STRATEGIC FINANCIAL MANAGEMENT



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Study Material

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STRATEGIC FINANCIAL MANAGEMENT

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MODULE I

UNIT 1

FINANCIAL GOALS AND STRATEGY

All types of organisations require financial management for its successful operations. It contains components for the acquisition, management, allocation and financing of resources for successful growth of an organisation. Every organisation should manage its finances effectively in order to attain its mission and goals. Recently, the fields of strategic management and financial management combined together to evolve a new discipline namely Strategic Financial Management.

Strategic Financial Management refers to the study of finance with a long term perspective which takes into account the strategic goals of the enterprise. Strategic Financial management is a management approach which makes use of various financial tools and techniques in order to come up with a strategic decision plan. It also ensures the implementation of the chosen strategy so as to achieve the desired objectives.

The ultimate objective of strategic financial management is to identify the best possible strategy which may result in maximisation of organisations market value. Strategic financial management goes a step further in ensuring that the organization remains on track to attain its short-term and long-term goals, while maximizing value for its shareholders.

Strategic financial management is the identification of the possible strategies capable of maximising an organisation's market value and the allocation of scarce capital resources among competing opportunities. It also involves the implementation and monitoring of the chosen strategy so as to achieve stated objectives.

Strategic financial management is managing an organization's financial resources so as to achieve its business objectives and maximize its value. Strategic financial management involves a defined sequence of steps that encompasses the full range of a company's finances, from setting out objectives and identifying resources, analyzing data and making financial decisions, to tracking the variance between actual and budgeted results and identifying the reasons for this variance. The term "strategic" means that this approach to financial management has a long-term horizon.

The Chartered Institute of Management Accountants of UK [CIMA] defines Strategic Financial Management as "the identification of the possible strategies capable of maximising an organisation's Net Present Value (NPV), the allocation of scarce capital resources between competing opportunities and the implementation and monitoring of the chosen strategy so as to achieve stated objectives.

CHARACTERISTICS OF STRATEGIC FINANCIAL MANAGEMENT

The important characteristics of Strategic financial Management are the following:-

- 1. It is concerned with the long term management of fund with a strategic perspective
- 2. It aims at maximisation of profit and wealth of the concern
- 3. It is both structured as well as flexible
- 4. It promotes growth, profitability and existence of the firm in the long run and maximises shareholder value
- 5. It is an evolving and continuous process that constantly tries to adopt and revise strategies in order to achieve strategic financial objectives of the firm.
- 6. It involves innovative, creative and multidimensional approach for finding solutions to the problems.
- 7. It helps to formulate appropriate strategies and facilitates constant monitoring of action plans to match with the long term objectives.
- 8. It makes use of analytical financial techniques with qualitative and quantitative judgement on factual information
- 9. It is result oriented combining of resources, especially of financial and economic resources
- 10.Strategic financial management offers a number of solutions while analysing the problems in the organisational context.

Strategic Financial Management helps in taking two broad financial decisions taken by financial managers. They are

- 1. Decisions regarding investments in the assets of the company
- 2. Decisions regarding how such investments should be financed

FINANCIAL GOALS AND STRATEGY

Financial goal is a tangible focus for business mission and strategy. Financial goals are deeply rooted in the company's value and political philosophy. Financial goals are so important that it becomes the supreme responsibility of the managers at the higher level of the organisation. There are many objectives which an organisation can pursue. It is generally accepted that there should be one overall objective with all other objectives giving support so that the overall objective can be achieved. For a business organisation, a financial objective is generally taken as the overall objective.

Strategic Financial Management is concerned with procurement and use of funds. It aims to use business funds in such a way that the firm's value is maximised. Strategic financial Management provides a framework for selecting a proper course of action and deciding a viable commercial strategy. The main objective of a business is to maximise the owner's economic welfare. This objective can be achieved by

- 1. Profit maximisation
- 2. Wealth maximisation
- 1. **Profitmaximisation**: It is the main aim of every economic activity. No business can survive without earning profit. Profit is the measure of efficiency of the business. Profit also serves as a protection against risks which cannot be insured. Theaccumulated profits enable a business to face risks like fall in prices, competition from other units, adverse government policies etc. Thus profit maximisation is considered as the main objective of business.

The arguments in favour of profit maximisation are:-

- 1. When profit earning is the aim of the business then profit maximisation should be the obvious objective
- 2. Profitability is a barometer for measuring efficiency and economic prosperity of a business enterprise, thus, profit maximisation is justified on the grounds of rationality
- 3. A business will be able to survive under unfavourable conditions, only if it has some past earnings to rely upon.
- 4. Profits are the main sources of finance for the growth of a business. So, a business should aim for profits for enabling its growth and development.
- 5. A firm pursuing profit maximisation also maximises socio-economic welfare.

Profit maximization typically is defined as a more static concept than shareholder wealth maximization. The profit maximization objective from economic theory does not normally consider the time dimension or the risk dimension in the

measurement of profits. In contrast, the shareholder wealth maximization objective provides a convenient framework for evaluating both the timing and the risks associated with various investment and financing strategies.

A closely held firm is more likely to be a wealth maximizer than a corporation with wide ownership. In the closely held firm, the owners and the managers will share the same objectives because the owners are the managers. In a widely-held corporation, where the ownership and management functions are separate, it is likely that managers may pursue objectives that are more self-serving than owner-serving. Examples of alternative objectives that might be pursued in this situation are extreme risk-averse behaviour, size maximization, satisficing, or personal utility function maximization.

The arguments against Profit Maximisation concept are the following:-

- 1. The term profit is vague and it cannot be precisely defined. Even if, we take the meaning of profits as earnings per share and maximise the earnings per share, it does not necessarily mean increase in the market value of shares and the owner's economic welfare.
- 2. Profit maximisation objective ignores the time value of money and does not consider the magnitude and timing of earnings. It treats all earnings as equal though they occur in different periods.
- 3. It does not take into consideration the risk of the prospective earnings stream. Two firms may have same expected earnings per share, but if the earnings stream of one stream is more risky, then the market value of shares will be comparatively less.
- 4. The effect of dividend policy on the market price of shares is also not considered in the objective of profit maximisation.

2. Wealth Maximisation

Wealth maximisation is the appropriate objective of an enterprise. The goal of shareholder wealth maximization is a long-term goal. Shareholder wealth is a function of *all* the future returns to the shareholders. Hence, in making decisions that maximize shareholder wealth, management must consider the long-run impact on the firm and not just focus on short-run (i.e., current period) effects.

For example, a firm could increase short-run earnings and dividends by eliminating all research and development expenditures. However, this decision would reduce long-run earnings and dividends, and hence shareholder wealth, because the firm would be unable to develop new products to produce and sell.

A stockholder's current wealth in the firm is the product of the number of shares owned, multiplied with the current stock price per share.

Stock holders current wealth in a firm =

Number of shares owned X Current stock price per share

While pursuing the objective of wealth maximisation, all efforts must be put in for maximising the current present value of any particular course of action. Every financial decision should be based on cost benefit analysis. If the benefit is more than the cost, the decision will help in maximising the wealth and if vice versa will not be serving the purpose of wealth maximisation.

There is a rationale in applying wealth maximising policy as an operating financial management policy because of the following reasons.

- 1. It serves the interests of suppliers of loaned capital, employees, management and society.
- 2. It is consistent with the objective of owners' economic welfare.
- 3. The objective of wealth maximisation implies long run survival and growth of the firm.
- 4. It takes into consideration the risk factor and time value of money as the current present value of any particular course of action is measured.
- 5. The effect of dividend policy on market price of shares is also considered as the decisions are taken to increase the market value of the shares.
- 6. The goal of wealth maximisation leads towards maximising stockholder's utility or value maximisation of equity shareholders through increase in stock price per share.

The wealth maximisation objective has been criticised by certain financial theorists on the following grounds:-

- 1. It is only a prescriptive idea.
- 2. It is not socially desirable
- 3. It is not clear whether this concept include maximising owners wealth or wealth of the firm which includes claim holders such as debenture holders, preferred stock holders etc.
- 4. The objective of wealth maximisation is a problem when ownership and management are separated. When managers act as agents of the real owners, there is possibility for conflict of interest between shareholders and managerial interests.

MEASURING SHAREHOLDERS VALUE CREATION: EVA AND MVA

The two new measures used to determine whether an investment positively contributes to the share holder wealth are:-

- 1. Economic Value Added [EVA]
- 2. Market Value Added [MVA]

1. Economic Value Added [EVA]

Economic value added (EVA) is a measure of a company's financial performance based on the residual wealth calculated by deducting its cost of capital from its operating profit, adjusted for taxes on a cash basis. EVA can also be referred to as economic profit, and it attempts to capture the true economic profit of a company. This measure was devised by Stern Stewart and Co.

EVA is an internal management performance measure that compares Net Operating Profit to Total Cost of Capital. It is used as an indicator of how profitable company projects are and it therefore serves as a reflection of management performance. Businesses are only truly profitable when they create wealth for their shareholders, and the measure of this goes beyond calculating Net Income.

EVA is the incremental difference in the rate of return over a company's cost of capital. Essentially, it is used to measure the value a company generates from funds invested into it. If a company's EVA is negative, it means the company is not generating value from the funds invested into the business. Conversely, a positive EVA shows a company is producing value from the funds invested in it.

Modern investors are demanding shareholder value more strongly than ever. The financial theory suggested that every company's ultimate aim is to maximise the wealth of its shareholders. This is quite natural since shareholders own the company and as rational investors expect good long term return on their investment. EVA aims to tell what has happened to the wealth of the shareholders. EVA is based on the concept that earning a return greater than the cost of capital increases value of a company, and earning less destroys value.

Calculating EVA

The formula for calculating EVA is:

EVA = Net Operating Profit after Taxes (NOPAT)—

Invested Capital X Weighted Average Cost of Capital (WACC)

The equation above shows there are three key components to a company's EVA: NOPAT, the amount of capital invested and the WACC. NOPAT can be calculated manually but is normally listed in a public company's financials. Capital invested is the amount of money used to fund a specific project. WACC is the average rate of return a company expects to pay its investors; the weights are derived as a fraction of each financial source in a company's capital structure. WACC can also be calculated but is normally provided as public record. It is calculated as

WACC = [Cost of Equity x proportion of equity from capital + Cost of debt x proportion of debt from capital x [1-tax rate]

Or

EVA = NOPAT - CAPITAL COST

NOPAT = PBIT [1-T] = PAT + INT [1-T]

OR

EVA = [RATE OF RETURN – COST OF CAPITAL] X CAPITAL

The goal of EVA is to quantify the charge, or cost, for investing capital into a certain project, and then assess whether it is generating enough cash to be considered a good investment. The charge represents the minimum return that investors require to make their investment worthwhile. A positive EVA shows a project is generating returns in excess of the required minimum return.

The Benefits of EVA

The purpose of EVA is to assess company and management performance. EVA champions the idea a business is only profitable when it creates wealth and returns for shareholders, and requires performance above a company's cost of capital.

EVA as a performance indicator is very useful. The calculation shows how and where a company created wealth, through the inclusion of balance sheet items. This forces managers to be aware of assets and expenses when making managerial decisions. However, the EVA calculation relies heavily on the amount of invested capital, and is best used for asset-rich companies that are

stable or mature. Companies with intangible assets, such as technology businesses, may not be good candidates for an EVA evaluation.

The idea behind EVA is that shareholders must earn a return that compensates the risk taken. The equity capital has to earn at least same return as similarly risky investments at equity markets. If that is not the case, then there is no real profit and actually the company operates at a loss from the view point of shareholders. On the other hand if EVA is zero, this should be treated as a sufficient achievement because the shareholders have earned a return that compensates the risk.

Eg:1

Given total assets = 100000

ROA = 30%

Cost of Capital = 10%

Calculate EVA?

Solution:

Net Income = 30% of total assets = $1 \text{ lac } \times 30\% = 30000$

Less Capital Charge [10% of 100 000] <u>10000</u>

EVA 20000

Eg.2

A company's income statement and Balance sheet is given [Rupees in Lakhs]

Income statement

Net Sales 2600

Cost of goods sold 1400

SG & A Expenses 400

Depreciation 150

Other Operating expenses 100

Operating Income 550

Interest Expenses 200

Income Before Tax 350

Income Tax [40%] 140

Net Profit after taxes 210

Balance Sheet

ASSETS	Rs.	LIABILITIES	Rs.
CURRENT		CURRENT LIABILITIES	
Cash	50	Accounts payable(A/P)	100
Receivable (A/R)	370	Accrued expenses(A/E)	250
Inventory	235	Short term debt	300
Other current assets	145	Total current Liabilities	650
Total current assets	800	Long Term Liabilities	
FIXED ASSETS	650	Long Term Debt	760
Property, land and equipment	410	Total Long Term liabilities	760
Other long term current assets	490	Capital(common equity)	
TOTAL FIXED ASSETS	1550	Capital stock	300
		Retained earnings	430
		Year to Date Profit/Loss	210
		Total Equity capital	940
TOTAL ASSETS	2350	TOTAL LIABILITIES	2350

- 1. Calculate Net Operating Profit after tax [NOPAT]
- 2. Identify company's capital [C]
- 3. Determine a reasonable Capital Cost Rate [CCR]
- 4. Calculate company's Economic Value Added [EVA]

Solution:

Step 1. Calculation of NOPAT

This NOPAT calculation doesn't include the tax savings of debt. Company'spaying high taxes and have high debt may have to consider tax savings effects, but this is perhaps easiest to do by adding the tax savings component later in the capital cost rate. (CCR)

Net sales		2600
Less: cost of goods sold	1400	
SG&A Expenses	400	
Depreciation	150	
Other operating Expenses	100	2050
Operating Income		550
Less Tax [40%]		140
NOPAT		410

Step2: Identify Company's Capital

Company's Capital [C] are Total Liabilities Less Non Interest Bearing Liabilities

Total Liabilities less Non Interest Bearing Liabilities

Total Liabilities 2350

Less:

Accounts Payable 100

Accrued Expenses 250 350

2000

Step 3: Determine Capital Cost Rate [CCR]

CCR= 10% .It depends on current interest level [interest higher, CCR higher] and company's business [company's business more risky, CCR higher]

Owners expect 13% return for using their money because less are not attractive to them; this is about the return that investors can get by investing long term with equal risk [stocks mutual funds or other companies] company has 940/2350 = 40% or [0.4] of equity with a cost of 13%

Company has also 60% debt and assume that it has to pay 8% interest for it. So the average cost would be :

CCR= Average equity portion x Equity cost + Average Debt proportion x Debt $cost = 40\% \times 13\% + 60\% \times 8\% = 10\%$

Step 4: Calculate EVA

 $EVA = NOPAT - C \times CCR$

 $410-2000 \times 0.10 = 210$

'MARKET VALUE ADDED - MVA'

Market value added (MVA) is a calculation that shows the difference between the market value of a company and the capital contributed by investors, both bondholders and shareholders. In other words, it is the sum of all capital claims held against the company plus the market value of debt and equity. It is calculated as:

MVA = Company's Market Value - Invested Capital

When investors want to see how a company performs for its shareholders, they first look at MVA. A company's MVA is an indication of its capacity to increase shareholder value over time. A high MVA is evidence of effective management and strong operational capabilities. A low MVA can mean the value of management's actions and investments is less than the value of the capital contributed by shareholders.

MVA Reflects Commitment to Shareholder Value

Companies with a high MVA are attractive to investors not only because of the greater likelihood they will produce positive returns but also because it is a good indication they have strong leadership and sound governance. MVA can be interpreted as the amount of wealth that management has created for investors over and above their investment in the company.

Companies that are able to sustain or increase MVA over time typically attract more investment, which continues to enhance MVA. The MVA may actually understate the performance of a company because it does not account for cash payouts, such as dividends and stock buybacks, made to shareholders. MVA may not be a reliable indicator of management performance during strong bull markets when stock prices rise in general.

Companies with high MVA can be found across the investment spectrum. Alphabet Inc., the parent of Google, is among the most valuable companies in the world with high growth potential. Its stock returned 1,293% in its first 10 years of operation. While much of its MVA in the early years can be attributed to market exuberance over its shares, the company has managed to nearly triple it over the

last five years. Alphabet's MVA has grown from \$128.4 billion in 2011 to \$354.25 billion in December 2015.

According to Stewart Market value added tells us how much value company has added to, or subtracted from its shareholders investment. Successful companies add their MVA and thus increase the value of capital invested in the company. Unsuccessful companies decrease the value of the capital originally invested in the company. Whether a company succeeds in creating MVA or not, depends on its rate of return. If a company's rate of return exceeds its cost of capital, the company will sell on the stock markets with premium compared to the original capital. On the other hand, companies that have rate of return smaller than their cost of capital with discount compared to the original capital invested in company. Whether a company has positive or negative MVA depends on the level of rate of return compared to the cost of capital. All this applies to EVA. Thus positive EVA means also positive MVA and vice versa.

Market value added = Present value of all future EVA MARKET TO BOOK VALUE

MARKET TO BOOK VALUE or MB measures the ratio of market value of a share to its book value. Book value of a share is the net worth divided by number of outstanding shares. It represents the money which the company has received from its shareholders and includes investments made by the company on their behalf by retaining profits (internal accruals).

MB Ratio = [Market price per share/Book Value Per share]

It shows how the company is worth for every one rupee of shareholders money employed as capital in the company. An MB ratio of more than one means the company has added more value to shareholders than the capital contributed by them and vice versa.

The price-to-book ratio is a financial ratio used to compare a company's current market price to its book value. The calculation can be performed in two ways, but the result should be the same either way.

In the first way, the company's market capitalization can be divided by the company's total book value from its balance sheet.

Market Capitalization / Total Book Value

The second way, using per-share values, is to divide the company's current share price by the book value per share (i.e. its book value divided by the number of outstanding shares).

Share price / Book value per share

As with most ratios, it varies a fair amount by industry. Industries that require more infrastructure capital (for each dollar of profit) will usually trade at P/B ratios much lower than, for example, consulting firms. P/B ratios are commonly used to compare banks, because most assets and liabilities of banks are constantly valued at market values.

A higher P/B ratio implies that investors expect management to create more value from a given set of assets, all else equal (and/or that the market value of the firm's assets is significantly higher than their accounting value). P/B ratios do not, however, directly provide any information on the ability of the firm to generate profits or cash for shareholders.

This ratio also gives some idea of whether an investor is paying too much for what would be left if the company went bankrupt immediately.

It is also known as the market-to-book ratio and the price-to-equity ratio (which should not be confused with the price-to-earnings ratio), and its inverse is called the book-to-market ratio.

MANAGERIAL IMPLICATIONS OF SHAREHOLDER VALUE CREATION

The shareholder value approach is based on the assumption that a principal and agent relationship exists between the shareholders and the management. As an agent of share holders, management is charged with the responsibility of creating wealth for the shareholders. Therefore all management actions and strategies should be guided by Share holder value creation.

Creating shareholder value is the key to success in today's marketplace. There is increasing pressure on corporate executives to measure, manage and report the creation of shareholder value on a regular basis. In the emerging field of shareholder value analysis, various measures have been developed that claim to quantify the creation of shareholder value and wealth.

More than ever, corporate executives are under increasing pressure to demonstrate on a regular basis that they are creating shareholder value. This pressure has led to an emergence of a variety of measures that claim to quantify value-creating performance.

Creating value for shareholders is now a widely accepted corporate objective. The interest in value creation has been stimulated by several developments.

- * Capital markets are becoming increasingly global. Investors can readily shift investments to higher yielding, often foreign, opportunities.
- * Institutional investors, which traditionally were passive investors, have begun exerting influence on corporate managements to create value for shareholders.
- * Corporate governance is shifting, with owners now demanding accountability from corporate executives. Manifestations of the increased assertiveness of shareholders include the necessity for executives to justify their compensation levels, and well-publicized lists of underperforming companies and overpaid executives.
- * Business press is emphasizing shareholder value creation in performance rating exercises.
- * Greater attention is being paid to link top management compensation to shareholder returns

From the economist's viewpoint, value is created when management generates revenues over and above the economic costs to generate these revenues. Costs come from four sources: employee wages and benefits; material, supplies, and economic depreciation of physical assets; taxes; and the opportunity cost of using the capital.

Under this value-based view, value is only created when revenues exceed all costs including a capital charge. This value accrues mostly to shareholders because they are the residual owners of the firm.

Shareholders expect management to generate value over and above the costs of resources consumed, including the cost of using capital. If suppliers of capital do not receive a fair return to compensate them for the risk they are taking, they will withdraw their capital in search of better returns, since value will be lost. A company that is destroying value will always struggle to attract further capital to finance expansion .

Although used interchangeably, there is a subtle difference between value creation and wealth creation. The value perspective is based on measuring value directly from accounting-based information with some adjustments, while the wealth perspective relies mainly on stock market information. For a publicly traded firm these two concepts are identical when (i) management provides all pertinent information to capital markets, and (ii) the markets believe and have confidence in management.

APPROACHES FOR MEASURING SHAREHOLDER VALUE: 1. Marakon Approach:

Marakan Associates, an international management-consulting firm founded in 1978, has done pioneering work in the area of value-based management. This measure considers the difference between the ROE and required return on equity (cost of equity) as the source of value creation. This measure is a variation of the EV measures.

Instead of using capital as the entire base and the cost of capital for calculating the capital charge, this measure uses equity capital and the cost of equity to calculate the capital (equity) charge. Correspondingly, it uses economic value to equity holders (net of interest charges) rather than total firm value.

According to Marakan model shareholder wealth creation is measured as the difference between the market value and the book value of a firm's equity. The book value of a firm's equity, B, measures approximately the capital contributed by the shareholders, whereas the market value of equity, M, reflects how productively the firm has employed the capital contributed by the shareholders, as assessed by the stock market. Hence, the management creates value for shareholders if M exceeds B, decimates value if m is less than B, and maintains value is M is equal to B.

According to the Marakon model, the market-to-book values ratio is function of thee return on equity, the growth rate of dividends, and cost of equity.

For an all-equity firm, both EV and the equity-spread method will provide identical values because there are no interest charges and debt capital to consider. Even for a firm that relies on some debt, the two measures will lead to identical insights provided there are no extraordinary gains and losses, the capital structure is stable, and a proper re-estimation of the cost of equity and debt is conducted.

A market is attractive only if the equity spread and economic profit earned by the average competitor is positive. If the average competitor's equity spread and economic profit are negative, the market is unattractive.

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2. ALCAR APPROACH

The Alcar group Inc. a management and software company, has developed an approach to value-based management which is based on discounted cash flow analysis. In this framework, the emphasis is not on annual performance but on valuing expected performance. The implied value measure is akin to valuing the firm based on its future cash flows and is the method most closely related to the DCF/NPV framework.

With this approach, one estimates future cash flows of the firm over a reasonable horizon, assigns a continuing (terminal) value at the end of the horizon, estimates the cost of capital, and then estimates the value of the firm by

calculating the present value of these estimated cash flows. This method of valuing the firm is identical to that followed in calculating NPV in a capital-budgeting context. Since the computation arrives at the value of the firm, the implied value of the firm's equity can be determined by subtracting the value of the current debt from the estimated value of the firm. This value is the implied value of the equity of the firm.

To estimate whether the firm's management has created shareholder value, one subtracts the implied value at the beginning of the year from the value estimated at the end of the year, adjusting for any dividends paid during the year. If this difference is positive (i.e., the estimated value of the equity has increased during the year) management can be said to have created shareholder value.

The Alcar approach has been well received by financial analysts for two main reasons:

- * It is conceptually sound as it employs the discounted cash flow framework
- * Alcar have made available computer software to popularize their approach

However, the Alcar approach seems to suffer from two main shortcomings: (1) 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 purposes. (2) Essentially a verbal model, it is needlessly cumbersome. Hence it requires a fairly involved computer programme.

3. McKINSEY APPROACH:

McKinsey & Company a leading international consultancy firm has developed an approach to value-based management which has been very well articulated by Tom Copeland, Tim Koller, and Jack Murrian of McKinsey & Company. According to them:

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 decision making on the key drivers of value.

The key steps in the McKinsey approach to value-based maximization are as follows:

- * Ensure the supremacy of value maximization
- * Find the value drivers

- * Establish appropriate managerial processes
- * Implement value-based management philosophy

4. ECONOMIC VALUE ADDED

Consulting firm Stern Steward has developed the concept of Economic Value Added. EVA is a useful tool to measure the wealth generated by a company for its equity shareholders. In other words, it is a measure of residual income after meeting the necessary requirements for funds.

