

Unit no. 4

Meaning and Concept of Capital Structure:

The term 'structure' means the arrangement of the various parts. So capital structure means the arrangement of capital from different sources so that the long-term funds needed for the business are raised.

Thus, capital structure refers to the proportions or combinations of equity share capital, preference share capital, debentures, long-term loans, retained earnings and other long-term sources of funds in the total amount of capital which a firm should raise to run its business.

Importance of Capital Structure:

1. Increase in value of the firm:

A sound capital structure of a company helps to increase the market price of shares and securities which, in turn, lead to increase in the value of the firm.

2. Utilisation of available funds:

A good capital structure enables a business enterprise to utilise the available funds fully. A properly designed capital structure ensures the determination of the financial requirements of the firm and raise the funds in such proportions from various sources for their best possible utilisation.

3. Maximisation of return:

A sound capital structure enables management to increase the profits of a company in the form of higher return to the equity shareholders i.e., increase in earnings per share. This can be done by the mechanism of trading on equity i.e., it refers to increase in the proportion of debt capital in the capital structure which is the cheapest source of capital. If the rate of return on capital employed (i.e., shareholders' fund + long-term borrowings) exceeds the fixed rate of interest paid to debt-holders, the company is said to be trading on equity.

4. Minimisation of cost of capital:

A sound capital structure of any business enterprise maximises shareholders' wealth through minimisation of the overall cost of capital. This can also be done by incorporating long-term debt capital in the capital structure as the cost of debt capital is lower than the cost of equity or preference share capital since the interest on debt is tax deductible.

5. Solvency or liquidity position:

A sound capital structure never allows a business enterprise to go for too much raising of debt capital because, at the time of poor earning, the

solvency is disturbed for compulsory payment of interest to .the debt-supplier.

6. Flexibility:

A sound capital structure provides a room for expansion or reduction of debt capital so that, according to changing conditions, adjustment of capital can be made.

7. Undisturbed controlling:

A good capital structure does not allow the equity shareholders control on business to be diluted.

Factors Determining Capital Structure:

The following factors influence the capital structure decisions:

1. Risk of cash insolvency:

Risk of cash insolvency arises due to failure to pay fixed interest liabilities. Generally, the higher proportion of debt in capital structure compels the company to pay higher rate of interest on debt irrespective of the fact that the fund is available or not. The non-payment of interest charges and principal amount in time call for liquidation of the company.

2. Risk in variation of earnings:

The higher the debt content in the capital structure of a company, the higher will be the risk of variation in the expected earnings available to equity shareholders. If return on investment on total capital employed (i.e., shareholders' fund plus long-term debt) exceeds the interest rate, the shareholders get a higher return.

On the other hand, if interest rate exceeds return on investment, the shareholders may not get any return at all.

3. Cost of capital:

Cost of capital means cost of raising the capital from different sources of funds. It is the price paid for using the capital. A business enterprise should generate enough revenue to meet its cost of capital and finance its future growth. The finance manager should consider the cost of each source of fund while designing the capital structure of a company.

4. Control:

The consideration of retaining control of the business is an important factor in capital structure decisions. If the existing equity shareholders do not like to dilute the control, they may prefer debt capital to equity capital, as former has no voting rights.

5. Trading on equity:

The use of fixed interest bearing securities along with owner's equity as sources of finance is known as trading on equity. It is an arrangement by which the company aims at increasing the return on equity shares by the use of fixed interest bearing securities (i.e., debenture, preference shares etc.).

6. Government policies:

Capital structure is influenced by Government policies, rules and regulations of SEBI and lending policies of financial institutions which change the financial pattern of the company totally. Monetary and fiscal policies of the Government will also affect the capital structure decisions.

7. Size of the company:

Availability of funds is greatly influenced by the size of company. A small company finds it difficult to raise debt capital. The terms of debentures and long-term loans are less favourable to such enterprises. Small companies have to depend more on the equity shares and retained earnings.

On the other hand, large companies issue various types of securities despite the fact that they pay less interest because investors consider large companies less risky.

8. Needs of the investors:

While deciding capital structure the financial conditions and psychology of different types of investors will have to be kept in mind. For example, a poor or middle class investor may only be able to invest in equity or preference shares which are usually of small denominations, only a financially sound investor can afford to invest in debentures of higher denominations.

A cautious investor who wants his capital to grow will prefer equity shares.

9. Flexibility:

The capital structures of a company should be such that it can raise funds as and when required. Flexibility provides room for expansion, both in terms of lower impact on cost and with no significant rise in risk profile.

