**FINANCIAL MANAGEMENT**

**BBA N-402**

**UNIT 2**

# Capital Structure

**According to Gerestenberg,** ‘capital structure of a company refers to the composition or make up of its capitalization and it includes all long term capital resources viz., loans, reserves, shares and bonds’.

**Keown et al.** defined capital structure as, ‘balancing the array of funds sources in a proper manner, i.e. in relative magnitude or in proportions’.

### ****Concept of Capital Structure****

The relative proportion of various sources of funds used in a business is termed as financial structure. Capital structure is a part of the financial structure and refers to the proportion of the various long-term sources of financing. It is concerned with making the array of the sources of the funds in a proper man­ner, which is in relative magnitude and proportion.

The capital structure of a company is made up of debt and equity securities that comprise a firm’s financing of its assets. It is the permanent financing of a firm represented by long-term debt, preferred stock and net worth. So it relates to the arrangement of capital and excludes short-term borrowings. It denotes some degree of permanency as it excludes short-term sources of financing.

### ****Importance of Capital Structure****

**(i) Value Maximization**

Capital structure maximizes the market value of a firm, i.e. in a firm having a properly designed capital structure the aggregate value of the claims and ownership interests of the shareholders are maximized.

**(ii) Cost Minimization**

Capital structure minimizes the firm’s cost of capital or cost of financing. By determining a proper mix of fund sources, a firm can keep the overall cost of capital to the lowest.

**(iii) Increase in Share Price**

Capital structure maximizes the company’s market price of share by increas­ing earnings per share of the ordinary shareholders. It also increases dividend receipt of the shareholders.

**(iv)Investment Opportunity**

Capital structure increases the ability of the company to find new wealth- creating investment opportunities. With proper capital gearing it also increases the confidence of sup­pliers of debt.

**(v) Growth of the Country**

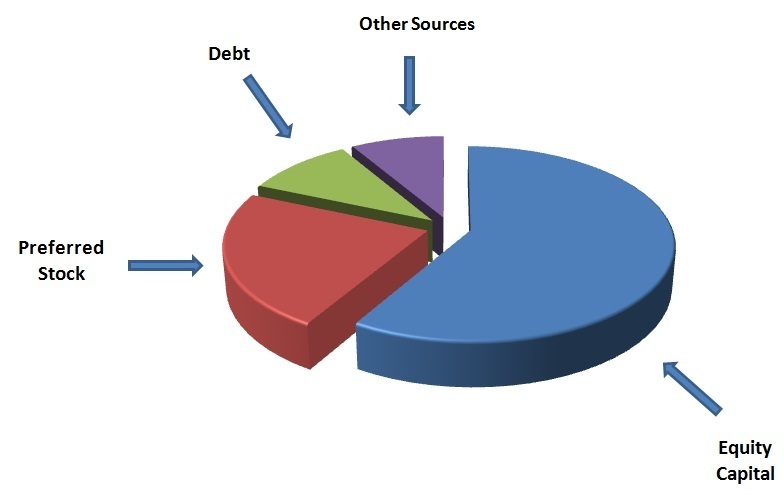
Capital structure increases the country’s rate of investment and growth by increasing the firm’s opportunity to engage in future wealth-creating investments.

## ****Factors Affecting Capital Structure****

1. **Cash Flow Position**
2. **Interest Coverage Ratio (ICR)**
3. **Debt Service Coverage Ratio (DSCR)**
4. **Return on Investment**
5. **Cost of Debt**
6. **Tax Rate**
7. **Cost of Equity**
8. **Floatation Costs**
9. **Risk Consideration**
10. **Flexibility**
11. **Control**
12. **Regulatory Framework**
13. **Stock Market Condition**
14. **Capital Structure of other Companies**

# Determination of Capital Structure

**Capital structure** refers to the way a firm chooses to finance its assets and investments through some combination of equity, debt, or internal funds. It is in the best interests of a company to find the optimal ratio of debt to equity to reduce their risk of insolvency, continue to be successful and ultimately remain or to become profitable. The capital structure of a concern depends upon a large number of factors such as leverage or trading on equity, growth of the company, nature and size of business, the idea of retaining control, flexibility of capital structure, requirements of investors, cost of floatation of new securities, timing of issue, corporate tax rate and the legal requirements. It is not possible to rank hem because all such factors are of different important and the influence of individual factors of a firm changes over a period of time



The**factors influencing the capital structure** (or **determinants of capital structure**) are discussed as follows:

**1. Financial Leverage or Trading on Equity**

**2. Growth and Stability of Sales**

**3. Cost of Capital**

**4. Risk**

**5. Cash Flow**

**6. Nature and Size of a Firm**

**7. Control**

**8. Flexibility**

**9. Requirement of Investors**

**10. Capital Market Conditions (Timing)**

**11. Marketability**

**12. Inflation**

**13. Floatation Costs**

**14. Legal Considerations**

# Consequences and Remedies of Over-Capitalization

The phrase ‘over-capitalization’ has been misunderstood with abundance of capital. In actual practice, over­capitalized concerns have been found short of funds. Truly speaking, over- capitalization is a relative term used to denote that the firm in question is not earning reasonable income on its funds.