Computation of EVA:

EVA is essentially the surplus left after making an appropriate charge for capital employed in the business. It may be calculated by using following equation.

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

EVA is net earnings in excess of the cost of capital supplied by lenders and shareholders. It represents the excess return (over and above the minimum required return) to shareholders; it is the net value added to shareholders.

In the above formula Net operating profit after tax [NOPAT] is calculated as follows:

NOPAT = PBIT (1-T) = PAT + INT (1-T)

5. THE DISCOUNT CASH FLOW APPROACH

The true economic value of a firm or a business or a project or any strategy depends on the cash flows and the appropriate discount rate (commensurate with the risk of cash flow). There are several methods for calculating the present value of a firm or a business/division or a project.

The **first** method uses the weighted average cost of debt and equity (WACC) to discount the net operating cash flows. When the value of a project with an estimated economic life or of a firm or business over a planning horizon is calculated, then an estimate of the terminal cash flows or value will also be made. Thus, the economic value of a project or business is:

Economic Value=Present Value of net operating cash flows+ Present value of terminal value . .

The **second** method of calculating the economic value explicitly incorporates the value created by financial leverage. The steps that are involved in this method of estimation of the firm's total value are as follows:

- 1. Estimate the firm's unlevered cash flows and terminal value
- 2. Determine the unlevered cost of capital
- 3. Discount the unlevered cash flows and terminal value by the unlevered cost of capital.
- 4. Calculate the present value of the interest tax shield discounting at the cost of debt.
- 5. Add these two values to obtain the levered firm's total value.
- 6. Subtract the value of debt from the total value to obtain the value of the firm's shares.
- 7. Divide the value of shares by the number of shares to obtain the economic value per share.

The **third** method to determine the shareholder economic value is to calculate the value of equity by discounting cash flows available to shareholders by the cost of equity. The present value of equity is given as below:

Economic value of equity= Present value of equity cash flows+ Present value of terminal investment

The shareholder value creation approach helps to strengthen the competitive position of the firm by focusing on wealth creation. It provides an objective and consistent framework of evaluation and decision-making across all functions, departments and units of the firm. It can be easily implemented since cash flow data can be obtained by suitably adapting the firm's existing system of financial projection and planning. The only additional input needed is the cost of capital. The adoption of the shareholder value creation approach does require a change of the mind-set and educating managers about the shareholders value approach and its implementation.

GROWTH RATIOS

Growth ratios are ratios which give an indication of how fast your business is growing. For example, one type of growth ratio is sales percentage, which compares current sales to those of the previous year. Net income percentage takes

sales growth a step further by showing profit after subtracting operating costs. It could be possible that even though the sales percentage indicates that sales have increased by 30 percent, your net income percentage may have increased only by 20 percent because of increased operating costs.

Growth rates refer to the amount of increase that a specific variable has gained within a specific period and context. For investors, this typically represents the compounded annualized rate of growth of a company's revenues, earnings, dividends and even macro concepts - such as the economy as a whole.

Different types of industries have different benchmarks for rates of growth. For instance, companies that are on the cutting edge of technology would be more likely to have higher annual rates of growth compared to a mature industry, like retail sales.

The use of historical growth rates is one of the simplest methods of estimating future growth. However, historically high growth rates don't always mean a high rate of growth looking into the future, because industrial and economic conditions change constantly.

For example, the auto industry has higher rates of revenue growth during good economic times. However, in times of recession, consumers would be more inclined to be frugal and not spend disposable income on a new car.

'INTERNAL GROWTH RATE'

An internal growth rate is the highest level of growth achievable for a business without obtaining outside financing, and a firm's maximum internal growth rate is the level of business operations that can continue to fund and grow the company. Internal growth rate is an important measurement for start-upfirms and small businesses, because it measures a firm's ability to increase sales and profit without issuing more stock or debt.

Analysts measure the internal growth rate for a public company by taking the firm's retained earnings and dividing by total assets, or by using return on assets formula (net income / total assets). The two formulas are similar, because retained earnings includes net income from past years, and both ratios measure the profit a business generates by using the assets on the balance sheet. Generating a profit improves the firm's net cash flow and generates working capital that is used to operate the business.

If a business can use its existing resources more efficiently, the firm can generate internal growth.

For example, Acme Sporting Goods manufactures baseball gloves, bats and other equipment, and that management is reviewing current operations. Acme analyzes its production process and makes changes to maximize the use of machinery and equipment and reduce idle time. The company also warehouses finished goods that are sold to sporting goods stores, and management makes changes to reduce the level of inventory carried in the warehouse. These changes increase Acme's efficiency and reduce the amount of cash tied up in inventory.

Another internal growth strategy is to increase the company's market share for products the firm already sells, and there are several approaches to increase market share. If Acme can improve its marketing results, the company can sell more products without increasing expenses, and many firms build brand recognition to get better marketing outcomes. The sporting goods firm can also develop new products to sell to its existing customer base since current customers already have a relationship with the business and may consider new product offerings. If, for example, Acme makes a popular line of baseball gloves for outfielders, the firm may add a new catcher's mitt model and sell that product to baseball glove customers.

Factoring in Diversification

Some companies generate internal growth by adding new lines of business that complement the firm's existing product offerings, and Acme may add a football equipment product line to generate sales when baseball season is over. Acme can market the football product line to the existing baseball customer base since some of those athletes may play both sports.

'SUSTAINABLE GROWTH RATE - SGR'

The sustainable growth rate (SGR) is the maximum rate of growth that a firm can sustain without having to increase financial leverage or look for outside financing. The SGR is a measure of how large and how quickly a firm can grow without borrowing more money. After a firm has passed this rate, its growth will decline in the long term, and it must borrow funds to facilitate additional growth.

A company's SGR is the product of its return on equity (ROE) and the percentage of its profits that is ploughed back into the firm. SGR is calculated as: ROE x (1 - dividend-payout ratio).

The SGR calculation assumes that a company wants to maintain a target capital structure of debt and equity, keep a static dividend payout ratio, and accelerate sales as quickly as the organization allows.

If a company has a ROE of 15% and a payout ratio of 75%, for example, its SGR is calculated by taking 0.15 and multiplying it by (1 - 0.75), giving the company a SGR of 0.0375. This means that the company can safely grow at a rate of 3.75% using its own revenue and remain self-sustaining. If the company wants to accelerate its growth past this threshold to 4%, it needs to seek outside funding.

Barriers to the Attainment of Sustainable Growth

Achieving SGR is every company's goal, but some headwinds can stop a business from growing and achieving its optimal SGR.

Consumer trends can cause a business to achieve sustainable growth or miss it completely. Modern consumers have less disposable income and are traditionally more conservative with spending, making those discriminating buyers. Companies compete for the business of these customers by slashing prices and potentially decreasing growth. Companies also invest money into new product development to try to keep existing customers, which can cut into a company's ability to grow and achieve its SGR.

Another factor that detracts from a company's ability to achieve sustainable growth is in its planning ability. Many companies confuse growth strategy with growth capability and misidentify the optimal SGR. When this happens, a company can achieve high growth in the short term but won't sustain it in the long term.

There are cases when a company's growth becomes greater than what it can self-fund. In these cases, the company must devise a financial strategy that sells more equity, increases financial leverage through debt, reduces dividend payouts, increases profit margins or decreases the asset to sales ratio. Any of these factors can increase the SGR to a higher level.

REVIEW QUESTIONS

1.Stark Industries' earnings before interest and taxes for the financial year 2011 amounted to \$5,130 million. Applicable tax rate is 35%. 60% of the company's assets are financed by debt which has an after tax cost of 3.8%, while 40% is financed by equity with a cost of 9.8%. Stark Industries average total capital employed over the period amounted to \$50,420 million. Find Stark Industries' economic value added.

Economic Value Added = $NOPAT - WACC \times Capital Employed$

NOPAT = EBIT × $(1 - \text{Tax Rate}) = \$5,130 \text{ million} \times (1 - 35\%) = \$3,334 \text{ million}$

WACC = $0.6 \times 3.8\% + 0.4 \times 9.8\% = 6.2\%$

Economic Value Added = $\$3,334 \text{ million} - 6.2\% \times \$50,420 = \$208 \text{ million}$

This tells us that over the financial year 2011, Stark Industries added a total of \$208 million to its value.

- 2. Define Strategic Financial Management?
- 3. Enumerate the features of MVA?
- 4. Discuss the scope of strategic financial management?
- 5. what is the need for creating shareholder value?

Module II UNIT 3 FINANCIAL STRATEGY FOR CAPITAL STRUCTURE

The capital structure is how a firm finances its overall operations and growth by using different sources of funds. Debt comes in the form of bond issues or long-term notes payable, while equity is classified as common stock, preferred stock or retained earnings. Short-term debt such as working capital requirements is also considered to be part of the capital structure.

A firm's capital structure can be a mixture of long-term debt, short-term debt, common equity and preferred equity. A company's proportion of short- and

long-term debt is considered when analyzing capital structure. When analysts refer to capital structure, they are most likely referring to a firm's debt-to-equity (D/E) ratio, which provides insight into how risky a company is. Usually, a company that is heavily financed by debt has a more aggressive capital structure and therefore poses greater risk to investors. This risk, however, may be the primary source of the firm's growth.

Capital structure refers to the ratio of shareholder equity to liability on a corporation's balance sheet. No matter how large a business or its area of specialization, it has access to only two sources of cash to finance its operations. It can either go to shareholders for equity financing or borrow from such sources as banks and bondholders. Retained profits from past operations also constitute shareholder equity. On the other hand, money owed to suppliers is a form of borrowing. The single most important role of a CFO in a large business, and one of the most crucial tasks of an owner in a small company, is to strike the ideal balance between equity and debt.

DEBT Vs. EQUITY

Debt is one of the two main ways companies can raise capital in the capital markets. Companies like to issue debt because of the tax advantages. Interest payments are tax-deductible. Debt also allows a company or business to retain ownership, unlike equity. Additionally, in times of low interest rates, debt is abundant and easy to access.

Equity is more expensive than debt, especially when interest rates are low. However, unlike debt, equity does not need to be paid back if earnings decline. On the other hand, equity represents a claim on the future earnings of the company as a part owner.

Debt-to-Equity Ratio as a Measure of Capital Structure

Both debt and equity can be found on the balance sheet. The assets listed on the balance sheet are purchased with this debt and equity. Companies that use more debt than equity to finance assets have a high leverage ratio and an aggressive capital structure. A company that pays for assets with more equity than debt has a low leverage ratio and a conservative capital structure. A high leverage ratio and/or an aggressive capital structure can also lead to higher growth rates, whereas a conservative capital structure can lead to lower growth rates. It is the goal of company management to find the optimal mix of debt and equity, also referred to as the optimal capital structure.

Analysts use the D/E ratio to compare capital structure. It is calculated by dividing debt by equity. Profitable companies have learned to incorporate both debt and equity into their corporate strategies. At times, however, companies may rely too heavily on external funding and debt in particular. Investors can monitor a firm's capital structure by tracking the D/E ratio and comparing it against the company's peers.

Meaning and Definition of Leverage

The term Leverage means 'to lever' or 'to raise'. Leverage is the action of a lever and mechanical advantage gained by it, i.e., raise a given tool with less amount of power. It is the ability to multiply the effect of some efforts.

In financial management the term 'leverage' is used in specific sense. Here it means that by use of certain fixed costs, the firm levers up its profitability. It implies the ability of a firm to use fixed cost assets or funds in order to increase the return to its shareholders. It may also be defined as a relative change in profits due to a change in sales.

Leverage is a practice which can help a business drive up its gains / losses. In business language, if a firm has fixed expenses in P/L account or debt in capital structure, the firm is said to be levered. Nowadays, almost no business is away from leverage but very few have struck a balance.

In finance, leverage is very closely related to fixed expenses. We can safely state that by the introduction of expenses which are fixed in nature, we are leveraging a firm. By fixed expenses, we refer to the expenses, the amount of which remains unchanged irrespective of the activity of the business. For example, an amount of investment made in fixed assets or interest paid on loans does not change with a normal change in a number of sales. Neither they decrease with a decrease in sales and nor they increase with an increase in sales.

There is a different basis for classifying business expenses. For our convenience, let us classify fixed expenses into operating fixed expenses such as depreciation on fixed expenses, salaries etc, and financial fixed expenses such as interest and dividend on preference shares. Similar to them, leverages are also of two types – financial leverage and operating leverage.

FINANCIAL LEVERAGE

Financial leverage is a leverage created with the help of debt component in the capital structure of a company. Higher the debt, higher would be the financial leverage because with higher debt comes the higher amount of interest that needs to be paid. Leveragescan be both good and bad for a business depending on the situation. If a firm is able to generate a higher return on investment (ROI) than the interest rate it is paying, leverage will have its positive effect shareholder's return. The darker side is that if the said situation is opposite, higher leverage can take a business to a worst situation like bankruptcy.

Degree of Financial Leverage

This measures the percentage change in earnings per share over the percentage change in EBIT. This is known as "degree of financial leverage" (DFL). It is the measure of the sensitivity of EPS to changes in EBIT as a result of changes in debt.

A shortcut to keep in mind with DFL is that, if interest is 0, then the DLF will be equal to 1.

Example 1.

With **Newco's**current production, its sales are 70 Lakhs annually. The company's variable costs of sales are 40% of sales, and its fixed costs are 24 Lakhs. The company's annual interest expense amounts to Rs.100,000 annually. If we increase Newco's EBIT by 20%, how much will the company's EPS increase?

Answer:

The company's DFL is calculated as follows:

DFL = (7,000,000-2,800,000-2,400,000)/(7,000,000-2,800,000-2,400

DFL = 1,800,000/1,700,000 = 1.058

Given the company's 20% increase in EBIT, the DFL indicates EPS will increase 21.2%.

Example 2. Two firms B and S are identical in all respects except the degree of leverage. Firm B has 6% of debt of Rs. 3.00 lakhs while firm S has no debt. Both the firms are earning an EBT of Rs. 1,20,000 each. The equity capitalisation rate is 10% and the corporate tax is 60%.

You are required to compute the market value of the two firms.

Solution:

Value of unlevered firm: (No debt content)

Formula:

Vu = Profit available for equity shareholders/ Equity Capitalisation Rate

$$= 1,20,000 - 72,000 / 10/100$$

$$=48,000 \times 100/10$$

$$Vu = Rs. 4,80,000$$

NOTE:

Profit available for equity shareholders

Earnings 1	before tax	1,20,000

Value of levered firm

$$Vi = Vu + Bt$$
 $Vi = 4,80,000 + 3,00,000 \times .6$

$$Vi = Value of levered firm = 5,60,000$$

$$Vu = Value of unlevered firm$$
 $Vu = Rs. 4,80,000$

B = Value of Debenture

Vi = Rs. 5,60,000

t = Tax rate

OPERATING LEVERAGE

Operating leverage, just like the financial leverage, is a result of operating fixed expenses. Higher the fixed expense, higher is the operating leverage. Like the financial leverage had an impact on the shareholder's return or say earnings per share, operating leverage directly impacts the operating profits (Profits before Interest and Taxes (PBIT)). Under good economic conditions, due to operating leverage, an increase of 1% in sales will have more than 1% change in operating profits.

Operating leverage is a measurement of the degree to which a firm or project incurs a combination of fixed and variable costs.

- 1. A business that makes few sales, with each sale providing a very high gross margin, is said to be highly leveraged. A business that makes many sales, with each sale contributing a very slight margin, is said to be less leveraged. As the volume of sales in a business increases, each new sale contributes less to fixed costs and more to profitability.
- 2. A business that has a higher proportion of fixed costs and a lower proportion of variable costs is said to have used more operating leverage. Those businesses with lower fixed costs and higher variable costs are said to employ less operating leverage.

The higher the degree of operating leverage, the greater the potential danger from forecasting risk. That is, if a relatively small error is made in forecasting sales, it can be magnified into large errors in cash flow projections. The opposite is true for businesses that are less leveraged. A business that sells millions of products a year, with each contributing slightly to paying for fixed costs, is not as dependent on each individual sale.

For example, convenience stores are significantly less leveraged than highend car dealerships.

Operating leverage measures a company's fixed costs as a percentage of its total costs. It is used to evaluate the breakeven point of a business, as well as the likely profit levels on individual sales. The following two scenarios describe an organization having high operating leverage and low operating leverage.

- 1. *High operating leverage*. A large proportion of the company's costs are fixed costs. In this case, the firm earns a large profit on each incremental sale, but must attain sufficient sales volume to cover its substantial fixed costs. If it can do so, then the entity will earn a major profit on all sales after it has paid for its fixed costs.
- 2. Low operating leverage. A large proportion of the company's sales are variable costs, so it only incurs these costs if there is a sale. In this case, the firm earns a smaller profit on each incremental sale, but does not have to generate much sales volume in order to cover its lower fixed costs. It is easier for this type of company to earn a profit at low sales levels, but it does not earn outsized profits if it can generate additional sales.

A software company has substantial fixed costs in the form of developer salaries, but has almost no variable costs associated with each incremental software sale; this firm has high operating leverage. Conversely, a consulting firm bills its clients by the hour, and incurs variable costs in the form of consultant wages. This firm has low operating leverage.

To calculate operating leverage, divide an entity's contribution margin by its net operating income. The contribution margin is sales minus variable expenses.

When using the operating leverage measurement, constant monitoring of operating leverage is more important for a firm having high operating leverage, since a small percentage change in sales can result in a dramatic increase (or decrease) in profits. A firm must be especially careful to forecast its revenues carefully in such situations, since a small forecasting error translates into much larger errors in both net income and cash flows.

Knowledge of the level of operating leverage can have a profound impact on pricing policy, since a company with a large amount of operating leverage must be careful not to set its prices so low that it can never generate enough contribution margin to fully offset its fixed costs.

Contribution = Sales – Variable Cost

EBIT = Contribution – Fixed Cost

In case the contribution exceeds the fixed cost, the operating leverage is

favourable and vice versa, operating leverage is unfavourable.

DEGREE OF OPERATING LEVERAGE

It measures how much is the effect of change in sales on change in operating profit. The degree of operating leverage at any level of output is expressed as the ratio of the percentage change in operating profit [EBIT] to percentage change in sales

DEGREE OF OPERATING LEVERAGE = % change in EBIT % change in sales When only one level of EBIT is given DOL Conttribution EBIT

Example 3:

A firm sells 80000 units of a product. The selling price per unit is Rs.8 and the variable cost per unit is Rs.2.Fixed cost for the year amounts to Rs.330000.Calculate Operating Leverage and DOL, if it sells (a)96000 units and (b) 64000 units

Solution:

Operating Profit or EBIT at various level of sales

	80000 units	96000 units	64000 units
Sales	Rs.640000	768000	512000
Less:variable cost	160000	192000	128000
Contribution	480000	576000	384000
Less:Fixed Cost	330000	330000	330000
Operating Profit[EBIT]	150000	246000	54000

OL=	3.2	2.34	7.1
DOL $\frac{\%}{\%}$ change iin EBIT ${\%}$ change iin sales	_	$= 3.2 \frac{+64\%}{+20\%}$	<u> </u>
% change in EBIT =	96000/150 +64		-96000/150000x100 -64%
% change in sales =	128000/64 +20		-128000/640000x100 -20%

Interpretation: Here a 20% increase in sales results in 6% increase in profit. On the other hand, a decrease of 20% in sales results in decrease of 64% in profit. It shows that when a firm has fixed operating costs, an increase in sales volume results in a more than proportionate increase in profits and a decrease in sales results in a more than proportionate decrease in profit. This is operating leverage. The former is known as favourable leverage and the latter is known as unfavourable leverage

The degree of operating leverage shows that if sales increase by 1%, the operating profits will increase by 3.2%. Likewise, if sales decrease by 1%, the operating profit will decrease by 3.2%.thus it will be more risky. In short, higher is the operating leverage; the greater would be the risk.

ADVANTAGES AND DISADVANTAGES OF LEVERAGE

In totality, leverage has its advantages under good economic situations and at the same time, it is not free from disadvantages.

Advantages of Higher Leverage: Take operating leverage, the operating profits can see a sharp increase with a small change in sales as most parts of the expenses are stagnant and cannot further increase with sales.

Likewise, if we consider financial leverage, the earnings share of each shareholder will increase significantly with an increase in operating profits. Here, higher the degree of leverage, higher will be the percentage increase in operating profits and earnings per share.

DISADVANTAGES OF HIGHER LEVERAGE

Leverage inherits the risk of bankruptcy along with it. In the case of operating leverage, fixed expenses extend the break-even point for a business. Breakeven means the minimum activity (sales) required for achieving no loss / no profit situation. Financial leverage increases the minimum requirement of operating profits to meet with the expense of interest. In any case, if the required activity level not achieved, bankruptcy or cash losses become certain.

Looking at the pros and cons of leverage, it seems that a balance is required between the rewards and risks associated with leverage. The degree of leverage should not be too high which invites the bankruptcy and on the contrary, it should not be too low that we lose out on the benefits and the viability of a business itself comes under question.

Financial leverage can be defined as the degree to which a company uses fixed-income securities, such as debt and preferred equity. With a high degree of financial leverage come high interest payments. As a result, the bottom-line earnings per share is negatively affected by interest payments. As interest payments increase as a result of increased financial leverage, EPS is driven lower.

As mentioned previously, financial risk is the risk to the stockholders that is caused by an increase in debt and preferred equities in a company's capital structure. As a company increases debt and preferred equities, interest payments increase, reducing EPS. As a result, risk to stockholder return is increased. A company should keep its optimal capital structure in mind when making financing decisions to ensure any increases in debt and preferred equity increase the value of the company.

UNIT 4

CAPITAL STRUCTURE PLANNING AND DECISION MAKING

Estimation of capital requirements for current and future needs is important for a firm. Equally important is the determining of capital mix. Equity and debt are the two principle sources of finance of a business. The problem before business is about the proportion of these sources and how much leverage it should employ. To solve these problems the relationship between the financial leverage and the value of the firm or cost of capital has to be studied. Capital structure planning which aims at the maximisation of profits and wealth of the shareholders, ensures the maximum value of a firm or the minimum cost of

capital. It is very important for the financial manager to determine the proper mix of debt and equity for his firm.

The primary factors that influence a company's capital-structure decision are:

1. Financial leverage or Trading on Equity:

The use of long term fixed interest bearing debt and preference share capital along with equity share capital is called financial leverage or trading on equity. The use of long term debt increases, magnifies the earnings per share if the firm yields a return higher than the cost of debt. The earnings per share also increase with the use of preference share capital but due to the fact that interest is allowed to be deducted while computing tax, the leverage impact of debt is more. However, leverage can operate adversely also if the rate of interest on long term loans is more than the expected rate of earnings of the firm. Therefore, it needs caution to plan the capital structure of the firm.

2.BusinessRisk

Excluding debt, business risk is the basic risk of the company's operations. The greater the business risk, the lower the optimal debt ratio.

The total risk of business depends on both operating risk and financial risk. If the operating risk in business is less, the financial risk can be faced which means that more debt capital can be utilised. On the contrary, if the operating risk is high, the financial risk likely occurring after the greater use of debt capital should be avoided.

As an example, let's compare a utility company with a retail apparel company. A utility company generally has more stability in earnings. The company has less risk in its business given its stable revenue stream. However, a retail apparel company has the potential for a bit more variability in its earnings. Since the sales of a retail apparel company are driven primarily by trends in the fashion industry, the business risk of a retail apparel company is much higher. Thus, a retail apparel company would have a lower optimal debt ratio so that investors feel comfortable with the company's ability to meet its responsibilities with the capital structure in both good times and bad.

3. Company's Tax Exposure

Debt payments are tax deductible. As such, if a company's tax rate is high, using debt as a means of financing a project is attractive because the tax deductibility of the debt payments protects some income from taxes.

4. Financial Flexibility

This is essentially the firm's ability to raise capital in bad times. It should come as no surprise that companies typically have no problem raising capital when sales are growing and earnings are strong. However, given a company's strong cash flow in the good times, raising capital is not as hard. Companies should make an effort to be prudent when raising capital in the good times, not stretching its capabilities too far. The lower a company's debt level, the more financial flexibility a company has.

