

Africa Center for Project Management (ACPM)

School of Online & Distance Learning

P.O.BoX 58182-00200

Nairobi Kenya

**Course Name:** Post Graduate Diploma in Finance Management (PGD-FM)

**Assignment -4**

**Admission number:** ACPM PGD/108/2018

**Submitted By**: Kelang Denis Simon

**Course Advisor:** Fredrick Ratemo

**Submission Date**: May 01, 2019



**ASSIGNMENTS: 4**

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

First and foremost, we have to understand what minimum acceptable rate of return means. A **minimum acceptable rate of return** (MARR) is the **minimum** profit an **investor** expects to make from an **investment**, taking into account the risks of the **investment** and the opportunity **cost** of undertaking it instead of other **investments**. MARRs are a useful way of weighing up whether an investment is worth the risks associated with it. To calculate the MARR, you need to look at different aspects of the investment opportunity, including the opportunities for expanding operation and rate of return on investments.

Hence the cost of capital is MARRA on an investment because an investment has been a successful one if the actual rate of return is above the minimum acceptable rate of return. If it is below, it's seen as an unsuccessful investment and you might, as an investor, pull out of the investment.

On the project aspect, when a project has been proposed, it must first go through a preliminary analysis in order to determine whether or not it has a positive net present value using the MARR as the discount rate. The MARR is the target rate for evaluation of the project investment. This is accomplished by creating a cash flow diagram for the project, and moving all of the transactions on that diagram to the same point, using the MARR as the interest rate. If the resulting value at that point is zero or higher, then the project will move on to the next stage of analysis. Otherwise, it is discarded. The MARR generally increases with increased risk.

Therefore, a firm’s weighted average cost of capital is calculated because:-

1. The financial objective of management is to maximize the shareholders' wealth. We can increase the value of the common stock by lowering the firm's cost of capital. All else remaining the same, as the cost of capital decreases, the value of the firm increases.

2) The cost of capital is used as the minimum acceptable rate of return for capital investments. The value of the firm is maximized by accepting all projects where the net present value is positive when discounted at the firm's cost of capital.

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

## To begin with, the cost of debt is the return that a company provides to its debtholders and creditors. These capital providers need to be compensated for any risk exposure that comes with lending to a company.  Since observable interest rates play a big role in quantifying the cost of debt, it is relatively more straightforward to calculate the cost of debt than the cost of equity. Not only does cost of debt, as a rate, reflect the default risk of a company, it also reflects the level of interest rates in the market. In addition, it is an integral part of calculating a company’s Weighted Average Cost of Capital.

## To ascertain the cost of debt capital, 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; rather, add together the company's state and federal tax rate to ascertain its effective tax rate.

### However, there are two common ways of estimating the cost of debt. The first approach is to look at the current yield to maturity or YTM of a company’s debt. If a company is public, it can have observable debt in the market.  An example would be a straight bond that makes regular interests payments and pays back the principal at maturity. This approach is widely used when the company being analyzed has a simple capital structure, where it does not have multiple tranches of debt, including subordinated debt or senior debt for example, with each having significantly different interest rates.

### Matrix Pricing – Debt Ratings. The other approach is to look at the credit rating of the firm found from credit rating agencies. A yield spread over government treasuries can be determined based on that given rating. That yield spread can then be added to the risk-free rate to find the cost of debt of the company. This approach is particularly useful for private companies that don’t have a directly observable cost of debt in the market. Simply put, a company with no current market data will have to look at its current or implied credit rating and comparable debts to estimate its cost of debt. When comparing, the capital structure of the company should be in line with its peers.

When neither the YTM nor the debt-rating approach works, the analyst can estimate a rating for the company. This happens in situations where the company doesn’t have a bond or credit rating, or where it has multiple ratings. We would look at the leverage ratios of the company, in particular, its interest coverage ratio. A higher number for this ratio means a safer borrower. The yield spread can then be estimated from that rating.

Again before we look at the formulas to calculate the cost of capital in more detail, it is important to understand why it is essential to do the maths. As mentioned briefly above, the cost of capital can be an essential part of a business’ financial decision-making.

Since cost of capital provides the business with the minimum rate of return it needs on its investments, it is an essential part of budgeting decisions. By knowing the cost of capital, the business can make better decisions on its future investments and other such financing options.

For example, it can help the business to find projects that will generate appropriate gains for the business. On the other hand, it can prevent the business from making an investment, which wouldn’t provide quick enough returns for the company.

