at their existing carrying amount

iii) There is no revolution of assets or creation of goodwill.

Let us consider an example as given in example 1

Example-1 POOLING OF INTEREST

Firm X mergers with firm Y, firm Y issues shares worth is 10 crore to firm X firm's shareholders. The balance sheet of firm Y after merger is constructed as the addition of the book values of the assets and liabilities of the merged firms. It may be noticed that the shareholders funds are recorded at the book value, X's shareholders received shares worth Rs. 10 crore in firm Y. The new own firm Y along with its existing shareholders.

Table1 .POOLING OF INTEREST METHOD:

Merger of firm Y and X

(RS.IN CRORE)

ASSETS	FIRMX	FIRM Y	COMBINED	
NET FIXED ASSETS	14	18	32	
Current assets	4	7	11	
Total	18	25	43	
Liablities				
Shareholders fund	5	4	9	
Borrowings	8	15	23	
Current liabilities	5	6	11	
Total	18	25	43	

Purchase consideration

Purchase consideration means the amount which is paid by the transferee company to the transferor company. This may be shares, cash or any assets. For valuation of purchase consideration estimation is made. There are number of methods for calculation of purchase consideration but usually net worth method is applied for calculation of s purchase consideration. According to net worth method net worth of assets taken over by the transferee company is the purchase consideration of Transferor Company. In this method following points should be kept in mind:

i) Assets always include cash and bank unless otherwise mentioned in specific question.

ii) Assts does not includes fictitious assts

iii) The asset which is not taken over by the transferee company will not be included in the purchase consideration.

iv) Liabilities mean what company owes from outsiders.

v) Trade liabilities mean trade creditors and bills payables.

vi) Any fund which shows liability to their party must be included in liabilities

vii) Liabilities will not include past accumulated profits or reserves.

viii) Intangible assets like goodwill if has should be included in purchases consideration.

ix) The liabilities which are not taken over by the transferee company will not part of purchases consideration.

EXAMPLE-2

BALANCE SHEET OF XYZ COMPANY

As on 31st Dec 2012

Liabilities	Rs	Assets	Rs
Share Capital 2000 equity shares of Rs 10 each	20,000	Goodwill	14000
5% Debentures	2500	Land	4000

Creditors	1500	Plant	7000
Reserves	1000	Investment	2000
Profit & loss a/c	5000	Receivable	2000
		Cash	500
		Discount on debentures	500
	30000		30000

Suppose (i) company PQR takes over the business of company XYZ (ii) value agreed for the assets as under good Rs 11000, land 6000, plant Rs 5000 ,Investors 1000 and receivables Rs.1000.(iii) PQR Company does not take over cash but agree to assume the liability of creditors at Rs.500. Calculate purchase consideration.

Solution: Value of assets taken over by company PQR

Goodwill	11000
Land	6000
Plant	5000
Investors	1000
Receivables	1000
	24000

Less creditors 500

Purchases consideration 23500

Journal entries in the books of the Transferor company

Transferee Company Account Dr

To Realisation Account

(Being Purchase consinderation transferred to realization account)

Bank Account Dr.

Shares in Transferee Company Account Dr.

To Transferee Company Account

(Being Purchase consinderation received in cash and shares in transferee company)

Bank Account Dr.

To Individual Asset Account

(Being particular assets not taken over by Transferee Company and sold and cash received)

Bank Account Dr.

To Individual Asset Account

To Realisation Account

(Being Sale of assets not taken over by purchasing company and profit on sale recorded)

Bank Account Dr.

Realisation Account Dr.

To Individual Asset Account

(Being Sale of assets not taken over by purchasing company and loss on sale of asset recorded)

Realisation Account Dr.

To Bank Account

(Being realization Expenses Paid)

Individual liability Account Dr.

To Bank Account

(Being liability met by Transferor Company recorded)

Realisation Account Dr.

To Shareholders Account

(Being Profit transferred to shareholders account)

Shareholders Account Dr.

To Realisation Account

(Being loss transferred to shareholders account)

Preference Share Capital Account Dr.

To Preference shareholders Account

(Being preference share capital transferred to preference

Shareholder's account)

Equity Share Capital Account	Dr.
General Reserve Account	Dr.
Dividend Equilisation Account	Dr.
Profit and Loss Account	Dr.
Shares Forfeited Account	Dr.
To Equity Shareholders Account	

(Being Equity share capital, all reserves and appropriation

Accounts transferred to equity shareholders)

Equity Shareholder Account	Dr.
To Profit and Loss Account	

(Being Accumulated losses and fictitious assets transferred to

Equity shareholders account)

Preference Shareholders Account	Dr.
Equity Shareholders Account	Dr.
To Bank Account	
To Shares in transferee Company Account	

(Being Payment made to equity and preference shareholders)

Amalgamation in Nature of Purchase

Amalgamation is considered to be in the nature of purchase when one or more of the following specified conditions are applied as per AS-14:

i) The shareholders of the combing company's do not continue to have proportionate shares in the equity of the combined unit.

ii) Purchase method is used for accounting at the time purchase.

Purchase method

According to purchase method following procedure is done:

i) All the assets and liabilities of transferring company after amalgamation stated at their exiting carrying amounts for the purpose price paid to Transferor Company.

ii) The assets and liabilities are taken at the revaluation value.

iii) If purchase consideration is greater than the fair market value of assets and liabilities the excess amount is shown as goodwill on the other hand if purchase consideration is less than the fair market value of assets and liabilities the difference is capital reserve.

Let us consider an example as given in example 3

Example-3 Purchase Method:

Firm X acquire firm Y by assuming all its assets and liabilities. The fair value of firm Y‘s fixed assets and current assets are Rs. 16 crore and Rs.7 crore. Current Liabilities are valued at book value while the fair value at book value while the fair value of debt is estimated to be Rs 5 crore to pay firm‘s shareholders by issuing shares worth of Rs 5 crore to its own shareholders. The balance sheets of the firm‘s before amalgamation are the effect of amalgamation are shown in Table 3.The balance sheet of firm X offer amalgamation is constructed offer adjusting assets, liabilities and equity.

Table 3 purchase Method : Merger of X and Y

	Firm X	Firm Y	Firm X after merger
Assets			
Net fixed assets	12	18	33
Current assets	4	6	9
Goodwill			1
Total	16	24	43

Liabilities			
Shareholder funds	5	9	16
Borrowings	8	10	23
Current liabilities	3	5	4
Total	16	24	43

The goodwill is calculated as follows:

Payment to Y's shareholder	Rs	5
Fair value of fixed assets		15
Fair value of current assets		5
		20
Less: fair value of borrowings		15
Fair value of current liabilities		4
Goodwill		1

Journal entries in the books of Transferee Company:

Bussiness Purchase Account Dr.

To Liquidators of transferor Company Account

(Being amount of purchase consideration transferred to Liquidator account due to Amalgamation)

Individual Assets Account Dr.

To Individual Liabilities Account

To Reserve Account

To Bussiness Purchase Account

(Being assets and liabilities taken over on account of amalgamation recorded)

Liquidators of transferor Company Dr.

To Bank Account

(Being payment made to the liquidators of Transferor Company)

Profit and Loss account Dr.

To Bank Account

(Being liquidation expenses paid)

Preliminary Expenses Account Dr.

To Bank Account

(Being preliminary expenses paid)

The difference between Debit and credit is adjusted in reserves of Transferee Company and balance of Profit and Loss account Transferor Company should be transferred to general reserve if any as per AS-14.

Check Your Progress B

Note: Select the Right Option

1. Set off and carry forwards of losses as per income tax provision are one of strong reason for merger and acquisition. (True/False)
2. Financial Synergy involves that the combined balance sheet of Target Company

and acquiring company will reduce weighted average cost of capital or improves gearing ratio, or improving financial parameter. (True/ False)

3. Pooling of interest and purchase methods for accounting of merger is provided by AS-14.(True/False)

SUMMARY

Merger and acquisition are one of key corporate restructuring exercise. Merger is combination of two or more business entities into a single entity. All the assets and liabilities of merged company are taken over by new company. The mergers can be broadly classified into Co-generic merger and Conglomerate merger. Cogeneric merger is where the merging companies are within same industry. Conglomerate merger is merger between unrelated companies. Acquisition is a process by which a company or individual or group of individuals acquires the control of other company known as target company. Acquisition is also known as takeover, is buying one company by another. Hostile takeover happens when the board of director of the acquiring company decides to approach the shareholders of the target company directly or by giving public announcement to buy the shares through tender offer. Street sweep, bear hug, alliance, brand power, down raid, Saturday night special, proxy fight or proxy contest are takeover tactics. Crown jewel, blank cheque, shark repellents, poison pill, poison put, people pill, scorched earth, pacman, green mail, standstill agreement, whiteknight, grey night and golden Parachute are anti takeover tactics. Growth, taxation benefits, synergy effect, diversification and Consolidation are the main objectives of merger and acquisition. AS-14 provides accounting standard for merger and acquisition. Pooling of interest and purchase methods for accounting of merger is provided by AS-14.

Keywords:

Acquiree or Target Company: The Company which is being merged or taken over by the other company.

Acquirer, Predator, Offeror: The Company which is making a bid for the merger or takeover of another company.

Crown Jewels: The target company sells its highly profitable or attractive business so to make takeover bid less attractive.

Conglomerate merger: An amalgamation of companies in two or more different industries.

Horizontal merger: It is a merger of two competing firms, which are at same stage of industrial process.

Merger: Merger is a combination of two or more companies into a single company.

Proxy Contest: Proxy contest occurs when acquiring company attempts to convince the share holder to use their proxy votes to install new management that is open to takeover.

ANSWERS TO CHECK YOUR PROGRESS

A

1. False
2. False
3. True
4. True
5. True

B

1. True
2. True
3. True

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- Prasad G Godbole Mergers Acquisitions and Corporate Restructuring, Vikas Publication New Delhi.

: TERMINAL AND MODEL QUESTIONS

1. What do you mean by merger? How it is different from acquisition?
2. What are the major objectives behind Merger?
3. Discuss Takeover and anti takeover strategies.
4. What is Amalgamation? What is accounting treatment for Merger?

:

LESSON – 13

Legal Aspects of Merger

Structure

13.1 OBJECTIVES

After reading this lesson, you should be able:

- To understand legal aspects of merger as per Companies Act
- To understand legal aspects of merger as per other acts
- To explain due diligence in merger

13.2 INTRODUCTION

The words merger demerger or amalgamation is not defined in The Companies Act, 1956. Amalgamation and demerger are defined in Income Tax Act 1961 under section 2(1B) and 2(19 AA) but these definitions are for income tax purpose.