The airline industry is a good example. In good times, the industry generates significant amounts of sales and thus cash flow. However, in bad times, that situation is reversed and the industry is in a position where it needs to borrow funds. If an airline becomes too debt ridden, it may have a decreased ability to raise debt capital during these bad times because investors may doubt the airline's ability to service its existing debt when it has new debt loaded on top. 5.Management Style

Management styles range from aggressive to conservative. The more conservative a management's approach is, the less inclined it is to use debt to increase profits. An aggressive management may try to grow the firm quickly, using significant amounts of debt to ramp up the growth of the company's earnings per share (EPS).

6. Growth Rate

Firms that are in the growth stage of their cycle typically finance that growth through debt, borrowing money to grow faster. The conflict that arises with this method is that the revenues of growth firms are typically unstable and unproven. As such, a high debt load is usually not appropriate.

More stable and mature firms typically need less debt to finance growth as its revenues are stable and proven. These firms also generate cash flow, which can be used to finance projects when they arise.

7. Market Conditions

Market conditions can have a significant impact on a company's capital-structure condition. Suppose a firm needs to borrow funds for a new plant. If the market is struggling, meaning investors are limiting companies' access to capital because of market concerns, the interest rate to borrow may be higher than a company would want to pay. In that situation, it may be prudent for a company to

wait until market conditions return to a more normal state before the company tries to access funds for the plant.

8. Cash Flow Position:

While making a choice of the capital structure the future cash flow position should be kept in mind. Debt capital should be used only if the cash flow position is really good because a lot of cash is needed in order to make payment of interest and refund of capital.

9. Interest Coverage Ratio-ICR:

With the help of this ratio an effort is made to find out how many times the EBIT is available to the payment of interest. The capacity of the company to use debt capital will be in direct proportion to this ratio.

It is possible that in spite of better ICR the cash flow position of the company may be weak. Therefore, this ratio is not a proper or appropriate measure of the capacity of the company to pay interest. It is equally important to take into consideration the cash flow position.

10. Debt Service Coverage Ratio-DSCR:

This ratio removes the weakness of ICR. This shows the cash flow position of the company.

This ratio tells us about the cash payments to be made (e.g., preference dividend, interest and debt capital repayment) and the amount of cash available. Better ratio means the better capacity of the company for debt payment. Consequently, more debt can be utilised in the capital structure.

11. Return on Investment-ROI:

The greater return on investment of a company increases its capacity to utilise more debt capital.

12. Cost of Debt:

The capacity of a company to take debt depends on the cost of debt. In case the rate of interest on the debt capital is less, more debt capital can be utilised and vice versa.

13. Tax Rate:

The rate of tax affects the cost of debt. If the rate of tax is high, the cost of debt decreases. The reason is the deduction of interest on the debt capital from the profits considering it a part of expenses and a saving in taxes.

14. Cost of Equity Capital:

Cost of equity capital (it means the expectations of the equity shareholders from the company) is affected by the use of debt capital. If the debt capital is utilised more, it will increase the cost of the equity capital. The simple reason for this is that the greater use of debt capital increases the risk of the equity shareholders.

Therefore, the use of the debt capital can be made only to a limited level. If even after this level the debt capital is used further, the cost of equity capital starts increasing rapidly. It adversely affects the market value of the shares. This is not a good situation. Efforts should be made to avoid it.

15. Floatation Costs:

Floatation costs are those expenses which are incurred while issuing securities (e.g., equity shares, preference shares, debentures, etc.). These include commission of underwriters, brokerage, stationery expenses, etc. Generally, the cost of issuing debt capital is less than the share capital. This attracts the company towards debt capital.

16. Control:

According to this factor, at the time of preparing capital structure, it should be ensured that the control of the existing shareholders (owners) over the affairs of the company is not adversely affected.

If funds are raised by issuing equity shares, then the number of company's shareholders will increase and it directly affects the control of existing shareholders. In other words, now the number of owners (shareholders) controlling the company increases.

This situation will not be acceptable to the existing shareholders. On the contrary, when funds are raised through debt capital, there is no effect on the control of the company because the debenture holders have no control over the

affairs of the company. Thus, for those who support this principle debt capital is the best.

17. Regulatory Framework:

Capital structure is also influenced by government regulations. For instance, banking companies can raise funds by issuing share capital alone, not any other kind of security. Similarly, it is compulsory for other companies to maintain a given debt-equity ratio while raising funds.

Different ideal debt-equity ratios such as 2:1; 4:1; 6:1 have been determined for different industries. The public issue of shares and debentures has to be made under SEBI guidelines.

18. Stock Market Conditions:

Stock market conditions refer to upward or downward trends in capital market. Both these conditions have their influence on the selection of sources of finance. When the market is dull, investors are mostly afraid of investing in the share capital due to high risk.

On the contrary, when conditions in the capital market are cheerful, they treat investment in the share capital as the best choice to reap profits. Companies should, therefore, make selection of capital sources keeping in view the conditions prevailing in the capital market.

19. Capital Structure of Other Companies:

Capital structure is influenced by the industry to which a company is related. All companies related to a given industry produce almost similar products, their costs of production are similar, they depend on identical technology, they have similar profitability, and hence the pattern of their capital structure is almost similar.

Because of this fact, there are different debt- equity ratios prevalent in different industries. Hence, at the time of raising funds a company must take into consideration debt-equity ratio prevalent in the related industry.

20. Personal considerations:

The personal considerations and the abilities of the management will have the final say on the capital structure. Management which are experienced and are very enterprising do not hesitate to use more of debt in their financing as compared to the less experienced and conservative management.

FINANCIAL OPTIONS AND THE VALUE OF A FIRM

In finance, **valuation** is the process of determining the present value (PV) of an asset by the one who is authorised to do so called the valuer. Items that are usually valued are a financial asset or liability. Valuations can be done on assets (for example, investments in marketable securities such as stocks, options, business enterprises, or intangible assets such as patents and trademarks) or on liabilities (e.g., bonds issued by a company). Valuations are needed for many reasons such as investment analysis, capital budgeting, merger and acquisition transactions, financial reporting, taxable events to determine the proper tax liability, and in litigation.

Valuation of financial assets is done using one or more of these types of models:

- 1. Absolute value models that determine the present value of an asset's expected future cash flows. These kinds of models take two general forms: multi-period models such as discounted cash flow models or single-period models such as the Gordon model. These models rely on mathematics rather than price observation.
- 2. Relative value models determine value based on the observation of market prices of similar assets.
- 3. Option pricing models are used for certain types of financial assets (e.g., warrants, put options, call options, employee stock options, investments with embedded options such as a callable bond) and are a complex present value model. The most common option pricing models are the Black–Scholes-Merton models and lattice models.

Common terms for the value of an asset or liability are market value, fair value, and intrinsic value. The meanings of these terms differ. For instance, when an analyst believes a stock's intrinsic value is greater (less) than its market price, an analyst makes a "buy" ("sell") recommendation. Moreover, an asset's intrinsic value may be subject to personal opinion and vary among analysts.

The International Valuation Standards include definitions for common bases of value and generally accepted practice procedures for valuing assets of all types.

UNIT 5 DIVIDEND POLICY AND VALUE OF THE FIRM

Shareholders are the owners of the company. They expect some return on the capital invested in the company and it is called dividend. The dividend refers to that part of the profits which is distributed by the company among its shareholders. The investors are interested in earning maximum return on their investments and to maximize their wealth. On the other hand, the company needs to provide funds to finance its long term growth. Dividend Policy of a firm thus affects both the long term financing and the wealth of the shareholders.

Several factors must be considered when establishing a firm's dividend policy. These include

• The liquidity position of the firm – just because a firm has income doesn't mean that it has any cash to pay dividends.

- Need to repay debt oftentimes there are negative covenants that restrict the dividends that can be paid as long as the debt is outstanding.
- The rate of asset expansion the greater the rate of expansion of the firm, the greater the need to retain earnings to finance the expansion.
- Control of the firm if dividends are paid out today, equity may have to be sold in the future causing a dilution of ownership.
- Legal Considerations:
 - Technically, it is illegal to pay a dividend except out of retained earnings. This is to prevent firms from liquidating themselves out from underneath the creditors.
 - Internal Revenue Service Section Improper Accumulation of funds. This is to prevent individuals from not paying dividends in order to avoid the personal income taxes on the dividend payments.

There are three fundamental policies to paying cash dividends that firms employ:

- 1) Pay a constant Rupee amount each year regardless of earnings per share. This is what most firms do.
- 2) Use a constant payout ratio (for example, 50% of EPS)
- 3) Pay a low, fixed dividend amount plus "dividend extras" or "special dividends". This allows the company to avoid having to cut dividends since the basic dividend is low, but also avoids the improper accumulation of funds during good years.

A cut in dividends generally hurts a stock's price because it sends a signal to stockholders that management's outlook for the future is that the company cannot continue to pay the dividend. Most companies therefore start off with a low dividend and only increase it when they feel that the earnings prospects have improved sufficiently to allow for maintaining a higher dividend. Many companies will even borrow money in a bad year in order to avoid cutting the dividends.

The market price is influenced by dividends through what is called the "clientele" effect. That is, some investors *want* dividends (such as retirees and pension funds) while others do *not* want dividends (wealthy individuals) but would prefer capital gains (which are taxed at a lower rate and deferred).

Flotation costs encourage a company to retain earnings in order to minimize having to sell additional stock in the future. As we saw in the cost of capital calculations, the flotation costs make new equity more expensive than retained earnings.

Some companies pay no dividends.Because they have good investment opportunities and reinvest the earnings.

Stock Repurchases

Other companies opt for a stock repurchase program rather than paying cash dividends. A stock repurchase is a valid alternative to paying cash dividends. The repurchase is made through Public Tender Offer where the company offers to buy up to a set number of shares at a fixed price. This fixed price is set at what the firm thinks the final resulting price will be after the repurchase. Since there will be fewer shares outstanding after the repurchase, the shares that are not repurchased will increase in value. The repurchase is often used to return control of the firm to a select group since their shares (which the won't sell back) will be a larger proportion of a smaller total number of shares.

The Securities & Exchange Commission regulates the volume of shares that can be repurchased in order to prevent price manipulation.

A stock repurchase also is a means of converting earnings to a capital gain. Since the repurchase is at a higher price, those selling realize a capital gain while those who don't sell see their share prices going up.

Stock Dividends

Cash is required to pay a cash dividend or engage in a stock repurchase. When cash is not available, a company can pay a stock dividend. A stock dividend is where a fractional share is paid for each share outstanding. For example, a 20% stock dividend is where one new share is issued for every five shares outstanding.

Stock Splits

A stock split is simply a stock dividend equal to or greater than 50%. Thus, we have 3-for-2 stock splits, or 2-for-1 stock splits, etc. A 2-for-1 split will dilute earnings per share in half and the market price will drop in half.

Stock splits are often employed to keep the stock price at an "affordable" level, say between \$30 and \$60 per share. The idea is that this helps to increase trading activity by drawing in some marginal investors who cannot afford the stock at higher prices. Then, a 2-for-1 split may only result in the stock price falling by 48% rather than 50%. The slightly higher price will then have added a little value to shareholders as well as reduced the cost of equity to the firm.

Dividend policy is thought to convey information to shareholders about a firm's future prospects as perceived by management. As previously mentioned, a cut in dividends is often interpreted as management's view that the outlook for earnings was insufficient to sustain the previous level of dividends that the firm had paid. Similarly, an increase in dividends is often interpreted to mean that management views the firm's future prospects positively enough to believe that a

higher level of dividends can be maintained into the future. Exceptions to these interpretations abound, however. In a recent situation, a company that was in financial difficulties actually eliminated dividends and its stock price rose. This undoubtedly reflected the fact that the investing public knew that the company was in trouble and viewed the elimination of dividends as a means of stemming the haemorrhaging of cash that was occurring and giving management more opportunity to "save" the company.

A divergent view of dividend increases and decreases relates to the investment opportunities of the firm. While some may perceive an increase in dividends as revealing "good news" about the future prospects of a company, it may also signal the fact that the firm has a paucity of good investment opportunities (i.e., cannot earn stockholders' required rate of return) and is thus paying out surplus funds to investors. That, in turn, implies a slowdown in the future rate of growth of the firm and of its dividend paying capacity. Thus, changes in dividend policy can result in mixed signals to investors regarding the future of the company.

In theory, the tradeoff between current dividends and future dividends is a wash. As Miller and Modigliani showed, if a firm can only reinvest to earn the stockholder's required rate of return (and no more), investors should be indifferent between paying earnings out as dividends or reinvesting them for higher dividends in the future (or capital gains). This is especially true since dividends are now taxed at the same rate as capital gains at the individual investor's level (although capital gains taxes can be postponed).

Types of Dividends

A dividend is generally considered to be a cash payment issued to the holders of company stock. However, there are several types of dividends, some of which do not involve the payment of cash to shareholders.

These dividend types are:

- Cash dividend. The cash dividend is by far the most common of the dividend types used. On the date of declaration, the board of directors resolves to pay a certain dividend amount in cash to those investors holding the company's stock on a specific date. The date of record is the date on which dividends are assigned to the holders of the company's stock. On the date of payment, the company issues dividend payments.
- **Stock dividend**. A stock dividend is the issuance by a company of its common stock to its common shareholders without any consideration. If the company issues less than 25 percent of the total number of previously outstanding shares, you treat the transaction as a stock dividend. If the transaction is for a greater proportion of the previously outstanding shares,

then treat the transaction as a stock split. To record a stock dividend, transfer from retained earnings to the capital stock and additional paid-in capital accounts an amount equal to the fair value of the additional shares issued. The fair value of the additional shares issued is based on their fair market value when the dividend is declared.

- *Property dividend*. A company may issue a non-monetary dividend to investors, rather than making a cash or stock payment. Record this distribution at the fair market value of the assets distributed. Since the fair market value is likely to vary somewhat from the book value of the assets, the company will likely record the variance as a gain or loss. This accounting rule can sometimes lead a business to deliberately issue property dividends in order to alter their taxable and/or reported income.
- *Scrip dividend*. A company may not have sufficient funds to issue dividends in the near future, so instead it issues a scrip dividend, which is essentially a promissory note (which may or may not include interest) to pay shareholders at a later date. This dividend creates a note payable.
- Liquidating dividend. When the board of directors wishes to return the capital originally contributed by shareholders as a dividend, it is called a liquidating dividend, and may be a precursor to shutting down the business. The accounting for a liquidating dividend is similar to the entries for a cash dividend, except that the funds are considered to come from the additional paid-in capital account.

UNIT 6 DIVIDEND POLICY AND VALUATION OF FIRMS

There are conflicting views regarding the impact of dividend decision on the value of a firm. According to one school of thought, dividend decision does not affect the share holders wealth and hence the valuation of the firm. On the other hand, according to other school of thought, dividend decision materially affects the shareholders wealth and also the valuation of the firm.

- 1. The Irrelevance concept of Dividend of the Theory of Irrelevance.
- 2. The Relevance concept of Dividend of the Theory of Relevance.

1.THE IRRELEVANCE CONCEPT OF DIVIDEND OF THE THEORY OF IRRELEVANCE

A.RESIDUAL APPROACH

According to this theory, dividend decision has no effect on the wealth of shareholders or the prices of the shares and hence it is irrelevant so far as the valuation of the firm is concerned. This theory regards dividend decision merely as a part of financing decision because the earnings available may be retained in the business for investment. This is known as the "dividend-irrelevance theory", indicating that there is no effect from dividends on a company's capital structure or stock price.

MM's dividend-irrelevance theory says that investors can affect their return on a stock regardless of the stock's dividend. For example, suppose, from an investor's perspective, that a company's dividend is too big. That investor could then buy more stock with the dividend that is over the investor's expectations. Likewise, if, from an investor's perspective, a company's dividend is too small, an investor could sell some of the company's stock to replicate the cash flow he or she expected. As such, the dividend is irrelevant to investors, meaning investors care little about a company's dividend policy since they can simulate their own.

B.MODIGLIANI AND MILLER APPROACH [MM MODEL]

Modigliani – Miller theory is a major proponent of 'Dividend Irrelevance' notion. According to this concept, investors do not pay any importance to the dividend history of a company and thus, dividends are irrelevant in calculating the valuation of a company. This theory is in direct contrast to the 'Dividend Relevance' theory which deems dividends to be important in the valuation of a company.

They were the pioneers in suggesting that dividends and capital gains are equivalent when an investor considers returns on investment. The only thing that impacts the valuation of a company is its earnings, which is a direct result of the company's investment policy and the future prospects. So, according to this theory, once the investment policy is known to the investor, he will not need any additional input on the dividend history of the company. The investment decision is, thus, dependent on the investment policy of the company and not on the dividend policy.

Modigliani – Miller theory goes a step further and illustrates the practical situations where dividends are not relevant to investors. Irrespective of whether a company pays a dividend or not, the investors are capable enough to make their own cash flows from the stocks depending on their need for the cash. If the investor needs more money than the dividend he received, he can always sell a part of his investments to make up for the difference. Likewise, if an investor has no present cash requirement, he can always reinvest the received dividend in the stock. Thus, the Modigliani – Miller theory firmly states that the dividend policy of a company has no influence on the investment decisions of the investors.

This theory also believes that dividends are irrelevant by the arbitrage argument. By this logic, the dividends distribution to shareholders is offset by the external financing. Due to the distribution of dividends, the price of the stock decreases and will nullify the gain made by the investors because of the dividends. This theory also implies that the cost of debt is equal to the cost of equity as the cost of capital is not affected by the leverage.

Assumptions of the Model

Modigliani – Miller theory is based on the following assumptions:

- **Perfect Capital Markets:** This theory believes in the existence of 'perfect capital markets'. It assumes that all the investors are rational, they have access to free information, there are no floatation or transaction costs and no large investor to influence the market price of the share.
- **No Taxes:** There is no existence of taxes. Alternatively, both dividends and capital gains are taxed at the same rate.
- **Fixed Investment Policy:** The company does not change its existing investment policy. This means that new investments that are financed through retained earnings do not change the risk and the rate of required return of the firm.
- **No Risk of Uncertainty:** All the investors are certain about the future market prices and the dividends. This means that the same discount rate is applicable for all types of stocks in all time periods.

Valuation Formula and its Denotations

Modigliani – Miller's valuation model is based on the assumption of same discount rate / rate of return applicable to all the stocks.

$$P_1 = P_0 * (1 + k) - D$$

Where,

 P_1 = market price of the share at the end of a period

 P_0 = market price of the share at the beginning of a period

k = cost of capital

D = dividends received at the end of a period

The argument given by MM in support of teir hypothesis is that what ever increase in the value of the firm results from the payment of dividend, will be exactly offset by the decline in the market price of shares because of external financing and there will be no change in the total wealth of the shareholders. For example, if a company having nvestmentopportunities, distributes all its earnings among the shareholders, it will have to raise additional funds from external sources. This will result in the increase in the number of shares or payment of interest chages, resulting in fall in the earnings per share in the future. Thus, whatever a shareholder gain on account of dividend payment is neutralised completely by the fall in the market price of shares due to decline in expected earnings per share. To be more specific, the market price of a sare in the beginning of period is equal to the present value of dividends paid at the end of the period plus the market price of the share at the end of the period.

$$P_{0=} \frac{D1 + P1}{1 + Ke}$$

 P_{0} =Market price per share at the beginning of the period, or prevailing market price of a share.

D1=Dividend to be received at the end of the period

P1= Market price per share at the end of the period

Ke=Cost of equity capital or rate of capitalisation

The value of P1 can be derived by the above equation as under:

$$P1=P_{0(1+Ke)-D1}$$

The MM hypothesis can be explained in another form also presuming that investment required by the firm on account of payment of dividends is financed out of the new issue of equity shares.

In such a case, the number of shares can be ascertained with the help of the following

$$m_{=}\frac{I(E-nD1)}{P1}$$

Further, the value of the firm can be ascertained with the help of the following

$$nPo_{=}(n+m)P1 - (I-E)$$

1+Ke

Where, m= number of shares to be issued

I=investment required

E=total earnings of the form during the period

P1= Market price per share at the end of the period

Ke= cost of equity capital

n=Number of shares outstanding at the beginning of the period

D1= Dividend to be paid at the end of the period

nPo =value of the firm

Explanation

Modigliani – Miller's model can be used to calculate the market price of the share at the end of a period, if the original share price, dividends received and the cost of capital is known. The assumption that the same discount rate is applicable to all stocks is important.

The original price of the stock is Rs. 150. The discount rate applicable to the company is 10%. The company had declared Rs. 10 as dividends in a year. Calculate the market price of the share at the end of one year using the Modigliani – Miller's model.

Here,
$$P_0 = 150$$

$$k = 10\%$$

$$D = 10$$

Market price of the stock = $P_1 = 150 * (1 + .10) - 10 = 150 * 1.1 - 10 = 155$.

Criticism of Modigliani Miller's Model

Modigliani – Miller theory on dividend policy suffers from the following limitations:

- Perfect capital markets do not exist. Taxes are present in the capital markets.
- According to this theory, there is no difference between internal and external financing. However, if the flotation costs of new issues are considered, it is false.
- This theory believes that the shareholder's wealth is not affected by the dividends. However, there are transaction costs associated with the selling of shares to make cash inflows. This makes the investors prefer dividends.
- The assumption of no uncertainty is unrealistic. The dividends are relevant under the certain conditions as well.

