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 Subject : Financial Management
 Topic : Capital structure Theories

Dear students,

In the last E-Content of the financial Management I discussed with you one of the theories of Capital structure i.e Net income approach. Today I will discuss another theory called "Net operating Income Approach".

Net operating Income Approach

This theory is diametrically just opposite to the previous theory discussed by me i.e net income approach. The essence of this approach is that, the Capital structure decision of a firm is irrelevant. Any change in the Capital structure of the Company does not affect the market value of the firm and the overall cost of Capital remains constant irrespective of the method of financing.

It means that, the overall cost of Capital would remain same, whether the debt-equity mix is 50:50 or 30:70 or 60:40. Thus, the total value of the firm, the market price of shares, as well as, the overall cost of Capital is independent of the degree of leverage.

Assumptions

- i) The cost of debt is lower than the Cost of equity
- ii) Risk perception of lenders of debt do not change with the change in financial leverage and consequently the cost of debt remains constant at all levels of financial leverage.
- iii) The market Capitalises the value of the firm as a whole. Thus, the split between debt and equity is not important.
- iv) There are no Corporate or personal income taxes.

The net operating Income (NOI) approach advocates, that the Cost of Equity (k_e) increases with the increase in financial leverage. This is due to increased risk assumed by the equity Shareholders, due to use of more debt by the firm. To compensate for increased risk, Shareholders would expect a higher rate of return on their investments. As such, the Cost of equity (k_e) increases, as a result of increased financial leverage, whereas, the cost of debt (k_d) remains constant, as the financial risk of lenders is not affected.

Therefore, the advantage of using the cheaper source of funds i.e the debt, is exactly offset by the increased Cost of equity. Consequently, the overall cost of Capital (k_o) remains constant at all degrees of financial leverage. Since the value of the firm is measured as a whole, on the basis of overall cost of Capital and the overall cost of Capital (k_o) remains constant, the value of the firm (V) also remains same at all degrees of financial leverage. This can be explained through an example also.

Example Suppose A Ltd is a fictitious Company, having following information: -

Earning before interest, Tax (EBIT)	Rs 1,00,000
Bonds (Part of Debt)	Rs 3,00,000
Cost of Bonds (Debt)	10%
Weighted Average Cost of Capital (WACC)	12.5%

Then the value of the Company will be: -

Since, EBIT Rs 1,00,000
WACC 12.5%

$$\text{Market value of Company} = \frac{\text{EBIT}}{\text{WACC}} = \frac{1,00,000}{12.5\%} \text{ or } \frac{1,00,000}{12.5} \times 100 = \text{Rs } 8,00,000$$

Since Total Debt is Rs 3,00,000

Equity Capital will be $\text{Rs } 8,00,000 - \text{Rs } 3,00,000 = \text{Rs } 5,00,000$

$$\begin{aligned} \text{Shareholder's Earnings} &= \text{EBIT} - \text{Interest on Debt} \\ &= 1,00,000 - (3,00,000 \times \frac{10}{100}) \\ &= \text{Rs } 70,000 \end{aligned}$$

$$\text{Cost of equity} = \frac{70,000}{5,00,000} \times 100 = 14\%$$

Now, assume the proportion of the debt increased to Rs 4,00,000 from Rs 3,00,000 and other informations remains the same.

$$\begin{aligned} \text{Then the Market value of the Company} &= \frac{\text{EBIT}}{\text{WACC}} = \frac{1,00,000}{12.5\%} \\ &= \frac{1,00,000}{12.5} \times 100 \\ &= \text{Rs } 8,00,000 \end{aligned}$$

$$\begin{aligned} \text{Total Equity will be} &= \text{Rs } 8,00,000 - \text{Rs } 4,00,000 \\ &= \text{Rs } 4,00,000 \end{aligned}$$

$$\begin{aligned} \text{Shareholder's Earnings} &= \text{EBIT} - \text{Interest on Debts} \\ &= 1,00,000 - (4,00,000 \times \frac{10}{100}) \\ &= 1,00,000 - 40,000 \\ &= \text{Rs } 60,000 \end{aligned}$$

$$\text{Cost of Equity} = \frac{60,000}{4,00,000} \times 100 = 15\%$$

As observed, in the case of Net operating income approach, with the increase in debt the total market value of the company remains the same, but the Cost of equity increases.

In the next E-Content of Financial Management, Related to Capital Structure theories, I will discuss Traditional approach.