Definition of amalgamation and demerger under Income Tax Act 1961 as per section 2(1b) the following three conditions needs to be satisfied

- All the properties of amalgamating company, immediately before an amalgamation, should become properties of amalgamated company by virtue of amalgamation.
- All the liabilities of the amalgamating company, immediately before amalgamation, should become liabilities of amalgamated company by virtue of amalgamation.
- Share holders holding not less than three fourth(in value) of shares of amalgamating company(other than the shares already held by amalgamated company or by its nominees)should become shareholder of the amalgamated company by virtue of amalgamation

For the last conditions shareholder means all types of share holder i.e. equity preference and also shares with differential voting right.

COMPANIES ACT

Merger, amalgamation and demerger of the companies under The Companies Act, 1956 are governed by section 391-396 of the act.

The operative section 391(1)(a)(b), 391(2), 394(1) and 394(2) are analysed separately in detail. Section 391(3) states that court order shall have no effect until a certified copy is filled with Registrar. Section 391(4) requires that every order of the court to amend the every copy of the memorandum of the company issued after the order; section 391(5) deals with penal provision in case of default. Section 391(6) is an enabling clause, section 391(7) is for appeal against order. Section 392 gives power to the high court to enforce compromises and arrangements. Section 393 covers the procedure to be followed and the manner in which information is to be provided to members and creditors. Section 394(3) requires the order to be filed within 30 days with the registrar and also defines the penal provisions for non compliance.

Section 391: Power to Compromise and Make Arrangement with Creditors and Members

1. Where compromise or arrangement is proposed
   - a Between the company and its creditors or any class of creditors
   - b. Between the Company and its members or any class of members

The court may, on the application of company or of any member or of any creditor of the Company, or, in case of company which is being wound up, of the liquidator, order a meeting of the creditors or class of creditors, or members or class of members as the case may be, to be called, held and conducted in such manner as the court may direct.

2. If a majority in number representing three forth in value of creditors, or class of creditors, or members, or class of members, as the case may be, present and voting either in person or, where proxies are allowed, by proxy, at the meeting, agree to compromise or arrangement, the compromise or arrangement shall, if sanctioned by the court, be binding on all the creditors, all the creditors of that class, all the members, or all the members of that class, or all the members of that class as the case may be, and also on the company which is being wound up, on the liquidator and contributories to the company.

   (Provided that no order sanctioning any compromise or arrangement shall be made by the court unless the court is satisfied that the company or any other person by whom an application has been made under sub section (1) has disclosed to the court, by affidavit or otherwise, all material facts relating to the company, such as the latest financial position of company, the pendency of any investigation proceedings in relation to the company under section 235 to 251 and the like)

   The following should be noted:

   - There should be a compromise or arrangement which is proposed. A scheme that contains no compromise or no arrangement and is in the nature of winding up cannot be considered.
   - The compromise can be all the creditor or member or a class of creditors or members
   - The application can be made by the company, or any creditor or member or the liquidator or class of any of these
   - Three forth majority in class of creditors or class of members have to approve the resolution. Each class of creditors (secured unsecured etc) or each class of members (equity, preference) are required to meet the condition separately and three fourth of that class need to approve the resolution.

Section 391(2) refers to stipulated three fourth majorities in number and value of persons present and voting. Hence creditors or members, who do not attend either in person or by proxies or attend but does not vote, get ignored and the resolution passed by the persons who are present and voting becomes binding on them also. However the court need to satisfy that members present and voting are fairly representative of the class of creditors or members whose meeting is held.

Disclosure of all material facts: After the consent of creditors or member is obtained, the company is required to file the application with high court seeking its approval of arrangement/scheme. The high court may sanction the petition of amalgamation or demerger after it is satisfied that the applicant has disclosed all the material facts relating to company such as the latest auditor reports, latest financial positions etc.

Section 392: Power of High court to Enforce Compromise and Arrangement

Where a High Court makes an order under section 391 sanctioning a compromise or an arrangement in respect of a company, it–

(a) Shall have power to supervise the carrying out of the compromise or arrangement; and

(b) May, at the time of making such order or at any time thereafter, give such directions in regard to any matter

Or make such modifications in the compromise or arrangement as it may consider necessary for the proper working of the compromise or arrangement.

If the Court aforesaid is satisfied that a compromise or arrangement sanctioned under section 391 cannot be worked satisfactorily with or without modifications, it may, either on its own motion or on the application of any person interested in the affairs of the company, make an order winding up the company, and such an order shall be deemed to be an order made under section 433 of this Act.

The provisions of this section shall, so far as may be, also apply to a company in respect of which an order has been made before the commencement of this Act under section 153 of the Indian Companies Act, 1913,(7 of 1913) sanctioning a compromise or an arrangement.

Section 393: Information as to Compromises and Arrangement with Creditors or Members

1. Where a meeting of creditors or any class of creditors, or of members or any class of members, is called under section 391,-
   a. with every notice calling the meeting which is sent to a creditor or member, a statement shall be accompanied setting forth the terms of the compromise or arrangement and explaining its effect; and in particular, stating any material interests of the directors, managing director, managing agent, secretaries and treasurers or manager of the company, whether in their capacity as such or as members or creditors of the company or otherwise, and the effect on those interests, of the compromise or arrangement, if, and in so far as, it is different from the effect on the like interests of other persons; and
   b. in every notice calling the meeting which is given by advertisement, there shall be included either such a statement as aforesaid or a notification of the place at which and the manner in which creditors or members entitled to attend the meeting may obtain copies of such a statement as aforesaid.

2. Where the compromise or arrangement affects the rights of debenture holders of the company, the said statement shall give the like information and explanation as respects the trustees of any deed for securing the issue of the debentures as it is required to give as respects the company's directors.

3. Where a notice given by advertisement includes a notification that copies of a statement of the terms of the compromise or arrangement proposed and explaining its effect can be obtained by creditors or members, every creditor or member on making an application in the manner indicated by the notice, be furnished by the company, free of charge, with a copy of the statement.

4. Where default is made in complying with any of the requirements of this section, the company, and every officer of the company who is in default, shall be punishable with fine which may extend to five thousand rupees.

Section 394: Provisions for Facilitating Reconstruction and amalgamation of Companies.

1. Where an application is made to the Court under section 391 for the sanctioning of a compromise or arrangement proposed between a company and any such persons as are mentioned in that section, and it is shown to the Court

a. that the compromise or arrangement has been proposed for the purposes of, or in connection with, a scheme for the reconstruction of any company or companies, or the amalgamation of any two or more companies; and
b. that under the scheme the whole or any part of the undertaking, property or liabilities of any company concerned in the scheme (in this section referred to as a" transferor company") is to be transferred to another company (in this section referred to as". the transferee company"); the Court may, either by the order sanctioning the compromise or arrangement or by a subsequent order, make provision for all or any of the following matters:-
    i) the transfer to the transferee company of the whole or any part of the undertaking, property or liabilities of any transferor company;
    ii) the allotment or appropriation by the transferee company of any shares, debentures, policies, or other like interests in that company which, under the compromise or arrangement, are to be allotted or appropriated by that company to or for any person;
    iii) the continuation by or against the transferee company of any legal proceedings pending by or against any transferor company;
    iv) the dissolution, without winding up, of any transferor company
    v) the provision to be made for any persons who, within such time and in such manner as the court directs, dissent from the compromise or arrangement; and
    vi) such incidental, consequential and supplemental matters as are necessary to secure that the reconstruction or amalgamation shall be fully

and effectively carried out: Provided that no compromise or arrangement proposed for the purposes of, or in connection with, a scheme for the amalgamation of a company, which is being wound up, with any other company or companies, shall be sanctioned by the court unless the court has received a report from the Company Law Board, or the Registrar that the affairs of the company have not been conducted in a manner prejudicial to the interests of its members or to public interest: Provided further that no order for the dissolution of any transferor company under clause (iv). Shall be made by the Court unless the Official Liquidator has, on scrutiny of the books and papers of the company, made a report to the Court that the affairs of the company have not been conducted in a manner prejudicial to the interests of its members or to public interest.

2. Where an order under this section provides for the transfer of any property or liabilities, then, by virtue of the order, that property shall be transferred to and vest in, and those liabilities shall be transferred to and become the liabilities of, the transferee company; and in the case of any property, if the order so directs, freed from any charge which is, by virtue of the compromise or arrangement, cease to have effect.
3. Within thirty days after the making of an order under this section every company in relation to which the order is made shall cause a certified copy thereof to be filed with the Registrar for registration. If default is made in complying with this sub- section, the company, and every officer of the company who is in default, shall be punishable with fine which may extend to fifty rupees.
4. In this section-
   a. " property" includes property, rights and powers of every description and liabilities" includes duties of every description; and
   b. ¯transferee company" does not include any company other than a company within the meaning of this Act; but transferor company" includes anybody corporate, whether a company within the meaning of this Act or not.

Section 395: Power and Duty to Acquire Shares of Shareholders Dissenting from Scheme or Contract Approved by Majority

1. Where a scheme or contract involving the transfer of shares or any class of shares of transferor company to transferee company has, within four months after the making of the offer in that behalf by the transferee company, been approved by the holders of not less than nine- tenths in value of the shares whose transfer is involved (other than shares already held at the date of the offer by, or by a nominee for, the transferee company or its subsidiary), the transferee company may, at any time within two months after the expiry of the said four months, give notice in the prescribed manner to any dissenting shareholder, that it desires to acquire his shares; and when such a notice is given, the transferee company shall, unless, on an application made by the dissenting shareholder within one month from the date on which the notice was given, the Court thinks fit

to order otherwise, be entitled and bound to acquire those shares on the terms on which, under the scheme or contract, the shares of the approving shareholders are to be transferred to the transferee company: Provided that where shares in the transferor company of the same class as the shares whose transfer is involved are already held as aforesaid to a value greater than one-tenth of the aggregate of the values of all the shares in the company of such class, the foregoing provisions of this sub- section shall not apply, unless-

a. the transferee company offers the same terms to all holders of the shares of that class (other than those already held as aforesaid) whose transfer is involved; and
b. the holders who approve the scheme or contract, besides holding not less than nine- tenths in value of the shares (other than those already held as aforesaid) whose transfer is involved, are not less than three- fourths in number of the holders of those shares;

2. Where, in pursuance of any such scheme or contract as aforesaid, shares, or shares of any class, in a company are transferred to another company or its nominee, and those shares together with any other shares or any other shares of the same class, as the case may be, in the first- mentioned company held at the date of the transfer by, or by a nominee for, the transferee company or its subsidiary comprise nine- tenths in value of the shares. or the shares of that class, as the case may be, in the first- mentioned company, then,
   a. the transferee company shall, within one month from the date of the transfer give notice of that fact in the prescribed manner to the holders of the remaining shares or of the remaining shares of that class, as the case may be, who have not assented to the scheme or contract; and
   b. any such holder may, within three months from the giving of the notice to him, require the transferee company to acquire the shares in question and where a shareholder gives notice under clause (b) with respect to any shares, the transferee company shall be entitled and bound to acquire those shares on the terms on which, under the scheme or contract, the shares of the approving shareholders were transferred to it, or on such other terms as may be agreed, or as the Court on the application of either the transferee company or the shareholder thinks fit to order.
3. Where a notice has been given by the transferee company under sub- section (1) and the Court has not, on an application made by the dissenting shareholder, made an order to the contrary, the transferee company shall, on the expiry of one month from the date on which the notice has been given, or, if an application to the Court by the dissenting shareholder is then pending, after that application has been disposed of, transmit a copy of the notice to the transferor company together with an instrument of transfer executed on behalf of the shareholder by any person appointed by the transferee company and on its own behalf by the transferee company, and pay or transfer to the transferor company the amount or other consideration representing the price payable by the transferee company for

the shares which, by virtue of this section, that company is entitled to acquire; and the transferor company shall--

(a) There upon register the transferee company as the holder of those shares. And

(b) within one month of the date of such registration, inform the dissenting shareholders of the fact of such registration and of the receipt of the amount or other consideration representing the price payable to them by the transferee company provided that an instrument of transfer shall not be required for any share for which a share warrant is for the time being outstanding.