### ****Causes of Over-Capitalisation:****

There are various factors responsible for over-capitalized state of a company; important among them being as under:

**(1) Promotion of a Company with Inflated Assets**

**(2) Company Promoted with High Promotion Expenses**

**(3) Over-estimating Earnings at the Time of Promotion**

**(4) Applying High Capitalisation Rate to Capitalize Earnings**

**(5) Company Formed or Expanded During Inflationary Period**

**(6) Shortage of Capital**

**(7) Defective Depreciation Policy**

**(8) Liberal Dividend Policy**

**(9) Fiscal Policy**

### ****Consequences of Over-Capitalisation:****

Over-capitalisation is a state that affects not only the company and its owners but also the society as a whole.

**On Shareholders:**

Shareholders suffer doubly the brunt of over-capitalisation. Not only does their dividend income fall but also its receipt becomes uncertain. They also suffer because capital invested by them in these companies depreciates due to fall in market value of their shares. Value of their holdings as collateral securities declines simultaneously.

**On Company:**

Effect of over-capitalisation on company is disastrous. Company’s financial stability is jeopardized. It loses investors’ confidence owing to irregularity in dividend declaration caused by reduced earning capacity. Consequently, it has to encounter enormous problems in raising capital from the capital market to cover its developmental and expansion requirements. Commercial banks too feel shy of lending short-term advances to such a company to meet its working capital requirements. As a result, production work hampers.

**On Society:**

Over-capitalisation may prove to be a menace to society as a whole. Over-capitalized concerns, in their endeavour to maintain their credit, take every possible measure to prevent declining tendency of income. They try to increase the prices and deteriorate the quality of products. But to take recourse to such practices becomes difficult under the perfect competition and the result is the liquidation of such concerns.

### ****Remedies of Over-Capitalisation:****

Effects of over-capitalisation are so grave that the management should take immediate measures to remedy the situation of over-capitalisation as soon as the symptoms of the over-capitalisation are observed.

Various remedial measures such as reduction in bonded debt, reduction of rate of interest paid on debentures, redemption of high dividend preferred shares, reduction of par value of shares and reduction of number of shares are suggested. We shall now examine efficacy of each of these measures as curative to the problem of over-capitalisation.

**(1) Redemption of High Dividend Preferred Stock:**

To reduce the burden of fixed charges on the over-capitalized company it is suggested to reduce preferred stock bearing high dividend rate.

**(2) Reducing Par Value of Shares:**

It is often suggested that an over-capitalized concern should reduce the amount of stock outstanding by reducing par value of shares.

**(3) Reducing Number of Shares:**

By reducing number of outstanding shares, efforts are made to correct the outward symptoms of overcapitalization. For example, a company is capitalized with 10,000 shares of Rs. 10/- each.

**(4) Reduction in Bonded Debt:**

To cut the knot of over-capitalisation, over-capitalized concerns are suggested to reduce the amount of bonded indebtedness to prune the amount of capital in accordance with their earning position.

**(5) Reduction of Fixed Charges on Debt:**

It is also suggested that with a view to improving their earning position over-capitalized concerns should slash down the burden of fixed charges on debt..

# Consequences and Remedies of Under Capitalization

The phrase ‘Under-capitalisation’ should never be misconstrued with inadequacy of capital. Truly speaking, this term is used to denote the state of affairs just converse of over-capitalisation.

If a company under exceptionally good conditions makes substantially large earnings in a year or so, it should not be considered that the company is under-capitalized. Over­-capitalised concerns have always earning superiority over average concerns engaged in the same line of activity.

Thus, under-capitalisation is indicative of sound financial health and good management of the company. Bonneville and Dewey rightly observed that **“Under-capitalisation is not an economic problem but a problem in adjusting the capital structure”.**

### ****Causes of Under-Capitalisation:****

### **(1) Deflationary Condition**

**(2) Conservative Dividend Policy**

**(3) Maintaining High Standards of Efficiency**

**(4) Under-Estimation of Initial Earnings**

**(5) Using Low Capitalisation Rate**

### ****Consequences of Under-capitalisation:****

**On Company:** Although under-capitalisation does not threaten financial stability and solvency of the enterprise, management should not be complacent towards this situation because the company may suffer in the following ways:

**On Society:** Under-capitalisation does not pose any economic problem to the society. On the contrary, it may prove boon to it. It encourages new entrepreneurs to set-up new ventures and encourages the existing ones to expand. This as a result, boosts industrial production. Consumers get variety of products at relatively cheaper rate.

