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MODULE 3 ASSIGNMENTS:

1. Why is the cost of capital the minimum acceptable rate of return on an investment?

Answer: given it's risk and the opportunity cost of forgoing other projects or investment. the minimum rate of returning on a project, investment required by a manager or investors. also know as hurdle rate. the hurdle rate is usually tied to a benchmark rate such as or the one-year Treasury bill rate plus a spread.

2. How is the Cost of Debt Capital ascertained? Give examples.

Answer: debt rate: How to Calculate the Cost of Debt

To calculate cost of debt, a company must figure out the total amount of interest it is paying on each of its debts for the year. Then it divides this number by the total of all of its debt. The quotient is its cost of debt.

For example, say a company has a $1 million loan with a 5% interest rate and a $200,000 loan with a 6% rate. It has also issued bonds worth $2 million at a 7% rate. The interest on the first two loans is $50,000 and $12,000, respectively, and the interest on the bonds equates to $140,000. The total interest for the year is $202,000. As the total debt is $3.2 million, the company's cost of debt is 6.31%.

How to Calculate the Cost of Debt After Taxes

To calculate after-tax cost of debt, subtract a company's effective tax rate from 1, and multiply the difference by its cost of debt. Do not use the company's [marginal tax rate](https://www.investopedia.com/terms/m/marginaltaxrate.asp); rather, add together the company's state and federal tax rate to ascertain its effective tax rate.

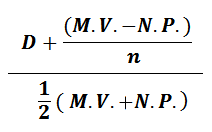
For example, if a company's only debt is a bond it has issued with a 5% rate, its pre-tax cost of debt is 5%. If its tax rate is 40%, the difference between 100% and 40% is 60%, and 60% of 5% is 3%. The after-tax cost of debt is 3%.

The rationale behind this calculation is based on the tax savings the company receives from claiming its interest as a business expense. To continue with the above example, imagine the company has issued $100,000 in bonds at a 5% rate. Its annual interest payments are $5,000. It claims this amount as an expense, and this lowers the company's income on paper by $5,000. As the company pays a 40% tax rate, it saves $2,000 in taxes by writing off its interest. As a result, the company only pays $3,000 on its debt. This equates to a 3% interest rate on its debt.3. How will you calculate the Cost of Preferences Share Capital?

Answer:

Cost of pref. share capital’s formula is given below.  
  
Cost of Pref. Share capital (Kp) = amount of preference dividend/ Preference share capital  
  
KP = D/P  
  
If we have obtained this preference share capital after some adjustments like premium or discount or pay some cost of floatation, at that time, it is our duty to deduct discount and cost of floatation or add premium in par value of pref. share capital.  
  
 In adjustment case cost of pref. share capital will change and we can calculate it with following way:-  
  
Kp = D/ NP  
  
D = Annual pref. dividend,   
  
NP = Net proceed = Par value of Pref. share capital – discount – cost of floatation  
  
Or NP = Par value of pref. share capital + Premium  
  
There will no adjustment of[tax](http://www.svtuition.org/2010/03/income-tax.html) rates because, dividend on pref. share capital is payable on net profit after tax adjustment, so need not to do adjustment of tax for comparing it with [cost of debt](http://www.svtuition.org/2010/04/cost-of-debt.html) or cost of equity share capital .  
  
Some, time we issue redeemable preference shares whose amount is payable after some time.   
  
At the time of maturity, we need to calculate cost of pref. share capital with following formula 

Cost of redeemable pref. share capital =

[](http://4.bp.blogspot.com/-77b9sbB1SK4/TzEaJ1UsZAI/AAAAAAAAHS8/k36OmBTbK_M/s1600/123456.PNG)

D = Annual dividend   
  
MV = Maturity value of pref. shares  
  
NP = Net proceeds of pref. shares  
  
N= number of years   
  
This formula is little different from cost of non redeemable pref. share capital because, we have to add, the benefit which we have given to pref. share capital at the time of maturity.   
  
Suppose, we have to pay Rs. 10, 00,000 but at the time of issue of pref. share, we had paid Rs. 2 per issue of pref. share. So, net proceed is Rs. 9,80,000 but if this amount is payable after 10 years at 10% premium, this will also benefit to pref. share capital and total cost of pref. share capital will increase. Rate of dividend is 10%.  
  