4. Any sums received by the transferor company under this section shall be kept in separate bank account and held in trust.
    a. The following provisions shall apply in relation to every offer of a scheme or contract involving the transfer of shares, namely
    i) every such offer or every circular containing such offer or every recommendation to the members of the transferor company by its directors to accept such offer shall be accompanied by such information as may be prescribed;
    ii) every such offer shall contain a statement by or on behalf of the transferee company, disclosing the steps it has taken to ensure that necessary cash will be available;
    iii) every circular containing, or recommending acceptance of, such offer shall be presented to the Registrar for registration and no such circular shall be issued until it is so registered;
    iv) the Registrar may refuse to register any such circular which does not contain the information required to be given under sub- clause (i) or which sets out such information in a manner likely to give a false impression; and
    v) An appeal shall lie to the Court against an order of the Registrar refusing to register any such circular.
    b. Whoever issues a circular referred to in sub- clause (iii) of clause (a), which has not been registered, shall be punishable with fine which may extend to five hundred rupees.

Section396: Power of Central Government to Provide for Amalgamation of Companies in Public Interest.

1. Where the Central Government is satisfied that it is essential in the public interest that two or more companies should amalgamate, then, notwithstanding anything contained in sections 394 and 395 but subject to the provisions of this section, the Central Government may, by order notified in the Official Gazette, provide for the amalgamation of those companies into a single company with such constitution; with such property, powers, rights, interests, authorities and privileges; and with such liabilities, duties, and obligations; as may be specified in the order.

2. The order aforesaid may provide for the continuation by or against the transferee company of any legal proceedings pending by or against any transferor company and may also contain such consequential, incidental and supplemental provisions as may, in the opinion of the Central Government, be necessary to give effect to the amalgamation.
3. Every member or creditor (including a debenture holder) of each of the companies before the amalgamation shall have, as nearly as may be, the same interest in or rights against the company resulting from the amalgamation as he had in the company of which he was originally a member or creditor; and to the extent to which the interest or rights of such member or creditor in or against the company resulting from the amalgamation are less than his interest in or rights against the original company, he shall be entitled to compensation which shall be assessed by such authority as may be prescribed and every such assessment shall be published in the Official Gazette The compensation so assessed shall be paid to the member or creditor concerned by the company resulting from the amalgamation. Any person aggrieved by any assessment of compensation made by the prescribed authority under sub- section (3) may, within thirty days from the date of publication of such assessment in the Official Gazette, prefer an appeal to the Company Law Board and thereupon the assessment of the compensation shall be made by the Company Law Board.
4. No order shall be made under this section, unless-
   a. a copy of the proposed order has been sent in draft to each of the companies concerned; the time for preferring an appeal under sub- section (3A) has expired, or where any such appeal has been preferred, the appeal has been finally disposed of; and
   b. the Central Government has considered, and made such modifications, if any, in the draft order as may seem to it desirable in the light of any suggestions and objections which may be received by it from any such company within such period as the Central Government may fix in that behalf. Not being less than two months from the date on which the copy aforesaid is received by that company, or from any class of shareholders therein, or from any creditors or any class of creditors thereof.
5. Copies of every order made under this section shall, as soon as may be after it has been made, be laid before both Houses of Parliament.

Activity-1

Explain section of Merger, amalgamation and demerger of the companies under The Companies Act, 1956. ______________________________-__________
____-__________

____-__________
____-__________
____-__________
____-__________

Check Your Progress A

Note: Select the right option

1. Two third majorities in class of creditors or class of members have to approve the resolution for arrangement or compromise.(True/False)
2. Central Government may, by order notified in the Official Gazette, provide for the amalgamation of companies in public interest. (True/False)
3. Default is made in complying with any of the requirements of this section 393, the company, and every officer of the company who is in default, shall be punishable with fine which may extend to one thousand rupees. (True/False)

COMPETITION ACT, 2002

Following provisions of the Competition Act, 2002 deals with mergers of the company:-
(1) Section 5 of the Competition Act, 2002 deals with ¯Combinations‖ which defines combination by reference to assets and turnover
(a) exclusively in India and
(b) in India and outside India.

Combination the acquisition of one or more enterprises by one or more persons or merger or amalgamation of enterprises shall be a combination of such enterprises and persons or enterprises, if—

(a) any acquisition where—
(i) the parties to the acquisition, being the acquirer and the enterprise, whose control, shares, voting rights or assets have been acquired or are being acquired jointly have,—
(A) either, in India, the assets of the value of more than rupees one thousand crore or turnover more than rupees three thousand crore; or

(B) in India or outside India, in aggregate, the assets of the value of more than five hundred million US dollars or turnover of more than fifteen hundred million US dollars; or

(ii) the group, to which the enterprise whose control, shares, assets or voting rights have been acquired or are being acquired, would belong after the acquisition, jointly have or would jointly have,–

(A) either in India, the assets of the value of more than rupees four thousand crore or turnover of more than rupees twelve thousand crore; or

(B) in India or outside India, in aggregate, the assets of the value of more than two billion US dollars or turnover of more than six billion US dollars; or

(b) acquiring of control by a person over an enterprise when such person has already direct or indirect control over another enterprise engaged in production, distribution or trading of a similar or identical or substitutable goods or provision of a similar or identical or substitutable service, if–

(i) the enterprise over which control has been acquired along with the enterprise over which the acquirer already has direct or indirect control jointly have,–

(A) either in India, the assets of the value of more than rupees one thousand crore or turnover of more than rupees three thousand crore; or

(B) in India or outside India, in aggregate, the assets of the value of more than five hundred million US dollars or turnover more than fifteen hundred million US dollars; or

(ii) the group, to which enterprise whose control has been acquired, or is being acquired would belong after the acquisition, jointly have or would jointly have,–

(A) either in India, the assets of the value of more than rupees four thousand crore or turnover of more than rupees twelve thousand crore; or

(B) in India or outside India, in aggregate, the assets of the value of more than two billion US dollars or turnover of more than six billion US dollars; or

(c) any merger or amalgamation in which–

(b) ―Group‖ means two or more enterprises which, directly or indirectly, are in a position to–

(i) exercise twenty-six per cent. or more of the voting rights in the other enterprise; or

(ii) Appoint more than fifty per cent. of the members of the board of directors in the other enterprise; or

(iii) control the management or affairs of the other enterprise;

(c) the value of assets shall be determined by taking the book value of the assets as shown, in the audited books of account of the enterprise, in the financial year immediately preceding the financial year in which the date of proposed merger falls, as reduced by any depreciation, and the value of assets shall include the brand value, value of goodwill, or value of copyright, patent, permitted use, collective mark, registered proprietor, registered trade mark, registered user, homonymous geographical indication, geographical indications, design or layout-design or similar other commercial rights, if any, referred to in sub-section (5) of section 3.

(2) Section 6 of the Competition Act, 2002 states that, no person or enterprise shall enter into a combination which causes or is likely to cause an appreciable adverse effect on competition within the relevant market in India and such a combination shall be void.

All types of intra-group combinations, mergers, demergers, reorganizations and other similar transactions should be specifically exempted from the notification procedure and appropriate clauses should be incorporated in sub-regulation 5(2) of the Regulations. These transactions do not have any competitive impact on the market for assessment under the Competition Act, Section 6.

FOREIGN EXCHANGE MANAGEMENT ACT, 1999

The foreign exchange laws relating to issuance and allotment of shares to foreign entities are contained in The Foreign Exchange Management (Transfer or Issue of Security by a person residing out of India) Regulation, 2000 issued by RBI vide GSR no. 406(E) dated 3rd May, 2000. These regulations provide general guidelines on issuance of shares or securities by an Indian entity to a person residing outside India or recording in its books any transfer of security from or to such person. RBI has issued detailed guidelines on foreign investment in India vide ¯Foreign Direct Investment Scheme‖ contained in Schedule 1 of said regulation.

SEBI TAKEOVER CODE 1994

SEBI Takeover Regulations permit consolidation of shares or voting rights beyond 15% up to 55% provided the acquirer does not acquire more than 5% of shares or voting rights of the target company in any financial year. Regulation 11(1) of the SEBI Takeover Regulations] However, acquisition of shares or voting rights beyond 26% would apparently attract the notification procedure under the Act. It should be clarified that notification to CCI will not be required for consolidation of shares or voting rights permitted under the SEBI Takeover Regulations. Similarly the acquirer who has already acquired control of a company (say a listed company), after adhering to all requirements of SEBI Takeover Regulations and also the Act, should be exempted from the Act for further acquisition of shares or voting rights in the same company.

LEGAL PROCEDURE FOR MERGER

(1) Examination of object clauses:
The Memorandum of association of both the companies should be examined to check the power to amalgamate is available. Further, the object clause of the merging company should permit it to carry on the business of the merged company. If such clauses do not exist, necessary approvals of the share holders, board of directors, and company law board are required.
(2) Intimation to stock exchanges:
The stock exchanges where merging and merged companies are listed should be informed about the merger proposal. From time to time, copies of all notices, resolutions, and orders should be mailed to the concerned stock exchanges.
(3) Approval of the draft merger proposal by the respective boards:
The draft merger proposal should be approved by the respective board of director‘s. The board of each company should pass a resolution authorizing its directors/executives to pursue the matter further.
(4) Application to high courts:
Once the drafts of merger proposal is approved by the respective boards, each company should make an application to the high court of the state where its registered office is situated so that it can convene the meetings of share holders and creditors for passing the merger proposal.
(5) Dispatch of notice to share holders and creditors:
In order to convene the meetings of share holders and creditors, a notice and an explanatory statement of the meeting, as approved by the high court, should be dispatched by each company to its shareholders and creditors so that they get 21 days advance intimation. The notice of the meetings should also be published in two news papers.
(6) Holding of meetings of share holders and creditors:
A meeting of share holders should be held by each company for passing the scheme of mergers at least 75% of shareholders who vote either in person or by proxy must approve the scheme of merger. Same applies to creditors also.
(7) Petition to High Court for confirmation and passing of HC orders:
Once the mergers scheme is passed by the share holders and creditors, the companies involved in the merger should present a petition to the HC for confirming the scheme of merger. A notice about the same has to be published in 2 newspapers.
(8) Filing the order with the registrar:
Certified true copies of the high court order must be filed with the registrar of companies within the time limit specified by the court.
(9) Transfer of assets and liabilities:
After the final orders have been passed by both the HC‘s, all the assets and liabilities of the merged company will have to be transferred to the merging company.
(10) Issue of shares and debentures:

The merging company, after fulfilling the provisions of the law, should issue shares and debentures of the merging company. The new shares and debentures so issued will then be listed on the stock exchange.