**On Share-Holders:** Under-capitalisation is advantageous to shareholders in as much as they get high dividend income regularly. Because of soaring rise in share price of under-capitalized concerns, shareholders’ investment in these companies appreciates phenomenally which they may encash at any time.

### ****Remedies for Under-Capitalisation:****

To correct condition of under-capitalisation it is inevitable on the part of the company to reorganize its capital structure in such a way that number of shares increases and earning per share is reduced.

**(1) Splitting Stock:** Another effective way of reorganizing capitalisation of a company to reduce the effects of under-capitalisation is to split up the stock into a large number of shares and reduce the value of each share in accordance with the rate of split up.

**(2) Capitalisation of Surplus of the Company:** If a company has adequate surplus in hand the whole or a part of it can be capitalized by issue of bonus shares. This will, in no way, affect the quantum of capitalisation. Of course, make-up of capitalisation will undergo marked change.

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# Capital Structure Theories- NI, NOI and Traditional Approach

# Net income approach and net operating income approach were proposed by David Durand. According to NI approach, there exists positive relationship between capital structure and valuation of firm and change in the pattern of capitalisation brings about corresponding change in the overall cost of capital and total value of the firm.

Thus, with an increase in the ratio of debt to equity overall cost of capital will decline and market price of equity stock as well as value of the firm will rise. The converse will hold true if ratio of debt to equity tends to decline.

#### ****This approach is based on three following assumptions:****

(1) There are no taxes;

(2) Cost of debt is less than cost of equity;

(3) The use of debt does not change the risk perception of investors. This implies that there will be no change in cost of debt and cost of equity even if degree of financial leverages changes.

On the basis of the above assumptions, it has been held in the NI approach that increased use of debt will magnify the shareholders’ earnings (because cost of debt and cost of equity will remain constant) and thereby result in rise in share values of equity and so also value of the firm.

Thus, a firm can achieve optimal capital structure by making judicious use of debt and equity and attempt to maximise the market price of its stock.

### ****Net Operating Income Approach (NOI):****

According to Net Operating Income Approach which is just opposite to NI approach, the overall cost of capital and value of firm are independent of capital structure decision and change in degree of financial leverage does not bring about any change in value of firm and cost of capital.

**The market value of the firm is determined by the following formula:**

**The crucial assumptions of the NOI approach are:**

(1) The firm is evaluated as a whole by the market. Accordingly, overall capitalisation rate is used to calculate the value of the firm. The split of capitalisation between debt and equity is not significant.

(2) Overall capitalisation rate remains constant regardless of any change in degree of financial leverage.

(3) Use of debt as cheaper source of funds would increase the financial risk to shareholders who demand higher cost on their funds to compensate for the additional risk. Thus, the benefits of lower cost of debt are offset by the higher cost of equity.

(4) The cost of debt would stay constant.

(5) The firm does not pay income taxes.

Thus, under the NOI approach the total value of the firm as stated above is determined by dividing the net operating income (EBIT) by the overall capitalisation rate and market value of equity (S) can be found out by subtracting the market value of debt (B) from the overall value of the firm (V). In other words.

### ****Traditional Approach****:

This approach resembles the NI approach when it argues that the value of the firm can be increased and cost of capital can be reduced by the judicious mix of debt and equity share capital but it does not subscribe to the view of NI approach that the value of the firm will increase and cost of capital will decrease for all the degrees of financial leverage.

Further, the traditional approach differs from the NOI approach because it does not hold the view that the overall cost of capital will remain constant whatever be the degree of financial leverage. Traditional theorists believe that up to certain point a firm can by increasing proportion of debt in its capital structure reduce cost of capital and raise market value of the stock.

**Traditional view regarding optimal capital structure can be appreciated by categorizing the market reaction to leverage in following three stages:**

**Stage I:**

The first stage starts with introduction of debt in the firm’s capital structure. As a result of the use of low cost debt the firm’s net income tends to rise; cost of equity capital (Ke) rises with addition of debt but the rate of increase will be less than the increase in net earnings rate. Cost of debt (Ki,) remains constant or rises only modestly. Combined effect of all these will be reflected in increase in market value of the firm and decline in overall cost of capital (K0).

**Stage II**:

In the second stage further application of debt will raise costs of debt and equity capital so sharply as to offset the gains in net income. Hence the total market value of the firm would remain unchanged.

**Stage III**:

After a critical turning point any further dose of debt to capital structure will prove fatal. The costs of both debt and equity rise as a result of the increasing riskiness of each resulting in an increase in overall cost of capital which will be faster than the rise in earnings from the introduction of additional debt. As a consequence of this market value of the firm will tend to depress.

The overall effect of these stages suggests that the capital structure decision has relevance to valuation of firm and cost of capital. Up to favorably affects the value of a firm. Beyond that point value of the firm will be adversely affected by use of debt.