Therefore, a cost of capital reveals the business plenty about the type and value of its past and future investments. If a business doesn’t know the rate of return or the cost of financing its operations, it can’t expect much business success.

In addition, it’ll help better attract new investors for the business, as they are able to understand the kind of rate of return they will receive. It also ensures the business doesn’t go after creditors or investors it cannot repay at the current time.

Overall, understanding the cost of capital will boost the business’ financial decision-making. Because the cost of capital is used to design the market fluctuations, it can help build better financial structures.

In some instances, businesses even use it to better understand financial performance and to evaluate whether the management is performing well enough.

Now that we understand the definition of cost of capital and the importance of calculating it, it’s time to look at the calculating methods.

First, we’ll go through the formulas for calculating both the cost of equity and debt, as they’ll be used in the final calculations of WACC. Naturally, if the business only uses either debt or equity alone, one can also use the formulas as the basis for calculating the cost of capital.

First, let’s look at how one can calculate the cost of debt. Debt in this formula includes all forms of debt the company uses in order to finance its operations. These could be various bonds, loans and other such forms of debt.

As mentioned earlier, there are two formulas for calculating the cost of debt. This is because it deals with interest, which can be deducted from tax payments. Thus, the alternatives are to calculate the cost of debt either before- or after-tax. Generally, the after-tax cost is more widely used.

The before-tax rate can be calculated by two different methods. First, you can calculate it by multiplying the interest rate of the company’s debt by the principal. For instance, a $100,000 debt bond with 5% pre-tax interest rate, the calculation would be: $100,000 x 0.05 = $5,000.

The second method uses the after-tax adjusted interest rate and the company’s tax rate.

Even if you use the after-tax rate, you’ll still need the above before-tax rate. The formula for calculating the after-rate tax is:

            Cost of debt (after-tax rate) = before-tax rate \* (1 – marginal tax rate)

Keep in mind the before-tax rate is also often referred to as the yield-to-maturity on long-term debt.

There are also two ways of calculating the cost of equity: the more traditional dividend capitalization model and the more modern capital asset pricing model (CAPM).

The dividend capitalization model uses the following formula:

Cost of equity = (dividends per share [for next year] / current market value of stock) + growth rate of dividends

More recently, many companies have started to the use the CAPM method. Under this method, the idea is that investors need a minimum rate of return, which is equal to return from a risk-free investment, as well as a return for bearing extra risk.

The formula is as follows:

Cost of equity = risk free rate + beta [i.e. risk measure] \* (expected market return – risk free rate).

1. How will you calculate the Cost of Preferences Share Capital?

Preference shares, more commonly referred to as preferred stock, are shares of a company’s stock with dividends that are paid out to shareholders before common stock dividends are issued. If the company enters bankruptcy, preferred stock holders are entitled to be paid from company assets before common stockholders. Most preference shares have a fixed dividend, while common stocks generally do not. Preferred stock shareholders also typically do not hold any voting rights, but common shareholders usually do.

Meanwhile **Preference Capital** is that portion of capital which is raised through the issue of the preference shares. This is the hybrid form of financing that has certain characteristics of equity and certain attributes of debentures.

The cost of preference share capital is apparently the dividend which is committed and paid by the company. This cost is not relevant for project evaluation because this is not the cost at which further capital can be obtained. To find out the cost of acquiring the marginal cost, we will be finding the yield on the preference share based on the current market value of the preference share.

The preference share is issued at a stated rate of dividend on the face value of the share. Although the dividend is not mandatory and it does not create legal obligation like debt, it has the preference of payment over equity for dividend payment and distribution of assets at the time of liquidation. Therefore, without paying the dividend to preference shares, they cannot pay anything to equity shares. In that scenario, management normally tries to pay a regular dividend to the preference shareholders.

**Formula for Cost of Preference Share:**

|  |  |
| --- | --- |
| Irredeemable Preference Share | Redeemable Preference Share |
| Kp = Dp/NP | Kp = Dp+((RV-NP)/n )/ (RV+NP)/2 |

Where,

Kp = Cost of Preference Share

Dp = Dividend on preference share

NP = Net proceeds from issue of preference share (Issue price – Flotation cost)

RV = Redemption Value

N = Period of preference share

**Example:**A company issues 20,000 irredeemable preference share at 8% whose face value is Rs.50 each at 4% discount. Find out the Cost of Preference Share Capital.