DUE DELIGENCE OF MERGER

Due diligence process in merger and acquisitions should focus on following issues

1. Legal issues: These include the checking of documents of asset ownership and associated liabilities; and whether the target company is in compliance with government regulations.
2. Tax and financial issues: These include examining accounting records and reports to determine whether the target companies are in compliance with generally accepted accounting principles and Target Company's compliance with tax laws and regulations should be examined.
3. Marketing issues: This includes strength, weakness of products and services provided by Target Company and their foreign and domestic competition.
4. Cultural and ethical issues: These cover cultural differences between target and acquirer companies and how to tackle these differences.
5. Cross border issues: These include foreign laws and regulations, foreign currency exchange rate risk, investment incentives, foreign banking and credit agencies, accounting principal and local law.

Activity-2

Explain competition act, 2002____
____-
____-
____-
____-
____-

Check Your Progress B

Note: Select Right Option

1. Section 5 of the Competition Act, 2002 states that, no person or enterprise shall enter into a combination which causes or is likely to cause an appreciable adverse effect on competition within the relevant market in India

and such a combination shall be void. (True/False)

2. SEBI Takeover Regulations permit consolidation of shares or voting rights beyond 15% up to 55%, provided the acquirer does not acquire more than 5% of shares or voting rights of the target company in any financial year.(True/False)

3. A meeting of share holders should be held by each company for passing the scheme of mergers at least 75% of shareholders who vote either in person or by proxy must approve the scheme of merger. Same applies to creditors also(True/False)

SUMMARY

Merger demerger or amalgamation is not defined in The Companies Act, 1956. Amalgamation and Demerger are defined in Income Tax Act 1961 under section 2(1B) and 2(19 AA). Section 391 deals with the power to compromise and make arrangement with creditors and members**.** Section 392 discuss about power of High court to enforce compromise and arrangement. Section 393 provide the procedure for sharing information as to compromises and arrangement with creditors or members. Section 394 provides provisions for facilitating reconstruction and amalgamation of companies. Section 395 states the power and duty to acquire shares of shareholders dissenting from scheme or contract approved by majority. Section 396 discuss the power of Central Government to provide for amalgamation of companies in public interest. Section 6 of the Competition Act, 2002 states that, no person or enterprise shall enter into a combination which causes or is likely to cause an appreciable adverse effect on competition within the relevant market in India and such a combination shall be void. The foreign exchange laws relating to issuance and allotment of shares to foreign entities are contained in The Foreign Exchange Management (Transfer or Issue of Security by a person residing out of India) Regulation, 2000 issued by RBI vide GSR no. 406(E) dated 3rd May, 2000. SEBI Takeover Regulations permit consolidation of shares or voting rights beyond 15% up to 55%, provided the acquirer does not acquire more than 5% of shares or voting rights of the target company in any financial year.

GLOSSARY

Amalgamation: Where all the assets and liabilities of amalgamating company are transferred to amalgamated company and ¾ or more shareholders of amalgamating company becomes shareholder of amalgamated company.

Transferee Company: Amalgamated company who takes over assets and liabilities of amalgamating company.

Transferor Company: Amalgamating company

Combination: The acquisition of one or more enterprises by one or more persons or merger or amalgamation of enterprises shall be a combination.

ANSWERS TO CHECK YOUR PROGRESS

A

1. False
2. True
3. False

B

1. False
2. True
3. True

REFERENCES AND SUGGESTED READINGS

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- B Rajesh Kumar: Mergers and Acquisitions Text And Cases, Tata Mcgraw Hill Education, New Delhi.
- Rabi Narayan Kar: Merger, Acquisitions and Corporate Restructuring Strategies and practices, International Book House New Delhi.
- Prasad G Godbole: Mergers Acquisitions and Corporate Restructuring, Vikas Publication New Delhi.

TERMINAL AND MODEL QUESTIONS

1. Discuss the provisions of Companies act with regard to merger and acquisition.

2. What is compromise or arrangement in case of merger? Discuss law relating to Compromise and arrangement.

3. What are provisions of Competition Act 2002 with regard to merger?

4. Explain legal procedure of merger in detail.

5. Discuss due diligence in case of merger and acquisitions.

LESSON – 14

Corporate Restructuring

Structure

Objectives

Introduction

Corporate Restructuring

Corporate Control

Financial Restructuring

Evaluation of Merger

Cost Benefit Analysis Merger

Determining SWAP Ratio of Merger

Summary

Glossary

Answer to Check Your Progress

References & Suggested Readings

Terminal and Model Questions

OBJECTIVES

After reading this lesson, you should be able:

- To understand the Concept of corporate restructuring
- To bring out different forms of corporate restructuring.
- To explain how to evaluate merger and cost benefit analysis of merger
- To understand concept of determination of swap ratio of merger

INTRODUCTION

Business organizations undergo a change on continuous basis. Often, this change is forced on company by external environment such as competition, invent of new technology, emergence of new market, change in taste or habits of consumer, business cycles etc. The well planned organizations foresee this change in advance and change themselves accordingly otherwise change is forced upon the organization. So the efforts that organizations adopt inorganic route for expansion of its operations falls in corporate restructuring.

CORPORATE RESTRUCTURING

As per the Oxford dictionary the meaning of restructuring is ―to give new structure to, rebuild or rearrange‖. The corporate restructuring thus means rearranging the business for the motive of increase in efficiency and profitability.

Corporate restructuring can be defined as any change in business capacity or portfolio that is carried out by an inorganic route or change in capital structure of company that is not in a part of its ordinary course of business or any change in ownership or control of management of company or combination of both. Restructuring can be done through mergers and acquisitions and forming joint venture or having strategic alliances.

Restructuring usually involves major organizational changes such as shift in corporate strategies. Restructuring can be internally in form of new investments in plant and machinery, research and development of products and process, hiving of non core business, divestment, sell off, demerger etc.

Corporate restructuring is a comprehensive process, by which a company can consolidate or expand its business operations for achieving short term and long term objective for the increase in business efficiency. Corporate restricting is restructuring a business or businesses or its financial structure, to increase the efficiency. The corporate restructuring is corporate management strategy of reorganizing a company for the value creation and making it more efficient.

There are many forms of corporate restructuring like merger and acquisition, takeover, financial restructuring and reorganization, divestitures de-merger and spin off, leveraged buyout and management buyout are some of the most common form of corporate restructuring. Mergers acquisition and takeover we had already discussed, rest of the following is discussed below:

Demerger or Divestment: In past the companies were engaged in a lot of diversified activities to become big and increase their profit margin. In doing so, they entered into a lot of unrelated business which in turn resulted into decrease in efficiency and decrease in profit. Thus corporate restructuring in shape of demerger was required. Demerger is a type of restructuring where corporate enterprises dispossess of one or more of its business units or undertaking to any other corporate body, whether existing or newly formed.

There is no definition of the term demerger in companies Act, 1956. However under Companies Act it is presumed to be covered by expression arrangement, in Section 390 and includes reorganizing of share capital of company by consolidation of share of different class to by the division of shares into shares of different classes or by both of methods.

There are various reasons for demerger or divestment viz,

a. To pay attention to the core area of business.
b. The division/ or business unit may not be good contributor to revenues.
c. The size of firm may be too big to handle.
d. The firm may be requiring cash urgently in view of other investment opportunities.

There are different ways of demerger or divestment, which are as follows.

1. **Sell off**: A sell off is where the corporate sells its one of assets, factory, division, product line or subsidiary to third party for purchase consideration payable either in cash or in form of securities. This sale happens because both the parties feel to get benefit out of this. Seller of the units gets immediate cash and can deploy in another more productive investment. Buyer buys the business because of better strategic fit or the acquired business is related to its existing business.
2. **Spin off**: In case of spin off, a part of business is separated by creating a new firm. The existing shareholder of the firm get proportionate shareholding in newly created entity. So there is no change in ownership the same shareholders remains the owner of the newly created entity. The management of the spun off division is however, parted with. The spin- off does not bring cash to the firm. After spin off, shareholders of the firm own shares of two companies rather than one. The reasons of spin off may be:

a. To avoid takeover attempt by predator by making firm unattractive to him since valuable division is spun off.
b. Separate identity to a part/division
c. To create separate regulated or unregulated lines of business

Example: Spin off of Reliance Industries into Reliance Communication, Reliance Infrastructure, Reliance capital, Reliance Industries Petrochemical division, Reliance Capital etc.

3. **Split ups**: This involves breaking up of the firm into a series of spin off (by creating separate legal entities). The parent firm no longer legally exists and only newly created entities exists. This is basically breaking up of company into new entities through series of spin offs. For example a corporate firm has 3 divisions namely X, Y, Z All these 3 division shall be split up to create 3 new entities and original firm is wound up after split up. As new created entities are smaller in size and can be efficiently managed. The shareholder of the parent company will get the shares of newly created entity and shares of parent company cease to exist.
4. **Equity carve out**: This is like spin off however; some shares of new company are sold in market by making a public offer, so this brings cash. In carve out the

existing entity may sell either majority of stake or minority stake, depending upon whether the existing management wants to continue control it or not. A carve out is a strategic venture, a parent company may take when one of subsidiary is growing faster and carrying higher valuation than other business owned by parent. Example: TCS carve out from Tata Sons Limited through an IPO in August 2004.

5. **Sale of division**: In case of sale of division, the seller company is demerging its business whereas buyer company is acquiring business. The broad principles of tax principles relating to demerger are as follows:

- The demerger should be tax neutral and should attract any additional liability to tax.
- Tax benefit should be limited to transfer of business as a going concern and not to transfer specific business asset
- Tax benefit and concession available to any undertaking should be available to the said undertaking on its transfer to the resulting company.
- The accumulated losses and unabsorbed depreciation should be allowed to be carried forward by new company if these are directly relatable to the undertaking proposed to be transferred. Where it is not possible to relate these to the undertaking such losses and depreciation shall be apportioned between the demerged company and resulting company in proportion of assets coming to share of each.
- The Central Government may prescribe certain guidelines or conditions to ensure that demerger are made for genuine business purposes.
- The benefit available for demerger will be extended boards and authorities set up by Central or State Government.
- The transfer of asset will not attract the capital gains tax if the demerged company is an Indian company.
- Depreciation on the assets transferred will be allowed pro-rata, on the basis of the number of days of use.
- The book value of the transferred assets will be deducted from the block for the purpose of depreciation.
- No profit or loss will be recognized on transfer of patent rights or copyrights or telecom licenses.
- Demerger expenses shall be allowed as a deduction equally over five years.
- A new ship acquired by a shipping company from a tax free reserve will be permitted to be transferred without attracting tax.
- Any transfer or issue of shares by the resulting company to the shareholders of the demerged company.
- The deduction for amortization of know-how or preliminary expenses will continue in the hands of the resulting company.