Example

P.L. Engineering Ltd. belongs to a risk class for which the capitalisation rate is 10 per cent. It currently has outstanding 5000 shares selling at 100 each. The firm is contemplating the declaration of a dividend of Rs.6 per share at the end of the current financial year. It expects to have a net income of Rs.50000 and has a proposal for making new investments of 1,00,000. Show how under M-M Hypothesis, the payment of dividend does not affect the value of the firm?

```
(A) Value of the firm when dividends are paid:
(1)Price of the share at the end of the current financial year
P1 = P_0(1+K_e)-D_1
                   = 100x1.10-6 = 110-6 = Rs.104
= 100(1+0.10)-6
(2) Number of shares to be issued
M=I-(E-nD_1)/P_1
- 100000-(50000-5000x6)/104
=80000/104
(3) Value of the firm
_{n}P_{0} = (n+m)P_{1} - (1-E)/1+k_{e}
(5000-80000/104) x 104-(100000-50000)
                   1+0.10
520000+80000x 104/1-50000
104
            1.10
=600000-50000/1.10
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=550000/1.10 = Rs.500000
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- (B) Value of the firm when dividends are not paid
- (1)Price per share at the end of the current financial year

$$P_{1}=P_{0}(1+k_{e})-D_{1}$$

100(1+0.10)-0 = 100x1.10 = Rs.110

(2) Number of shares to be issued

 $M=I-(E-nD_1)/P_1$

_ 100000-(50000-0)/110

=50000/110

(3) Value of the firm

$$_{n}P_{0} = (n+m)P_{1-} - (1-E)/1+k_{e}$$

$(5000+50000/110) \times 1.10-(100000-50000)$

1+0.10

550000+50000x 110/1-50000

110

1.10

=600000-50000/1.10

=550000/1.10 = Rs.500000

Hence, whether dividends are paid or not, the value of the firm remains the same Rs.500 000.

(II) THE RELEVENCE CONCEPT OF DIVIDEND OR THE THEORY OF RELEVANCE

The other school of thought on dividend decision holds that the dividend decisions considerably affect the value of the firm. The advocates of this school of thought include Myron Gordon, Jone Linter, James Walter and Richardson. According to them dividend communicate information to the investors about the firm's profitability and hence dividend decision becomes relevant. Those firms which pay higher dividends, will have greater value as compared to those which do not pay dividends or have a lower dividend pay out ratio.

The two theories representing this notion are:

- 1. Walters Approach
- 2.Gordon's Approach

1. Walter's model:

Walter's theory on dividend policy believes in the relevance concept of a dividend. According to this concept, a dividend decision of the company affects its valuation. The companies paying higher dividends have more value as compared to the companies that pay lower dividends or do not pay at all. Walter's theory further explains this concept in a mathematical model.

Crux of Walter's Model

Prof. James E Walter formed a model for share valuation that states that the dividend policy of a company has an effect on its valuation. He categorized two factors that influence the price of the share viz. dividend payout ratio of the company and the relationship between the internal rate of return of the company and the cost of capital.

Relation of Dividend Decision and Value of a Firm

According to Walter's theory, the dividend payout in relation to (Internal Rate of Return) 'r' and (Cost of Capital) 'k' will impact the value of the firm in the following ways:

Relationship between r and k	Increase in Dividend Payout	Decrease in Dividend Payout
r>k	Value of the firm decreases	Value of the firm increases
r <k< td=""><td>Value of the firm increases</td><td>Value of the firm decreases</td></k<>	Value of the firm increases	Value of the firm decreases
r=k	No change in the value of the firm	No change in the value of the firm

Assumptions of the Model: Walter's model is based on the following assumptions:

• **Internal Financing:** All the investments are financed by the firm through retained earnings. No new equity or debt is issued for the same.

- Constant IRR and Cost of Capital: The internal rate of return (r) and the cost of capital (k) of the firm are constant. The business risks remain same for all the investment decisions.
- **Constant EPS and DPS:** Beginning earnings and dividends of the firm never change. Though different values of EPS and DPS may be used in the model, but they are assumed to remain constant while determining a value.
- 100% Retention/ Payout: All the earnings of the company are either reinvested internally or distributed as dividends.
- Infinite Life: The company has an infinite or a very long life.

Valuation Formula and its Denotations: Walter's formula to calculate the market price per share (P) is:

 $P = D/k + \{r^*(E-D)/k\}/k$, where

P = market price per share

D = dividend per share

E = earnings per share

r = internal rate of return of the firm

k = cost of capital of the firm

Explanation: The mathematical equation indicates that the market price of the company's share is the total of the present values of:

- An infinite flow of dividends, and
- An infinite flow of gains on investments from retained earnings.

The formula can be used to calculate the price of the share if the values of other variables are available.

A company has an EPS of Rs. 15. The market rate of discount applicable to the company is 12.5%. Retained earnings can be reinvested at IRR of 10%. The company is paying out Rs.5 as a dividend.

Calculate the market price of the share using the Walter's model.

Here,

$$D = 5$$
, $E = 15$, $k = 12.5\%$, $r = 10\%$

Market price of the share = $P = 5/.125 + \{.10 * (15-5)/.125\} /.125 = 104$

Implications

Walter's model has important implications for firms in various levels of growth as described below:

- **Growth Firm:** Growth firms are characterized by an internal rate of return > cost of the capital i.e. r > k. These firms will have surplus profitable opportunities to invest. Because of this, the firms in growth phase can earn more return for their shareholders in comparison to what the shareholders can earn if they reinvested the dividends. Hence, for growth firms, the optimum payout ratio is 0%.
- Normal Firm: Normal firms have an internal rate of return = cost of the capital i.e. r = k. The firms in normal phase will make returns equal to that of a shareholder. Hence, the dividend policy is of no relevance in such a scenario. It will have no influence on the market price of the share. So, there is no optimum payout ratio for firms in the normal phase. Any payout is optimum.
- **Declining Firm:** Declining firms have an internal rate of return < cost of the capital i.e. r < k. Declining firms make returns that are less than what shareholders can make on their investments. So, it is illogical to retain the company's earnings. In fact, the best scenario to maximize the price of the share is to distribute entire earnings to their shareholders. The optimum dividend payout ratio, in such situations, is 100%.

Criticism of Walter's Model

Walter's theory is critiqued for the following unrealistic assumptions in the model:

- **No External Financing:** Walter's assumption of complete internal financing by the firm through retained earnings is difficult to follow in the real world. The firms do require external financing for new investments.
- Constant r and k: It is very rare to find the internal rate of return and the cost of capital to be constant. The business risks will definitely change with more investments which are not reflected in this assumption.

Summary

Though Walter's theory has some unrealistic assumptions, it follows the concept that the dividend policy of a company has an effect on the market price of its share. It explains the impact in the mathematical terms and finds the value of the share.

2. Gordon's Model:

One very popular model explicitly relating the market value of the firm to dividend policy is developed by Myron Gordon.

Assumptions:

Gordon's model is based on the following assumptions.

- 1. The firm is an all Equity firm
- 2. No external financing is available
- 3. The internal rate of return (r) of the firm is constant.
- 4. The appropriate discount rate (K) of the firm remains constant.
- 5. The firm and its stream of earnings are perpetual
- 6. The corporate taxes do not exist.
- 7. The retention ratio (b), once decided upon, is constant. Thus, the growth rate (g) = br is constant forever.
- 8. K > br = g if this condition is not fulfilled, we cannot get a meaningful value for the share.

According to Gordon's dividend capitalisation model, the market value of a share (Pq) is equal to the present value of an infinite stream of dividends to be received by the share. Thus:

$$P_0 = \frac{E_1 (1-b)}{K-br}$$

The above equation explicitly shows the relationship of current earnings (E_1) , dividend policy, (b), internal profitability (r) and the all-equity firm's cost of capital (k), in the determination of the value of the share (P_0) .

Gordon's theory on dividend policy is one of the theories believing in the 'relevance of dividends' concept. It is also called as 'Bird-in-the-hand' theory that states that the current dividends are important in determining the value of the firm. Gordon's model is one of the most popular mathematical models to calculate the market value of the company using its dividend policy.

Crux of Gordon's Model

Myron Gordon's model explicitly relates the market value of the company to its dividend policy. The determinants of the market value of the share are the perpetual stream of future dividends to be paid, the cost of capital and the expected annual growth rate of the company.

Relation of Dividend Decision and Value of a Firm

The Gordon's theory on dividend policy states that the company's dividend payout policy and the relationship between its rate of return (r) and the cost of capital (k) influence the market price per share of the company.

Relationship between r and k	Increase in Dividend Payout
r>k	Price per share decreases
r <k< td=""><td>Price per share increases</td></k<>	Price per share increases
r=k	No change in the price per share

Assumptions of the Model

Gordon's model is based on the following assumptions:

- **No Debt:** The model assumes that the company is an all equity company, with no proportion of debt in the capital structure.
- **No External Financing:** The model assumes that all investment of the company is financed by retained earnings and no external financing is required.
- **Constant IRR:** The model assumes a constant Internal Rate of Return(r), ignoring the diminishing marginal efficiency of the investment.
- Constant Cost of Capital: The model is based on the assumption of a constant cost of capital (k), implying the business risk of all the investments to be the same.

- **Perpetual Earnings:** Gordon's model believes in the theory of perpetual earnings for the company.
- Corporate Taxes: Corporate taxes are not accounted for in this model.
- Constant Retention Ratio: The model assumes a constant retention ratio (b) once it is decided by the company. Since the growth rate (g) = b*r, the growth rate is also constant by this logic.
- **K>g:** Gordon's model assumes that the cost of capital (k) > growth rate (g). This is important for obtaining the meaningful value of the company's share.

Valuation Formula and its Denotations

Gordon's formula to calculate the market price per share (P) is $P = \{EPS * (1-b)\}\ / (k-g)$

Where,

P = market price per share

EPS = earnings per share

b= retention ratio of the firm

(1-b) = payout ratio of the firm

k = cost of capital of the firm

g = growth rate of the firm = b*r

Explanation

The above model indicates that the market value of the company's share is the sum total of the present values of infinite future dividends to be declared. The Gordon's model can also be used to calculate the cost of equity, if the market value is known and the future dividends can be forecasted.

The EPS of the company is Rs. 15. The market rate of discount applicable to the company is 12%. The dividends are expected to grow at 10% annually. The

company retains 70% of its earnings. Calculate the market value of the share using the Gordon's model.

Here, E = 15

b = 70%

k = 12%

g = 10%

Market price of the share = $P = \{15 * (1-.70)\} / (.12-.10) = 15*.30 / .02 = 225$

Implications

Gordon's model believes that the dividend policy impacts the company in various scenarios as follows:

- **Growth Firm:** A growth firm's internal rate of return (r) > cost of capital (k). It benefits the shareholders more if the company reinvests the dividends rather than distributing it. So, the optimum payout ratio for growth firms is zero.
- **Normal Firm:** A normal firm's internal rate of return (r) = cost of the capital (k). So, it does not make any difference if the company reinvested the dividends or distributed to its shareholders. So, there is no optimum dividend payout ratio for normal firms.

However, Gordon revised this theory later and stated that the dividend policy of the firm impacts the market value even when r=k. Investors will always prefer a share where more current dividends are paid.

• **Declining Firm:** The internal rate of return (r) < cost of the capital (k) in the declining firms. The shareholders are benefitted more if the dividends are distributed rather than reinvested. So, the optimum dividend payout ratio for declining firms is 100%.

Criticism of Gordon's Model

Gordon's theory on dividend policy is criticised mainly for the unrealistic assumptions made in the model.

- Constant Internal Rate of Return and Cost of Capital: The model is inaccurate in assuming that r and k always remain constant. A constant r means that the wealth of the shareholders is not optimized. A constant k means the business risks are not accounted for while valuing the firm.
- **No External Financing:** Gordon's belief of all investments being financed by retained earnings is faulty. This reflects sub-optimum investment and dividend policies.

Summary

Gordon's theory of dividend policy is one of the prominent theories in the valuation of the company. Though it comes with its own limitations, it is a widely accepted model to determine the market price of the share using the forecasted dividends.

REVIEW QUESTIONS

- 1.Define Leverage?
- 2. What are the factors considered in capital structure planning and policy?
- 3. Explain MM theory of dividend? What are its assumptions?
- 4. Discuss the relationship between dividend policy and the value of the firm?
- 5. The following information is available in respect of a firm.

Capitalisation rate = 10%

Earnings per share = Rs.50

Assumed rate of return on investments:

- (1.)12%
- (2)8%
- (3)10%

Show the effect of dividend policy on market price of shares applying Walter's formula when dividend pay out ratio is (a) 0% (b)20% (c)40% (d)80% (e)100%

MODULE III UNIT 7 LEASE FINANCING AND HIRE PURCHASE

Leasing has emerged as a third important source of intermediate and long-term financing or corporate enterprises during the recent few decades. It is widely used in western countries to finance investments. In India, leasing is a recent development and equipment leasing was introduced by First Leasing Company of India Limited in 1973.

Leasing is an arrangement that provides a firm with the use and control over assets without buying and owning the same. It is a form of renting assets. Lease is a contract between the owner of the asset (lessor) and the user of the asset called the Lessee, whereby the lessor gives the right to use the asset to the lessee over an agreed period of time for a consideration called the lease rental. The lease contract is regulated by the terms and conditions of the agreement. The Lessee pays the lease rent periodically to the lessor as regular fixed payments over a period of time. At the expiry of the lease period, the asset reverts back to the lessor who is the legal owner of the asset. However in long term lease contracts, the lessee is given an option to buy or renew the lease.

Types of Leasing

There are two kinds of leases:

- 1. Operating or Service Lease
- 2. Financial Lease.

1. Operating or Service Lease

An operating lease is usually characterised by the following features

- 1. It is a short term lease on a period to period basis. The lease period in such a contract is less than the useful life of the asset.
- 2. The lease is usually cancellable by short notice by the lessee
- 3. As the period of an operating lease is less than the useful life of the asset, it doesn't necessarily amortize the original cost of the asset. The lessor has to make further leases or sell the asset to recover his cost of investment and expected rate of return.
- 4. The Lessee usually has the option of renewing the lease after the expiry of lease period.
- 5. The lessor is generally responsible for maintenance, insurance and taxes of the asset. He may also provide other serivices to the lessee.
- 6. As it is a short term cancellable lease, it implies higher risk to the lessor, but higher lease rental to the Lessee.
- 7. It is common for the equipments which require technical staff for maintenance and are exposed to technological developments. E.g.; computers, vehicles, data processing equipments, communication systems, etc.

2. Financial Lease.

A lease is classifies as financial lease if it ensures the lessor for amortisation of the entire cost or investment plus the expected return on capital outlay during the term of the lease. Such a lease is usually for a longer period and non cancellable. As a source of funds, the financial lease is an alternative similar to debt financing.

A **financial lease** is a method used by a business for acquisition of equipment with payment structured over time. To give proper definition, it can be expressed as an agreement wherein the lessor receives lease payments for the covering of ownership costs. Moreover, the lessor holds the responsibility of maintenance, taxes, and insurance.

Capital/financial lease is a commercial arrangement wherein:

- the lessee (borrower or customer) selects an asset (equipment, software, vehicle
- the lessor (finance company) purchases that asset
- the lessee uses that asset during the lease
- the lessee pays a series of instalments or rentals for using that asset
- the lessor recovers a large part or almost complete cost of the asset in addition to earning interest from the rentals paid by the lessee
- the lessee has the option of acquiring ownership of the asset (bargain option purchase price or paying the last rental)

Forms of Financial Lease

1. Sale and Leaseback:

It is a sub-part of finance lease. Under a sale and leaseback arrangement, a firm sells an asset to another party who in turn leases it back to the firm. The asset is usually sold at the market value on the day. The firm, thus, receives the sales price in cash, on the one hand, and economic use of the asset sold, on the other.

The firm is obliged to make periodic rental payments to the lessor. Sale and leaseback arrangement is beneficial for both lessor and lessee. While the former gets tax benefits due to depreciation, the latter has immediate cash inflow which improves his liquidity position.

In fact, such arrangement is popular with companies facing short-term liquidity crisis. However, under this arrangement, the assets are not physically exchanged but it all happens in records only.

This is nothing but a paper transaction. Sale and lease back transaction is suitable for those assets, which are not subjected to depreciation but appreciation, say for example, land.

2. Leveraged Leasing:

A special form of leasing has become very popular in recent years. This is known as Leveraged Leasing. This is popular in the financing of "big-tickets" assets such as aircraft, oil rigs and railway equipments. In contrast to earlier mentioned three types of leasing, three parties are involved in case of leveraged lease arrangement – Lessee, Lessor and the lender.

Leveraged leasing can be defined as a lease arrangement in which the lessor provides an equity portion (say 25%) of the leased asset's cost and the third-party lenders provide the balance of the financing. The lessor, the owner of the asset is entitled to depreciation allowance associated with the asset.

3.Direct Leasing

A firm acquires the use of an asset that it does not already own. A direct lease may be arranged from the manufacturer supplier directly or through the leasing company. In the first case the manufacturer/supplier himself act as the lessor while in the second case the lessee firm arranges the purchase of the asset for the leasing company [lessor]from the manufacturer or the supplier and also enters into an agreement with the lessor for the lease of the asset.

4.Straight Lease and Modified Lease

Straight lease requires the lessee firm to pay lease rentals over the expected service life of the asset and does not provide for any modifications to the terms and conditions of the basic lease.

Modified lease on the other hand provides several options to the lessee during the lease period. For example, the option of terminating the lease may be providing by either purchasing the asset or returning the same.

5.Primary and Secondary Lease [Front ended and Back Ended Lease]

Under primary and secondary lease, the lease rentals are charged in such a manner that the lesser recovers the cost of the asset and acceptable profit during the initial period of the lease and then a secondary lease is provided at nominal rentals. In simple words, the rentals charged in the primary period are much more than that of the secondary period. This form of lease arrangement is also known as front ended and back ended scheme.

UNIT 8

FINANCIAL EVALUATION OF LEASING

Once a firm has evaluated the economic viability of an asset as an investment and accepted/selected the proposal, it has to consider alternate methods of financing the investment. However, in making an investment, the firm need not own the asset. It is basically interested in acquiring the use of the asset.

Thus, the firm may consider leasing of the asset rather than buying it. In comparing leasing with buying, the cost of leasing the asset should be compared with the cost of financing the asset through normal sources of financing, i.e., debt and equity.

Since, payment of lease rentals is similar to payment of interest on borrowings and lease financing is equivalent to debt financing, financial analysts argue that the only appropriate comparison is to compare the cost of leasing with that of cost of borrowing. Hence, lease financing decisions relating to leasing or buying options primarily involve comparison between the cost of debt-financing and lease financing.

The evaluation of lease financing decisions from the point of view of the lessee involves the following steps:

- (i) Calculate the present value of net-cash flow of the buying option, called NPV (B).
- (ii) Calculate the present value of net cash flow of the leasing option, called NPV (L)
- (iii) Decide whether to buy or lease the asset or reject the proposal altogether by applying the following criterion:
- (a) If NPV (B) is positive and greater than the NPV (L), purchase the asset.
- (b) If NPV (L) is positive and greater than the NPV (B), lease the asset.
- (c) If NPV (B) as well as NPV (L) are both negative, reject the proposal altogether.

Since many financial analysts argue that the lease financing decisions arise only after the firm has made an accept-reject decision about the investment; it is only the comparison of cost of leasing and borrowing options.

The following steps are involved in such an analysis:

- (i) Determine the present value of after-tax cash outflows under the leasing option.
- (ii) Determine the present value of after-tax cash outflows under the buying or borrowing option.
- (iii) Compare the present value of cash outflows from leasing option with that of buying/borrowing option.
- (iv) Select the option with lower presented value of after-tax cash outflows.

We have illustrated the above analysis in the following illustrations.

Illustration 1:

A limited company is interested in acquiring the use of an asset costing Rs. 5,00,000. It has two options:

(i) To borrow the amount at 18% p.a. repayable in 5 equal instalments or

(ii) To take on lease the asset for a period of 5 years at the yearend rentals of Rs. 1,20,000.

The corporate tax is 50% and the depreciation is allowed on w.d.v. at 20%. The asset will have a salvage of Rs. 1,80,000 at the end of the 5th year.

You are required to advise the company about lease or buy decision. Will decision change if the firm is allowed to claim investment allowance at 25%?

Note:

(1) The present value of Re. 1 at 18% discount factor is:

1st year - .847

2nd year - .718

3rd year - .609

4th year -.516

5th year -.437

(2) The present value of an annuity of Re. 1 at 18% p.a. is Rs. 3.127.

Solution:

(i) Calculation of loan instalment

Loan Instalment $= \frac{\text{Amount of Loan}}{\text{P.V. Factor of Annuity}}$ $= \frac{5.00,000}{3.127}$ = ₹ 1.59,898 appx.

(ii) Schedule of Loan Payment

Year	Loan Balance at beginning of theyear	Loan Instalment	Interest Payment	Principal Payment	Loan Balance at the end of the year
	(3)	(₹)	(3)	(₹)	(₹)
1.	5,00,000	1,59,898	90,000	69,898	4,30,102
2.	4,30,102	1,59, 898	77,418	82,480	3,47,622
3.	3,47,622	1,59,898	62,572	97,326	2,50,296
4.	2,50,296	1,59,898	45.053	1,14, 845	1,35,451
5.	1.35,451	1,59,832*	24,381	1,35,451	Nil

The amount of loan instalment in the last year is different from the equal payments because of compensation for rounding error.

(iii) Calculation of Present Value of After-Tax Cash Outflows under Borrowing/Buying Option

		1	ax Saving on		Net cash	P.V. factor	P.V. of after
Year end	Loan Instalment (で)	Interest	Dep. (afier-tax) (₹)	Total (₹)	Outflow (3)	at 18%	tax Net cash Outflow (₹)
Col. 1	2			3	4 = 2-3	5	6
1.	1.59,898	45,000	50,000	95,000	64,898	.847	54,969
2.	1,59,898	38,709	40,000	78,709	81,189	.718	58,294
3.	1,59,898	31,286	32,000	63,286	96,612	.609	58,837
4.	1,59,898	22,527	25,600	48,127	1,11,771	.516	57.674
5.	1,59,832	12,190	20,480	32,670	1,27,162	.437	55.570

Less: P.V. of salvage at the end of 5th year (1,80,000 × .437) Total: 2,85,344
2,86,600
2,06,684

end Rental on Lease Rent Cash Outflow Factor at 18% Cash O	Year	Lease	Tax Savings	After-Tax	P.V. Annuity	Total P.V
	end	Rental	on Lease Rent	Cash Outflow	Factor at 18%	Cash Outfl

(v) Evaluation:

As the present value of after-tax cash outflows under the leasing option is lesser than the present value of after-tax cash outflows of the buying option, it is advisable to take the asset on lease.

(vi) Decision if Investment Allowance is allowed:

In case Investment Allowance is allowed on purchase of asset the total of present value of net cash outflows will decrease by the present value of tax savings on investment allowance as below:

Investment Allowance :	?
(allowed at the end of 1st year) $5,00,000 \times \frac{25}{100}$	1,25,000
Tax Savings (50%)	62,500
P.V. Factor at the end of year 1	.847
P.V. of Tax Savings on Investment Allowance	52,938
Hence, P.V. of Cash Outflows in Buying Option shall be = ₹ 2,06,684-52,938	1,53,746

In that case, the P.V. of cash outflows under buying option shall be lesser than the P.V. of cash outflows under leasing option and the company should buy the asset.

Lessor's Point of View:

The financial viability of leasing out an asset from the point of view of lessor can be evaluated with the help of the two time adjusted methods of capital budgeting:

- (a) Present Value Method
- (b) Internal Rate of Return Method.
- (a) Present Value Method:

This method involves the following steps:

- (i) Determine cash outflows by deducing tax advantage of owning an asset, such as investment allowance, if any.
- (ii) Determine cash inflows after-tax as below:

Lease Rental (say)	£33	1,00,000
Less: Depreciation (say)		20,000
Earnings Before Tax (EBT)		80,000
Less: Tax (say 50%)		40,000
Earnings After Tax (EAT)		40,000
Add: Depreciation		20,000
Cash Inflows After Tax (CFAT)		60,000

- (ii) Determine the present value of cash outflows and after tax cash inflows by discounting at weighted average cost of capital of the lessor.
- (iv) Decide in favour of leasing out an asset if P.V. of cash inflows exceeds the P.V. of cash outflows, i.e., if the NPV is +ve; otherwise in case N.P.V. is -ve, the lessor would lose on leasing out the asset.

The above technique has been explained with the help of the following example.

Illustration 2:

From the information given below, you are required to advise about leasing out of the asset:

Cost of Equipment	₹4,00,000	
Average Cost of Capital to the lessor	12%	
Depreciation (Allowable)	20%	on original cos
Expected Life of Asset	5	years
Salvage Value	Nil	
Lease Rent payable at the		
end of each of 5 years	₹ 1,50,000	
Corporate Tax (applicable to lessor)	50%	
P.V. of an annuity of Re. 1 for 5 years at 12% is ₹ 3.605		

Solution:

(1)	Calculation of Cas Cost of Equipment Less · Tax Advantag Cash Outflow				4,00,000 Nil 4,00,000
(ii)	Calculation of Afte	er-Tax Cash Inflows			(3)
	Lease Rental Less: Depreciation Earnings Before Tax Less: Tax at 50% Earnings After Tax Add: Depreciation Cash Inflows After	(EBT) (EAT)	ñ		1,50,000 80,000 70,000 35,000 35,000 80,000 1,15,000
(iii)	Calculation of Pres	sent Value (P.V.) of Cash Outf	lows		
	Year (7) 0	Cash Outflow (で) 4.00,000	P.V. Discount Factor at 12% 1.00		(Cash Outflow (7) 4,00,000
(iv)	Calculation of P.	v. of Cash Inflows			
	Year	Cashflow After Tax (CFAT) ₹	P.V. Annuity Discount Factor at 12%	P.V. o	f Cash Inflows ₹
	1-5	1,15,000	3.605		4,14.575
(iv)	Calculation of Net	Present Value		- The state of	₹
	Present value of Cas Less: P.V. of Cash Net Present value of	Outflows			4.14.575 4.00,000

Since the present value of cash inflows is more than the present value of cash outflows or says N.P.V. is positive, it is desirable to lease out the asset.

(b) Internal Rate of Return Method:

The internal rate of return can be defined as that rate of discount at which the present value of cash-inflows is equal to the present value of cash outflows.

It can be determined with the help of the following mathematical formula:

$$C = A_1/(1+r) + A_2/(1+r)^2 + A_3/(1+r)^3 + \dots + A_n/(1+r)^n$$

where, C = Initial Outlay at time Zero.

 $A_1, A_2, \ldots A_n$ = Future net cash flows at different periods.

 $2,3 \ldots, =$ Numbers of years

r = Rate of discount of internal rate of return.

The Internal rate of return can also be determined with the help of present value tables.

The following steps are required to practice the internal rate of return method:

- (1) Determine the future net cash flows for the period of the lease. The net cash inflows are estimated future net cash flows for the period of the lease. The net cash inflows are estimated future earnings, from leasing out the asset, before depreciation but after taxes.