**Solution:**Dividend on Preference share (Dp) = 50\*8/100 = 4

Discount = 50\*4/100 = 2

Net Proceeds (NP) = 50-2 = 48

Kp = Dp/NP

=4/48

**= 8.33%**

**Example:** Find out the cost of 10, 500 irredeemable preference shares if issues at 2% premium of Rs.60 each. The dividend paid by the company is Rs. 6 each. The flotation cost is Rs. 8 per share.

**Solution:** Premium amount = 60\*0.02 = 1.2

Issue price = 60 + 1.2 = 61.2

 Net proceeds = 61.2 - 8= 53.2

 Kp = Dp/NP

= 6 / 53.2

= **11.27%**

**Example:**A preference share issues at 12% worth Rs 60,000 at 5% discount and after 6 years it redeem at 10% premium. The flotation cost is 5% and tax rate is 20%. Find out the cost of preference share capital.

**Solution:**

Dividend on preference share (Dp) = 60,000\*12/100 = Rs.7200

Discount = 60,000\*5/100 = Rs.3000

Flotation Cost = 60,000\*5/100 = Rs.3000

Net Proceeds (NP) = Rs. (60,000-3000-3000) = Rs. 54,000

Premium amount = 60,000\*10/100 =Rs. 6000

Redemption Value = Rs. (60,000+6000) = Rs. 66,000

Kp = Dp+ ((RV-NP)/n)/ (RV+NP)/2

= 7200+ ((66,000-54,000)/6) / (66,000+54,000)/2

= 9200/60,000

**= 15.33%**

1. 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?

The Weighted Average Cost of Capital (WACC) for the above details can be solved as below:

WACC = E/V\*Re+(D/V)\*Rd\*(1-Tc)

Where:

E = Market value of the firm’s equity

D = Market value of the firm’s debt

V = E + D

Re = Cost of equity

Rd = Cost of debt

Tc = Corporate tax rate

Hence,

E (12%) = Rs.1, 000,000\*12/100 =120,000

D (8%)= Rs.1, 500,000\*8/100= Rs.120, 000

V = Rs.120, 000+120,000 = Rs. 240,000

Re (10%)= Rs. 50,000

Rd= 50,000

Tc= 50%

Therefore from the formula, WACC = E/V\*Re+ (D/V)\*Rd\*(1-Tc)

WACC= 120,000/240,000\*50,000+ (120,000/240,000)\*50,000\*(1-50%)

WACC= 0.5\*50,000+ (0.5)\*50,000\*(1-50%)

WACC= 25,000+ (0.5)\*50,000\*(1-50%)

WACC= Rs 25,000+25,000\*(1-50%)

WACC= Rs.50, 000\*(1-50%)

WACC= Rs. 50000\*0.50 = 25,000

Weighted Average Cost of Capital = R.25, 000

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

Net Present Value (NPV) is the value of all future cash flows (positive and negative) over the entire life of an investment discounted to the present. NPV analysis is a form of intrinsic valuation and is used extensively across finance and accounting for determining the value of a business, investment security, capital project, new venture, cost reduction program, and anything that involves cash flow.

This decrease in the current value of future cash flows is based on a chosen rate of return (or discount rate). ... NPV is the sum of all the discounted future cash flows. Because of its simplicity, NPV is a useful tool to determine whether a project or investment will result in a net profit or a loss.

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

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. ... 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.

The NPV and PI are basically the same calculation, and both rules lead to the same accept/reject decision. The main difference between the two is that the PI may be useful in determining which projects to accept if funds are limited; however, the PI may lead to incorrect decisions in considering mutually exclusive investments.

Given the goals of firm value and shareholder wealth maximization, we have stressed the importance of net present value (NPV). And yet, many financial decision-makers at some of the most prominent firms in the world continue to use less desirable measures such as the payback period and the average accounting return (AAR). Why do you think this is the case? This is an open-ended question which allows the creative student to speculate on the value of non-discounted cash flow evaluation measures. We use it as a springboard to stress that even rational financial managers sometimes find it expedient to use a group of measures. For example, firms may rely on the IRR because it is easier to explain to board members than NPV. Also, for large projects, AAR provides shareholders with some insights as to the project’s impact on net income and earnings per share.

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.