10. Period of finance:

The period for which finance is needed also influences the capital structure. When funds are needed for long-term (say 10 years), it should be raised by issuing debentures or preference shares. Funds should be raised by the issue of equity shares when it is needed permanently.

11. Nature of business:

It has great influence in the capital structure of the business, companies having stable and certain earnings prefer debentures or preference shares and companies having no assured income depends on internal resources.

12. Legal requirements:

The finance manager should comply with the legal provisions while designing the capital structure of a company.

Optimal Capital Structure

Optimal capital structure is a financial measurement that firms use to determine the best mix of debt and equity financing to use for operations and expansions. This structure seeks to lower the cost of capital so that a firm is less dependent on creditors and more able to finance its core operations through equity.

In general, the optimal capital structure is a mix of debt and equity that seeks to lower the cost of capital and maximize the value of the firm. To calculate the optimal capital structure of a firm, analysts calculate the weighted average cost of capital (WACC) to determine the level of

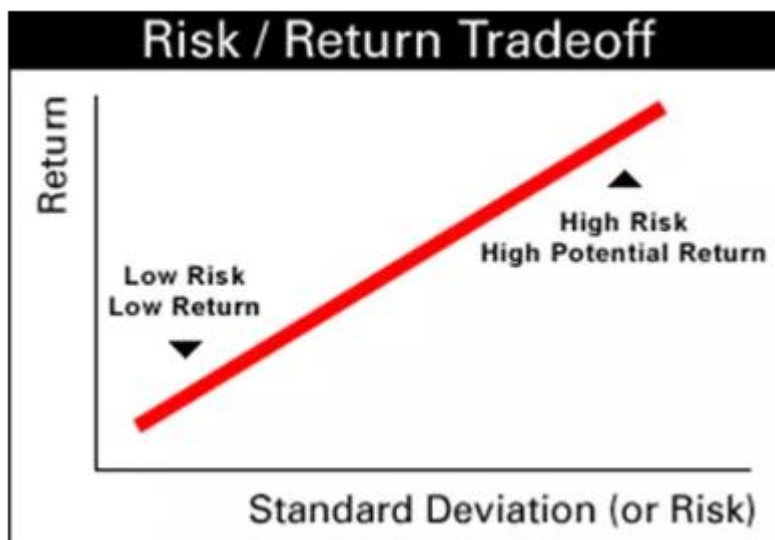
risk that makes the expected return on capital greater than the cost of capital.

Risk-return tradeoff



THE DYNAMICS OF RISK-RETURN TRADEOFF

The graph below is a Risk-Return Trade off the graph. It shows the relationship between these two variables while making an investment.



LOW RISK

The bottom-left corner of the graph shows that there is low return for low-risk financial instruments. Government-issued bonds, for instance, US Treasuries, are considered to be the lowest risk financial instruments because they are backed up by the federal government. But due to the relatively non-speculative nature of the bonds, they have low returns than bonds issued by corporations. In fact, while assessing the expected return of instruments, the return on government bonds is considered to be the risk-free rate.

HIGH RISK

As we move along the upward sloping line in the graph, the risk rises and so does the potential return. This is understandable as investors parting with their money for riskier assets would demand better returns than a risk-free security; else they have no reason to take that risk. This is the reason why the bonds issued by governments and corporations for the same duration have different yields as with corporate bonds, there is also a default risk priced into them which is not the case with federal bonds.

Theories of capital structures

1. NET INCOME APPROACH

Net Income Approach was presented by Durand. The theory suggests increasing value of the firm by decreasing the overall cost of capital which is measured in terms of Weighted Average Cost of Capital. This can be done by having a higher proportion of debt, which is a cheaper source of finance compared to equity finance.

Weighted Average Cost of Capital (WACC) is the weighted average costs of equity and debts where the weights are the amount of capital raised from each source.

According to Net Income Approach, change in the financial leverage of a firm will lead to a corresponding change in the Weighted Average Cost of Capital (WACC) and also the value of the company. The Net Income Approach suggests that with the increase in leverage (proportion of debt), the WACC decreases and the value of firm increases. On the other hand, if there is a decrease in the leverage, the WACC increases and thereby the value of the firm decreases.

ASSUMPTIONS OF NET INCOME APPROACH

Net Income Approach makes certain assumptions which are as follows.

- The increase in debt will not affect the confidence levels of the investors.
- There are only two sources of finance; debt and equity. There are no sources of finance like Preference Share Capital and Retained Earning.
- All companies have uniform dividend pay out ratio; it is 1.
- There is no flotation cost, no transaction cost and corporate dividend tax.
- Capital market is perfect, it means information about all companies are available to all investors and there are no chances of over pricing or under pricing of security. Further it means that all investors are rational. So, all investors want to maximize their return with minimization of risk.
- All sources of finance are for infinity. There are no redeemable sources of finance.