Cost of pref. share capital  
  
= D + (MV – NP )/n / ½(MV +NP) X 100  
  
= 100,000 + ( 10,50,000- 9,80,000 )/ ½ ( 10,50,000 + 9,80,000) x 100  
  
= 100,000 + 7,000/ 10, 15,000 X 100  
  
= 10.54%

4. The following details are available:

Equity (Expected Dividend 12%) Rs. 1000000

Tax Rate 50%

10% Preference Rs. 500000

8% Loan Rs. 1500000

You are required to calculate Weighted Average Cost of Capital?

solutions:

5. What is Net Present Value and how does it change by variation in discount rate.

Answer: Present value, also called "discounted value," is the current worth of a future sum of money or stream of cash flow given a specified rate of return. Future cash flows are discounted at the discount rate; the higher the discount rate, the lower the present value of the future cash flows. Determining the appropriate discount rate is the key to properly valuing future cash flows, whether they are earnings or obligations. If you received $10,000 today, the present value would be $10,000 because present value is what your investment gives you if you were to spend it today. If you received $10,000 in a year, the present value of the amount would not be $10,000 because you do not have it in your hand now, in the present. To find the present value of the $10,000 you will receive in the future, you need to pretend that the $10,000 is the total future value of an amount that you invested today. In other words, to find the present value of the future $10,000, we need to find out how much we would have to invest today in order to receive that $10,000 in the future.

To calculate present value, or the amount that we would have to invest today, you must subtract the (hypothetical) accumulated interest from the $10,000. To achieve this, we can discount the future payment amount ($10,000) by the interest rate for the period. In essence, all you are doing is rearranging the future value equation above so that you may solve for P. The above future value equation can be rewritten by replacing the P variable with [present value](https://www.investopedia.com/terms/p/presentvalue.asp) (PV) and manipulating the equation as follows:

|  |
| --- |
|  |

6. Distinguish between NPV and PI. Which of these you consider better?

Answer: Wondering what is the difference between the **profitability index** and **net present value**?

A **profitability index** presents a parallel between the costs and profits of a certain project. By dividing the present value of the property’s future cash flows by the initial investment, we get the profitability index. If the profitability index is over 1.0, then the profitability is **positive**, but if it is below 1.0 then the investment will probably fail. To put it another way, profitability index is constituted of the ***ratio***between the present value of future cash flows and the initial investment.

A profitability index measure of 1.0 is likely the lowest desired number, and if it is lower than that, it signifies that the present value of the project is lower than the initial investment. Therefore, the project would probably be discarded.

Actually, both measures consider an investment property’s future **CASH FLOW**. However, net present value gives you the **dollar difference**, while the profitability index gives the **ratio**.

For example, let’s say that a **commercial real estate investment property** requires an investment of 1 million dollars. Its present worth with a revenue stream is $1,100,000. The net present value (**NPV**) would be $100,000, while the ratio would be 1.10. This demonstrates that the project is likely to be successful.

Even though these appear the same, understanding the difference between the two can help you compare **commercial income properties** quickly and easily. Because profitability index is a ratio, **it is absolute**: it tells you the proportion of dollars returned to dollars invested( instead of a specific amount). **Profitability index allows you to compare the profitability of two properties without regard to the amount of money invested in each.**

7. What are the limitations of using the NPV and IRR methods in practice? Give your

assessment.

Answer: Limitations of Internal Rate of Return

Despite its name, calculating a projected future IRR actually requires one to take into account a number of *external* factors, which are very difficult to predict. On the surface, the calculation seems simple as it reflects the amount cash that goes into the investment and the amount of cash that comes out of the investment over its life. However, predicting future cash flows often hides large assumptions such as the total project costs, future interest rates, and broader market conditions. These assumptions inevitably involve a great deal of human subjectivity and therefore carry the potential not only for error but also bias.

As far as I know, NPV as a *concept* has no limitations, as taking on the most NPV-positive projects will maximize the value of the firm. However, the calculation of NPV in practice can be quite difficult.

8. What purpose do capital markets serve?

Answer: Capital markets serve two purposes. Firstly, they bring together investors holding capital and companies seeking capital through equity and debt instruments. Secondly, and almost more importantly, they provide a secondary market where holders of these securities can exchange them with one another at market prices.