## **Conclusion**

Net Present Value is considered as **one of the most desirable types of** evaluation, analysis, and selection of great investments. However, we should note that we have to be very careful when estimating cash flows, since incorrect cash flow estimation may lead to deceptive NPV.

Another thing you should take into account is that the discount rate is the same for both cash inflows and outflows, and the thing here is that the rates are different when lending or borrowing.

Still, NPV is the **first and foremost measure** of investment evaluation, compared to other methods such as determining the rate of return, payback period, internal rate of return (and Profitability Index). In fact, profitability index is related to Net Present Value, where the value presents an absolute measure, and the index presents a relative measure.

Proprietors raise investors’ wealth by welcoming projects that have a higher value than they actually cost, that has a **positive expected Net Present Value.** Sometimes the investment can be postponed and choose a time that is the most suitable for investment, and thus improve the cash flow.

Why net present value (NPV) is the best measure for investment appraisal?” This question is as good as another question – “How NPV is better than other methods of investment appraisal? There are many methods for investment appraisal such as accounting the (book) rate of return, payback period (PBP), internal rate of return (IRR), and Profitability Index (PI).

Before comparing NPV, let’s recapitulate the concept again. Net present value method calculates the present value of the cash flows based on the opportunity cost of capital and derives the value which will be added to the wealth of the shareholders if that project is undertaken.

Let us discuss each of these methods in comparison with net present value (NPV) to reach the conclusion. Why NPV is the best can be illustrated as shown on the table below:

|  |  |  |
| --- | --- | --- |
| NPV Vs PBP | NPV Vs IRR | NPV Vs PI |
| Drawbacks of PBP Method:   1. Ignores Time value of money 2. Does not consider cash flow after the PBP   NPV considers time value of money and also the cash flow till the end of the project life | Drawbacks of IRR Method:   1. Does not consider the economics of scale 2. Assumes discounting and reinvestment at the same rate. 3. Enters the problem of multiple IRR when more than one negative cash flows. | Drawbacks of PI Method:   1. A project can have the same profitability index with different investments and the vast difference in absolute dollar return.   NPV has an upper hand in this case. |

NPV calculates the present value of the cash flows based on the opportunity cost of capital and derives the value which will be added to the wealth of the shareholders if that project is undertaken.

We have noted that almost all the difficulties are survived by net present value and that is why it is considered to be the best way to analyse, evaluate, and select big investment projects. At the same time, the estimation of cash flows requires carefulness because if the cash flow estimation is wrong, NPV is bound to be misleading.

A small problem with NPV is that it also considers the same discounting rate for both cash inflow and outflows. We know that there are differences between borrowing and lending rates. Modified internal rate of return is another method which is little more complex but improved which takes care of the difference between borrowing and lending rates also as it discounts cash inflows at lending rates and cash outflow at borrowing rates.

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

While net present value (NPV) calculations are useful when valuing investment opportunities, the process is by no means perfect. Thus, NPV is a useful starting point to value investments, but certainly not a definitive answer that an investor can rely on for all investment decisions.

NVP and Investing

In some instances, money in the present is worth more than the same amount of money in the future. That's due to inflation and earnings from alternative investments that could be made during the period. In other words, it's possible that a dollar earned in the future won’t be worth as much as one earned in the present. The discount rate element of the NPV formula is a way to account for this because it subtracts today's value of invested cash from today's value of the expected cash flows.

For example, an investor could receive $100 today or a year from now. Most investors would not be willing to postpone payment. However, what if an investor could choose to receive $100 today or $105 in one year? The 5% rate of return for waiting one year might be worth it for an investor, unless there was an alternative investment that could yield a rate greater than 5% over the same period.

If an investor knew they could earn 8% from a relatively safe investment over the next year, they would want $100 today and not opt to invest in the 5% investment. In this case, the 8% is called the discount rate.

NPV and Discount Rate Sensitivity

The biggest disadvantage to the calculation of NPV is its sensitivity to discount rates. After all, NPV is a summation of multiple discounted cash flows—both positive and negative—converted into present value terms for the same point in time (usually when the cash flows begin). As such, the discount rate used in the denominators of each present value (PV) calculation is critical in determining what the final NPV number will turn out to be. A small increase or decrease in the discount rate will have a considerable effect on the final output.