- (2) Determine the rate of discount at which the present value of cash inflows is equal to the present value of cash outflows. This may be determined as follows:
- (a) When the annual net cash flows are equal over the life of the asset:

Firstly, find out Present Value Factor by dividing initial outlay (cost of the investment) by annual cash flow, i.e., Present Value Factor = Initial Outlay/Annual Cash Flow. Then, consult present value annuity tables with the number of year equal to the life of the asset and find out the rate at which the calculated present value factor is equal to the present value given in the table.

Illustration 3:

Initial Outlay	₹ 50,000
Life of the Asset	5 years
Estimated Annual Cash-flow	₹ 12,500
Calculate the Internal Rate of Return.	

Solution:

Present Value Factor $= \frac{\text{Initial Outlay}}{\text{Annual Cash Flow}}$ $= \frac{50,000}{13,500} = 4.$

Consulting Present Value Annuity Tables for 5 years periods at Present Value Factor of 4. (For Present Value Tables see Appendix A and B given at the end of the book)

Internal Rate of Return =8% approx.

(as seen from the table that at 8% for 5 year period, the present value is 3.9927 which is nearly equal to 4.)

(b) When the annual cash flows are unequal over the life of the asset:

In case annual cash flows are unequal over the life of the asset, the internal rate of return cannot be determined according to the technique suggested above. In such cases, the internal rate of return is calculated by hit and trial and that is why this method is also known as hit and trial yield method.

We may start with any assumed discount rate and find out the total present value of all the cash flows by consulting present value tables.

The so calculated total present value of cash inflows as compared with the present value of cash outflows which is equal to the cost of the initial investment where total investment is to be made in the beginning. The rate, at which the total present value of all cash inflows equals the initial outlay, is the internal rate of return. Several discount rates may have to be tried until the appropriate rate is found. The calculation process may be summed up as follows.

- (i) Prepare the cash flow table using an arbitrary assumed discount rate to discount the net cash flow to the present value.
- (ii) Find out the Net Present Value by deducting from the present value of total cash flows calculated in (i) above the initial cost of the investment.
- (iii) If the Net Present Value (NPV) is positive, apply higher rate of discount.
- (iv) If the higher discount rate still gives a positive net present value, increase the discount rate further until the NPV becomes negative.
- (v) If the NPV is negative at this higher rate, the internal rate of return must be between these two rates:

- (3) Accept the proposal if the internal rate of return is higher than or equal to the minimum required rate of return, i.e. the cost of capital or cut off rate.
- (4) In case of alternative proposals select the proposal with the highest rate of return as long as the rates are higher than the cost of capital or cut-off rate.

Illustration 4:

Initial Investment – Rs. 60,000

Life of the Asset -4 years

Estimated Net Annual Cash Flows:

1st Year	15,000
2nd Year	20,000
3rd Year	30,000
4th Year	20,000

Compute the internal rate of return and also advise the lessor about the leasing out decision if his expected minimum rate of return is 15%.

Note:

Present Value Factor at various rates of discount.

22:15	Distriction in	Discount	rate 10%	12	2%	14%		15%	
Year	Annual Cash Flow ₹	P.V.F.	P.V. ₹	P.V.F.	P.V. ₹	P.V.F.	P.V. ₹	P.V.F.	P.V. ₹
1	15,000	.909	13,635	.892	13,380	.877	13.155	.869	13.035
2	20,000	.826	16,520	.797	15,940	.769	15,380	.756	15,120
3	30,000	.751	22.530	.711	21,330	.674	20,220	.657	19,710
4	20,000	.683	13,660	.635	12,700	.592	11,840	.571	11.420
	1 750F= 7	= 120	66,345		63,350		60,595	3	59,285

- (1) The present value of cash flows at 14% rate of discount is Rs. 60,595 and at 15% rate of discount it is t 59,285. So the initial cost of investment which is Rs. 60,000 falls in between these two discount rates. At 14% the NPV is + 595 but at 15% the NPV is -715, we may say that IRR = 14.5% (approx).
- (2) As the IRR is less than the minimum required rate of return, the lessor should not lease out the asset.

EQUIVALENT LOAN METHOD

The lessee might evaluate the lease using the equivalent loan method, which involves comparing the net savings at Time 0 if the asset is leased with the present value of the incremental costs of leasing over the term of the lease. If the Time 0 savings is greater than the present value of the incremental costs, there is an advantage to leasing.

Equivalent loan is the loan which a firm may take and has the same cash flow commitment as the lease. It means that in terms of payment obligations of the firm, the lease and equivalent loan have identical effect. Thus, equivalent loan can be defined as that amount of loan which would produce the firms commitment for cash flow exactly same as that of lease. The evaluation of financial lease by equivalent loan method involves the following steps:-

- 1. determine the periodic cash flows from leasing
- 2. calculate equivalent loan which these periodic cash flows can service
- 3. compare the amount of equivalent loan with the amount of lease finance. If the amount of lease finance is more than the value of equivalent loan, it would be better to finance the asset by leasing, otherwise loan would be a better option

METHOD OF COMPUTING LEASE RENTALS

The following steps are involved in computing lease rentals:-

- 1. Determine the cost of the asset which includes the actual purchase price and expenses like freight, insurance, taxes and installation, etc.
- 2. Determine the cash flows to the lessor on account of ownership of the asset. These include tax advantage provided by depreciation and investment allowance.
- 3. Calculate the present value of cash flows as determined in step 2.
- 4. Subtract the present value of cash flows of ownership advantage from the cost of the asset determined in step 1 so as to determine the minimum required net recovery through lease rentals.
- 5. Calculate the post-tax lease rentals by dividing the minimum required net recovery through lease rentals by present value factor of annuity.

6. Compute the pretax lease rentals by adjusting the post-tax lease rentals for the tax factor. The above method of computing lease rentals can be followed from the following illustration.

Illustration 1:

ABC Leasing is considering to lease out an equipment costing Rs. 10,00,000 for five years, which is the expected life of the equipment, and has an estimated salvage value of Rs. 1,00,000. Sunny Leasing can claim a depreciation of 20% on w.d.v. of the asset but is not eligible for investment allowance.

The firm falls under a tax rate of 50% and the minimum post-tax required rate of return is 12%. You are required to calculate the lease rental which the firm should charge.

Note:

(1) Present Value Factor at 12% discount rate is as below:

Year 1 = .893; Year 2 = .797; Year 3 = .712; Year 4 = .636 and Year 5 = .567

(2) Annuity Discount Factory at 12% for 5 years = 3.605.

Solution:

(ii) Calculation of cash flows to the lessor on account of ownership of the asset :					
Year	Amount of Depreciation	Tax Advantage on Dep.	Tax advantage on Investment Allowance	Salvage Value	Total C.F.
	(3)	(₹)	(9)	(₹)	(4)
1.	2,00,000	1,00,000	Nil	-	1.00,000
2.	1,60,000	80,000	_	- T-	80,000

(i) The cost of the equipment = ₹ 10,00,000 (given)

Year	Cash Flows	P.V. Factor at 12%	P.V. of Cash Flolw ₹
1	1,00,000	.893	89,300
2	80,000	.797	63.760
3	64,000	.712	45,568
4	51,200	.636	32,563
5	1,40,960	.567	79.924
		Total :	3,11,115

(iv) Minimum required net recovery through lease rentals:

64,000

51,200

40,960

=₹10,00,000-3,11,115 =₹6,88,885 MRLR

Post-tax Lease Rental (PTLR)

1.28,000

1,02,400 81,920

$$=\frac{6.88,885}{3.605}$$

=₹1,91,092

(vi) Pre-tax Lease Rental (LR)

$$=1.91.092 \times \frac{100}{50} = \text{Rs. } 3.82.184$$

.. Lease Rent expressed in terms of lease financing

$$=3,82,184 \times \frac{1,000}{10,00,000} \times \frac{1}{12}$$

= 31.85 per thousand per month.

64.000

51,200

1,40,960

1,00,000

UNIT 9

ECONOMICS/PROS AND CONS OF LEASING

Leasing is becoming a preferred solution to resolve fixed asset requirements vs. purchasing the asset. While evaluating this investment, it is essential for the owner of the capital to understand whether leasing would yield better returns on capital or not. Let us have a look at leasing advantages and disadvantages:

Advantages of Leasing:

- 1. Balanced Cash Outflow: The biggest advantage of leasing is that cash outflow or payments related to leasing are spread out over several years, hence saving the burden of one-time significant cash payment. This helps a business to maintain a steady cash-flow profile.
- 2. Quality Assets: While leasing an asset, the ownership of the asset still lies with the lessor whereas the lessee just pays the rental expense. Given this agreement, it becomes plausible for a business to invest in good quality assets which might look unaffordable or expensive otherwise.
- 3. Better Usage of Capital: Given that a company chooses to lease over investing in an asset by purchasing, it releases capital for the business to fund its other capital needs or to save money for a better capital investment decision.
- 4. Tax Benefit: Leasing expense or lease payments are considered as operating expenses, and hence, of interest, are tax deductible.
- 5. Off-Balance Sheet Debt: Although lease expenses get the same treatment as that of interest expense, the lease itself is treated differently from debt. Leasing is classified as an off-balance sheet debt and doesn't appear on company's balance sheet.
- 6. Better Planning: Lease expenses usually remain constant for over the asset's life or lease tenor, or grow in line with inflation. This helps in planning expense or cash outflow when undertaking a budgeting exercise.
- 7. Low Capital Expenditure: Leasing is an ideal option for a newly set-up business given that it means lower initial cost and lower Capital Expenditure requirements.
- 8. No Risk of Obsolescence: For businesses operating in the sector, where there is a high risk of technology becoming obsolete, leasing yields great returns and saves the business from the risk of investing in a technology that might soon become out-dated. For example, it is ideal for the technology business.

9. Termination Rights: At the end of the leasing period, the lessee holds the right to buy the property and terminate the leasing contract, this providing flexibility to business.

Disadvantages of Leasing:

- 1. Lease Expenses: Lease payments are treated as expenses rather than as equity payments towards an asset.
- 2. Limited Financial Benefits: If paying lease payments towards a land, the business cannot benefit from any appreciation in the value of the land. The long-term lease agreement also remains a burden on the business as the agreement is locked and the expenses for several years are fixed. In a case when the use of asset does not serve the requirement after some years, lease payments become a burden.
- 3. Reduced Return for Equity Holders: Given that lease expenses reduce the net income without any appreciation in value, it means limited returns or reduced returns for an equity shareholder. In such case, the objective of wealth maximization for shareholders is not achieved.
- 4. Debt: Although lease doesn't appear on the balance sheet of a company, investors still consider long-term lease as debt and adjust their valuation of a business to include leases.
- 5. Limited Access of Other Loans: Given that investors treat long-term leases as debt, it might become difficult for a business to tap capital markets and raise further loans or other forms of debt from the market.
- 6. Processing and Documentation: Overall, to enter into a lease agreement is a complex process and requires thorough documentation and proper examination of an asset being leased.
- 7. No Ownership: At the end of leasing period the lessee doesn't end up becoming the owner of the asset though quite a good sum of payment is being done over the years towards the asset.
- 8. Maintenance of the Asset: The lessee remains responsible for the maintenance and proper operation of the asset being leased.
- 9. Limited Tax Benefit: For a new start-up, the tax expense is likely to be minimal. In these circumstances, there is no added tax advantage that can be derived from leasing expenses.

REVIEW QUESTIONS

- 1. Compare operating lease with financial lease?
- 2."Leasing is beneficial to both, the lessee as well as lessor ". Examine.
- 3. What is sale and lease back?
- 4. What is direct Leasing
- 5.An equipment costing Rs.500 000 with a five year life, can be leased for 5 years for payments of Rs.120 000 per year at the end of each year. Alternatively you can borrow Rs.5 lakh nad buy the equipment, 6% interest is payment on the outstanding balance at the close of each year, the principal being repayable in 5 equal instalments.

You are to compute depreciation at 20% on the original cost p.a. corporate tax is to be reckoned at 50% and a fair return of 10% after tax is expected on the business funds. The present value factors for discounting at 10% are as follows:

Year 1 -
$$0.909$$
 year 2 - 0.826 year 3 - 0.751 year 4 - 0.683

Year 5 - 0.621

Present your choice with comparative analysis?

MODULE IV UNIT 10 MERGER STRATEGY

Strategies play an integral role when it comes to merger and acquisition. A sound strategic decision and procedure is very important to ensure success and fulfilling of expected desires. Every company has different cultures and follows different strategies to define their merger. Some take experience from the past associations, some take lessons from the associations of their known businesses, and some hear their own voice and move ahead without wise evaluation and examination.

Following are some of the most essential strategies of merger and acquisition that can work wonders in the process:

- The first and foremost thing is to determine business plan drivers. It is very important to convert business strategies to set of drivers or a source of motivation to help the merger succeed in all possible ways.
- There should be a strong understanding of the intended business market, market share, and the technological requirements and geographic location of the business. The company should also understand and evaluate all the risks involved and the relative impact on the business.
- Then there is an important need to assess the market by deciding the growth factors through future market opportunities, recent trends, and customer's feedback.
- The integration process should be taken in line with consent of the management from both the companies venturing into the merger.
- Restructuring plans and future parameters should be decided with exchange of information and knowledge from both ends. This involves considering the work culture, employee selection, and the working environment as well.
- At the end, ensure that all those involved in the merger including management of the merger companies, stakeholders, board members, and investors agree on the defined strategies. Once approved, the merger can be taken forward to finalizing a deal.

Growth is always essential for the existence of a business concern. A concern is bound to die if it does not try to expand its activities. There may be a number of reasons which are responsible for the expansion of business concern.

Predominant reasons for expansion are economic but there may be some other reasons too. Following are the reasons for expansion.

- 1. Existence: The existence of the concern depends upon its ability to expand. In a competitive world only the fittest survives. The firm need to control its costs and improve its efficiency so that it may be achieved if the activities of the firm are expansion is essential for the existence of the firm otherwise it may result into failure and may be out of business.
- 2. Advantages of large scale: A large scale business enjoys a number of economics in production, finance, marketing and management. All these economies enable a firm to keep its costs under control and have an upper hand over its competitors. A large scale concern can also withstand the cyclical changes in the demands of their products.
- 3. Use for higher profits: Every businessman aspires to earn more profits. The volume of profits can be the expansion of business activities. Undoubtedly, profit is the main motive behind all types of expansions. The incurring of higher costs at the time of expansion may not be associated with the higher profits. If a new concern is purchased at a higher price without considering economic aspects, it will not be wise expansion plan. One should be very careful while planning expansion scheme and economic factors should be the motivating force to enable a concern to increase its profits.
- 4. Monopolistic Ambitions: One of the important factors behind business expansion is the monopolistic ambition of business leaders. They try to control more and more concerns in the same line so that they may be able to dictate their terms. So expansion also results out of monopolistic ambitions.
- 5. Better management: A bigger business concern can afford to use the services of experts. Various management functions can be efficiently managed by these persons who are qualified for such jobs. On the other hand, a small concern is generally managed by the owners themselves and they may not be experts in all departments of the business.
- 6. Natural Urge: The expansion is also a way of life. As everybody wants to go higher and higher in his private life and this is applicable to a business concern too. Every businessman wants to expand its activities in a natural way. It not only gives him more profits but also gives him satisfaction.

Forms of expansion

The expansion of a concern may be in the activities or acquisition of ownership and control of other concern. Thus, expansion may be;

- Internal Expansion
- External Expansion

(i) Internal Expansion

Internal expansion results from the gradual increase in the activities of the concern. The concern may expand its present production capacity by adding more machines or by replacing old machines with the new machines with higher productive capacity. The internal expansion can also be undertaken by taking up the production of more units or by entering new fields on the production and marketing sides. Internal expansion may be financed by the issue of more share capital, generating funds from old profits or by issuing long term securities. The net result of internal expansion is the increase in business activities and broadening the present capital structure.

(ii) External expansion or Business combination

External expansion refers to business combination where two or more concerns combines and expand their business activities. The ownership and control of the combined concerns may be undertaken by a single agency.

Business combination is a method of economic organization by which a common control, of greater or lesser completeness is exercised over a number of firms which either is operating in competition or independently. This control may either be temporary or permanent, for all or only for some purposes. This control over the combining firm can be exercised by a number of methods which in turn give rise to various forms of combinations.

In the process of combination, two or more units engage in similar business or in different related process or sages of the same business join with a view to carry on their activities or shape or shape their polices on common or coordinated basis for mutual benefit or maximum profits. The combination may be among competing units or units engaged in different processes. After combination, the constituted firm pursues some common objectives or goals.

Business combinations are combinations formed by two or more business units, with a view to achieving certain common objective (specially elimination of competition); such combinations ranging from loosest combination through associations to fastest combinations through complete consolidations.

L.H. Haney defines a combination as follows:

"To combine is simply to become one of the parts of a whole; and a combination is merely a union of persons, to make a whole or group for the prosecution of some common purposes."

Causes of Business Combinations:

Some of the outstanding causes leading to the formation of business combinations are described below:

(i) Wasteful Competition:

Competition, which is said to be the 'salt of trade', by going too far, becomes a very powerful instrument for the inception and growth of business combinations. In fact, competition, according to Haney, is the major driving force, leading to the emergence of combinations, in industry.

(ii) Economies of Large-Scale Organization:

Organisation of production on a large scale brings a large number of well-known advantages in its wake – like technical economies, managerial economies, financial economies, marketing economies and economies vis-a-vis greater resistance to risks and fluctuations in economic activities. Economies of large scale operations, thus become, a powerful force causing increased race for combinations.

(iii) Desire for Monopoly Power:

Monopoly, a natural outcome of combination, leads to the control of market and generally means larger profits for business concerns. The desire to secure monopolistic position certainly prompts producers to join together less than one banner.

(iv) Business Cycles:

Trade cycles, the alternate periods of boom and depression, lead to business combinations. Boom period i.e. prosperity period leading to an unusual growth of firms to reap rich harvest of profits results in intense competition; and becomes a ground for forming combinations.

Depression, the times of economic crisis-with many firms having to only option to close down-prompts business units to combine to ensure their survival.

(v) Joint Stock Companies:

The corporate form of business organization is a facilitating force leading to emergence of business combinations. In joint stock companies, control and management of various corporate enterprises can be concentrated, in a 'small group of powerful persons through acquiring a controlling amount of shares of different companies.

(vi) Influence of Tariffs:

Tariffs have been referred to as "the mother of all trusts". (A trust is a form of business combinations). Tariffs do not directly result in combinations; they prepare the necessary ground for it. In fact, imposition of tariffs restricts foreign competition; but increases competition among domestic producers. Home producers resort to combinations, to protect their survival.

(vii) Cult of the Colossal (or Respect for Bigness):

In the present-day-world, business units of bigger size are more respected than units of small size. Those who believe in the philosophy of power and ambition, compel small units to combine; and are instrumental in forming powerful business combinations, in a craze for achieving bigness.

(viii) Individual Organising Ability:

The scarcity of organizing talent has also induced the formation of combinations, in the business world. Many-a-times, therefore, combinations are formed due to the ambition of individuals who are gifted with organising ability. The number of business units is far larger than the skilled business magnates; and many units have to combine to take advantage of the organising ability of these business brains.

Causes of business combinations - at a glance

- 1. Wasteful competition
- 2. Economies of large scale organization
- 3. Desire for monopoly power
- 4. Business cycles
- 5. Join stock companies
- 6. Influence of tariffs
- 7. Cult of the colossal (or Respect for bigness)
- 8. Individual organising ability

Types of Business Combinations:

Business combinations are of the following types:

- (i) Horizontal Combinations.
- (ii) Vertical Combinations.

(iii) Lateral or Allied Combinations:

Lateral combination refers to the combination of those firms which manufacture different kinds of products; though they are allied in some way.

Lateral combination may be:

(a) Convergent lateral combination:

In convergent lateral combination, different industrial units which supply raw-materials to a major firm, combine together with the major firm. The best illustration is found in a printing press, which may combine with units engaged in supply of paper, ink, types, cardboard, printing machinery etc.

(b) Divergent lateral combination:

Divergent lateral integration takes place when a major firm supplies its product to other combing firms, which use it as their raw material. The best example of such combination may be found in a steel mill which supplies steel to a number of allied concerns for the manufacture of a variety of products like tubing, wires, nails, machinery, locomotives etc.

(iv) Diagonal (or Service) Combinations:

This type of combination takes place when a unit providing essential auxiliary goods / services to an industry is combined with a unit operating in the main line of production. Thus, if an industrial enterprise combines with a repairs workshop for maintaining tools and machines in good order; it will be effecting diagonal combination.

(v) Circular (or Mixed) Combinations:

When firms engaged in the manufacture of different types of products join together; it is known as circular or mixed combination. For example, if a sugar mill combines with a steel works and a cement factory; the result is a mixed combination.

Forms of Business Combinations:

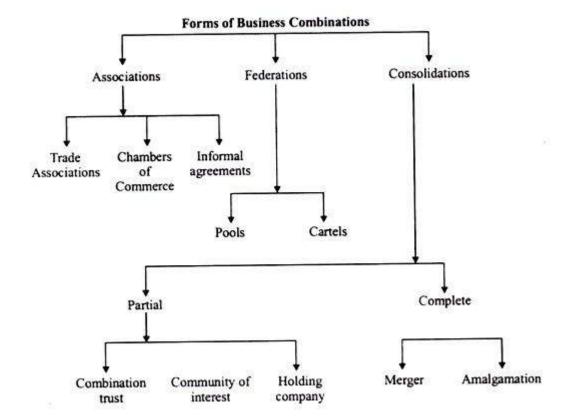
By the phrase 'forms of combinations', we mean the degree of combination, among the combining business units.

According to Haney, combinations may take the following forms, depending on the degree or fusion among combining firms:

- (I) Associations:
- (i) Trade associations
- (ii) Chambers of commerce
- (iii) Informal agreements
- (II) Federations:
- (i) Pools
- (ii) Cartels
- (III) Consolidations Partial and Complete:
- () Partial Consolidations:
- (i) Combination trusts
- (ii) Community of interest
- (iii) Holding company

(b) Complete Consolidations:

- (i) Merger
- (ii) Amalgamation



The following chart depicts the above forms of business combinations:

Following a brief account of the above forms of business combinations:

(I) Associations:

Forms of Combinations, in this Category are:

(i) Trade Associations:

A trade association comes into being when business units engaged in a particular trade or industry or in closely related trades come together for the promotion of their economic and business interests. Such an association is organized on a non-profit basis and its meetings are used largely for a discussion of matters affecting the common interests of members such as problems of raw-materials, labour, tax-laws etc.

Most of the trade associations are organised on a local or territorial basis. A trade association is the loosest form of combination and it does not interfere with the internal management of a member unit.

(ii) Chambers of Commerce:

Chambers of commerce is voluntary associations of persons connected with commerce and industry. Their membership consists of merchants, brokers, bankers, industrialists, financiers etc.

Chambers of commerce is formed in the same way as associations, with the ultimate objective of promoting and protecting the interests of business community. But they differ from trade associations in that they do not confine their interests only to a particular trade or industry; but stand for the business community in a particular region, country, or even the world, as a whole.

Chambers of commerce act as spokesmen of business community and make suggestions to the government regarding legislations that will foster trade and industry. The constitution and composition of chambers of commerce vary from country to country. In most of the countries, they are voluntarily organised by businessmen; though the government maintains close contacts with them.

(iii) Informal Agreements:

Informal agreements are types of business combinations which may be formed for the purpose of regulating production or for dividing the markets or for fixation of prices etc. Such agreements require the surrender of some freedom by the combining business units; though ownership and control of combining units is not affected.

Informal agreements among business magnates are often concluded secretly at social functions like dinners or at meetings of trade associations etc. These agreements are merely understanding among the parties and no written documents are prepared. As they depend mainly on the honour and sincerity of members; they are referred to as Gentlemen's agreements.

(II) Federations:

Forms of Business Combinations in this Category are:

(i) Pools:

Under the pool form of business combination, the members of a pooling agreement join together to regulate the demand or supply of a product without surrendering their separate entities, in order to control price.

Important Types of Pools are:

(a) Output Pools:

Under these pools, the current demand for the product of the industry is estimated; and quotas of output for various member units are fixed. Member units are expected to produce only up-to the quota, and sell their products at a price determined by the pooling association.

(b) Traffic Pools:

Such pools are formed by shipping companies, airlines, railway companies and road transport agencies; with the basic objective to limit competition through a division of the area of operation.

(c) Market Pools:

These pools are formed with the objective of ensuring a certain demand to each member. For this purpose, the entire market is divided among the members in any of these three ways by customers, or by products or by territories.

(d) Income and Profit Pools:

In these pools, members of the pooling association are required to deposit a very high percentage (say 80%) of the gross receipts in the common pool for redistribution among members on an agreed basis.

(ii) Cartels (Kartells):

Basically cartel is the European name for the American pools. According to Von Beckereth, "A cartel is a voluntary agreement of capitalistic enterprises of the same branch for a regulation of the sales market with a view to improving the profitableness of its members' business."

Von Beckereth mentions the following broad types of cartels:

(a) Price-Fixing Cartels:

In this type, prices are fixed for goods and members cannot sell below those prices.

(b) Term-Fixing Cartels:

