

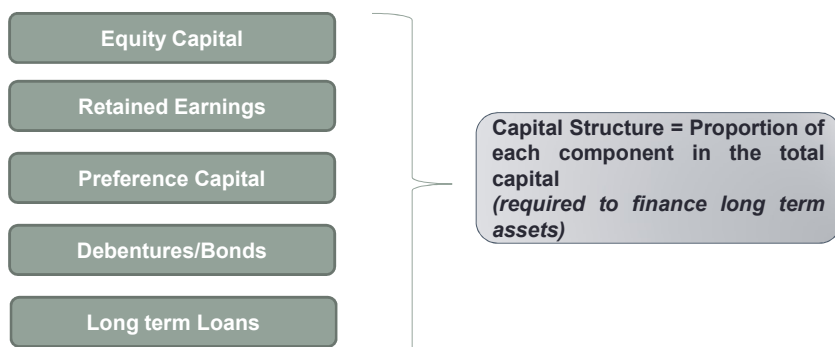
THEORIES OF CAPITAL STRUCTURE

Topics for the Session

- Capital Structure
- Importance
- Factors
- Theories

What is Capital Structure?

- Capital structure refers to the **proportion** of long-term debt and equity in the total capital of a company.
- It refers to a way a in which the company **finances its assets** through some combination of equity, debt, or hybrid securities.



Importance

- Increase in value of the firm
- Utilisation of available funds
- Maximisation of returns
- Minimisation of cost of capital
- Solvency
- Flexibility
- Undistributed controlling
- Minimisation of financial risk

Factors determining capital structure

- Risk of cash insolvency
- Risk of variation of earnings
- Cost of capital
- Control
- Trading on equity
- Government policies
- Size of the Company
- Needs of investors
- Flexibility
- Period of finance

Factors determining capital structure...

- Legal requirements
- Purpose of financing
- Corporate taxation
- Cash inflows
- Provision for future

Net Income approach

- As the proportion of cheaper debt funds in the capital structure increases, the weighted average cost of capital decreases and approaches the cost of debt.
- Assumptions:
 - There are no corporate taxes.
 - The debt content does not change risk perception of the investors.
 - The cost of debt is less than the cost of equity.
- This theory recommends 100% debt financing is optimal capital structure

Net Income approach...

- Merits:
 - it tries to explain the effects of borrowings on overall cost of capital.
 - It explains and emphasizes on favourable financial leverage.
 - However, the theory ignores the risk consideration.
- With an increase of Debt, Value of the Firm increases and overall cost of capital will reduce.

Net Operating Income approach...

- Overall cost of capital and value of the firm are independent of capital structure decision and change in degree of financial leverage does not bring about and change in value of the firm and cost of capital.
- Assumptions:
 - The overall cost of capital (k_O) remains constant for all degrees of debt equity mix or leverage.
 - There are no corporate taxes.
 - The market capitalizes the value of the firm as a whole.
 - The advantage of debt is set off exactly by increase in the equity capitalization rate.

Net Operating Income approach...

- **Merits:**
 - it emphasizes on the role of NOI in the determination of total value of the firm,
 - According to this theory, new investment proposals should be based on NOI approach
 - This theory seems to ignore the behavioral aspect of financing function of management.
- With an increase in Debt, Overall value of the Firm remains same but cost of equity will increase.

Traditional approach

- If debt is increased up to a specific level, value of the firm increases and overall cost of capital reduces.
- If the level of debt is increased further, value of the firm starts coming down and Overall cost of Capital will climb up.

Modigliani and Millers Hypothesis

- Modigliani-Miller (MM) approach is similar to the Net Operating Income (NOI) approach.
- It supports the NOI approach providing behavioural justification for the independence of the total valuation and the cost of capital of the firm from its capital structure.
- In other words, MM approach maintains that the weighted average cost of capital does not change with change in the capital structure of the firm.

Modigliani and Millers Hypothesis

Basic propositions:

- The overall cost of capital (KO) and the value of the firm (V) are independent of the capital structure.
- The cost of equity (KE) is equal to capitalization rate of a pure equity stream plus a premium for the financial risk.
- The cut-off rate for investment purposes is completely independent of the way in which an investment is financed.

Modigliani and Millers Hypothesis...

Assumptions

- Capital markets are perfect.
- All firms within the same class will have the same degree of business risk.
- All investors have the same expectation of a firm's net operating income (EBIT).
- The dividend pay-out ratio is 100%.
- There are no corporate taxes. However, this assumption was removed later

Modigliani and Millers Hypothesis...

Company without debt is called unleveraged firm, and its value is $\text{EBIT}/\text{Cost of equity}$

Company with debt is called 'leveraged firm' and its value is $(\text{EBIT}/K_e) + D(1-T)$

- EBIT is Earnings Before Interest and Tax
- K_e is Cost of Equity
- D is amount of Debt
- T is Tax Rate

Modigliani and Millers Hypothesis...

Particulars	Amount Rs.
Sales (Selling Price X Number of Units sold)	
Less: Total Variable Cost (Selling Price X Number of Units sold)	
=Total Contribution	
Less: Total Fixed Cost	
=Operating Profit (EBIT)	
Less: Interest Debt	
= Earnings Before Tax (EBT)	
Less: Tax @ a % on EBT	
= Earnings After Tax (EAT)	
Less: Dividend on Preference Shares	
= Earnings Available to Equity Shareholders (EAES)	
/ Number of Equity Shares	
= Earnings Per Share (EPS)	
X Price Earnings (P/E) Ratio	
= Market Price of each share	
X Number of Equity Shares	
= Market Value of the Firm	