Let's say you're trying to value an investment that would cost you $4,000 upfront today but is expected to pay you $1,000 in annual profits for five years (for a total nominal amount of $5,000) beginning at the end of this year. If you use a 5% discount rate in your NPV calculation, your five $1,000 payments are equal to $4,329.48 of today's dollars. Subtracting the $4,000 initial payment, you are left with an NPV of $329.28.

However, if you raise the discount rate from 5% to 10%, you get a very different NPV result. At a 10% discount rate, your investment's cash flows add up to a present value of $3,790.79. Subtract the $4,000 initial cost from this amount, and you're left with a NPV of -$209.21. Simply by adjusting the rate, you have gone from having an investment that creates value to having one that loses value instead.

How do you know which discount rate to use? Accurately pegging a percentage number to an investment to represent its risk premium is hardly an exact science. If the investment is very safe, with low risk of loss, 5% may be a reasonable discount rate to use—but what if the investment harbors enough risk to warrant a 10% discount rate? Since NPV calculations require a discount rate, there is no way to get around this issue. Therefore, it's a big disadvantage to the NPV methodology.

Other Disadvantages

Making matters even more complex is the possibility that your investment won't have the same level of risk throughout its entire time horizon.

In our example of a five-year investment, how would you handle a situation in which the investment had a high risk of loss for the first year but relatively low risk for the last four? You can try to use different discount rates for each time period, but this will make your model even more complex and require a lot on your part to peg not only one discount rate accurately, but five.

Finally, another major disadvantage to using NPV as an investment criterion is that it wholly excludes the value of any real options that may exist within the investment.

Consider our five-year investment example again. Suppose this is a startup technology company, which is currently losing money but is expected to have the opportunity to expand greatly within three years. If you know the company has this valuable real option of expansion in the future, shouldn't you incorporate the value of that option into the total NPV of the investment? Clearly, the answer is "yes," but the standard NPV formula provides no way to include the value of real options.

## DISADVANTAGES OF INTERNAL RATE OF RETURN

The method of internal rate of return does not prove very fruitful under a certain special type of conditions which are discussed below:

### Economies of Scale Ignored

One pitfall in the use of the IRR method is that it ignores the actual dollar value of benefits. One should always prefer a project value of $1000000 with 18% rate of return over a project value of $10000 with a 50% rate of return. No need of analysis, we can apparently see that the dollar benefit of the former project is $180000 whereas the latter one is only $5000. Absolutely No Comparison. IRR method will rank the latter project, with very less dollar benefit, first simply because the IRR of 50% is higher than 18%.

### Impractical Implicit Assumption of Reinvestment Rate

While analysing a project with IRR method, it implicitly assumes the reinvestment of the positive future cash flows at IRR for the remaining time period of the project. If a project has low IRR, it will assume reinvestment at a low rate of return and on the contrary, if the other project has very high IRR, it will assume reinvestment rate at the very high rate of return. This situation is practically not valid. At the time you receive those cash flows, having the same level of investment opportunity is rarely possible. In addition to that making, an assumption that at one point in time, one company will have more than one reinvestment rate is not possible. If a company has more than one reinvestment rate opportunity, then it will invest at a higher rate.

### Dependent or Contingent Projects

Many times, finance managers come across a situation when the project under evaluation creates a compulsion of investing in other projects. For example, if you invest in a big transporting vehicle, you would need to arrange a place for parking that also. Such projects are called dependent or contingent projects which have to be considered by the manager. IRR may permit buying of the vehicle but if the total proposed benefits are wiped off in arranging the parking space, there is no point investing.

### Mutually Exclusive Projects

Sometimes investors come across mutually exclusive projects which mean if one is acceptable other is not. Building a hotel or a commercial complex on a particular plot of land is an example of mutually exclusive projects. In such situations, knowing whether they are worth investing is not enough. The challenge is to know which one is the best. IRR will give a percentage interpretation value which is not enough. Refer the first disadvantage of economies of scale which the IRR ignores.

### Different Terms of Projects

Consider two projects with different project duration. One ends after 2 years and the other ends after 5 years. The first project has an additional point of reinvesting the money which is unlocked at the end of the 2nd year for another 3 years till the other project ends. This point is not considered by the IRR method.

### A mix of Positive and Negative Future Cash Flows

When a project has some negative cash flow in between other positive cash flows, the equation of IRR is satisfied with more than one rate of return i.e. it reaches the trap of Multiple IRR. In case of multiple IRR situations, it is possible to take a decision with IRR, however, we should know that what is NPV at one cost of capital at least.