In this type, terms regarding sales e.g. rate of discount, period of credit; terms of payment etc. are prescribed.

(c) Customer Assigning Cartels:

In this type, each member unit is allotted certain customers.

(d) Zonal Cartels:

In this type, division of market among units takes place; but generally these cartels are formed for dividing the world market.

(e) Quota-Fixing Cartels:

In this type, production quotas are fixed for each member; and no member would produce more than the allotted quota.

(f) Syndicates (or Cartels Proper):

This type of cartel is brought into existence, through an agreement among a number of competing producers to establish a joint selling agency (called syndicate) for the exclusive sales of their products. Member units sell their products to the syndicate at a price called the accounting price.

The syndicate sells to consumers at a price higher than the accounting price; and the profits earned are distributed among members on an agreed basis.

(III) Consolidations:

As a Form of Business Combinations, Consolidations may be:

(a) Partial Consolidations:

Under partial consolidations, the combining units surrender their freedom for all practical purposes to the combination organisation; but retain respective individual entities nominally.

Popular Types of Partial Consolidation are the following:

(i) Combination Trusts:

A combination trusts is an arrangement by which the business control is entrusted to the care of trustees, by a number of business concerns. It consists in the transfer to trustees of the voting rights arising from the possession of shares.

The trust has a separate legal existence. The control and administration of the combining units are consolidated; and they have to forgo a large measure of their independence and autonomy in directing their affairs. The shareholders of combining companies get trust certificates from the Board of Trustees; which show their equitable interest in the income of the combination.

(ii) Community of Interest:

When trusts were declared illegal in the U.S.A.; the business leaders devised a new form of combination 'Community of interest', for keeping a number of companies under some kind of common control.

A community of interest may be defined as form of business combination in which, without any central administration, the business policy of several companies is controlled, by a group of common shareholders or directors.

(iii) Holding Company:

A holding company is a concept recognized by law in India and most other countries. A holding company is any company which holds more than half of the equity share capital of other companies or controls the composition of the board of directors of other companies (called the subsidiary companies).

Further, a company which is a subsidiary of another subsidiary company will be the subsidiary of that other holding company too. If e.g. C is a subsidiary of B; and B is a subsidiary of A; then C will be deemed to be a subsidiary of A through the medium of B.

(b) Complete Consolidations:

Complete consolidation is that form of business combination under which there is a complete fusion of the combining units and the separate entities of these units are surrendered in favour of the consolidated unit.

There are Two Forms of Complete Consolidation:

(i) Merger:

In merger, one or more companies merge with another existing company. The absorbing company retains its entity and enlarges its size through merger. The company which is absorbed, on the other hand, loses its entity in the absorbing company.

(ii) Amalgamation:

An amalgamation implies the creation of a new company by a complete consolidation of two or more combining units. Under amalgamation none of the existing companies retains its entity. There is a complete fusion of various existing companies, leading to the formation of an altogether new company.

Legal and Procedural Aspects of Mergers

Following Steps are Taken in this Procedure

- 1. **Analysis of proposal by the companies:** whenever a proposal for merger or amalgamation comes up then managements of concerned companies look into the pros and cons of the scheme. The likely benefits such as economies of scale, operational economies, improvement in efficiency, reduction in cost, benefits of diversification, etc. are clearly evaluated. The likely reaction of shareholders, creditors and others are also assessed. The taxation implications are also studied. After going through the whole analyses work, it is seen whether the scheme will be beneficial or not. After going through the whole analysis work, it is seen whether the scheme will be beneficial or not. It is pursued further only if it will benefit the interested parties otherwise the scheme is shelved.
- 2. **Determining exchange ratios:** The amalgamation or merger schemes involve exchange of shares. The shareholders of amalgamated companies are given shares of the amalgamated company. It is very important that a rational ratio of exchange of shares should be decided. Normally a number of factors like book value per share, market value per share, potential earnings, and value of assets to be taken over are considered for determining exchange ratios.

- 3. **Approval of board of directors:** After discussing the amalgamation scheme thoroughly and negotiating the exchange ratios, it is put before the respective board of directors for approval.
- 4. **Approval of share holders:** After the approval of the scheme by the respective board of directors, it must be put before the shareholders. According to sec.391 of <u>Indian Companies Act</u>, the amalgamation scheme should me approved at a meeting of the members or class of the members, as the case may be, of the respective companies representing there-fourth in value and majority in number, whether present in person or by proxies. In case the scheme involves exchange of shares, it is necessary that is approved by not less than 90% of the shareholders of the transferor company to deal effectively with the dissenting shareholders.
- 5. Consideration of interests of the creditors: The view of creditors should also be taken into consideration. According to Sce.391, amalgamation scheme should be approved by majority of creditors in number and three-fourth in value.
- 6. **Approval of the court:** After getting the scheme approved, an application is filed in the court for its sanction. The court will consider the view point of all the parties appearing, if any, before it, before giving its consent. It will see that the interests of all concerned parties are protected in the amalgamation scheme. The court may accept, modify or reject an amalgamation scheme and pass order accordingly. However, it is up to the shareholders whether to accept the modified scheme or not. It may be noted that no scheme of amalgamation can go through unless the registrar of companies sends a report to court to the effect that the affairs of the company have not been conducted as to be prejudicial to the interests of its members or to the public interest.
- 7. **Approval of Reserve Bank of India:** In terms of sec.19(1)(d) of the foreign exchange regulation Act, 1973, permission of the RBI is required for the issue of any security to a person resident outside India Accordingly, in a merger, the transferee company has to obtain permission before issuing shares in exchange of shares held in the transferor company. Further, sec 29 restricts the acquisition of whole or any part of any undertaking in India in which non-residents interest is more than the specified percentage.

UNIT 11

VALUATION UNDER MERGERS AND ACQUISITION

Investors in a company that are aiming to take over another one must determine whether the purchase will be beneficial to them. In order to do so, they must ask themselves how much the company being acquired is really worth.

Naturally, both sides of a <u>Mergers</u> and Acquisition [MERGERS] deal will have different ideas about the worth of a target company: its seller will tend to value the company at as high of a price as possible, while the buyer will try to get the lowest price that he can.

There are, however, many legitimate ways to value companies. The most common method is to look at comparable companies in an industry, but deal makers employ a variety of other methods and tools when assessing a <u>target company</u>. A few of them are as follows:-

1.Comparative Ratios - The following are two examples of the many comparative metrics on which acquiring companies may base their offers:

(a)Price-Earnings Ratio (P/E Ratio) –

With the use of this ratio, an acquiring company makes an offer that is a multiple of the earnings of the target company. Looking at the P/E for all the stocks within the same industry group will give the acquiring company good guidance for what the target's P/E multiple should be.

(b)Enterprise-Value-to-Sales Ratio (EV/Sales) -

With this ratio, the acquiring company makes an offer as a multiple of the revenues, again, while being aware of the <u>price-to-sales ratio</u> of other companies in the industry.

2. Replacement Cost

In a few cases, acquisitions are based on the cost of replacing the target company. For simplicity's sake, suppose the value of a company is simply the sum of all its equipment and staffing costs. The acquiring company can literally order the target to sell at that price, or it will create a competitor for the same cost. Naturally, it takes a long time to assemble good management, acquire

property and get the right equipment. This method of establishing a price certainly wouldn't make much sense in a service industry where the key assets - people and ideas - are hard to value and develop.

3. <u>Discounted Cash Flow</u> (DCF) –

A key valuation tool in MERGERS, discounted cash flow analysis determines a company's current value according to its estimated future cash flows. Forecasted free cash flows (net income + depreciation/amortization - capital expenditures - change in working capital) are discounted to a present value using the company's <u>weighted average costs of capital</u> (WACC). In order to apply DCF technique, the following information is required.

- The time period for the evaluation of deal is determined. It depends upon the period for which the benefits of merger are expected to be available to the combined firm.
- Secondly, the after tax cash flows (without merger) of the acquiring firm over the evaluation period is calculated.
- The discount rate is determined
- The present value of the cash flows (arrived in step 2) of the acquiring firm without merger using the discount rate determined above is calculated.
- Then the post merger cash flows (after tax) of the combined firm is calculated. The cash flows consist of the cash flows of both merging firms and the merged firm and reflect the benefits of synergy that accrue to the firms on account of merger.
- The ownership position of the shareholders of acquiring firm in the merged firm(combined) firm is determined. For this purpose the following model is applied:-

$$OP = \underbrace{N_{\underline{A}}}_{[N_{\underline{A}} + ER(N_{\underline{B}})}$$

Where,

 $N_{A=}$ number of outstanding equity shares of firm A (the merged/acquiring firm before merger.

NB=number of outstanding equity shares of firm B (the merging /acquired firm) before the merger

ER= exchange ratio representing the number of shares of firm A exchanged for every share of Firm B.

The denominator in the above model denotes the total number of outstanding shares post —merger in the combined firm. The numerator denotes the number of shares of the acquiring firm. Hence, the model denotes the fraction of shares that the shareholders of acquiring firm hold in the combined firm.

Finally, calculate NPV of the merged proposal from the point of view of A (acquiring firm) as follows:-

$$NPV(A) = OP[PV(CF)]-PV(A)$$

Where,

NPV(A)=NPV of the merger proposal from the point of view of shareholders of A, acquiring firm.

OP= ownership position of the shareholder of firm A in the combined firm [CF]

PV(CF) = PV of the cash flows of the combined firm.

PV(A)=PV of the cash flows of firm (A), without the merger

For the most part, acquiring companies nearly always pay a substantial <u>premium</u> on the stock market value of the companies they buy. The justification for doing so nearly always boils down to the notion of <u>synergy</u>; a merger benefits shareholders when a company's post-merger share price increases by the value of potential synergy.

It would be highly unlikely for rational owners to sell if they would benefit more by not selling. That means buyers will need to pay a premium if they hope to acquire the company, regardless of what pre-merger valuation tells them. For sellers, that premium represents their company's future prospects. For buyers, the premium represents part of the post-merger synergy they expect can be achieved. The following equation offers a good way to think about synergy and how to determine whether a deal makes sense. The equation solves for the minimum required synergy:

In other words, the success of a merger is measured by whether the value of the buyer is enhanced by the action.

Example 1.The following information is provided related to the acquiring firm A Ltd. and the target firm T Ltd:

Particulars	Firm A	Firm T
EAT (Rs lakh)	1,000	200
Number of shares outsta	anding (in	
lakh)	100	50
EPS (Rs)	10	4
P/E ratio (times)	10	5
MPS (Rs)	100	20

- (a) What is the swap ratio based on current market prices?
- (b) What is the EPS of A Ltd after acquisition?
- (c) What is the expected market price per share (MPS) of A Ltd after acquisition, assuming P/E ratio of Firm A remains unchanged.
- (d)Determine the market value of the merged firm.
- (e) Calculate gain/loss for shareholders of the two independent companies, after acquisition.
- (f)Determine the upper and lower limits for swap ratio beyond which the two firms would not go for the acquisition/merger.

Solution

- (a) Exchange ratio based on market prices = Rs 20/Rs 100 = 0.2:1. For every one share of Firm T, 0.2 share will be issued in Firm A. Based on this ratio, the number of new shares issued by Firm T will be = $50 \text{ lakh} \times 0.2 = 10 \text{ lakh}$.
- **(b)**EPS after the merger (EPSc) = = Rs 10.91
- (c) Expected MPS after merger = Rs $10.91 \times 10 = \text{Rs } 109.10$
- (d)Market value of merged firm = Rs 109.10 MPS × 110 lakh shares = Rs 120.01 crore.

(Rscror (e) Gains from the merger Post-merger market value of the Rs 120.01 firm Les Pre-merger market value: s: Firm A (100 lakh shares \times Rs 100 MPS) Rs 100 Firm T (50 lakh shares \times Rs 20 MPS) 110.00 10 Gains from merger 10.01 Apportionment of gains from merger among shareholders (Rscrore) Fim A: Post-merger market value (100 lakh shares \times Rs 109.10 MPS) 109.10 Less: Pre-merger market value 100.00 Gains to the shareholders of Firm A 9.10 Fir m B: 10.91 Post-merger market value (10 lakh shares \times Rs 109.10) Less: Pre-merger market value 10.00 Gain to the shareholders of Firm T 0.91 Determination of upper limit and lower limit of **(f)** share exchange ratio (Rscrore) (i) Lower limit (based on total gains accruing to shareholders of Firm A) Total market value of the Rs 120.01 merger firm Less: Pre-merger (or minimum post-merger) value acceptable to shareholders of Firm T 10.00 Maximum acceptable post-merger market value of Firm A 110.01 Divided by the number of equity shares outstanding in 100

Firm A

Post-merger MPS (Rs 110.01

crore/100 lakh) 110.01

Number of equity shares required to be issued in Firm A to

have the desired

MPS of Rs 110.01 and to have a post-merger value of Rs

10 crore of Firm T,

that is, (Rs 10 crore/Rs 9,09,009

110.01) = 9,09,008.27

shares

Existing number of equity

shares of Firm T

50

Share exchange ratio (9,09,009/50 lakh) = 0.1818:

1 or 1: 5.5

For every 5.5 shares of Firm T, 1 share in Firm A will be issued. This is the lowest exchange ratio acceptable to shareholders of Firm T. Any ratio lower than this will decrease their existing wealth of Rs 10 crore.

(ii) Upper limit (based on total gains accruing to shareholders of Firm T)

Total market value of the merged firm

Rs 120.01

Less: Pre-merger (or minimum post-merger) value acceptable to the

shareholders of Firm A

100.00

Maximum acceptable post-merger market value of

Firm T 20.01

Since post-merger market value of Firm A remains unchanged at Rs 100 crore

(and so the number of its shares (100 lakh) and MPS of

Rs 100), number of

equity shares required to be issued in Firm A to have a

MPS of Rs 100 and to

have a post-merger value of Rs 20.01 crore of Firm T

(Rs 20.01 crore/

Rs 100 MPS)

20,01,000 shares

Existing number of equity shares outstanding in Firm

T 50 lakh

Share exchange ratio (20,01,000/50 lakh) = 0.4002:1

or 1: 2.5

For every 2.5 shares of Firm T, 1 share in Firm A will be issued. This is the upper most exchange ratio acceptable to shareholders of Firm A as any ratio higher than this will dilute their existing wealth of Rs 100 crore.

Example 2

Company X is contemplating the purchase of Company Y. Company X has 3,00,000 shares having a market price of Rs 30 per share while Company Y has 2,00,000 shares selling at Rs 20 per share. The EPS are Rs 4.00 and Rs 2.25 for Company X and Y, respectively. Managements of both companies are discussing two alternative proposals for exchange of shares as indicated below:

- (i)in proportion to the relative earnings per share of two companies.
- (ii) 0.5 share of Company X for one share of Company Y (.5:1).

You are required: (i) to calculate the Earnings Per Share (EPS), after merger, under two alternatives and (ii) to show the impact on the EPS for the shareholders of two companies under both the alternatives.

Solution

(:)

(a) Determination of post-merger

(1)	earnings		
	Original number	of	Total earnings after taxes
Company shares		EPS	(2×3)
1	2	3	4
	3,00,00		
X	0	Rs 4.00	Rs 12,00,000
	2,00,00		
Y	0	2.25	4,50,000
Total pos	st-merger		
earnings	-		16,50,000

(b) Post-merger EPS when share exchange ratio is in relative proportion to pre-merger EPS, 0.5625 that is Rs 2.25/4.00

Total post-merger earnings (with no synergy assumed) Rs 16,50,000

Divided by total number of shares after the merger

 $(3,00,000 + 1,12,500 i.e., 2,00,000 \times 0.5625)$ 4,12,500

Combined EPS after merger (Rs 16,50,000/4,12,5004

shares)

(c) Post-merger EPS when share exchange ratio is 0.5

Total post-merger earnings Rs 16,50,000 Divided by total number of shares after the merger $(3,00,000 + 1,00,000 i.e., 2,00,000 \times 0.5)$ 4,00,000 Combined **EPS** after merger (Rs 16,50,000/4,00,000 shares) 4.125 (a) Impact on EPS of the shareholders of (i i) Company X and Company Y when share exchange ratio is 0.5625 Shareholders of company X: EPS before the merger Rs 4.00 EPS after the merger (Rs 16,50,000/4,12,500 shares) 4.00 Shareholders of Company Y: EPS before the merger 2.25 Equivalent EPS after the merger (EPS after the merger \times shares exchange ratio, i.e., Rs 4 \times 0.5625) There is no change in EPS for shareholders of Company X or Company Y

(b) Impact of EPS on the shareholders of Companies X and Y when share exchange ratio is 0.5

Shareholders of Company X:	
• •	Rs
EPS after the merger (Rs 16,50,000/4,00,000 shares)	4.125
	4.00
EPS before the merger	0
	0.12
Accretion in EPS	5
Shareholders of Company Y:	
	Rs
EPS before the merger	2.25
	2.06
Equivalent EPS after the merger (Rs 4.125×0.5)	25
	(0.18)
Dilution in EPS	75)
While the shareholders of Company X gain, the	
shareholders of Company Y lose.	

Why do companies engage in Mergers?

Some of the most common reasons for companies to engage in mergers and acquisitions include –

- Become bigger: Many companies use Mergers to grow in size and leapfrog their rivals. While it can take years or decades to double the size of a company through <u>organic growth</u>, this can be achieved much more rapidly through mergers or acquisitions.
- Pre-empt competition: This is a very powerful motivation for mergers and acquisitions, and is the primary reason why Merger activity occurs in distinct cycles. The urge to snap up a company with an attractive portfolio of assets before a rival does so generally results in a feeding frenzy in hot markets. Some examples of frenetic MERGERS activity in specific sectors include dot-coms and telecoms in the late 1990s, commodity and energy producers in 2006-07, and biotechnology companies in 2012-14.
- Synergies and economies of scale: Companies also merge to take advantage of synergies and economies of scale. Synergies occur when two companies with similar businesses combine, as they can then consolidate (or eliminate) duplicate resources like branch and regional offices, manufacturing facilities, research projects etc. Every million

dollars or fraction thereof thus saved goes straight to the <u>bottom line</u>, boosting <u>earnings per share</u> and making the MERGERS transaction an "accretive" one.

- Achieve domination: Companies also engage in MERGERS to dominate their sector. However, since a combination of two behemoths would result in a potential monopoly, such a transaction would have to run the gauntlet of intense scrutiny from anti-competition watchdogs and regulatory authorities.
- Tax purposes: Companies also use MERGERS for tax purposes, although
 this may be an implicit rather than an explicit motive. For instance, since
 the U.S. has the highest corporate tax rate in the world, some of the
 best-known American companies have resorted to corporate
 "inversions." This technique involves a U.S. company buying a smaller
 foreign competitor and moving the merged entity's tax home overseas
 to a lower-tax jurisdiction, in order to substantially reduce its tax bill.

REVIEW QUESTIONS

- 1. What are the forms of expansion?
- 2. Discuss in brief the various types of mergers?
- 3. Discuss the reasons for mergers?
- 4. Discuss the various types of valuations under Mergers?
- 5. The following data relates to two companies M and N

	Company M company		
Number of Equity shares	20000	10000	
Profit After Tax	60000	20000	
Price Earning Ratio [P/E]	20	12	
EPS	Rs.3	Rs.2	

Company M is considering the purchase of company N in exchange of 1 share in M for every 2 shares held in N.You are required to illustrate the impact of merger on earnings per share assuming that there would be synergy benefits equal to 25 percent increase in the present earnings after tax due to merger .

(Ans.Nil effect in EPS due to merger)

Module V UNIT 12 TAKE OVER STRATEGY

Takeover means the purchase of one company by another company. The company which is being purchased is called as the target ad the company which purchases is referred as the acquirer or the bidder company. The company acquiring another pays a specified amount for it. This amount may be paid in the form of cash or bank borrowings or may be by the issue of bonds.

TYPES OF TAKEOVERS

- 1. Friendly Takeovers
- 2. Hostile Takeovers
- 3. Reverse Takeovers
- 4. Back Flip Takeovers

1.Friendly Takeovers

While the company takes over the control and management of another company through mutual agreement, it is called friendly takeover. Ideally speaking, when the company's management feels that accepting the offer of the acquiring company serves the shareholder better, it recommends and accepts the offer.

2. Hostile Takeovers

When the control of the company is acquired through unwilling acquisition i.e, when the takeover is opposed by the target company, it is known as hostile takeover. The acquiring company may take over the target company either by engaging in proxy fight whereby it tries to persuade enough number of shareholders to replace the management with the new one or by quietly purchasing enough stock of shares of the company in the open market [known as creeping tender offer] so as to bring a change in the management.

In any two ways mentioned above, the existing management resists the acquisition/takeover but it is carried out anyway.

3. Reverse Takeovers

A reverse takeover is a takeover where a private company acquires a public company or wherein a smaller firm purchases a larger firm.

A large private company may at times acquire a public company to float itself so in order to avoid some of the expenses and time involved in a conventional IPO. The company may acquire all or major share of company's stock so as to replace the existing management and the Board of Directors with the new superior management. A smaller firm may at times as well acquire management control of a larger firm known as a reverse takeover.

4.Backflip Takeovers

A backflip takeover is a kind of takeover in which the acquiring company turns itself into a subsidiary of the purchased company. This type of takeover rarely occurs.

Reasons for takeover

- The target company may be very reasonable to acquire for one reason or other and the acquiring company may find it as a good opportunity in the long run to acquire it.
- Takeovers may lead to increased profitability of the acquiring company and so the companies may feel motivated to acquire the target company.
- A target company may be attractive as it may allow the acquiring company to enter new markets without having to take on the risk, time and expense of starting a new division.
- The acquiring company may also decide to take over a competitor so as to eliminate the competition and become more profitable.

A <u>hostile takeover</u> occurs when one corporation, the acquiring corporation, attempts to take over another corporation, the target corporation, without the agreement of the target corporation's board of directors. A <u>friendly takeover</u> occurs when one corporation acquires another with both boards of directors approving the transaction. Most takeovers are friendly, but hostile takeovers and activist campaigns have become more popular since 2000 with the risk of activist hedge funds.

A hostile takeover is usually accomplished by a tender offer or a <u>proxy fight</u>. In a <u>tender offer</u>, the corporation seeks to purchase shares from outstanding <u>shareholders</u> of the target corporation <u>at a premium</u> to the current <u>market price</u>. This offer usually has a limited time frame for shareholders to accept. The premium over the market price is an incentive for shareholders to sell to the acquiring corporation. The acquiring company must file a Schedule to with the <u>SEC</u>[Securities and Exchange Commission] if it controls more than 5% of a class of the target corporation's securities. Often, target corporations acquiesce to the demands of the acquiring corporation if the acquiring corporation has the financial ability to pull off a tender offer.

In a <u>proxy fight</u>, the acquiring corporation tries to persuade shareholders to use their <u>proxy votes</u> to install new management or take other types of <u>corporate action</u>. The acquiring corporation may highlight alleged shortcomings of the target corporation's management. The acquiring corporation seeks to have its own candidates installed on the board of directors. By installing friendly candidates on the board of directors, the acquiring corporation can easily make

the desired changes at the target corporation. Proxy fights have become a popular method with activist hedge funds in order to institute change.

The Securities and Exchange Board of India ("SEBI") had been mulling over reviewing and amending the existing SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 1997 ("Takeover Code of 1997") for quite some time now. A Takeover Regulations Advisory Committee was constituted under the chairmanship of Mr. C. Achuthan ("Achuthan Committee") in September 2009 to review the Takeover Code of 1997 and give its suggestions. The Achuthan Committee provided its suggestions in its report which was submitted to SEBI in July 2010. After taking into account the suggestions of the Achuthan Committee and feedback from the interest groups and general public on such suggestions, the SEBI finally notified the SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 2011 ("Takeover Code of 2011") on 23 September 2011. The Takeover Code of 2011 will be effective from 22 October 2011.

The Takeover Code of 2011 adheres to the framework and principles of the Takeover Code of 1997 but the changes it brings about are significant. Some of the most important amendments are discussed below:

1. Initial threshold limit for triggering of an open offer

Under the Takeover Code of 1997, an acquirer was mandated to make an open offer if he, alone or through persons acting in concert, were acquiring 15% or more of voting right in the target company. This threshold of 15% has been increased to 25% under the Takeover Code of 2011.

Therefore, now the strategic investors, including private equity funds and minority foreign investors, will be able to increase their shareholding in listed companies up to 24.99% and will have greater say in the management of the company. An acquirer holding 24.99% shares will have a better chance to block any decision of the company which requires a special resolution to be passed. The promoters of listed companies with low shareholding will undoubtedly be concerned about any acquirer misutilising it.

However, at the same time, this will help the listed companies to get more investments without triggering the open offer requirement as early as 15%, therefore making the process more attractive and cost effective.

2. Creeping acquisition

The Takeover Code of 1997 recognised creeping acquisition at two levels – from 15% to 55% and from 55% to the maximum permissible limit of 75%. Acquirers holding from 15% to 55% shares were allowed to purchase additional shares or voting rights of up to 5% per financial year without making a public announcement of an open offer. Acquirers holding from 55% to 75% shares were required to make such public announcement for any additional

purchase of shares. However, in the latter case, up to 5% additional shares could be purchased without making a public announcement if the acquisition was made through open market purchase on stock exchanges or due to buyback of shares by the listed company.

The Takeover Code of 2011 makes the position simpler. Now, any acquirer, holding more 25% or more but less than the maximum permissible limit, can purchase additional shares or voting rights of up to 5% every financial year, without requiring to make a public announcement for open offer. The Takeover Code of 2011 also lays down the manner of determination of the quantum of acquisition of such additional voting rights.

This would be beneficial for the investors as well as the promoters, and more so for the latter, who can increase their shareholding in the company without necessarily purchasing shares from the stock market.