2. Net Operating Income Approach

This approach was put forth by Durand and totally differs from the Net Income Approach. Also famous as traditional approach, Net Operating Income Approach suggests that change in debt of the firm/company or the change in leverage fails to affect the total value of the firm/company. As per this approach, the WACC and the total value of a company are independent of the capital structure decision or financial leverage of a company.

ASSUMPTIONS / FEATURES OF NET OPERATING INCOME

APPROACH:

1. The overall capitalization rate remains constant irrespective of the degree of leverage. At a given level of EBIT, the value of the firm would be “EBIT/Overall capitalization rate”
2. Value of equity is the difference between total firm value less value of debt i.e. Value of Equity = Total Value of the Firm – Value of Debt
3. WACC (Weightage Average Cost of Capital) remains constant; and with the increase in debt, the cost of equity increases. An increase in debt in the capital structure results in increased risk for shareholders. As a compensation of investing in the highly leveraged company, the shareholders expect higher return resulting in higher cost of equity capital.

TRADITIONAL APPROACH TO CAPITAL STRUCTURE:

The traditional approach to capital structure advocates that there is a right combination of equity and debt in the capital structure, at which the market value of a firm is maximum. As per this approach, debt should exist in the capital structure only up to a specific point, beyond which,

any increase in leverage would result in the reduction in value of the firm.

ASSUMPTIONS UNDER TRADITIONAL APPROACH:

1. The rate of interest on debt remains constant for a certain period and thereafter with an increase in leverage, it increases.
2. The expected rate by equity shareholders remains constant or increase gradually. After that, the equity shareholders starts perceiving a financial risk and then from the optimal point and the expected rate increases speedily.
3. As a result of the activity of rate of interest and expected rate of return, the WACC first decreases and then increases. The lowest point on the curve is optimal capital structure.

Leverage

- Leverage refers to the use of debt (borrowed funds) to amplify returns from an investment or project.
- Investors use leverage to multiply their buying power in the market.
- Companies use leverage to finance their assets: instead of issuing stock to raise capital, companies can use debt to invest in business operations in an attempt to increase shareholder value.

Financial leverage

Financial Leverage is a tool with which a financial manager can maximise the returns to the equity shareholders. The capital of a company consists of equity, preference, debentures, public deposits and other long-term source of funds. He has to carefully select the securities to mobilise the funds. The proper blend of debt to equity should be maintained.

$$\begin{aligned} \text{Financial Leverage} &= \frac{\text{Operating Income / EBIT}}{\text{Taxable Income / EBT}} \quad \text{or} \\ \frac{\text{EBIT}}{\text{EBIT} - \text{I}} &= \frac{\text{EBIT}}{\text{EBT}} \\ \text{EBIT} &= \text{Earnings before Interest and Tax} \\ \text{EBT} &= \text{Earnings before Tax, and I = Interest} \end{aligned}$$

Operating leverage

There are two major classification of costs in the organisation. They are- (a) Fixed cost, (b) Variable cost. *High operating leverage.*

The operating leverage has a bearing on fixed costs. There is a tendency of the profits to change, if the firm employs more of fixed costs in its production process, greater will be the operating cost irrespective of the

size of the production. The operating leverage will be at a low degree when fixed costs are less in the production process.

Operating leverage shows the ability of a firm to use fixed operating cost to increase the effect of change in sales on its operating profits. It shows the relationship between the changes in sales and the charges in fixed operating income. Thus, the operating leverage has impact mainly on fixed cost, variable cost and contribution.

It indicates the effect of a change in sales revenue on the operating profit (EBIT). Higher the operating leverage indicates higher the amount of fixed cost and reduces the operating profit and increases the business risks.

Combined Leverage:

This leverage shows the relationship between a change in sales and the corresponding variation in taxable income. If the management feels that a certain percentage change in sales would result in percentage change to taxable income they would like to know the level or degree of change and hence they adopt this leverage. Thus, degree of leverage is adopted to forecast the future study of sales levels and resultant increase/decrease in taxable income. This degree establishes the relationship between contribution and taxable income.

Combined Leverage = Operating Leverage × Financial Leverage

Combined Leverage = $\frac{\text{Contribution}}{\text{EBIT/Operating Profit}} \times \frac{\text{EBIT}}{\text{EBT}}$

Combined Leverage = $\frac{\text{Contribution}}{\text{Earning before Tax}}$