For example, IRR for a project is 10 % and 30%, and @ 5 % NPV is positive, then Project will be accepted if the cost of capital is less than 10% or more than 30%. If the cost of capital falls between 10 % and 30 %, a project will not be accepted. In case of NPV is negative @ 5 %, then decision making would be reversed. So, in this case, decision making becomes dependable to NPV and decision making becomes complicated. It is very rare that such kind of situation arises. It arises in agency deposit or such other businesses.

### Calculation of IRR is not possible

If later cash inflows are not sufficient to cover initial investment, then, in that case, IRR cannot be found. IRR is discounted rate at which Present Value of Cash Inflow equals to Investment or Present value cash outflow.

### The objective of wealth maximization

Importantly when there is a conflict in the ranking of mutually exclusive projects between net present value NPV and IRR, at that time, NPV criteria supersedes IRR criteria because NPV criteria exactly measure that what is the amount by which value of the firm will increase. The objective of Financial Management in terms of wealth maximization is met to which extent can be measured by NPV. IRR will only be able to decide whether a project is worth accepting or not. However, what will increase in wealth is not possible to be measured by IRR.

1. What purpose do capital markets serve?

## **Capital markets** are a source of financing for companies around the world. The most famous of the capital markets are the stock market and bond market.

## For example companies utilize capital markets to raise money for projects by issuing stock IPOs, bonds and short-term money market securities. Individual investors wish to earn interest or dividends on their savings can meet companies looking to raise funds by issuing securities.

To illustrate how a corporate bond moves through capital markets, suppose AB Co. needs to raise $1000. AB Co. offers a 10-year bond on the bond market with a par value of $1000. The bond is purchased by someone wishing to earn interest on the $1000 that they have available. AB Co. receives the $1000 in cash and the investor receives a bond and the promise of repayment plus interest. Should the bondholder later decide he no longer wants the bond, he can sell it to another investor in the marketplace.

To illustrate using stocks, suppose AB Co. decided to raise more funds by issuing ten new shares of stock for $100 per share. AB Co. offers these shares in the market and someone purchases all ten for $1000 total. This time, the investor obtains stock certificates giving him partial ownership of the company. AB Co. gets the $1000 in funds they wanted to raise. As in the example above, should this investor wish to no longer hold these stocks, he can sell them to another investor in the stock market for the current market price. Should the company have extra cash, it could buy the stock back as well.

## Therefore; capital markets serve two purposes. Firstly, they bring together investors holding [capital](https://investinganswers.com/node/5749) and companies seeking capital through equity and [debt](https://investinganswers.com/node/5752) 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. Without the liquidity created by a secondary market, investors would be less inclined to purchase equity and debt instruments for fear of being unable to unload them in the future.

We can further defined capital market as the market where medium and long terms finance can be raised. Capital market offers a variety of financial instruments that enable economic agents to pool, price and exchange risk. Through assets with attractive yields, liquidity and risk characteristics, it encourages saving in financial form. This is very essential for government and other institutions in need of long term funds. According to Al-Faki (*2006*), the capital market is a network of specialized financial institutions, series of mechanism, processes and infrastructure that, in various ways facilitate the bringing together of suppliers and users of medium to long term capital for investment in economic developmental project”.

Taking into account the role in the market economy, the capital market occupies an important place, through their specific mechanisms, succeeding to give its contribution to the economic development of the society. In consequence, the public authorities must notice the importance of the capital market in the national economy and, on the other hand, to make the efforts for insuring the necessary framework for the normal functioning of its specific mechanisms. The valences of the capital could be even more interesting in the case of emerging markets being well-known its contribution in reorienting financial resources to efficient activities, contributing to the economic reform, but also being interesting in the privatization process.

Again the capital market was instrumental to the initial twenty five Banks that were able to meet the minimum capital requirement of N25 billion during the banking sector consolidation in 2005. The stock market has helped government and corporate entities to raise long term capital for financing new projects, and expanding and modernizing industrial/commercial concerns.

1. 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?

There are a number of ways to finance a business and a range of lenders and investors to choose from when a business owner is making financing decisions. Financing can come in the form of debt or investment, and the terms of the financing can vary significantly between the two. Important factors to consider when choosing methods of financing a business include the repayment terms, the total cost of capital and the requirements of the lender or investor.

