

## Unit 8 Cost of Capital

### Write short notes on:

#### a. Marginal Cost of Capital Schedule

*Marginal Cost of Capital (MCC)* Schedule is a graph that relates the firm's weighted average cost of each rupee of capital to the total amount of new capital raised.

It reflects changing costs depending on amounts of capital raised. As more funds are raised, the cost of various sources of capital can change because of various reasons:

An additional amount of capital that changes the WACC is referred to as a break point. This is the point at which the cost of one of the sources of capital changes.

The break point is calculated using the following formula.

Break Point = Amount of Capital at which Sources Cost of Capital Changes/Proportion of New Capital Raised from the Source

#### b. Weighted Average Cost of Capital (WACC) or Cost of capital

The *weighted average cost of capital (WACC)* is the rate that a company is expected to pay on average to all its security holders to finance its assets.

The WACC is the minimum return that a company must earn on an existing asset base to satisfy its creditors, owners, and other providers of capital, or they will invest elsewhere. Companies raise money from a number of sources: common equity, preferred stock, debt, and so on. Different securities, which represent different sources of finance, are expected to generate different returns. The WACC is calculated taking into account the relative weights of each component of the capital structure. Companies can use WACC to see if the investment projects available to them are worthwhile to undertake

#### c. Cost of Debt

Debt is the creditor-ship source of financing. Fixed interest is paid for the suppliers of the bet capital. Interest expense on debt is tax-deductible because it is paid before computing taxable income. Due to tax advantage, the cost of debt capital will be low but it is riskier.

#### d. Cost of Preferred Stock

Cost of preferred stock is the rate of return that must be earned on the preferred stockholder's investment to satisfy their required rate of return. It is the function of preferred dividend, market price and flotation cost.

Cost of Preferred Stock ( $K_{ps}$ ) = Dividend / Today's Stock Price

### e. Cost of Equity

#### Internal Cost of Equity or, Cost of Retained Earnings ( $K_{re}$ )

The cost of retained earnings, is the rate of return stockholders required on equity capital the firm obtains by retaining earnings. It can be calculated by using three methods.

*Dividend growth model*

$$K_{re} = (D_1/P_0) + g$$

*Capital assets pricing model*

$$K_{re} = K_{rf} + \beta_s(K_m - K_{rf})$$

*Bond yield plus risk premium method*

$$K_{re} = \text{Bond yield} + \text{Risk premium}$$

#### Cost of External Equity or Common Stock ( $K_{cs}$ )

The cost of common stock is the cost to the firm of equity obtained by selling new common stock. It is, essentially, the cost of retained earnings adjusted for flotation cost.

$$K_{cs} = [D_1/P_0(1-F)] + g$$

### f. Factor affecting cost of capital

There are various factors affecting cost of capital. They are:

#### Uncontrollable factors:

1. *Interest Rate:* If interest rates in the economy rise, the cost of debt capital increases because firm will have to pay bondholders a higher interest rate.
2. *Taxes:* Tax rates are used in the calculation of the cost of debt, which is one of the component costs used to develop the WACC. There are other less apparent ways in which tax policy can affect the cost of capital.

#### Controllable factors:

1. *Capital Structure:* The firm can change its capital structure, and such a change can affect its cost of capital. If a firm decides to use more debt and less common equity, this change in the weights in the WACC equations which tend to lower the WACC.
2. *Dividend Policy:* Because of flotation costs, new common stock is more expensive than retained earnings. For this reason, firms generally issue new common stocks only after have exhausted all of their retained earnings.
3. *Investment Policy:* When we estimate the cost of capital, we use as the starting point the required rate of return on the firm's outstanding stock and bonds. These costs reflect the riskiness of the firm's existing assets. Risk of specific project, determine the firms required rate of return of fund.