- The resulting company will be liable for tax in respect of recoupment of loss or remission of liability incurred by the demerged company.
- If oil exploration business is acquired, the special deduction for such business will be allowed to the resulting company.
- The actual cost of any transferred capital assets will be same as in the case of demerged company but shall not exceed the written down value in the hands of demerged company.
- Written down value of any block of assets will be the book value in the accounts of the demerged company, but shall not exceed the written down value in the hands of demerged company.
- The holding period of shares acquired on demerger shall include the holding period of shares in demerged company.
- The cost of acquisition of shares in the demerged company will be spread over the shares in the demerged company and the shares in the resulting company, proportionate to the net book value of the assets transferred.

Reverse Merger: In merger and acquisition, an existing company loses its own identity and is dissolved without being wound up and its assets and liabilities are transferred to another existing company. This generally happens when a loss making company or less profit making company merges with the more profitable company to take benefit of economies of scale and economies of scope. In reverse merger opposite happens, a profit making company is merged with financially weak company. This is generally done to take benefit of tax benefits, which becomes attractive in reverse merger. Healthy and profitable company can take advantage of carry forward of loss and accumulated depreciation of loss making company.

In Companies Act, 1956 there is no difference between the merger and reverse merger; it is like any other amalgamation. Where in the reverse merger, one of the companies is a sick company as defined in Sick Industries Companies (Special Provisions) Act, 1985 such a merger should happen with the permission of Board for Industrial and Financial Reconstruction (BIFR).

Check Your Progress A

Note: Select the right option

1. The corporate restructuring is corporate management strategy of reorganizing a company for the value creation and making it more efficient. (True/False)
2. In reverse merger a profit making company is merged with financially weak company. (True/False)

3.,a part of business is separated by creating a new firm.(Spin off, Sell off)

4 ---------------------is like spin off however, some shares of new company are sold in market by making a public offer.(Equity Carve out/Reverse merger)

CORPORATE CONTROL

The following are the few forms of corporate control:

1. **Going Private**: Going private is a situation where in a listed company is converted into a private company by buying all the outstanding shares from the market.
2. **Equity buyback**: Equity buyback is a situation where in a company buys back its own shares from market. This results in reduction the equity capital of the company. This increases the promoters share in the company
3. **Leveraged buyout**: Leveraged buyout means borrowing the funds based on the security of assets and cash flow of target company (before takeover) to acquire that target company. There are four steps in typical or classical buyout, these are:
   a. Incorporation of private/wholly owned company to act as Special Purpose Vehicle (SPV) for taking over Target Company.
   b. Mobilizing the borrowed funds in SPV, based on the security of assets of Target Company (before acquisition).
   c. Acquisition of entire or near entire share capital of Target Company.
   d. Merger of the target company into the SPV. The merger have two effect:
      I) It brings the assets of Target Company and loans taken by SPV into one balance sheet.
      II) It makes the target company go private or company is delisted.

   In India, banks are not lending for acquisition on the basis of assets of Target Company. So domestic leveraged buyout (LBOs) are not practiced in India; however Indian companies have been able to do LBOs for foreign acquisition.

   The first major leveraged buyout by Indian company was of Tetley by Tata Tea in early 2000. In this case, Tata Tea setup special purpose vehicle naming Tata Tea (GB) Limited. This SPV had equity capital of GBP 71 million contributed by Tata Tea Limited (GBP 60 million), Tata Tea Inc. (GBP 10 million) and Tata Sons (GBP 1 million). SPV in turn mobilized GBP 235 million by way of long term debt on the security of the assets and cash flow of Tetley and acquired 100% of Tetley at cost of 271 million GBP, and made it private.

Tata steel took over Corus by taking loan of $7 billion, more than twice of its net worth. For Corus deal Tata steel used chain of SPVs- Tata Steel Asia Pte was setup as wholly owned Singapore based subsidiary of Tata Steel Limited, and Tata Steel UK limited was set up as wholly owned subsidiary of Tata Steel Asia Pte. Corus acquisition made Tata Steel world‘s fifth largest steel producer.

There are many reasons for Indian companies going for Leverage buy outs. Reserve Bank of India prohibits domestic companies from leveraging more than three times of their net worth for acquisition. Hence the companies had to take debt on its own balance sheets. The current size and market capitilisation of Indian companies are too small in relation to their target that share swap may reduce the equity share of Indian promoters.

Management Buyout: When the professional management or non promoter management of the company does a leveraged buyout from its promoter, then it‘s called management buyout. This happens due to owner or promoter losing interest in business or due to accumulating losses. Takeover of Escorts Auto components Ltd by its CEO (Bharat Caprihan) and six other CEO in 2004 was first such reported MBO. Usually there is some banker or lender who lends money for such buyout.

Buyouts are one of most common form of privatization, offering opportunities for enhancing the performance of public sector. In recession buyout can play a big role in restructuring of failed or failing business and in an environment of generally weakened corporate performance often represents the only viable purchaser when parent wish to dispose of subsidiaries.

Buy out generally happens when the seller loses interest in running the business there can several other reasons also for selling business:

- Increase in competition
- No access to new technologies
- Low Demand of product or poor supply of raw material
- Strong market entry barriers
- No efficient utilization of distribution capacities.
- New attractive opportunity to invest
- Lack of capital for business
- Focus on core competence

Activity-1

Explain the term leveraged buyout__________ ___ ________ ___ ____

FINANCIAL RESTRUCTURING

Financial restructuring refers to a kind of internal changes made by management in assets side and liabilities side of company balance sheet with the consent of majority of stakeholder of company. This course of action is adopted by the companies the corporate entities who have suffered huge amount of losses over a period of time. Due to losses incurred over a period of time the share capital or net worth of such companies gets eroded. In some cases the accumulated losses are even more than the share capital resulting in negative net worth, which can result into liquidation of the firm, financial restructuring is used to bring into good health to such companies which have better future prospectus in coming years. In financial restructuring exercise firms need to restart with a fresh balance sheet free from losses and fictitious assets and show share capital at its true worth.

Financial restructuring exercise involve a number of legal formalities like consent of court, consent of stakeholders viz, creditors lenders and shareholder etc. In financial restructuring exercise most of sacrifice is made by equity shareholder by foregoing certain accrued benefits, followed by preference shareholders and debenture holders, lenders and creditors. The foregone benefit in case of creditor, debenture holders can be in terms of waiving of the claim. Some time creditor apart from waiving of part of principal or interest may also agree to convert their dues into securities. Generally, in financial restructuring lower denomination share value are issued or number of shares are reduced for existing shareholder. The financial restructuring leads to significant change in financial obligation and capital structure of firm, which results into better performance of firm in future.

The financial restructuring motive is to reduce the debt/payment burden of the firm, which results into

- Reduction/waiver of claim from various stakeholder;
- Revaluation of various properties/ assets
- Utilizing profit accruing from revaluation of assets to write off accumulated losses and fictitious assets and creating provision for bad and doubtful debts.

EVALUATION OF MERGER

We had already discussed valuation method for firms and corporate in Chapter 9 & 10 in detail. The tools for evaluation of the target company can be classified according to following types:

a. **Asset based valuation**: The asset based valuation method considers either book value based valuation or revaluated value of net assets. If the company has some intangible assets like brands, copyrights, etc. these are valued independently and added to net assets value to arrive at the business value of the firm. Few times when business is not to be acquired on going concern basis then liquidation value of the assets will be treated as value of the firm.
b. **Market based valuation**: Market valuation approach is based on the principle that market value of equity and debt represents the true value of the firm. If the company is not a listed company then the valuation is done of similar type company and according to the value of another similar company value of target company is decided. It is difficult to find similar type of company, there is difference in companies due to size, growth prospectus etc. It is also difficult to adjust the value of the similar company or firm to arrive at valuation of Target Company or firm.
c. **Dividend based valuation**: The valuation is based on the principle that the stock price of company is dependent on the dividend paid or distributed by company. Capitalization of dividend distributed is done to arrive at value of firm. Dividends are paid out of the profits of the company alternative to the payment of dividend is retained earnings. The company can retain the earning for investing that money in some viable project to increase future earning for shareholders. Valuation cannot be properly calculated if the company retain more and distribute less to shareholder.
d. **Earning based valuation**: The earning or cash flow based valuation methods takes into account the future earning capacity of the firm. So the appropriate value depends upon projected revenues and cost for future, expected cash inflow and outflow, number of year of projected, discounted rate and terminal value of the firm.

COST BENEFIT ANALYSIS OF MERGER

While acquisition of the firm, the price paid for buying the firm will be capital expenditure and return received in future from form will be the return on capital employed in the acquisition. So it is the duty of corporate strategist and company board to see that benefits of the merger exceeds the cost of merger. The benefit of the merger can be defined as difference between

a. The total present value of merged firm and
b. The sum of their values if they do not merge

So this can be described as follows:

Benefit= Vab-(Va+Vb)

Vab= Value of new company comprising both a and b or value of combined entity

Va= Value of company a

Vb=Value of company b

It is assumed that synergy does exist in the merger and acquisition, hence, the value of combined entity would be greater than the sum total of two or more individual entities that are going to merge. It is perceived that the combined firm will be more profitable than individual firm and will grow at much faster rate after the merger.

The merger of the target company with the acquiring company may be viewed as a capital budgeting decision. The acquiring company should take over the target company only if the Net present value of such merger is positive or merger benefits of such takeover are more than merger cost.

Benefit= Vab-(Va+Vb)

Vab= Value of new company comprising both a and b or value of combined entity

Va= Value of company a

Vb=Value of company b

Cost= MP- Vb

MP= Merger price paid

In capital budgeting perspective,

NPV=Benefit-Costs

NPV=[Vab-(Va+Vb)]-[MP- Vb]

NPV= Vab- Va- MP

The above analysis ignores the following two issues;

- The issue of combined cash/stock/debt offers
- The issue of asymmetric information

DETERMINING SWAP RATIO OF MERGER

Swap ratio is an exchange ratio used in case of mergers and acquisitions. It is the ratio in which the acquiring company offers its own shares in exchange for the target company's shares. To calculate the swap ratio, companies analyze financial ratios such as book value, earnings per share, profits after tax as well as other factors, such as size of company, long-term debts, and strategic reasons for the merger or acquisition and so on.