## Consider the Repayment Terms: Consider how long the financing arrangement is structured to last. Longer loans can build up a significant amount of interest over time, but loans with shorter terms can require larger periodic payments. Consider the amount of the periodic payment and how often you are required to pay. Also take into account the allocation of each payment to principal and interest; look for loans with a higher allocation to principal to minimize the total long-term cost.

## Interest and Fee Structures: Add up all of the costs associated with each financing method before making a decision. Common costs for loans include interest rates, origination fees and brokers' fees. Financing through investment can carry much different costs.

## Money from venture capitalists, for example, may not require repayment for years, at which time the investor may expect to be repaid at a steep premium all at once. Financing through stock offerings can lead to a change in management and a shifting in strategic focus.

## Lender Financing Requirements: Consider the personal requirements each lender and investor places on applicants. Pursue financing from sources whose requirements you meet in full. Common financing requirements include credit score requirements and specific financial ratio tests, such as the debt-to-equity or interest coverage ratios. Discuss the requirements placed on applicants with each lender before preparing a loan application package.

## Additional Financing Requirements: If you are thinking about financing your business through investment, look into all the ramifications of your decision before moving ahead. Venture capitalists often require an ownership stake in the company, which they expect you to buy back at a premium after a period of rapid growth. Before you buy the ownership stake back, however, the investor may assert a great deal of influence on managerial and strategic decisions.

## Selling shares of stock to finance a business has its own set of vital considerations, including the possibility of losing managerial control in the future and falling victim to a takeover from a larger company.

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

An underwriter is any party that evaluates and assumes another party's risk for a fee. The fee is often a commission, premium, spread, or interest. Underwriters are critical to the financial world including the mortgage industry, insurance industry, equity markets, and common types of debt security trading.

The world of finance is complex. There are many aspects, which cannot be fully explained and still confuse the researchers. One of the most discussed topics is that of Initial Public Offerings (IPO) mainly because of the intricate connections between investment bankers (underwriters), issuers and buyers. We will try to summarize the whole process of going public and emphasize on the role of the (lead) underwriter in it.

Perhaps the most prominent **role** of an equity **underwriter** is in the **IPO** process. ... The amount of interest received by these large institutional investors helps an **underwriter** set the **IPO** price of the company's stock.

The underwriter usually provides a guarantee to the firm to sell a specific quantity of stock during the IPO process. Should the underwriter fail to convince prospective investors to buy this many shares, it must buy the surplus itself. To avoid having to commit large quantities of money to a failed IPO, the underwriter must therefore work especially hard to sell all available shares. Should the underwriter end up with a great quantity of stock, which it was forced to buy from the issuing firm, it will sell these shares in the open market. Such sales must proceed with caution, because suddenly dumping a lot of shares can drag the price down, hurting both the issuer as well as the underwriter.

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

A **stock exchange**, **securities exchange** or bourse, is a facility where stock brokers and traders can buy and sell securities, such as shares of stock and bonds and other financial instruments. Stock exchanges may also provide for facilities the issue and redemption of such securities and instruments and capital events including the payment of income and dividends. Securities traded on a stock exchange include stock issued by listed companies, unit trusts, derivatives, pooled investment products and bonds. Stock exchanges often function as "continuous auction" markets with buyers and sellers consummating transactions via open outcry at a central location such as the floor of the exchange or by using an electronic trading platform.

To be able to trade a security on a certain stock exchange, the security must be listed there. Usually, there is a central location at least for record keeping, but trade is increasingly less linked to a physical place, as modern markets use electronic communication networks, which give them advantages of increased speed and reduced cost of transactions. Trade on an exchange is restricted to brokers who are members of the exchange. In recent years, various other trading venues, such as electronic communication networks, alternative trading systems and "dark pools" have taken much of the trading activity away from traditional stock exchanges.

Initial public offering of stocks and bonds to investors is done in the primary market and subsequent trading is done in the secondary market. A stock exchange is often the most important component of a stock market. Supply and demand in stock markets are driven by various factors that, as in all free markets, affect the price of stocks (see stock valuation).

There is usually no obligation for stock to be issued through the stock exchange itself, nor must stock be subsequently traded on an exchange. Such trading may be *off exchange* or over-the-counter. This is the usual way that derivatives and bonds are traded. Increasingly, stock exchanges are part of a global securities market. Stock exchanges also serve an economic function in providing liquidity to shareholders in providing an efficient means of disposing of shares.

