

**M.Com Second Semester**  
**Subject: Financial Management**

**Topic: Traditional approach to capital structure of a firm**

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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.

It means that there exists an optimum value of debt to equity ratio at which the WACC is the lowest and the market value of the firm is the highest. Once the firm crosses that optimum value of debt to equity ratio, the cost of equity rises to give a detrimental effect to the WACC. Above the threshold, the WACC increases and market value of the firm starts a downward movement.

**ASSUMPTIONS UNDER TRADITIONAL APPROACH:**

The rate of interest on debt remains constant for a certain period and thereafter with an increase in leverage, it increases.

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.

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.

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 ( $K_e$ ) rises with addition of debt but the rate of increase will be less than the increase in net earnings rate. Cost of debt ( $K_i$ ) 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 ( $K_0$ ).

#### 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.

#### Illustration:

Sneh Steel Ltd. is expecting a net operating income of Rs. 3,00,000 on a total investment of Rs. 20,00,000. The equity capitalisation rate is 10 percent, the firm has no debt; but it would increase to 11 percent when the firm substitutes equity capital by issuing debentures of Rs. 6,00,000 and to 12.5 percent when debentures of Rs. 10,00,000 are issued to substitute equity capital.

The management expects that it will have to pay interest @ 5% to raise an additional debt of Rs. 6,00,000 and @ 7% to raise an additional debt of Rs. 10,00,000. What would be the overall cost of capital and market value of the firm under the Traditional Approach?

Solution:			
NOI :	300000	300000	300000
Less: Intrest on debt:	-	26000	70000
Net income:	300000	274000	230000

Cost of equity:	10%	11%	12.5%
MV of equity			
(NI/ Ke)	3000000	2490909	1840000
MV of debt:	0	600000	1000000
Value of total firm:	3000000	3090909	2840000
WACC $K_o$ (NOI/V) :0.10		0.092	0.1056