3. Indirect acquisition

The Takeover Code of 2011 clearly lays down a structure to deal with indirect acquisition, an issue which was not adequately dealt with in the earlier version of the Takeover Code. Simplistically put, it states that any acquisition of share or control over a company that would enable a person and persons acting in concert with him to exercise such percentage of voting rights or control over the company which would have otherwise necessitated a public announcement for open offer, shall be considered an indirect acquisition of voting rights or control of the company.

It also states that wherever,

- a) the proportionate net asset value of the target company as a percentage of the consolidated net asset value of the entity or business being acquired;
- b) the proportionate sales turnover of the target company as a percentage of the consolidated sales turnover of the entity or business being acquired; or
- c) the proportionate market capitalisation of the target company as a percentage of the enterprise value for the entity or business being acquired;

is more than 80% on the basis of the latest audited annual financial statements, such indirect acquisition shall be regarded as a direct acquisition of the target company and all the obligations relating to timing, pricing and other compliance requirements for the open offer would be same as that of a direct acquisition.

4. Voluntary offer

A concept of voluntary offer has been introduced in the Takeover Code of 2011, by which an acquirer who holds more than 25% but less than the maximum permissible limit, shall be entitled to voluntarily make a public announcement of an open offer for acquiring additional shares subject to their aggregate shareholding after completion of the open offer not exceeding the maximum permissible non-public shareholding. Such voluntary offer would be for acquisition of at least such number of shares as would entitle the acquirer to exercise an additional 10% of the total shares of the target company.

This would facilitate the substantial shareholders and promoters to consolidate their shareholding in a company.

5. Size of the open offer

The Takeover Code of 1997 required an acquirer, obligated to make an open offer, to offer for a minimum of 20% of the 'voting capital of the target company' as on 'expiration of 15 days after the closure of the public offer'. The Takeover Code of 2011 now mandates an acquirer to place an offer for at least 26% of the 'total shares of the target company', as on the '10th working day from the closure of the tendering period'.

The increase in the size of the open offer from 20% to 26%, along with increase in the initial threshold from 15% to 25%, creates a unique situation under the Takeover Code of 2011. An acquirer with 15% shareholding and increasing it by another 20% through an open offer would have only got a 35% shareholding in the target company under the Takeover Code of 1997. However, now an acquirer with a 25% shareholding and increasing it by another 26% through the open offer under the Takeover Code of 2011, can accrue 51% shareholding and thereby attain simple majority in the target company.

These well thought out figures clearly shows the intention of the regulator to incentivize investors acquiring stakes in a company by giving them an opportunity of attaining simple majority in a company.

6. Important exemptions from the requirement of open offer

<u>Inter-se transfer</u> – The Takeover Code of 1997 used to recognize inter-se transfer of shares amongst the following groups –

a) group coming within the definition of group as defined in the Monopolies and Restrictive Trade Practices Act, 1969

- b) relatives within the meaning of section 6 of the Companies Act, 1956
- c) Qualifying Indian promoters and foreign collaborators who are shareholders, etc.

The categorisation of such groups have been amended in the Takeover Code of 2011 and transfer between the following qualifying persons has been termed as inter-se transfer:

- a) Immediate relatives
- b) Promoters, as evidenced by the shareholding pattern filed by the target company not less than 3 years prior to the proposed acquisition;
- c) a company, its subsidiaries, its holding company, other subsidiaries of such holding company, persons holding not less than 50% of the equity shares of such company, etc.
- d) persons acting in concert for not less than 3 years prior to the proposed acquisition, and disclosed as such pursuant to filings under the listing agreement.

To avail exemption from the requirements of open offer under the Takeover Code of 2011, the following conditions will have to be fulfilled with respect to an inter-se transfer:

- If the shares of the target company are frequently traded the acquisition price per share shall not be higher by more than 25% of the volume-weighted average market price for a period of 60 trading days preceding the date of issuance of notice for such inter-se transfer
- If the shares of the target company are infrequently traded, the acquisition price shall not be higher by more than 25% of the price determined by taking into account valuation parameters including, book value, comparable trading multiples, etc.

<u>Rights issue</u> – The Takeover Code of 2011 continues to provide exemption from the requirement of open offer to increase in shareholding due to rights issue, but subject to fulfilment of two conditions:

- (a) The acquirer cannot renounce its entitlements under such rights issue; and
- (b) The price at which rights issue is made cannot be higher than the price of the target company prior to such rights issue.

<u>Scheme of arrangement</u> – The Takeover Code of 1997 had a blanket exemption on the requirement of making an open offer during acquisition of shares or control through a scheme of arrangement or reconstruction. However, the Takeover Code of 2011 makes a distinction between where the target company itself is a transferor or a transferee company in such a scheme and where the target company itself is not a party to the scheme but is getting affected nevertheless due to involvement of the parent shareholders of the target company. In the latter case, exemption from the requirement of making an open offer would only be provided if

- (a) the cash component is 25% or less of the total consideration paid under the scheme, and
- (b) post restructuring, the persons holding the entire voting rights before the scheme will have to continue to hold 33% or more voting rights of the combined entity.

<u>Buyback of shares</u> – The Takeover Code of 1997 did not provide for any exemption for increase in voting rights of a shareholder due to buybacks. The Takeover Code of 2011 however provides for exemption for such increase.

In a situation where the acquirer's initial shareholding was less than 25% and exceeded the 25% threshold, thereby necessitating an open offer, as a consequence of the buyback, The Takeover Code of 2011 provides a period of 90 days during which the acquirer may dilute his stake below 25% without requiring an open offer.

Whereas, an acquirer's initial shareholding was more than 25% and the increase in shareholding due to buyback is beyond the permissible creeping acquisition limit of 5% per financial year, the acquirer can still get an exemption from making an open offer, subject to the following:

- (a) such acquirer had not voted in favour of the resolution authorising the buyback of securities under section 77A of the Companies Act, 1956;
- (b) in the case of a shareholder resolution, voting was by way of postal ballot;
- (c) the increase in voting rights did not result in an acquisition of control by such acquirer over the target company

In case the above conditions are not fulfilled, the acquirer may, within 90 days from the date of increase, dilute his stake so that his voting rights fall below the threshold which would require an open offer.

7. Other important changes

Following are few other important amendments that have been brought about in the Takeover Code of 2011:

<u>Definition of 'share'</u> – The Takeover Code of 1997 excluded 'preference shares' from the definition of 'shares' vide an amendment of 2002. However, this exclusion has been removed in the Takeover Code of 2011 and therefore now 'shares' would include, without any restriction, any security which entitles the holder to voting rights.

<u>Non-compete fees</u>— As per the Takeover Code of 1997, any payment made to the promoters of a target company up to a maximum limit of 25% of the offer price was exempted from being taken into account while calculating the offer price. However, as per the Takeover Code of 2011, price paid for shares of a company shall include any price for the shares / voting rights / control over the company, whether stated in the agreement or any incidental agreement, and includes 'control premium', 'non-compete fees', etc.

Responsibility of the board of directors and independent directors — The general obligations of the board of directors of a target company under the Takeover Code of 1997 had given a discretionary option to the board to send their recommendations on the open offer to the shareholders and for the purpose the board could seek the opinion of an independent merchant banker or a committee of independent directors.

The Takeover Code of 2011, however, makes it mandatory for the board of directors of the target company to constitute a committee of independent directors (who are entitled to seek external professional advice on the same) to provide written reasoned recommendations on such open offer, which the target company is required to publish.

Conclusion

The Takeover Code of 2011 is a timely and progressive regulation that would facilitate investments and attract investors. Even though SEBI has not implemented all the suggestions of the Achuthan Committee, it has still taken into consideration some of the major issues that had been plaguing the industry till now. It has tried to maintain a balance between the concerns of the investors as well as that of the promoters.

UNIT 13

TAKEOVER CODE- PROCEDURE FOR TAKEOVER

Takeover is a process wherein an acquirer takes over the control or management of a target company by acquiring the substantial quantity of shares or voting rights of such company. The concept of Takeover and the procedure for Takeovers have been enshrined in the Securities Exchange Board of India, (Substantial Acquisition of Shares and Takeovers) Regulations, 1997.

PROCEDURE FOR TAKEOVER

1.Appointment of a merchant banker

Before making any public announcement of offer referred to in regulation 10 or regulation 11 or regulation 12, the acquirer shall appoint a merchant banker in Category I holding a certificate of registration granted by the Board, who is not an associate of or group of the acquirer or the target company.[Regulation 13]

2.Public Announcement

A public announcement is an announcement made in the newspapers by the acquirer primarily disclosing his intention to acquire shares of the target company from existing shareholders by means of an open offer for not less than 20% of shares.

Public Announcement is made to ensure that the shareholders of the target company are aware of an exit opportunity available to them.

The disclosures in the announcement include:-

- ✓ the offer price, number of shares to be acquired from the public,
- ✓ identity of acquirer,
- ✓ purpose of acquisition,
- ✓ future plans of acquirer, if any, regarding the target company,
 - ✓ change in control over the target company, if any,
 - ✓ the procedure to be followed by acquirer in accepting the shares tendered by the shareholders and
 - the period within which all the formalities pertaining to the offer would be completed.

3.No misleading information

The public announcement of the offer or any other advertisement, circular, brochure, publicity material or letter of offer issued in relation to the acquisition of shares shall not contain any misleading information.[Regulation 17]

4. Timing of the public announcement of offer

The acquirer is required to make the P.A within four working days of the entering into an agreement to acquire shares or deciding to acquire shares/voting rights of target company or after any such change or changes as would result in change in control over the target company.

In case of indirect acquisition or change in control, the PA shall be made by the acquirer within three months of consummation of such acquisition or change in control or restructuring of the parent or the company holding shares of or control over the target company in India. [Regulation 14]

5.Escrow Account

Before making the Public Announcement, the acquirer has to open an escrow account in the form of cash deposited with a scheduled commercial bank or bank guarantee in favour of the Merchant Banker or deposit of acceptable securities with appropriate margin with the Merchant Banker. The Merchant Banker is also required to confirm that firm financial arrangements are in place for fulfilling the offer obligations. The escrow amount shall be 25% of the consideration if offer size is less than Rs. 100 cr. and 10% for excess of consideration above Rs. 100 cr.

6.Letter of offer

A draft letter of offer is required to be filed with SEBI within 14 days from the date of Public Announcement. The following also need to file along with the draft:-

- # a filing fee of Rs.50,000/- per letter of offer (payable by Cheque / Demand Draft)
- # A due diligence certificate
- # Registration details

The letter of offer shall be despatched to the shareholders not earlier than 21 days from its submission to the Board.

7. Specified date:

The public announcement shall specify a date, which shall be the specified date for the purpose of determining the names of the shareholders to whom the letter of offer should be sent: However such specified date shall not be later than the thirtieth day from the date of the public announcement. [Regulation 19]

8. Minimum Offer Price and Payments made

It is not the duty of SEBI to approve the offer price, however it ensures that all the relevant parameters are taken in to consideration for fixing the offer price and that the justification for the same is disclosed in the offer document. The offer price shall be the highest of:-

- Negotiated price under the agreement.
- Price paid by the acquirer or PAC with him for acquisition if any, including by way of public rights/ preferential issue during the 26-week period prior to the date of the PA.
- Average of weekly high & low of the closing prices of shares as quoted on the Stock exchanges, where shares of Target company are most frequently traded during 26 weeks prior to the date of the Public Announcement

In case the shares of target company are not frequently traded, then the offer price shall be determined by reliance on the parameters, like: the negotiated price under the agreement, highest price paid by the acquirer or PAC

Acquirers are required to complete the payment of consideration to shareholders who have accepted the offer within 30 days from the date of closure of the offer.

In case the delay in payment is on account of non-receipt of statutory approvals and if the same is not due to willful default or neglect on part of the acquirer, the acquirers would be liable to pay interest to the shareholders for the delayed period in accordance with Regulations. Acquirer(s) are however not to be made accountable for postal delays.

If the delay in payment of consideration is not due to the above reasons, it would be treated as a violation of the Regulations.

9. Safeguards incorporated so as to ensure that the Shareholders get their payments

The regulations provide for opening of escrow account. In case, the *acquirer* fails to make payment, Merchant Banker has a right to forfeit the escrow account and distribute the proceeds in the following way.

1/3 of amount to target company

1/3 to regional Stock Exchanges, for credit to investor protection fund etc.

1/3 to be distributed on *pro rata* basis among the shareholders who have accepted the offer.

The Merchant Banker advised by SEBI is required to ensure that the rejected documents which are kept in the custody of the Registrar / Merchant Banker are sent back to the shareholder through Registered Post.

Besides forfeiture of escrow account, SEBI can take separate action against the *acquirer* which may include prosecution / barring the *acquirer* from entering the capital market for a period etc.

10.General obligations of the acquirer

The public announcement of an offer to acquire the shares of the target company shall be made only when the acquirer is able to implement the offer.

- ✓ Within 14 days of the public announcement of the offer, the acquirer shall send a copy of the draft letter of offer to the target company at its registered office address, for being placed before the board of directors and to all the stock exchanges where the shares of the company are listed.
- ✓ The acquirer shall ensure that the letter of offer is sent to all the shareholders (including non-resident Indians) of the target company, whose names appear on the register of members of the company as on the specified date mentioned in the public announcement, so as to reach them within 45 days from the date of public announcement.
- ✓ The date of opening of the offer shall be not later than the [fifty fifth] day from the date of public announcement.
- ✓ The offer to acquire shares from the shareholders shall remain open for a period of 20 days.

11.Revision of offer

The acquirer who has made the public announcement of offer may make upward revisions in his offer in respect of the price and the number of shares to be acquired, at any time up to seven working days prior to the date of the closure of the offer.

However such upward revision of offer shall be made only upon;

- (a) making a public announcement in respect of such changes or amendments in all the newspapers in which the original public announcement was made;
- (b) simultaneously with the issue of such public announcement, informing the Board, all the stock exchanges on which the shares of the company are listed, and the target company at its registered office;
- (c) increasing the value of the escrow account as provided under sub-regulation (9) of regulation 28.

12. Withdrawal of offer

The offer once made cannot be withdrawn except in the following circumstances:

- ✓ Statutory approval(s) required have been refused
- ✓ The sole acquirer being a natural person has died
- ✓ Such circumstances as in the opinion of the Board merits withdrawal. [Regulation 27]

13.Exemptions

The following transactions are however exempted from making an offer and are not required to be reported to SEBI:

- ✓ allotment to underwriter pursuant to any underwriting agreement;
- ✓ acquisition of shares in ordinary course of business by;
- ✓ Regd. Stock brokers on behalf of clients;
- ✓ Regd. Market makers;
- ✓ Public financial institutions on their own account;
- ✓ banks & FIs as pledges
- ✓ Acquisition of shares by way of transmission on succession or by inheritance;
- ✓ Acquisition of shares by Govt. companies;

✓ Acquisition pursuant to a scheme framed under section 18 of SICA 1985;

of arrangement/ restructuring including amalgamation or merger or de-merger under any law or Regulation Indian or Foreign;

- ✓ Acquisition of shares in companies whose shares are not listed;
- ✓ However, if by virtue of acquisition of shares of unlisted company, the *acquirer* acquires shares or voting rights (over the limits specified) in the listed company, *acquirer* is required to make an open offer in accordance with the Regulations.

14.Penalties

The Regulations have laid down the general obligations of acquirer, target company and the Merchant Banker. For failure to carry out these obligations as well as for failure / non compliance of other provisions of the Regulations, the Regulations have laid down the penalties for non compliance. These penalties include

- a) forfeiture of the escrow account,
- b) directing the person concerned to sell the shares acquired in violation of the regulations,
- c) directing the person concerned not to further deal in securities,
- d) levy monetary penalties,
- e) initiate prosecution proceedings.
- f) directing appointment of a merchant banker for the purpose of causing disinvestment of shares acquired in breach of regulations 10, 11 or 12
- g) directing transfer of any proceeds or securities to the Investors Protection Fund of a recognised stock exchange;
- h) directing the target company or depository to cancel the shares where an acquisition of shares pursuant to an allotment is in breach of regulations 10,11 or 12;
- i) directing the target company or the depository not to give effect to transfer or further freeze the transfer of any such shares and not to permit the acquirer or any nominee or any proxy of the acquirer to exercise any voting or other rights attached to such shares acquired in violation of regulations 10, 11 or 12;

- j) debarring any person concerned from accessing the capital market or dealing in securities for such period as may be determined by the Board;
- k) directing the person concerned to make public offer to the shareholders of the target company to acquire such number of shares at such offer price as determined by the Board;
- l) directing disinvestment of such shares as are in excess of the percentage of the shareholding or voting rights specified for disclosure requirement under the regulations 6,7 or 8;
- m) directing the person concerned not to dispose of assets of the target company contrary to the undertaking given in the letter of offer;
- n) directing the person concerned, who has failed to make a public offer or delayed the making of a public offer in terms of these Regulations, to the shareholders, whose shares have been accepted in the public offer made after the delay, the consideration amount along with interest at the rate not less than the applicable rate of interest payable by banks on fixed deposits.

Further, the Board of Directors of the target company would also be liable for action in terms of the Regulations and the SEBI Act for failure to carry out their obligations specified in the Regulations.

Action can also be initiated for suspension, cancellation of certificate of registration against an intermediary such as the Merchant Banker to the offer.

Management of corporate distress and restructuring strategy

Corporate distress, including the legal processes of corporate insolvency reorganization and liquidation, is a sobering economic reality reflects the corporate demise. Many theorists stated that each firm is unavoidably exposed to ups and downs during its development (Burbank, 2005) and corporate collapse is not an unexpected event (Agarwal and Taffler, 2008). Corporate distress is reversible process through adopting restructuring strategies. Companies undergo a distressed financial situation usually share a series of common patterns which make it problematic to estimate a possible outcome of this situation (Barniv et al., 2002). Among the distressed firms, there are little divergences in the financial weakness indicators in the different failure processes (Ooghe and Prijcker, 2008)

Historically, the business failure phenomenon was visible during the 1970s, more during the recession years of 1980 to 1982, intensified attention during the outburst of defaults and large firm bankruptcies in the 1989–1991

period, and an unparalleled interest in the 2001–2002 corporate catastrophe and troubled years.

Main persistent reason for a firm's debacle and possible failure is managerial ineptitude. In its earlier annual publication of The Failure Record (no longer published), D&B detailed the numerous causes for failure, and those related to management invariably totalled about 90 percent. It is well established in management reports that most firms fail due to multiple reasons, but management insufficiencies are usually at the major issue. The vital cause of corporate upheaval is usually simply running out of cash, but there are a variety of means-related reasons that contribute to bankruptcies and other distressed conditions in which firms find themselves.

These causes are as under:

- 1. Chronically sick industries (such as agriculture, textiles, department stores).
- 2. Deregulation of major industries (i.e., airlines, financial services, health care, and energy).
- 3. High real interest rates in certain periods.
- 4. International competition.
- 5. Congestion within an industry.
- 6. Increased leveraging of corporate.
- 7. Comparatively high new business formation rates in certain periods.

Some of these reasons are understandable for corporate distress such as high interest rates, overleveraging, and competition. Deregulation eliminates the protection of a regulated industry and promotes larger numbers of entering and exiting firms. Competition is far greater in a deregulated environment, such as the airline industry. Therefore, airline failures increased in the period of 1980s following deregulation at the end of the 1970s and have continued nearly persistent since. New business creation is usually based on optimism about the future. But new businesses do not succeed with far greater frequency than do more seasoned entities, and the failure rate can be estimated to increase in new business activity.

When any firm undergo financial distress, it cannot typically meet its debt repayment obligations using its liquid assets. Unless there is an unexpected recovery of performance, the distressed firm is likely to default on its debt. This could result in a formal bankruptcy filing, a dismissal of the management, and possibly, liquidation of the firm (Gilson, 1989). To evade this, firms typically respond to financial distress by either reorganisation assets through fire sales, mergers, acquisitions and capital expenditures reductions or liabilities (by

restructuring debt-both bank loans and public debt and by injections of new capital from outside sources) or both.

Managing a catastrophe situation of companies is a fundamental issue as it is not a spontaneous process. Moulton and Thomas (1993) avowed that the restructuring during a financial distress situation are not a simple matter and the probability of a successful exit is very low. However, the percentage of firms that succeed in getting through decline cannot be disregarded.

Restructuring strategy:

In case of corporate distress, there is a need of corporate restructuring as a company needs to improve its efficiency and profitability and it requires expert corporate management. When the companies are distressed, the government may intervene and support them to recover and revive. For this, firstly the company has to declare the sick unit, in accordance with the compliances of sick industry company's act 1985. Company is vested in the hands of board of industrial and financial reconstruction. In the best interest of company, the board may revive it, rehabilitates it or sell off the unit. Company must follow restructuring to generate funds (RajniSofat, 2011). In broad sense, corporate restructuring refers to the changes in ownership, business mix, assets mix and alliances with a view to enhance the shareholder value. Hence, corporate restructuring may involve ownership restructuring, business restructuring and assets restructuring.

Purpose of Corporate Restructuring:

- 1. To enhance the shareholder value, the company should continuously evaluate its Portfolio of businesses, Capital mix, Ownership & Asset arrangements to find opportunities to increase the shareholder's value.
- 2. To focus on asset utilization and profitable investment opportunities.
- 3. To reorganize or divest less profitable or loss making businesses/products.
- 4. The company can also augment value through capital Restructuring, it can innovate securities that help to reduce cost of capital.

Types of Corporate Restructuring strategies:

1. Mergers / Amalgamation: It is a process by which at least two companies combined to establish single firm. It is a merger with a direct competitor and hence expands as the firm's operations in the same industry. Horizontal mergers are designed to accomplish economies of scale and result in reduce rivals in the industry. Vertical Merger is a merger which

- occurs upon the combination of two companies which are operating in the same industry but at different stages of production or distribution system.
- 2. Acquisition and Takeover: Takeovers and acquisitions are common process in business area. A takeover is a distinct form of acquisition that happens when a company takes control of another company without the acquired firm's agreement. Takeovers that occur without permission are commonly called hostile takeovers. Acquisitions happen when the acquiring company has the permission of the target company's board of directors to purchase and take over the company.
- 3. Divesture: Divesture is a transaction through which a firm sells a portion of its assets or a division to another company. It involves selling some of the assets or division for cash or securities to a third party which is an outsider. Divestiture is a form of contraction for the selling company. It is a means of expansion for the purchasing company. It represents the sale of a segment of a company (assets, a product line, a subsidiary) to a third party for cash and or securities.
- 4. Demerger (spin off / split up / split off): It is a type of corporate restructuring policy in which the entity's business operations are segregated into one or more components. A demerger is often done to help each of the segments operate more smoothly, as they can focus on a more specific task after demerger. Spinoffs are a way to offload underperforming or non-core business divisions that can drag down profits. Split-off is a transaction in which some, but not all, parent company shareholders receive shares in a subsidiary, in return for relinquishing their parent company's share. Split-up is a transaction in which a company spins off all of its subsidiaries to its shareholders and ceases to exist.
- 5. Joint Ventures: Joint ventures are new enterprises owned by two or more contributors. They are typically formed for special purposes for a certain period. It is a combination of subsets of assets contributed by two (or more) business entities for a specific business purpose and a limited duration. Each of the venture partners continues to exist as a separate firm, and the joint venture represents a new business enterprise. It is a contract to work jointly for a period of time. Each member expects to gain from the activity but also must make a contribution.