For example, if company A is acquiring company B and offers a swap ratio of 1:4 it will issue one share of its own company (company A) for every 4 shares of the company B being acquired. In other words, if company B has 8 crore outstanding equity shares and 100% of it is being acquired by company A, and then company A will issue 2 crore new equity shares of company A to the shareholders of company B, proportionately.

Calculation of swap ratio: Whenever a firm ‗X‘ acquires another firm ‗Y‘, the compensation to the shareholders of the Y(acquired firm) is usually paid in the form of shares of the X (acquiring firm). In other words, shares of firm X will be given in exchange for shares of firm Y. Thus, the exchange ratio is a very important factor in any kind of merger. Firm X will want to keep this ratio as low as possible, while firm Y will want it to be as high as possible. In any case, both firms would ensure that post merger, their equivalent price per share will at least equal their pre-merger price per share. Given below is the model developed by Conn and Nielson for determining the exchange ratio. The symbols used in this model are: -

ER = Exchange ratio
P = Price per share
EPS = Earning per share
PE = Price earning multiple
E = Earnings
S = Number of outstanding equity shares
AER = Actual exchange ratio

In addition, the acquiring, acquired and combined firms will be referred to by subscripts X, Y and XY respectively.

Firm X would ensure that the wealth of its shareholders is preserved. This implies that the price per share of the combined firm is at least equal to the price per share of firm X before merger:

$P_{XY} >= P_X$

For the sake of simplicity consider that $P_{XY} = P_X$

Price earnings ratio of the combined firm x Earnings per share of the combined firm gives the Market Price per share.

$P_{XY} = PE_{XY} \times EPS_{XY} = P_X$ --------------- (1)

Earnings per share of the combined firm can be expressed as:

$EPS_{XY} = (E_X + E_Y) / [S_X + S_Y (ER_X)]$----------(2)

ER_X = number of shares of firmX given in lieu of one share of firm Y.

Substituting formula of EPS_{XY} in equation 1 we get –

$P_X = PE_{XY} (E_X + E_Y)/[S_X + S_Y (ER)]$

From the above equation, we may solve for the value of ER_A as follows –

$ER_X = (S_X / S_Y) + [(E_X + E_Y) PE_{XY}] / P_X S_Y$

After discussing the maximum exchange ratio acceptable to the shareholders of firm A above, we will now calculate the minimum exchange ratio acceptable to the firm B(ER_B)

The basic condition is –

$P_{XY} (ER_Y) >= P_Y$ ---------------- (3)

Using the equality form of above equation and substituting P_{AB} from equation 1 in equation 3 we get

$PE_{XY} \times EPS_{XY} \times ER_Y = P_Y$

Substituting the value of EPS_{XY} from equation 2 in the above equation, and solving the equation for ER_Y we get –

$ER_Y = P_Y S_X / [(PE_{XY})(E_X + E_Y) - P_X S_Y]$

Activity-2

Determining swap ratio of merger______________ _________ _____ ___________-

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Check Your Progress B

Note Select the Right Option.

1. means borrowing the funds based on the security of assets and cash flow of target company (before takeover) to acquire that target company. (Leveraged buyout/ Management buyout)
2. approach is based on the principle that market value of equity and debt represents the true value of the firm. (Asset based Valuation/Market based Valuation)
3. valuation method takes into account the future earning capacity of the firm.(Dividend based/ Earning based)

SUMMARY

Corporate restructuring can be defined as any change in business capacity or portfolio that is carried out by an inorganic route or change in capital structure of company that is not in a part of its ordinary course of business or any change in ownership or control of management of company or combination of both. There are many forms of corporate restructuring like merger and acquisition, takeover, financial restructuring and reorganization, divestitures de-merger and spin off, leveraged buyout and management buyout are some of the most common form of corporate restructuring. Demerger is a type of restructuring where corporate enterprises dispossess of one or more of its business units or undertaking to any other corporate body, whether existing or newly formed. There are different ways of demerger like sell off, spin off, split up, equity carve out and sale of division. A sell off is where the corporate sells its one of assets, factory, division, product line or subsidiary to third party for purchase consideration payable either in cash or in form of securities. In case of spin off, a part of business is separated by creating a new firm. The existing shareholder of the firm get proportionate shareholding in newly created entity. Split up involves breaking up of the firm into a series of spin off (by creating separate legal entities). The parent firm no longer legally exists and only newly created entities exists. Equity carve out is like spin off however, some shares of new company are sold in market by making a public offer, so this brings cash. In case of sale of division, the seller company is demerging its business whereas buyer company is acquiring business. In reverse merger a profit making company is merged with financially weak company. This is generally done to take benefit of tax benefits, which becomes attractive in reverse merger. Healthy and profitable company can take advantage of carry forward of loss and accumulated depreciation of loss making company. Corporate can be classified into going private, equity buy back, and leveraged buyout and managed buyout. Going private is a situation where in a listed company is converted into a private company by buying all the outstanding shares from the market. Equity buy back is a situation where in a company buys back its own shares from market. This results in reduction the equity capital of the company. Leveraged buyout means borrowing the funds based on the security of assets and cash flow of target company (before takeover) to acquire that target company. When the professional management or non promoter management of the company does a leveraged buyout from its promoter, then it‘s called management buyout. This happens due to owner or promoter losing interest in business or due to accumulating losses. Financial restructuring refers to a kind of internal changes made by management in assets side and liabilities side of company balance sheet with the consent of majority of stakeholder of company. The asset based valuation method considers either book value based valuation or revaluated value of net assets. Market valuation approach is based on the principle that market value of equity and debt represents the true value of the firm. Dividend based valuation is based on the principle that the stock price of company is dependent on the dividend paid or distributed by company. The earning or cash flow based valuation methods takes into account the future earning capacity of the firm. It is the duty of corporate strategist and company board to see that benefits of the merger exceeds the cost of merger. Swap ratio is an exchange ratio used in case of mergers and acquisitions. It is the ratio in which the acquiring company offers its own shares in exchange for the target company's shares. To calculate the swap ratio, companies analyze financial ratios such as book value, earnings per share, profits after tax as well as other factors, such as size of company, long-term debts, and strategic reasons for the merger or acquisition and so on.

Keywords:

Corporate restructuring: Any change in a company's capital structure, operations, or ownership that is outside its ordinary course of business.

Spin-off: A form of divestiture resulting in a subsidiary or division becoming an independent company. Ordinarily, shares in the new company are distributed to the parent company's shareholders on a pro rata basis.

Leveraged buyout (LBO): A primarily debt-financed purchase of all the stock or assets of a company, subsidiary, or division by an investor group.

Management buyout (MBO): A leveraged buyout in which pre-buyout management ends up with a substantial equity position.

Divestiture: The divestment of a portion of the enterprise or the firm as a whole.

ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress A

1. True
2. True
3. Spin Off
4. Equity carve out

Check Your Progress B

1. Leveraged buy out
2. Market based valuation
3. Earning based

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TERMINAL QUESTIONS

1. What do you mean by corporate restructuring? Discuss various forms of corporate restructurings.

2. Write a note on

   Leverage buyout

   Management buyout

3. What are the various forms of corporate control?

4. Discuss various methods of evaluation of merger and cost benefit analysis of merger.

LESSON – 15

Distress Restructuring

Structure

15.1 OBJECTIVES

After reading this lesson, you should be able:

- To understand the reasons for financial distress
- To bring out different types of financial restructuring to handle distress
- To explain the provisions under SICR for restructuring of sick units
- To understand concept reduction of share capital.

15.2 INTRODUCTION

Financial distress is a situation when a firm is not able to meet up its liabilities on time. Financial distress is a situation where a firm's operating cash flows are not sufficient to satisfy current obligations, and the firm is forced to take corrective action. The creditors of the firm lose faith in debt paying capabilities of the firm. Financial distress is condition where a company cannot meet nor has difficulty paying off its financial obligations to its creditors. Financial distress situation is faced by the firms when there is huge gap between the expected inflow of cash and expected outflow of the cash. For example the firm A is expecting cash inflow of 100 lacs in next three months and have cash obligation of the 500 lacs, this will be situation of financial distress. Financial distress occurs when promises to creditors are broken or honored with difficulty. Sometimes financial distress leads to bankruptcy.

Financial distress can be somehow linked to bankruptcy or insolvency. Insolvency happened when individual is not meeting up the obligations to creditors and value of the assets is less than the value of debts. So the insolvency can be of two types flow based or asset based, flow based insolvency occurs when operation cash flow is not sufficient to meet up the current obligations, value based insolvency occurs when the firm had negative net worth or assets are less then outside liabilities.

REASONS OF FINANCIAL DISTRESS

: There can be several reasons for financial distress; few of the reason are below

1. High cost of borrowing
2. Less revenue
3. Risky projects
4. High expenses
5. inefficient management

RESTRUCTURING IN FINANCIAL DISTRESS

One of the ways the distressed company can be saved from the bankruptcy is corporate restructuring. The aim of the corporate restructuring is to rehabilitate the financially distressed company. This rehabilitation can be in by adding more cash to firm or by way of lowering interest burden for the firm. :

Reasons for restructuring: Why the companies want to restructure in distress is the important question which we can relate to reasons of distress. The reasons can be as follows:

a. Overleveraged of firm
b. Underleveraged of firm
c. Sluggish Sale/ seasonal sale
d. Firm faces externalities

Overleveraged Firm: The problem of overleveraged firm occurs when a firm has over borrowed debt from market on consistent basis, as a firm has higher debt equity ratio. Using debt to run a firm is common practice; however, sometimes there is over-reliance on debt. The over dependence on debt can hurt the bottom line of the company. Dependence on debt increase the interest cost and reduces the profitability margin. Taking debt is also beneficial as interest is deductible expense and tax burden of the firm is reduced.

Overleveraging is acceptable in cases where a firm is undertaking expansion projects like buying new Plant and Machinery, investing in new ventures, investing in new technologies which have high probability of higher expected returns, profits and return on investment. This overleveraging is beneficial for firm when expected return on investment is higher than the cost of borrowings. But when the expected return is below the borrowing cost this reduces the profit margin for the firm or in other case actual return falls below the expected return from the new venture, the bottom-line of the firm gets a big hit. If the firm is overleveraged then it will not be able to borrow more. The cost of borrowing will be higher as risk is more with high leveraged firm. When the firm over borrows or actual returns falls considerably than expected returns the management have do the financial restructuring.

