UNIT- 3
CAPITAL STRUCTURE

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CAPITAL STRUCTURE

- The composition of Long term sources of funds such as debentures, long term debts, preference & share capital & retained earning (reserves & surpluses).
  - To decide the proportion of ownership funds & borrowed funds.
  - Ownership funds include ordinary, preference share capital & retained earning.
  - Borrowed funds include the amt. raised (i.e) issue of debentures & loan taken from institution.

OPTIMUM CAPITAL STRUCTURE

- The capital structure or composition of debt & equity that leads to maximum value of firm, max. wealth of share holders & minimizing the cost of capital.

- Following consideration:

- If the ROI is higher than F.C : Co. should prefer to raise funds having F.C (i.e.) debt, loans, pref. share capital   Increase earning per share & mkt value of firm

$\longrightarrow$

OPTIMUM CAPITAL STRUCTURE

❑ When debt is used as a sources of finance: the firm saves amt of tax as int. allowed is deductible exp.

- ▪ Advantage of tax leverage & cost of debt is reduced.

- • Firm should avoid Undue financial risk : Increased debt – equity increase risk & reduce mkt price of share.

- • Capital structure should be flexible.

THEORIES OF CAPITAL STRUCTURE: DURANT DAVID

- Net Income Approach
  - Changes in financial structure causes corresponding changes in overall cost of capital & also in total value in firm
  - A firm can minimize avg. cost of capital & increase the value of firm as well as mkt price of equity share by using debt financing
  - Following assumption:
  - The cost of debt < cost of equity
  - There are no tax.
  - The risk perception of investor is not changed by the use of debt.

NET INCOME APPROACH

Ke (Cost of equity)

Kd (Cost of debt)

Cost of Capital

Degree of Leverage
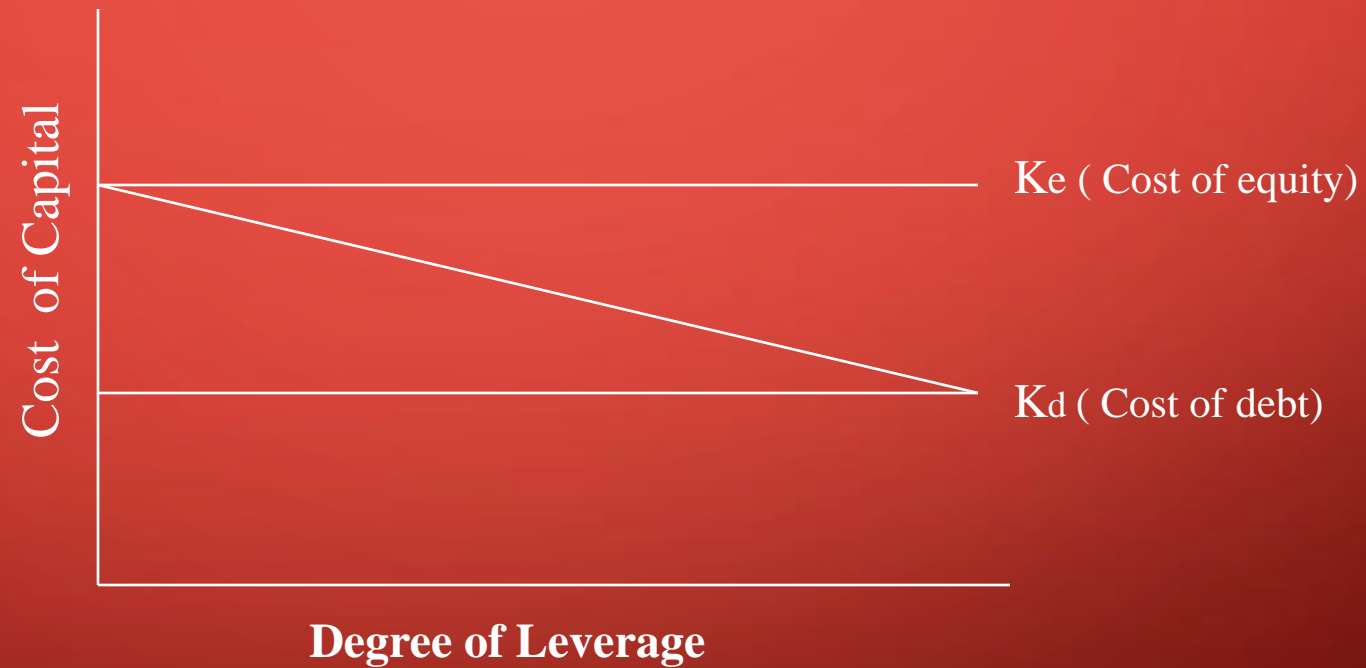
Effect of Leverage on cost of capital