- 6. Buy back of Securities: Buy Back of Securities is significant process for Companies who wants to decrease their Share Capital.
- 7. Franchising: Franchising is also effective restricting strategy. It is an arrangement where one party (franchiser) grants another party (franchisee) the right to use trade name as well as certain business systems and process, to produce and market goods or services according to certain specifications.

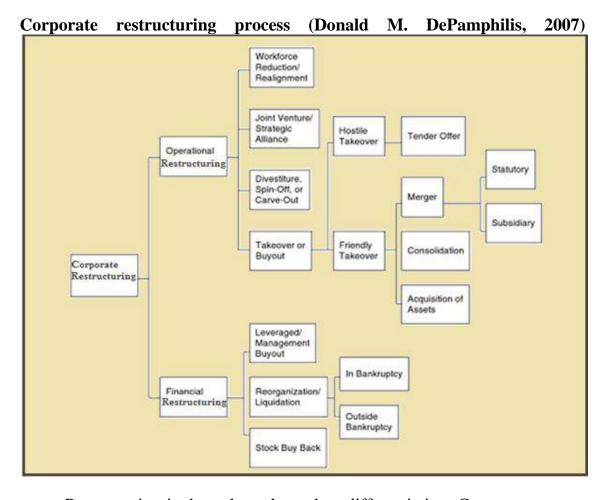
8. A leverage buyout (LBO) is any acquisition of a company which leaves the acquired operating entity with a greater than traditional debt-to-worth ratio.

A corporate restructuring strategy involves the dismantling and renewal of areas within an organization that needs special attention from the management. The procedure of corporate reformation often ensues after buy-outs, corporate attainments, takeovers or bankruptcy. It can involve an important movement of an organization's accountabilities or properties.

Basically, organizational reorganisation involves making numerous transformation to the organizational setup. These changes have great impact on the flow of authority, responsibility and information across the organization. The causes for restructuring differ from diversification and growth to lessening losses and cutting down costs. Organizational restructuring may be done because of external factors such as amalgamation with some other company, or because of internal factors such as high employee costs. Restructuring strategy is about decreasing the manpower to retain employee costs under control.

When management formulate restructuring strategies for a business and implement, it can result in several changes to a company's organizational structure, product mix, financing strategies and overall operations. The modifications that occur during a corporate reorganization depend on the problem or opportunity that the business hopes to address with the change. Understanding the effects of reformation business will help management to make more informed decisions and lessen their need to take on more debt or sell part of company.

The unrelated business of highly diversified firm may be divested and all the resources focused on core products and services. This helps the company gain a competitive edge. This reduces cost and generate cash inflow which can be redirected to invest in core products production and marketing (RajniSofat, 2011).



Restructuring is done through product differentiation. Company can opt for making significant changes in the existing products according to the recent market requirement Company can also focus on quality enhancement of its product at each step in production process to add a new dimension and enhancement to existing product or services

Some restructuring strategies need an organizational change. This might result after a business go into a new market, requiring separate business units to share administrative functions or a corporate headquarters to supervise independent divisions. A reorganization may need to develop a new management team or a small business owner to sell part of the business and bring on a new partner or associates. A company that formerly subcontracted most of its administrative functions might bring them in-house. In other cases, a dealer of products who buys those products from sub-contractors might begin manufacturing the products instead of buying them. When two companies amalgamate, one layer of management and other redundant employees must be terminated, resulting in mass dismissals.

If a company cannot fulfil its capital requirements, it might sell stock or take on investors. This would permit the business to buy another company, open new places or add new products to its business. These changes require the company to modify its financing strategies based on its new debt load and long-term financing needs. If a company has too much debt to operate lucratively, it might reorganize by taking out new loans at higher interest rates but lower monthly payments. Selling stock or part of the business are two possibilities to help reduce debt. Some restructurings focus on cost-containment, which can result in changing the mix of in-house and outsourced functions the company uses, as well as modifications to its product line, labour use and operations. In this situation, the company might renegotiate its contracts with vendors, suppliers, contractors, leasing companies, creditors and personnel.

In the process of restructuring, corporation enters into a new marketplace. It might need to restructure the business if the new products or services require a different skill set. This might mean adding a division to the company or opening a new production facility.

Another restructuring process is to devise different Distribution Strategy. To restructure a business, company sell using different distribution channels. If a company has sold only through intermediaries and decides to add direct sales, the company will need to address the operational changes that come with direct sales. This might include changes to its sales force, order-taking processes, product fulfilment, accounting services, and customer service and information technology. An effective restructuring strategy that company in distress adopt is Re-branding. When a business goes through a restructuring due to a change in its product mix or distribution strategy, it might need to change its marketing message. Depending on whether the company's exclusive selling differential and key benefit change, the business might need to build a new brand message and brand-management policy.

To summarize, corporate distress may be due to intense competition, high interest rates and drastic changes in marketplace which put the company to bankruptcy. Financial distress has significant impact on the domestic economic activities (Papa M'B. P. N'Diaye, 2010). In this situation of corporate failure, there is requirement to devise restructuring strategies. Restructuring a business can assist a struggling company improve its position or help a successful business to expand more. A restructuring might involve altering significant processes in administration, marketing and adopting distribution strategies, addressing debt-service and financing strategies, entering into a new market or modifying the company's product or service.

UNIT 14

TAKEOVER DEFENCES

Takeover defences include all actions by managers to resist the takeover of their firms. Target managers may try to defeat outstanding takeover proposals and these are the obvious forms of takeover defences. Resistances also include actions that occur before a takeover offer is made which make the firm difficult to acquire. The intensity of the defences can range from mild to severe. Mild resistance forces bidders to restructure their offers, but does not prevent an acquisition or raise the takeover price substantially. Severe resistance can block takeover bids, thereby giving the present managers of the target firm veto power over acquisition proposals.

An analysis of takeover defences can be examined with the wealth effects of takeovers. A takeover substantially increases the wealth of shareholders to target company. Historical estimates of the stock price increases of target firms are about 20 percent in mergers and about 30 percent in tender offers. More recently, in many cases, premiums have exceeded 50 percent. There is no need of much analysis to determine that the right to sell a share of stock for 50 percent more than its previous market price benefits target shareholders.

At first glance, the large gains for target stock holders in takeovers seem to imply that all takeover seem to imply that all takeover resistance is bad. Resistance make the firm more difficult to acquire. If the defence works, it lowers the probability of a takeover and stockholders are thus less likely to receive takeover premiums.

Takeover resistance can benefit the shareholders. Stockholders are concerned about the market value of the firm. The market value of any firm is the sum of, which two components; the value of the firm conditional on retaining the same management team; and the expected change in value of the firm from a corporate control change, which equals the probability of a takeover times the change in value from a takeover

Market value of the firm = value of the firm with current managers x Probability of a control change x change in the value from a control change

Stock holders are concerned about how takeover defences affect all three components of value; the value of the firm under current managers, the probability of an acquisition, and the offer price if a takeover bid occurs.

While takeover defences may lower the probability of being acquired, they may also increase the offer price. Furthermore, takeover defences can affect the value of the firm even if it is not acquired, that is, the value with its current management team.

There are several ways to defend against a hostile takeover. The most effective methods are built-in defensive measures that make a company difficult to take over. These methods are collectively referred to as "shark repellent." Here are a few examples:

- The **Golden Parachute** is a provision in a CEO's contract. It states that he will get a large bonus in cash or stock if the company is acquired. This makes the acquisition more expensive, and less attractive. Unfortunately, it also means that a CEO can do a terrible job of running a company, make it very attractive for someone who wants to acquire it, and receive a huge financial reward.
- The **supermajority** is a defence that requires 70 or 80 percent of shareholders to approve of any acquisition. This makes it much more difficult for someone to conduct a takeover by buying enough stock for a controlling interest.
- A **staggered board of directors** drags out the takeover process by preventing the entire board from being replaced at the same time. The terms are staggered, so that some members are elected every two years, while others are elected every four. Many companies that are interested in making an acquisition don't want to wait four years for the board to turn over
- **Dual-class stock** allows company owners to hold onto voting stock, while the company issues stock with little or no voting rights to the public. That way investors can purchase stocks, but they can't purchase control of the company.

In addition to takeover prevention, there are steps companies can take to thwart a takeover once it has begun. One of the more common defences is the poison pill. A poison pill can take many forms, but it basically refers to anything the target company does to make itself less valuable or less desirable as an acquisition:

- The **people pill** High-level managers and other employees threaten that they will all leave the company if it is acquired. This only works if the employees themselves are highly valuable and vital to the company's success.
- The **crown jewels defence** Sometimes a specific aspect of a company is particularly valuable. For example, a telecommunications company might have a highly-regarded research and development (R&D) division. This division is the company's "crown jewels." It might respond to a hostile bid by selling off the R&D division to another company, or spinning it off into a separate corporation.

• **Flip-in** - This common poison pill is a provision that allows current shareholders to buy more stocks at a steep discount in the event of a takeover attempt. The provision is often triggered whenever anyone shareholder reaches a certain percentage of total shares (usually 20 to 40 percent). The flow of additional cheap shares into the total pool of shares for the company makes all previously existing shares worth less. The shareholders are also less powerful in terms of voting, because now each share is a smaller percentage of the total.

Some of the more drastic poison pill methods involve deliberately taking on large amounts of debt that the acquiring company would have to pay off. This makes the target far less attractive as an acquisition, although it can lead to serious financial problems or even bankruptcy and dissolution. In rare cases, a company decides that it would rather go out of business than be acquired, so they intentionally rack up enough debt to force bankruptcy. This is known as the **Jonestown Defence**.

DEMERGERS

A de-merger is a business strategy in which a single business is broken into components, either to operate on their own, to be sold or to be dissolved. A demerger allows a large company, such as a <u>conglomerate</u>, to split off its various <u>brands</u> to invite or prevent an acquisition, to raise capital by selling off components that are no longer part of the business's core <u>product line</u>, or to create separate legal entities to handle different operations.

Demerger is the converse of a merger or acquisition. It describes a form of restructure in which shareholders or unit holders in the parent company gain direct ownership of the demerged entity or the subsidiary entity. Underlying ownership of the shares of the company/trusts that formed part of the group does not change. The company or entity that ceases to own the entity is called the demerging entity. If the parent company holds a majority stake in the demerged entity, the resulting company is referred to as the subsidiary. Demerging is the act of splitting off a part of an existing company to become a new company, which operates completely separate from the original company. Shareholders of the original company are usually given an equivalent stake of ownership in the new company. A demerger is often done to help each of the segments operate more smoothly, as they can now focus on a more specific task.

For example, in 2001, British Telecom conducted a de-merger of its mobile phone operations, BT Wireless, in an attempt to boost the performance of its stock. British Telecom took this action because it was struggling under high

debt levels from the wireless venture. Another example would be a utility that separates its business into two components: one to manage the utility's infrastructure assets and another to manage the delivery of energy to consumers.

A <u>spin-off</u>, <u>split-off</u> and <u>carve-out</u> are different methods that a company can use to divest certain assets, a division or a <u>subsidiary</u>. While the choice of a specific method by the <u>parent company</u> depends on a number of factors as explained below, the ultimate objective is to increase <u>shareholder value</u>. We begin by citing the main reasons why companies choose to divest their <u>holdings</u>.

Putting a positive spin on spin-offs and carve-outs

When two companies merge, or one is acquired by the other, the reasons cited for such M&A activity are often the same (e.g., strategic fit, synergies, economies of scale). Extending that logic, when a company willingly splits off part of its operations into a separate entity, it should follow that the reverse would be true, that synergies and economies of scale should diminish or disappear. But that's not necessarily the case, since there are a number of compelling reasons for a company to consider slimming down, as opposed to bulking up through a merger or acquisition.

- Evolving into "pure play" businesses: Splitting up a company into two or more component parts enables each to become a pure play (a publicly traded company focused on only one industry or product) in a different sector. This will enable each distinct business to be valued more efficiently and typically at a premium valuation, compared with a hodgepodge of businesses that would generally be valued at a discount (known as the conglomerate discount), thereby unlocking shareholder value. The sum of the parts is usually greater than the whole in such cases.
- Efficient allocation of capital: Splitting up enables more efficient allocation of capital to the component businesses within a company. This is especially useful when different business units within a company have varying capital needs. One size does not fit all when it comes to capital requirements.
- **Greater focus**: Separation of a company into two or more businesses will enable each one to focus on its own game plan, without the company's executives having to spread themselves thin in trying to grapple with the unique challenges posed by distinct business units. Greater focus may translate into better financial results and improved profitability.

• Strategic imperatives: A company may choose to divest its "crown jewels," a coveted division or asset base, in order to reduce its appeal to a buyer. This is likely to be the case if the company is not large enough to fend off motivated buyers on its own. Another reason for divestment may be to skirt potential antitrust issues, especially in the case of serial acquirers who have cobbled together a business unit with an unduly large share of the market for certain products or services.

While the potential loss of synergies between the parent company and subsidiary can be a drawback of spin-offs and carve-outs, in most cases where a separation is being considered, such synergies may have been minimal or non-existent. Another drawback is that both the parent company and the spun-off subsidiary may be more vulnerable as <u>takeover</u> targets for friendly and hostile <u>bidders</u> because of their smaller size and pure play status. But the generally positive reaction from <u>Wall Street</u> to announcements of spin-offs and carve-outs shows that the benefits outweigh the drawbacks.

SPIN-OFF

In a spin-off, the parent company distributes shares of the subsidiary that is being spun-off to its existing shareholders on a *pro rata* basis, in the form of a special dividend. The parent company typically receives no cash consideration for the spin-off. Existing shareholders benefit by now holding shares of two separate companies after the spin-off instead of one. The spin-off is a distinct entity from the parent company and has its own management. The parent company may spin off 100% of the shares in its subsidiary, or it may spin off 80% to its shareholders and hold a minority interest of less than 20% in the subsidiary. A spin-off in the U.S. is generally tax-free to the company and its shareholders if certain conditions defined in Internal Revenue Code 355 are met. One of the most important of these conditions is that the parent company must relinquish control of the subsidiary by distributing at least 80% of its voting and non-voting shares. Note that the term "spin-out" has the same connotation as a spin-off but is less frequently used.

Example: In 2014, Healthcare company Baxter International, Inc.(BAX) spunoff its biopharmaceuticals business Baxalta Incorporated (BXLT). The separation was announced in March, and was completed on July 1. Baxter shareholders received one share of Baxalta for each share of Baxter common stock held. The spin-off was achieved through a special dividend of 80.5% of the <u>outstanding shares</u> of Baxalta, with Baxter retaining a 19.5% stake in Baxalta immediately after the distribution. Interestingly, Baxalta received a takeover offer from Shire Pharmaceuticals (SHPG) within weeks of its spin-off; Baxalta's management rebuffed the offer saying it <u>undervalued</u> the company.

Spin-offs involve talking a part of a company, usually a contained business unit with its own management structure, and creating a completely new company that contains only that part. The original company usually holds quite a bit of the new company's stock, usually enough to have a significant say in how the company is run. This relationship does not always last forever and spun off companies can become impressive in their own right.

Spun-off companies are also usually listed on exchanges, because shareholders of the parent company receive stock in the new company as well. This is part of the "unlocking shareholder value" part of the deal. It would be a shame if these shares could not be easily moved because the spin-off is not listed on an exchange, or if its value erodes due to being on the OTC instead of a major exchange. Only a few companies can get away with being on the OTC, like Nintendo and Nestle. Even then volume is lower.

It is not rocket science, but a note about the new organization. Companies that do spin-offs usually organize their internal structures in a way that makes this easy. If it is not already that way it will become that way, which is a sign you can look for. It is not always a confirmation, but it's a good sign. This helps the spun-off company continue along without any real change. Some of the administration might change, but the key players and management chains are in place already. Often they will have their own head, like Freeport-McMoran. The Oil & Gas arm has a CEO, and I'd venture that he is below the CEO of the parent Freeport-McMoran Copper & Gold. Freeport just got its oil and gas unit and there will not be a spin-off, but there may one day be a reason to have it spun off.

CARVE-OUT

In a carve-out, the parent company sells some or all of the shares in its subsidiary to the public through an <u>initial public offering</u> (IPO). Unlike a spin-off, the parent company generally receives a cash inflow through a carve-out. Since shares are sold to the public, a carve-out also establishes a net set of shareholders in the subsidiary. A carve-out often precedes the full spin-off of the subsidiary to the parent company's shareholders. In order for such a future spin-off to be tax-free, it has to satisfy the 80% control requirement, which means that not more than 20% of the subsidiary's stock can be offered in an IPO.

Example: In February 2009, Bristol-Myers Squibb Company (BMY) sold 17% of the shares in its subsidiary Mead Johnson Nutrition Company (MJN). By December 23, 2009, the Mead Johnson IPO was the best performing one on the New York Stock Exchange, with the shares increasing nearly 80% from the IPO issue price.

SPLIT-OFF

In a split-off, shareholders in the parent company are offered shares in a subsidiary, but the catch is that they have to choose between holding shares of the subsidiary or the parent company. A shareholder thus has two choices: (a) continue holding shares in the parent company, or (b) exchange some or all of the shares held in the parent company for shares in the subsidiary. Because shareholders in the parent company can choose whether or not to participate in the split-off, distribution of the subsidiary shares is not *pro rata* as it is in the case of a spin-off. A split-off is generally accomplished after shares of the subsidiary have earlier been sold in an IPO through a carve-out; since the subsidiary now has a certain <u>market value</u>, it can be used to determine the split-off'sexchange ratio. In order to induce parent company shareholders to exchange their shares, an investor will usually receive shares in the subsidiary company that are worth a little more than the parent company shares being exchanged.

SELL-OFF

Sell-off is the rapid selling of securities such as <u>stocks</u>, bonds and <u>commodities</u>. The increase in supply leads to a decline in the value of the security. A sell-off may occur for many reasons, such as the sell-off of a company's stock after a disappointing <u>earnings report</u>, or a sell-off in the broad market when <u>oil prices</u> surge, causing increased fear about the energy costs that companies will face.

All financial trading instruments have sell-offs. They are a natural occurrence from profit-taking and short-selling. Healthy price <u>uptrends</u> require periodic sell-offs to replenish supply and trigger demand. Minor sell-offs are considered <u>pullbacks</u>. Pullbacks tend to hold support at the 50-period <u>moving average</u>. However, when a sell-off continues on an extensive basis, it can be signs of a potentially dangerous market reversal.

Corrections tend to be more aggressive, usually testing the 200-period moving average. The <u>death cross</u> is a popular sell-off signal in which the daily 50-period moving average forms a crossover down through the daily 200-period moving average.

'LEVERAGED BUYOUT - LBO'

A leveraged buyout (LBO) is the acquisition of another company using a significant amount of borrowed money to meet the <u>cost of acquisition</u>. The assets of the company being acquired are often used as <u>collateral</u> for the loans, along with the assets of the acquiring company. The purpose of leveraged

<u>buyouts</u> is to allow companies to make large <u>acquisitions</u> without having to commit a lot of capital.

In an LBO, there is usually a ratio of 90% debt to 10% equity. Because of this high <u>debt/equity ratio</u>, the bonds issued in the buyout are usually are not <u>investment grade</u> and are referred to as <u>junk bonds</u>. Further, many people regard LBOs as an especially ruthless, predatory tactic. This is because it isn't usually sanctioned by the target company. Further, it's seen as ironic in that a company's success, in terms of assets on the balance sheet, can be used against it as collateral by a hostile company.

Reasons for LBOs

LBOs are conducted for three main reasons. The first is to take a public company private; the second is to spin-off a portion of an existing business by selling it; and the third is to transfer private property, as is the case with a change in small business ownership. However, it is usually a requirement that the acquired company or entity, in each scenario, is profitable and growing.

Leveraged buyouts have had a notorious history, especially in the 1980s, when several prominent buyouts led to the eventual <u>bankruptcy</u> of the acquired companies. This was mainly due to the fact that the <u>leverage ratio</u> was nearly 100% and the interest payments were so large that the company's <u>operating cash flows</u> were unable to meet the obligation. One of the largest LBOs on record was the acquisition of Hospital Corporation of America (HCA) by Kohlberg Kravis Roberts & Co. (KKR), Bain & Co. and Merrill Lynch in 2006. The three companies paid around \$33 billion for the acquisition of HCA.

UNIT 15

'MANAGEMENT BUYOUT - MBO'

A transaction where a company's management team purchases the assets and operations of the business they manage. A management buyout (MBO) is appealing to professional managers because of the greater potential rewards from being owners of the business rather than employees. MBOs are favoured exit strategies for large corporations who wish to pursue the sale of divisions that are not part of their core business, or by private businesses where the owners wish to retire. The financing required for an MBO is often quite substantial, and is usually a combination of debt and equity that is derived from the buyers, financiers and sometimes the seller.

Importance of MBO

1. Goal Orientation:

MBO focuses on the determination of unit and individual goals in line with the organizational goals. These goals define responsibilities of different parts of the organisation and help to integrate the organisation with its parts and with its environment.

MBO seeks to balance and blend the long term objectives (profit, growth and survival of the firm with the personal objectives of key executives. It requires that all corporate, departmental and personal goals will be clearly defined and integrated.

2. Participation:

The MBO process is characterized by a high degree of participation of the concerned people in goal setting and performance appraisal. Such participation provides the opportunity to influence decisions and clarify job relationships with superiors, subordinates and peers.

It also helps to improve the motivation and morale of the people and results in role clarity. Participative decision-making is a prerequisite of MBO. MBO requires all key personnel to contribute maximum to the overall objectives.

3. Key Result Areas:

The emphasis in MBO is on performance improvement in the areas which are of critical importance to the organisation as a whole. By identification of

key result areas (KRAs), MBO ensures that due attention is given to the priority areas which have significant impact on performance and growth of the organisation.

Goals of all key personnel are properly harmonized and they are required to make maximum contribution to the overall objectives. Key and sub Key areas are identified for each function as shown in the following example:

Finance (Key Area) Sub-Key Areas:

- (a) Cash flow
- (b) Dividend Policy
- (c) Debt-equity Ratio
- (d) Sources of Funds

The role of each department towards the Key and sub-Key areas 15 also specified.

4. Systems Approach:

MBO is a systems approach of managing an organisation. It attempts to integrate the individual with the organisation and the organisation with its environment. It seeks to ensure the accomplishment of both personal and enterprise goals by creating goal congruence.

5. Optimization of Resources:

The ultimate aim of MBO is to secure the optimum utilization of physical and human resources of the organisation. MBO sets an evaluative mechanism through which the contribution of each individual can be measured.

6. Simplicity and Dynamism:

MBO is a non-specialist technique and it can be used by all types of managers. At the same time it is capable of being adopted by both business and social welfare organizations. MBO applies to every manager, whatever his function and level, and to any organisation, large or small.

7. Operational:

MBO is an operational process which helps to translate concepts into practice. MBO is made operational through periodic reviews of performance which are future-oriented and which involve self-control.

8. Multiple Accountability:

Under MBO, accountability for results is not centralized at particular points. Rather every member of the organisation is accountable for accomplishing the goals set for him.

Multiple centers of accountability discourage 'buck-passing' and 'credit-grabbing'. MBO establishes a system of decentralized planning with centralized control.

9. Comprehensive:

MBO is a 'total approach'. It attaches equal importance to the economic and human dimensions of an organisation. It combines attention to detailed micro-level, short range analysis within the firm with emphasis on macro-level, long range integration with the environment.

REVIEW QUESTIONS

- 1.what do you mean by takeovers strategy?
- 2. why does one company purchase another company? Explain?
- 3. What you mean by Leveraged Buy out?
- 4. What you mean by Management Buy out?
- 5. Discuss the various types of Corporate Restructuring Strategies?

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