Stock Exchange is a hub of primary and secondary market playing a crucial role in the economy. Stock exchange provides a place to the buyers and sellers of the shares and securities. For this purpose National stock exchange was established by the leading institutions in mid 1990s with the main aim to provide a modern and fully automated screen based trading system with national reach. National Stock Exchange has set up facility that serves as a model for securities industry in terms of system and procedures. Presently, the Capital Market segment of National Stock Exchange provides an efficient and transparent platform for trading of equity, preference shares, debentures, exchange traded funds as well as retail government securities. Many researches had taken place with respect to individual market prices, market efficiency, market index, S&P CNX Nifty etc; plantar of studies in context to National Stock Exchange has been conducted. But the Role of NSE in Capital Market is a study which focuses on the importance of establishment of National Stock Exchange.

### Importance or Functions of Capital Market:

* The capital market plays an important role immobilising saving and channel is in them into productive investments for the development of commerce and industry. As such, the capital market helps in capital formation and economic growth of the country. We discuss below the importance of capital market.
* The capital market acts as an important link between savers and investors. The savers are lenders of funds while investors are borrowers of funds. The savers who do not spend all their income are called. “Surplus units” and the borrowers are known as “deficit units”. The capital market is the transmission mechanism between surplus units and deficit units. It is a conduit through which surplus units lend their surplus funds to deficit units.
* Funds flow into the capital market from individuals and financial intermediaries which are absorbed by commerce, industry and government. It thus facilitates the movement of stream of capital to be used more productively and profitability to increases the national income.
* Surplus units buy securities with their surplus funds and deficit units sells securities to raise the funds they need. Funds flow from lenders to borrowers either directly or indirectly through financial institutions such as banks, unit trusts, mutual funds, etc. The borrowers issue primary securities which are purchased by lenders either directly or indirectly through financial institutions.
* The capital market prides incentives to savers in the form of interest or dividend and transfers funds to investors. Thus it leads to capital formation. In fact, the capital market provides a market mechanism for those who have savings and to those who need funds for productive investments. It diverts resources from wasteful and unproductive channels such as gold, jewellery, real estate, conspicuous consumption, etc. to productive investments.
* A well-developed capital market comprising expert banking and non-banking intermediaries brings stability in the value of stocks and securities. It does so by providing capital to the needy at reasonable interest rates and helps in minimising speculative activities.
* The capital market encourages economic growth. The various institutions which operate in the capital market give quantities and qualitative direction to the flow of funds and bring rational allocation of resources. They do so by converting financial assets into productive physical assets. This leads to the development of commerce and industry through the private and public sector, thereby inducing economic growth.
* In an underdeveloped country where capital is scarce, the absence of a developed capital market is a greater hindrance to capital formation and economic growth. Even though the people are poor, yet they do not have any inducements to save. Others who save, they invest their savings in wasteful and unproductive channels, such as gold, jewellery, real estate, conspicuous consumption, etc.
* Such countries can induce people to save more by establishing banking and non-banking financial institutions for the existence of a developed capital market. Such a market can go a long way in providing a link between savers and investors, thereby leading to capital formation and economic growth.

**References:**

1. Google search engine: efinancemanagement.com
2. For live spreadsheet examples of discounted cash flow calculations and more in-depth coverage of DCF usage, see the Excel-based ebook Financial Metrics Pro Financial Metrics Pro.
3. To learn more, check out Discounted Cash Flow Analysis and Net Present Value vs Internal Rate of Return.)
4. (To learn more about calculating NPV, see Understanding the Time Value of Money and Calculating the Present and Future Value of Annuities.)
5. Akingbohungbe, S.S. (1996). The role of the financial sector in the development of the Nigerian economy. Paper presented at a workshop organized by Center for African Law and Development Studies.
6. Al-faki M. (2006). The Nigerian capital market and socio-economic development. A paper presented at the 4th distinguished Faculty of Social Science, Public Lectures, University of Benin, 9-16
7. Kolapo, F. T., & Adaramola, A. O. (2012). The Impact of the Nigerian ca
8. Google search engine: Morebusiness.com: Business Financing Options
9. Stringham, Edward Peter: Private Governance: Creating Order in Economic and Social Life. (Oxford University Press, 2015, [ISBN](https://en.wikipedia.org/wiki/International_Standard_Book_Number) [9780199365166](https://en.wikipedia.org/wiki/Special:BookSources/9780199365166)), p.42