9. What are the factors that would go into deciding whether a company should resort to debt

or equity for financing its requirement of long-term funds?

Answer: A constant flow of working capital is an intrinsic component of a successful business. This is especially true considering the outflow that is a part and parcel of every cycle: salaries and wages need to be paid; raw materials need to be purchased and equipment need to be serviced; funds are needed for marketing, advertising, and other general overhead costs; reserves are required till the customers make their payment. Working capital is truly the lifeline for any company.

The question arises as to how does a business acquire funds for working capital. There are two types of financing: short term and long term.

Short Term Financing

Banks can be an invaluable source of short term working capital finance.

1. Overdraft Agreement:

By entering into an overdraft agreement with the bank, the bank will allow the business to borrow up to a certain limit without the need for further discussion. The bank might ask for security in the form of collateral and they might charge daily interest at a variable rate on the outstanding debt. However, if the business is confident of making the repayments quickly, then an overdraft agreement is a valuable source of financing, and one that many companies resort to.

2. Accounts Receivable Financing:

Many banks and non-banking financial institutions provide invoice discounting facilities. The company takes the commercial bills to the bank which makes the payment minus a small fee. Then, on the due date the bank collects the money from the customer. This is another popular method of financing especially among small traders. Businesses that offer large terms of credit can carry on their operations without having to wait for the customers to settle their bills.

3. Customer Advances:

There are many companies that insist on the customer making an advance payment before selling them goods or providing a service. This is especially true while dealing with large orders that take a long time to fulfil. This method also ensures that the company has some funds to channelize into its operations for fulfilling those orders.

4. Selling Goods on Instalment:

Many companies, especially those that sell television sets, fans, radios, refrigerators, vehicles and so on, allow customers to make their payments in instalments. Since many of these items have become modern day essentials, their customers might not come from well-to-do backgrounds or the cost of the product might be too prohibitive for immediate payment. In such a case, instead of waiting for a large payment at the end, they allow the customers to make regular monthly payments. This ensures that there is a constant flow of funds coming into the business that does not choke up the accounts receivable numbers.

Long-Term Financing

Relying purely on short-term funds to meet working capital needs is not always prudent, especially for industries where the manufacture of the product itself takes a long time: automobiles, aircraft, refrigerators, and computers. Such companies need their working capital to last for a long time, and hence they have to think about long term financing.

1. Long-Term Loan from a Bank:

Many companies opt for a full-fledged long term loan from a bank that allows them to meet all their working capital needs for two, three or more years.

2. Retain Profits:

Rather than making dividend payments to shareholders or investing in new ventures, many businesses retain a portion of their profits so that they may use it for working capital. This way they do not have to take loans, pay interest, incur losses on discounted bills, and they can be self-sufficient in their financing.

3. Issue Equities and Debentures:

In extreme cases when the business is really short of funds, or when the company is investing in a large-scale venture, they might decide to issue debentures or bonds to the general public or in some cases even equity stock. Of course, this will be done only by conglomerates and only in cases when there is a need for a huge quantum of funds.

Companies cannot rely only on limited sources for their working capital needs. They need to tap multiple avenues. They also need to constantly evaluate what their needs are, through [analysis of financial statements and financial ratios](https://www.invensis.net/finance-accounting-bpo/outsource-financial-analysis-reporting-services/?utm_source=invensis-blog&utm_campaign=blog-post&utm_medium=content-link&utm_term=sources-of-short-term-and-long-term-financing-for-working-capital), and choose their working capital channels judiciously. This is an ongoing process, and different routes are appropriate at different points in time. The trick is to choose the right alternative as per the situation.

10. Discuss the role of an underwriter in managing an IPO.

Answer: Perhaps the most prominent role of an equity underwriter is in the IPO process. ...IPO underwriters are financial specialists, who work closely with the issuing body to determine the initial offering price of the securities, buys them from the issuer, and sells them to investors via the underwriter's distribution network.

11. Why is a stock exchange an important institution of the capital markets?

Answer: The stock market allows investors and banking institutions to trade stocks, either publicly or privately. Stocks are financial instruments that represent partial ownership of a company. These documents are used extensively by companies as a means of raising necessary capital