NET INCOME APPROACH

- The total mkt value of a firm on the basis of Net Income Approach of can be ascertain by:
  - V= S+D where,
  - V = total mkt value of firm;
  - S= Mkt value of equity share
  - D= Mkt value of debt
  - = earnings available to equity shareholders (NI)
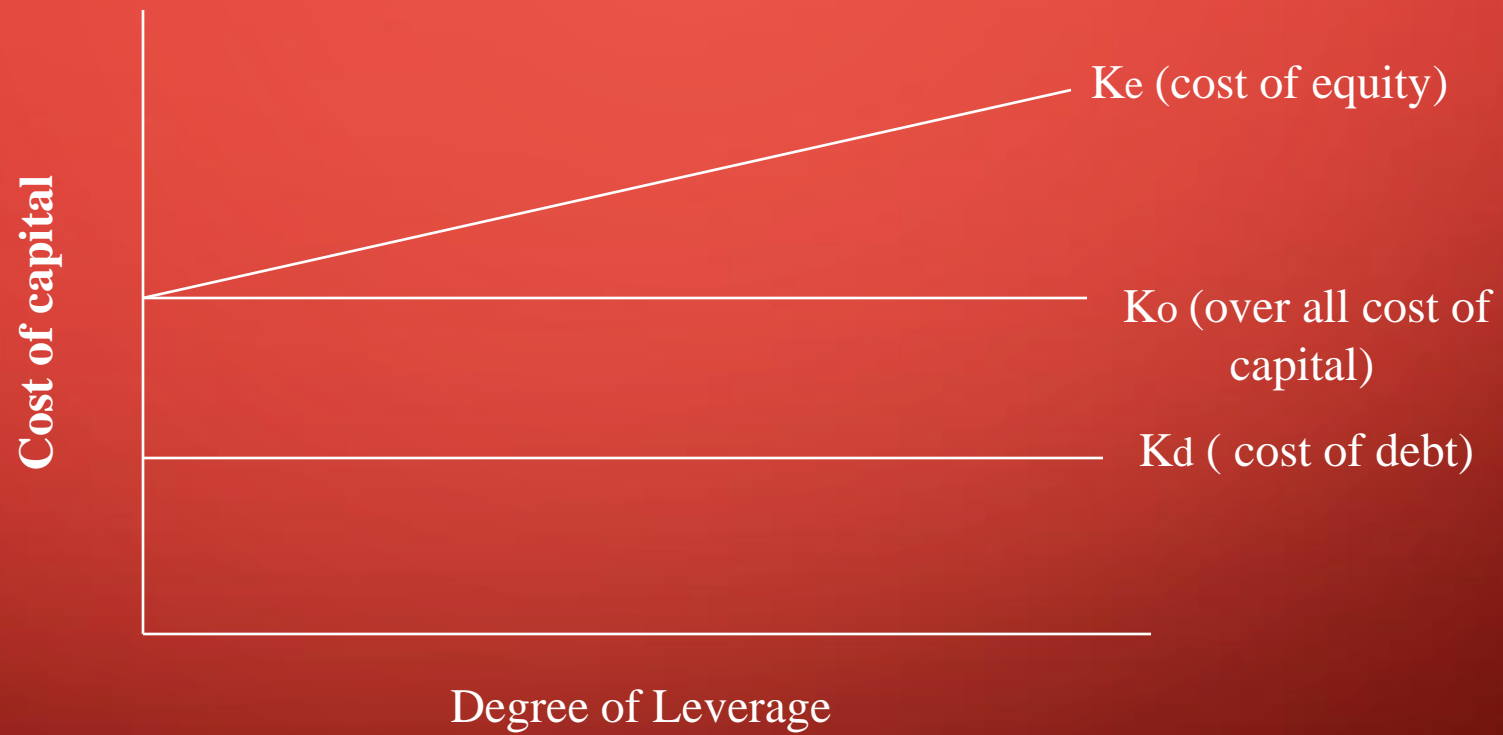
    equity capitalization rate
  - Weighted cost of capital

    $K_0 = \dfrac{EBIT}{V}$

NET OPERATING INCOME APPROACH

- Suggested by Durand 1976 : Another extreme of effect of leverage on the value of firm.

- Opposite of N.I approach

- Change in the capital structure does not effect the market value of firm & overall cost of capital remains constant whether debt – equity mix is 50:50 or 20:80 or 0:100.