Financial restructuring is the process of reshuffling or reorganizing the financial structure, which primarily comprises of equity capital and debt capital. Financial restructuring can be done because of either compulsion or as part of the financial strategy of the company. Financial restructuring is the reorganization of the financial assets and liabilities of a corporation in order to create the most beneficial financial environment for the company. The process of financial restructuring is often associated with corporate restructuring, in that restructuring the general function and composition of the company is likely to impact the financial health of the corporation

Financial restructuring in over leveraged firm can be done in following ways:

i. **Issuing New Securities**: Raising of the fresh capital will generate fresh capital for the firm, with that timely interest payment can be given to the debt holders and insolvency can be postponed. Efficient management of fresh funds will generate more cash and will pull the firm out of financial distress situation.
ii. **Selling Unprofitable Assets**: Selling the unprofitable assets will generate cash for payment of interest and investing the surplus cash in the profitable project will pull the firm out of distress. For example the Firm A is having a land worth 100 lacs book value is 10 lacs so selling of this land which is not in use will generate more cash to firm in distress.
iii. **Rent out Equipment to Pay off Debt**: If the firm had plant and equipment which is underutilized then it can be rent out to generate more cash which in turn will help in paying off the debt.
iv. **Restructure Debt**: Debt restructuring is the process of reorganizing the whole debt capital of the company. It involves reshuffling of the balance sheet items as it contains the debt obligations of the company. A company‘s financial manager needs to always look at the options to minimize the cost of capital and improving the efficiency of the company as a whole which will in turn call for the continuous review of the debt part and recycling it to maximize efficiency.

1. Restructuring of secured long-term borrowings can be done for reducing the cost of capital for healthy companies, for improving liquidity and increasing the cash flows for a sick company.

2. Restructuring of the long-term unsecured borrowings will be done depending on the type of borrowing. These borrowings can be public deposits, private loans (unsecured) and privately placed, unsecured bonds or debentures

3. Restructuring of the long-term unsecured borrowings will be done depending on the type of borrowing. These borrowings can be public deposits, private loans (unsecured) and privately placed, unsecured bonds or debentures

4. Restructuring of secured working capital borrowings can be done by restructuring Credit limits from commercial banks, demand loans, overdraft facilities, bill discounting and commercial paper fall under the working capital borrowings. All these are secured by the charge on inventory and book debts and also on the charge on other assets. The restructuring of the secured working capital borrowings is almost all the same as in case of term loans.

5. Short term borrowings are very short in nature and are generally not restructured. These can indeed be renegotiated with new terms. These types of short-term borrowings include inter-corporate deposits, clean bills and clean over drafts

6 Debt to equity Swaps: Exchanging debt obligation to the equity is another solution for bringing the firm out of financial distress. Banker and creditors are allotted share of the company, they become shareholder and get several rights to manage the business. Reduction in fixed interest cost generates more amounts of cash for the firms. creditor also favor this as they can get the equity shares with increase in cash flow due to reduction in interest cost, the profitability of the firm increase, which result into increase in value of share.

Under Leveraged Firms: The problem of underleverage arises when a firm has raised majority of its capital through stocks, which results in very low debt equity ratio. With overdepence on equity the firms has to improve its performance to keep its shareholder happy by paying good dividend or giving good appreciation in stock price. High payment of dividends reduces the working capital for the company. Reduction in working capital results into lossing some of profitable projects.

The financial restructuring of underleveraged firm can be done in following ways:

i. **Buying Back of Shares**: When company is holding excess cash which is not required in medium term it is prudent for the company to return that excess cash to its shareholder. So the company buys the shares from shareholders.

Mostly happens in recession. Mostly this is done to increase the promoter holding in company. Provisions are provided in section 77a, 77AA, 77B. Buyback of the shares is also done to improve the debt equity ratio.

ii. **Borrowing Funds**: The borrowing funds and investing in profitable activity will increase the bottom line of the firm. This will also increase the debt equity ratio of the firm.

iii. **Selling Unprofitable Assets to Buyback**: Selling the unprofitable assets will generate cash for payment buyback of shares which will improve the debt equity ratio of firm.

Firms with Sluggish Sales: Sluggish sales can cause financial distress, as they affect a company‘s cash flow. The sluggish sales can be due to the business line where firm is operating. Generally firms face sluggish sales when economy is slow or when there is competition from big firms. The sluggish sale results into decrease in working capital increase in expenses and decrease in revenue. Decrease in working capital results in cash deficit. One of the area‘s most affected in sluggish sale is piling of stock in trade due to less demand. Another area which is affected is non collection from debtor; debtor collection period keeps on increasing in sluggish sale, which results into cash deficit. Cash deficit problem forces the management to look for alternatives for raising cash.

The financial restructuring in cash of sluggish sale can be done in following ways:

i. Borrowing funds to cover working capital gap: In sluggish sale working capital is reduced due to various reason borrowing for short term can improve in covering working capital gap.

ii. Hedging for foreign trading business: If the firm is engaged in business of import or export and its sales sluggishness is dependent on currency rate fluctuations then firm can hedge the currency rate risk.

iii. Development of selling techniques: The Efforts in sluggish sale environment can be done to develop new techniques to increase sales, like offering discount, cash sales at cheaper rates, extending the credit to the customers having good track record etc.

iv. Diversification: Diversification of business is another tool that can be used against sluggishness in sales. The firm can enter into any other product line.

Firm with Seasonal Sales: Seasonal sale are attributive to firms in several industries like farming, construction, hosiery, ice-cream, business dependent on holidays etc. Now the question arises how to tackle problem of seasonal sales, more or less same techniques can be used to handle seasonal sales. The firms with the seasonal sales need to engage into other lines of businesses, to diversify and reduce risk, as well as to have an additional source of cash. Seasonal pattern in sales affects company profits, and thereafter, causes cash flow deficit. Cash flow deficits causes working capital gap.

The financial restructuring can be done in seasonal sale as follows:

i. Borrowing funds for working capital

ii. Diversification
iii. Hedging techniques

Firm with Externalities: The firm can face externalities such as:

- Changes in currency exchange rate
- Change in global interest rate
- Fluctuation in prices for imported raw materials

All the above can increase the price of the product, increase in prices results into decrease in sale. Decrease in sales leads to decrease in cash flow and piling up of stocks.

Techniques to overcome externalities depend upon situation to situation like for currency risk hedging can be used.

Activity-1

Explain reasons of financial distress________ ____________________________________
_____________-__________________-__________________-__________________-____
_____________-__________________-__________________-__________________-____
_____________-__________________-__________________-______________________
_____________-__________________-__________________-__________________-_____
_____________-__------_____________-__------_____________-__------____________---

Check Your Progress A

Note Select the Right option

1.Which is not the reason for financial distress?

a. High cost of borrowing

b. Less revenue

c. Risky projects

d. Low expenses

1. overleveraged firm has-------------debt equity ratio

a. Lower

b. Higher

2. Which is not the distress management method for over leveraged firm?

    a. Restructure Debt

    b. Buying back of shares

    c. Issuing New Securities

    d. Selling Unprofitable Assets

3. Which of the following is not used in distress management of under leveraged firm?

    a. Buying Back of Shares

    b. Borrowing Funds

    c. Restructure Debt

4. Which technique is not used to managed distress in seasonal industry

    a. Borrowing funds for working capital

    b. Diversification

    c. Hedging

    d. Raising equity capital

RESTRUCTURING OF SICK COMPANIES

We discussed about restructuring the companies in distress, but Government had taken special step to revive the potentially weak and sick companies. Based on the recommendation of a Committee of Experts under the Chairmanship of Shri T.Tiwari, the Government enacted a special legislation named as the Sick Industrial Companies (Special Provisions) Act, 1985 commonly known as SICA. The Board of Industrial and Financial Reconstruction (BIFR) and the Appellate Authority for Industrial and Financial Reconstruction (AAIFR) were also established in 1987 to look after the matters covered under the purview of SICA. SICA was further amended in 1991 to bring government companies under its purview and again in 1993 certain changes were brought out in the act for the determination of industrial sickness.

DEFINITION OF SICKNESS

The sick industrial companies (Special provisions) Act, 1985, as amended in 1993 defines sick industrial company as an industrial company (being a company registered for not less than five years) which has at the end of any financial year accumulated losses equal to or exceeding its entire net worth.

Section 3 (1) (ga) of the amendment act, 1993 defines ‗Net worth' as the sum of the paid-up capital and free reserves, while the term ‗free reserves' means all reserves credited out of the profits and share premium account, but does not include reserve out of re-valuation of assets, write back of depreciation provisions and reserves created out of amalgamations.

Government companies having State or Central Government share holdings of 51% or more are kept outside the purview of the Act. Also small scale industrial units and Ancillary units are kept outside the purview of the Act.

BOARD OF INDUSTRIAL AND FINANCIAL RECONSTRUCTION (BIFR)

Board of industrial and Financial Reconstruction (BIFR) was established by the Central Government, under section 3 of the Sick Industrial Companies (Special provisions) Act, 1985 and it became fully operational in May, 1987. BIFR deals with issues like revival and rehabilitation on sick companies, winding up of sick companies, institutional finance to sick companies, amalgamation of companies etc. BIFR is a quasi judicial body.

The role of BIFR as envisaged in the SICA (Sick Industrial Companies Act) is:

(a) Securing the timely detection of sick and potentially sick companies

(b) Speedy determination by a group of experts of the various measures to be taken in respect of the sick company

(c) Expeditious enforcement of such measures

BIFR has a chairman and may have a maximum of 14 members, drawn from various fields including banking, labour, accountancy, economics etc. It functions like a court and has constituted four benches.

Reporting to the BIFR

The Board of Directors of a sick industrial company is required, by law, to report the sickness to the BIFR within 60 days of finalisation of audited accounts, for the financial year at the end of which the company has become sick. BIFR has prescribed a format for this report. While reporting by a company of its sickness to the BIFR is mandatory as per the provisions of law, any other interested person/party can also report the fact of sickness of a company to the BIFR. Such interested parties may be the financial institution/bank that has lent loan to the company, the RBI, the Central/State Governments. The BIFR has prescribed a different format for the report to be submitted by such interested parties. When a company has been financed by a consortium of banks, it is the Lead Bank that should report to the BIFR about the sickness under advice to other participating banks in the consortium.

Enquiry by the BIFR

When a case is referred to the BIFR, it is verified by the Registrar of the BIFR as to whether the facts of the case fall within the provisions of the Sick Industrial (Special provisions) Act, 1985. If so, the BIFR accepts the case and notifies a date for hearing the case. For rehabilitating a sick unit, cooperation of various connected agencies is a must. This co-ordination is achieved by the BIFR. The BIFR invites the representatives of the informant sick company, the representatives of concerned institutions and commercial banks, representatives of the Central/State Governments, trade Union representatives etc., to the hearing and inquiry is made under section 16 of the Act. After the hearing, the BIFR itself may conduct a study or entrust the work to an ‗operating agency' appointed by it to determine whether the company is in fact sick. Normally, the lead financial institution (IDBI, ICICI, IFCI, SFC) or the lead public sector bank that has financed the company is nominated as the operating agency. Lead institution is one that has major financial stake in the sick company. The enquiry is to be completed within 60 days. On completion of the enquiry, the BIFR will declare whether the company is sick or not.

