COST OF CAPITAL

In operational terms , cost of capital refers to the discount rate that is used in determining the present value of the estimated , future cash proceeds and eventually deciding whether the project is worth undertaking or not . In this sense , ifs defined as the minimum rate of return that a firm must earn on its investment for the market value of the firm to remain unchanged .

The cost of capital is visualized as being composed of several elements . These elements are the cost of each component of capital . The term component means the different sources from which funds are raised by a firm . Obviously , each source of funds or each component of capital has its cost . For example , equity capital has a cost , so also preference share capital and so on . The cost of each source or component is called specific cost of capital . When these specific costs are combined to arrive at overall cost of capital , it is referred to as the weighted cost of capital . The terms , cost of capital , weighted cost of capital , composite cost of capital and combined cost of capital are used Interchangeably in this book . In other words , the term , cost of capital , as the acceptance criteria for investment proposals , is used in the sense of the combined cost of all sources of financing . This is mainly because our focus is on the valuation of the firm as a whole . In other words , it is the internal rate of return that me firm pays to procure financing. On the basis of the above formula , we can easily find out that the explicit cost of an interest - free loan is zero per cent because the discount rate that equates the present value of a future sum with an equivalent sum received today is zero . The explicit cost of capital a loan being interest is that discount rate which equates the present value of the future cash outflows with the net amount of funds initially provided by the loan . The explicit cost of capital of a gift is minus 100 per cent .

The retained earnings are undistributed profits of the company belonging to the shareholders . Given the ultimate objective of the firm to maximize the wealth of shareholders, the cost of retained earnings would be equivalent to the opportunity cost of earning by investing elsewhere by the shareholders themselves or by the company itself. Opportunity costs are technically referred to as implicit cost of capital . The implicit cost of capital of funds raised and invested by the firm may , therefore , be defined as ' the rate of return associated with the best investment opportunity for the firm and its shareholders that would be foregone , if the projects presently under consideration by the firm were accepted . The cost of retained earnings is an opportunity cost or implicit capital cost , in the sense that it is the rate of return at which the shareholders could have invested these funds had they been distributed to them . However , other forms of financing also has implicit cost once they are invested . The explicit cost arises when funds are raised , whereas the implicit costs arise when funds are used .. Viewed in this perspective , implicit costs are ubiquitous . They arise whenever funds are used no matter what the source .

Factors affecting the cost of capital of a firm :

1. Risk Free Int . Rate : The Risk Free Int . Rate is consisting of two components :

(a) Real Interest Rate : It is pay able to the lender for supplying the funds or in other words surrenders the funds for a particular Period .

(b) Purchasing Power Risk Premium : In general , to compensate for the Loss in purchasing power over the period of Lending or supply of funds . So , over & above the real interest rate , the purchasing power Risk Premium is added to find out the risk - real interest rate . [Higher the expected Rate of inflation , greater would be the purchasing power Risk Premium & consequently higher would be the Risk free Int . Rate .]

2. Business Risk : The Business Risk is related to the response of the firm is EBIT to changing sales revenue . Another factor affecting the cost of capital is the risk associated with the firm's promise to pay interest and dividends to its investors . The business change in sales revenue . Every project has its effect on the business risk of the firm . If a firm accepts a proposal which is more risky than average present risk , the investors will probably raise the cost of funds so as to be compensated for the increased risk . This premium is added for the business risk compensation is also known as Business Risk Premium.

3. Financial Risk : The financial risk is another type of risk which can affect the cost of capital of the firm. The particular composition and mixing of different sources of finance , known as the financial plan or the capital structure , can affect the return available to the investors The financial risk is often defined as the likelihood that the firm would not be able to meet its fived financial charges . It is related to the response of the firm's earning per share to a variation in EBIT . The financial risk is affected by the capital structure or the financial plan of the firm Higher the proportion of fixed cost securities in the overall capital structure , greater would be the financial risk . The investor in such a case requires to be compensated for this increased risk . They add financial premium over and above the business nsk premium . It may be noted that the financial risk , like business risk , is are particular and related to the firm and is not affected by the external factors .

4. Other Consideration : The investors may also like to add a premium with reference to other factors . One such factor may be the liquidity or marketability of the investment Higher the liquidity available with an investment , lower would be the premium demanded by the investor . If the investment is not easily

marketable , then the investors may add a premium for this also and consequently demand a higher rate of return .

In view of the above , the cost of capital may be defined as

$$k = I_{Rf} + b + f$$

Where - Cost of capital of different sources .

I_{Rf} Risk free Interest rate

b - Business risk premium

f- Financial risk premium

The Profit earned by the firm but not distributed among the equity shareholders are ploughed back and reinvested within the firm & not distributed to equity shareholder . Thus some return is forgone by the investors when the profits are ploughed bank . The implicit cost of the retained earnings is the return which could have been earned by investor .

Measurement of Cost of Capital : It refers to the Process of determining the Cost of funds to the firm . The measurement of Cost of Capital is based on following two assumptions :

- Business Risk of the firm is unaffected by the proposals being evaluated at the Cost of Capital . The New proposal accepted by the firm is assumed to possess the same level of Risk as of those already held .
- The financial risk of the firm remains unchanged , whether a proposal is accepted or not .

The short term sources of funds are kept outside the calculation of Cost of Capital as these short term sources e.g. bank credit , trade credit , bill etc. are generally considered to be temporary in nature & are subject to repayment in the short run .

Therefore , the cost of capital of a firm is calculated as the combined cost of Long term sources of funds . The Combined Cost of Capital known as the overall cost of capital of firm , while the specific cost are known as the specific cost of capital of a particular source . The long term sources of funds can be broadly categorized into (i) Long term Debt & Loans (ii) Pref . sh . Capital (iii) EQ.sh. Capital (iv) Retained earnings .

MEASUREMENT OF SPECIFIC COSTS :

It includes :

(i) Cost of Debt

(ii) Cost of Preference share Capital

(iii) Cost of Equity Share Capital

(iv) Cost of Retain Earnings