- Increase in proportion of debt in capital structure would increase the financial risk of the shareholders.

- No optimal capital structure

- Assumption:
    - The mkt capitalize the value of firm as a whole.
    - Business risk remain constant at every level of debt- equity mix.
    - There are no corporate tax.

NOI

NOI

- Can be determined as below :
  - $V = \dfrac{EBIT}{Ko}$

Ko = overall cost of capital

Mkt value of the equity share (S) = V – D where;

V = total mkt value of firm

D = Mkt value of debt.


Cost of equity or equity capitalization rate

$Ke = \dfrac{EBIT - I}{V - D}$

THE TRADITIONAL APPROACH

- Also k/n as Intermediate approach.

- Compromise b/w two extremes of N.I & N.O. Approach.

- The value of the firm can be increased initially or cost of capital can be decreased by using proper debt- equity mix but beyond a particular point, the cost of equity increases with the increase of debt or F.L

- Thus, overall cost of capital decrease upto certain point, remains more or less unchanged for moderate & increases risk after a certain point.

- Increase K_d $\longrightarrow$ Increases Financial Risk

TRADITIONAL APPROACH
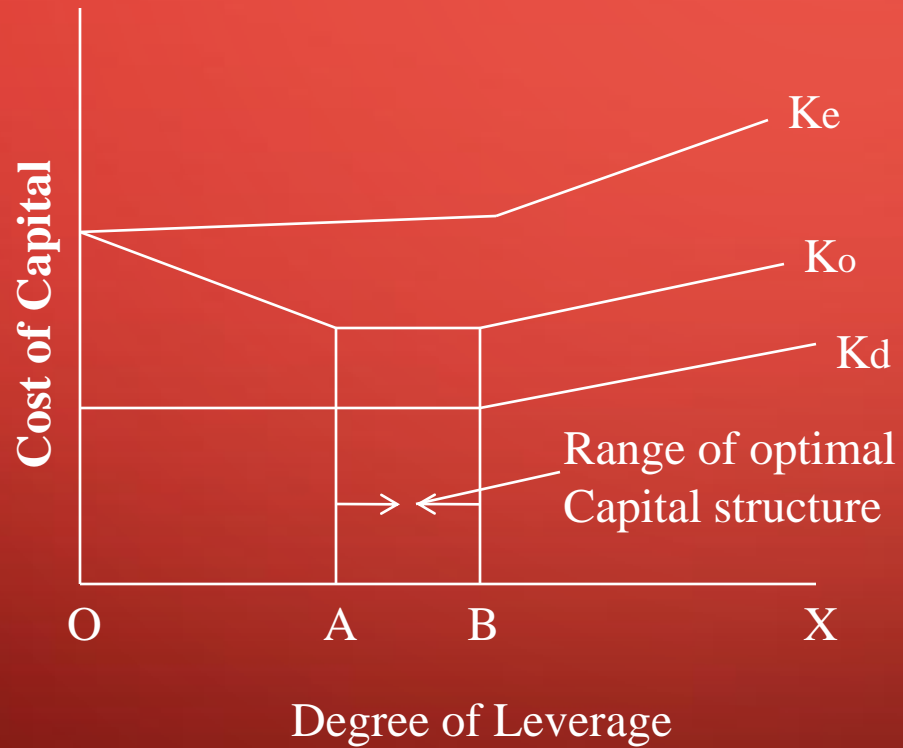
- Effect of Leverage on cost of capital

MODIGLIANI & MILLER APPROACH (THEORY OF IRRELEVANCE)

- M&M hypothesis is identical with N.O.I, if taxes are ignored.

- Debt-equity is irrelevant in determining the total value of firm.

- Though debt is the cheaper source but with the increase use, financial risk increase & affect cost of equity, overall cost of capital remain constant.

- Two identical firms cannot have diff. mkt value or cost of capital b'coz of arbitrage process.

Assumptions
- There are no Corporate tax.
- There is a perfect market.
- Investor act rationally.
- The expected earnings of all the firms have identical risk characteristic.
- The cut-off point of investment in a firm is a capitalization rate.
- All the earnings is distributed to the shareholders.
- Risk to investors depend upon random fluctuation of expected earning & the possibilities that actual value may turn out to be diff. from best estimates

ESSENTIAL FEATURES OF A SOUND CAPITAL MIX

- Max. possible use of leverage.

- Capital Structure should be flexible.

- To avoid undue financial/business risk with the increase of debt.

- Use of debt should be within the capacity of a firm.

- Should involve min. possible risk of loss of control.

- Must avoid undue restriction in agreement of debt