Revival Package

Once a company has been found sick, the BIFR may grant time to the sick company to enable it to make its networth positive and bring the company out of sickness, without any external financial assistance. If it is found infeasible for company to make its networth positive without any external financial assistance, or if the BIFR decides that the company cannot make its networth positive within a reasonable time, the BIFR will direct the operating agency to prepare a suitable revival package for the restoration of the health of the company.

The operating agency prepares a suitable revival package. The revival package may vary from case to case depending on the nature of the problem and may include additional financial assistance, postponement of recovery of loan already lent by banks and financial institutions, change in management, amalgamation, and sale of redundant assets, lease of assets or any other suitable measure. The revival package should be submitted to the BIFR within a time limit of 90 days or such extended period as may be granted by the BIFR.

On submission of the revival package by the operating agency, the BIFR sends the revival package in a draft form to all the interested parties (*i.e.*, the sick industrial company, the banks/financial institutions who have given financial assistance to the sick company, the operating agency, the transferee company (if there is a recommendation in the revival package for amalgamation) etc., eliciting their views/suggestions on the revival package. The BIFR will also publish particulars of the draft revival package in newspapers inviting suggestions/objections, if any, from the shareholders of The sick company, creditors and employees of the sick company, Transferee Company and any other interested party. On receipt of views/suggestions/objections on the draft revival scheme, the BIFR may, if deemed fit; afford an opportunity to the interested parties to be heard. After careful examination of all the aspects, the BIFR will sanction the revival scheme with or without any modifications. The scheme, as sanctioned, will come into force from the specified date and all the concerned parties are required to abide by the provisions of the revival scheme. The BIFR may also order the operating agency to implement the sanctioned revival scheme.

When the revival package as finalized by the BIFR contains further financial assistance or reliefs, concessions, sacrifices etc. (for example, sanctioning of additional financial assistance for the purchase of certain balancing equipments, waiving of penal interest/compound interest charged, waiving of interest in part or full, waiver from sales tax etc.) the scheme will be circulated to the concerned agencies for their consent to be received within a period of 60 days. Once the various agencies involved in the revival scheme give their consent to the scheme, it will become binding on the consenting parties to implement the recommendations contained in the revival scheme. However, when any of the involved agency does not give its consent to the scheme, the BIFR has no powers to force the agency to accord its consent. If in the opinion of the BIFR, the revival package cannot be successful without the consent from one or more of the agencies involved, the BIFR has no other option but to recommend for winding up of the company. In fact, the threat of actual winding up of the company is the only weapon in the hands of the BIFR to make the various agencies to extend suitable reliefs and concessions as may be deemed necessary by the BIFR. BIFR itself cannot initiate the winding up proceedings. It can only forward its opinion to the concerned High Court and the High Court will initiate the winding up proceedings.

SLUMP SALE

The term slump sale is used when an undertaking or a business is sold without attributing separate values to each of the assets which are sold. In other terms, if there is a sale of an undertaking or a business for a lump sum price it is considered to be a slump sale. ―slump sale‖ its defined under the section 2(42C) of Income Tax Act, 1961 - it says ―slump sale‖ means the transfer of one or more business undertakings as a result of the sale for a lump-sum consideration without assigning values to individual assets and liabilities in sale.

The law expressly provides that ―undertaking‖ shall have the meaning assigned to it in explanation 1 to clause (19AA) specifically clarify that for the purposes of this clause, ―undertaking‖ shall include any part of an undertaking, or a unit or division of an undertaking or a business activity taken as a whole, but does not include individual assets or liabilities or any combination thereof not constituting a business activity
.

Under Sec.293(1) (a) Companies Act, 1956 (CA) defines that sell, lease or otherwise dispose of the whole, or substantially the whole, of the undertaking of the Company or where the company owns more than one undertaking, of the whole, or substantially the whole, of any such undertaking. The seller company can undertake a slump sale after obtaining its share holder approval under Sec. 293(1) (a) of CA. Approval requires simple majority of votes even for the entire undertaking of the company. A slump sale of an undertaking can be affected with the shareholders approval. It should be ensured that the Memorandum and Articles of Association of the transferor company contain enabling provisions to affect such a sale. The main elements of a slump sale are therefore

(a) sale of an undertaking;

(b) lump sum consideration;

and

(c) no separate values are assigned to individual assets and liabilities.

Activity-2

What is slump sale ____________------____________------____________
____________-____________-____________-____________-____
____________-____________-____________-____

REDUCTION OF SHARE CAPITAL

A company may reduce share capital in following manner –
(a) extinguish or reduce the liability on any of its shares in respect of the share capital not paid – up; or
(b) either with or without extinguishing or reducing liability on any of its shares –

1. cancel any paid – up share capital which is lost or is unrepresented by available assets; or
2. Pay off any paid – up share capital which is in excess of the wants of the company.

Company applying for reduction may either be a company limited by share or a company limited by guarantee but having a share capital. Reduction of capital must be approved by special resolution passed by the company. Reduction of capital of a company results in alteration of its memorandum by reducing the amount of share capital and of its shares accordingly. No reduction of capital shall be made if the company is in arrears in the repayment of any deposits accepted by it or the interest payable thereon. The Tribunal shall give notice of every application made to for reduction of capital to the Central Government, Registrar and to the Securities and Exchange Board, in the case of listed companies, and the creditors of the company and shall take into consideration the representations, if any, made to it by that Government, Registrar, the Securities and Exchange Board and the creditors within a period of three months from the date of receipt of the notice. Where no representation has been received from the Central Government, Registrar, the Securities and Exchange Board or the creditors within the period of these three months, it shall be presumed that they have no objection to the reduction. In respect of any debt of claim of every creditor should have been discharged or determined or secured by the company. Otherwise, the company should obtained consent of creditors for reduction of capital. The tribunal may make an order confirming the reduction of share capital only after it is satisfied that the debt or claim of every creditor of the company has been discharged or determined or has been secured or his consent is obtained. The order of the tribunal may contain such terms and conditions as it may deem fit. The order of confirmation of the reduction of share capital by the Tribunal shall be published by the company in the manner directed by the Tribunal. The company shall delivered a certified copy of the order of the Tribunal before the Registrar within thirty days of receipt of the copy of the order along with a minute approved by the Tribunal showing –
(a) The amount of share capital;
(b) The number of shares into which it is to be divided;
(c) The amount of each share

Check Your Progress B

Note: select the Right Option

1. Which is the role of BIFR specified by SICA
    a. Securing the timely detection of sick and potentially sick companies
    b. Speedy determination by a group of experts of the various measures to be taken in respect of the sick company
    c. Expeditious enforcement of such measures
    d. All of above
2. The main elements of slump sale is
    a sale of an undertaking;
    b lump sum consideration;
    c no separate values are assigned to individual assets and liabilities.
    d All of the above
3. Reduction of capital must be approved by--------------resolution passed by the company.
    a. Special
    b. Ordinary

SUMMARY

Financial distress is a situation where a firm's operating cash flows are not sufficient to satisfy current obligations, and the firm is forced to take corrective action. Financial distress can be caused high cost of borrowing due to less revenue, risky projects, high expenses and inefficient management. The problem of distress in overleveraged firm occurs when a firm has over borrowed debt from market on consistent basis, as a firm has higher debt equity ratio. Using debt to run a firm is common practice; however, sometimes there is over-reliance on debt. Issuing new securities, selling unprofitable Assets, rent out Equipment to pay off debt and restructuring Debt can be done to overcome distress in overleveraged firms. The problem of underleverage arises when a firm has raised majority of its capital through stocks, which results in very low debt equity ratio. With overdepence on equity the firms has to improve its performance to keep its shareholder happy by paying good dividend or giving good appreciation in stock price. High payment of dividends reduces the working capital for the company.The problem of distress in underleveraged firm can be solved by buying back of shares, borrowing funds and selling unprofitable assets to buyback. Sluggish sales can cause financial distress, as they affect a company's cash flow. In sluggish sale working capital is reduced due to various reason borrowing for short term can improve in covering working capital gap. Diversification of business and development of selling techniques are another tools that can be used against sluggishness in sales. Government enacted a special legislation named as the Sick Industrial Companies (Special Provisions) Act, 1985 commonly known as SICA. The Board of Industrial and Financial Reconstruction (BIFR) and the Appellate Authority for Industrial and Financial Reconstruction (AAIFR) were also established in 1987 to look after the matters covered under the purview of SICA. Sick industrial company can be defined as an industrial company (being a company registered for not less than five years) which has at the end of any financial year accumulated losses equal to or exceeding its entire networth. The Board of

Directors of a sick industrial company is required, by law, to report the sickness to the BIFR within 60 days of finalisation of audited accounts, for the financial year at the end of which the company has become sick. When a case is referred to the BIFR, it is verified by the Registrar of the BIFR as to whether the facts of the case falls within the provisions of the Sick Industrial (Special provisions) Act, 1985. If so, the BIFR accepts the case and notifies a date for hearing the case. Once a company has been found sick, the BIFR may grant time to the sick company to enable it to make its networth positive and bring the company out of sickness, if the BIFR decides that the company can not make its networth positive within a reasonable time, the BIFR will direct the operating agency to prepare a suitable revival package for the restoration of the health of the company. slump sale‖ means the transfer of one or more business undertakings as a result of the sale for a lump-sum consideration without assigning values to individual assets and liabilities in sale. A company may reduce share capital by extinguish or reduce the liability on any of its shares in respect of the share capital not paid – up; or either with or without extinguishing or reducing liability on any of its shares –cancel any paid – up share capital which is lost or is unrepresented by available assets; or pay off any paid – up share capital which is in excess of the wants of the company. Reduction of capital must be approved by special resolution passed by the company. Reduction of capital of a company results in alteration of its memorandum by reducing the amount of share capital and of its shares accordingly.

GLOSSORY

1. **Financial Distress:** Financial distress is a situation where a firm's operating cash flows are not sufficient to satisfy current obligations.
2. **Over leveraged firm:** Firm with higher debt equity ratio, using more of debt.
3. **Sick Company:** an industrial company (being a company registered for not less than five years) which has at the end of any financial year accumulated losses equal to or exceeding its entire networth.

ANSWERS TO CHECK YOUR PROGRESA

1 d
2 b
3 b
4 c
5 d
B
1 d
2 d
3 a

REFERENCES AND SUGGESTED READINGS

- Allen, D: An Introduction to Strategic Financial Management, CIMA/Kogan Page, London.
- B Rajesh Kumar: Mergers and Acquisitions Text And Cases, Tata Mcgraw Hill Education, New Delhi.

- Rabi Narayan Kar: Merger, Acquisitions and Corporate Restructuring Strategies and practices, International Book House New Delhi.
- Prasad G Godbole: Mergers Acquisitions and Corporate Restructuring, Vikas Publication New Delhi.

TERMINAL AND MODEL QUESTIONS

1. What do you mean by financial distress? What are various reasons and methods to handle financial distress?
2. What are various provisions for restructuring of sick unit?
3. What do you understand by slump sale?
4. Discuss provisions for reduction of share capital.