Financial Management For Managers
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Lecture 59
Dividend Decisions - Part I

Welcome all, so we will continue with the process of dividend policy further or the dividend decisions further and in the previous class we just initiated the discussion on the last topic of this course, the Dividend Decisions. And I just say began discussing about the dividend decisions that how the firms take the dividend decisions and what are the important considerations while taking the dividend decisions. We will be now continuing further with the say other parts and the remaining part on the dividend decisions very relevant and important part of the dividend decisions.

So, as in the previous class we were talking about the dividend policy, so I talked to you in previous class itself that dividend policy, a good dividend policy has the 2 broad components. One is the average payout ratio and second one is the stability. Average payout ratio and second one is the stability.

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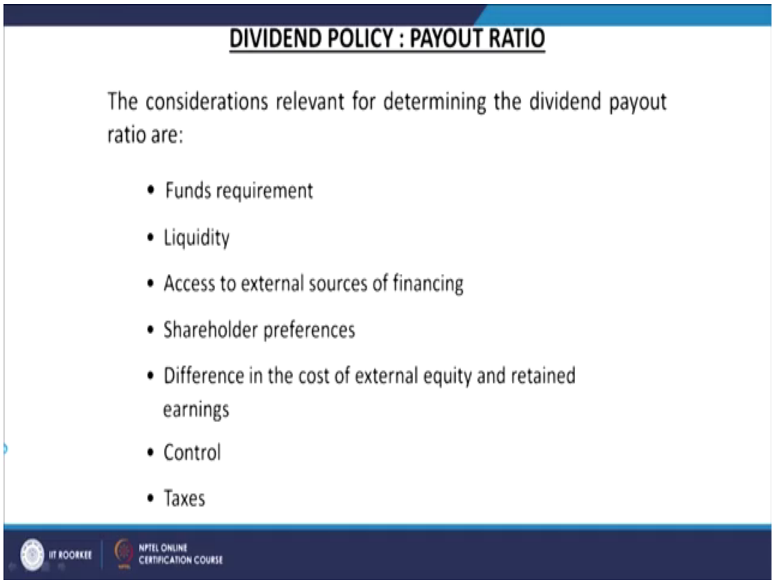

So, in the average payout ratio we discussed number of the points that the consideration which are relevant for the dividend payout ratio are like fund requirement, liquidity, access to external sources of financing, shareholder preference, difference in the cost of external equity and retained earnings, control and taxes.

So, taxes we discussed, till taxes we discussed in the previous class that how the taxes impact, so I told you that there is a dividend distribution tax at the rate of 15 percent plus assess on that plus sir charge on that, plus assess on that, so it works out somewhere about say 17 percent approximately 17 percent of the dividend distribution tax although it is free in the hands of say shareholders up to 10 lakh rupees dividend income is tax free.

But, dividend distribution tax the company has to pay who is going to pay the dividend to the shareholders.

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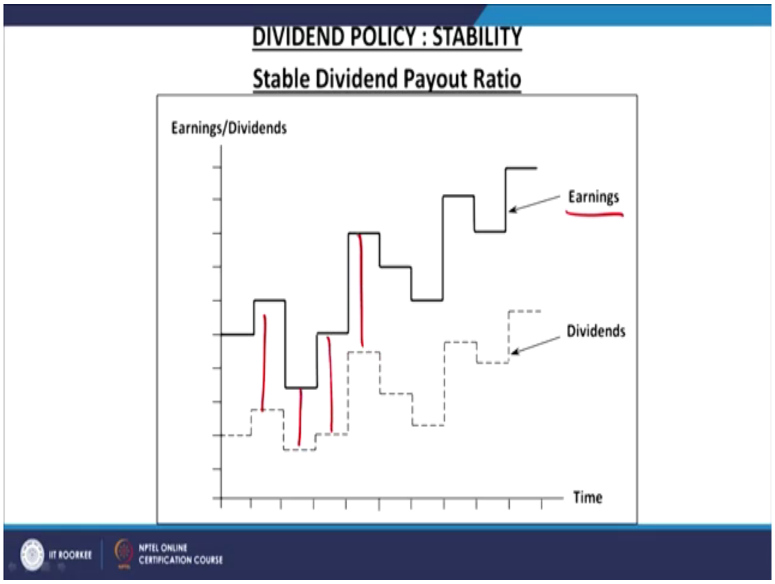

And the second part is the say capital gains. Earlier the long term capital gains were exempted but since 2018 onwards now even the LTCGR also taxable beyond rupees 1 lakh rupees per year. So, it means if there is LTC Long Term Capital gains income also and long term capital gains also so they will be and if they are more than 1 lakh rupees per year, so they will be taxable at the rate of 10 percent.

So, it means when you talk about the say dividend policy and the payout ratio taxes are very important considerations that should we pay dividend and pay the about 17 percent of the tax or should we means not pay the dividend and let the people enjoy by way of capital gains. But earlier, the capital gains were free of the tax but as I told you now they are also subject to tax more than 1 lakh rupees of the long term capital gain.

Short term capital gains were already taxable but the long term capital gains are also now taxable and the tax has to be paid on any gain beyond rupees 1 lakh at the rate of 10 percent. So, taxes are the important consideration while deciding the payout ratio. So, first part of the dividend policy is the average payout ratio and the second part is the stability of the dividend, second part is the stability of the dividend. And if you talk about the stability of the dividend part so here we talk about the stable dividend payout ratio.

Stable dividend payout ratio, so it means stable dividend payout ratio has to be related to the earnings, has to be related to the earnings. So, how it can be stable? Means there can be the two ways of deciding the policy. One way is that for example it is directly linked to the profitability of firms, it is directly linked to the say after tax incomes earnings of the profit after taxe or earnings after tax of the firm.

And the way the earnings behave the dividend will also behave the ratio will remain the fixed but only means it will be paid as per the earnings behaviour. So, for example if you look at this structure say thick line depicting the earnings and the dotted line is depicting the dividends. So you see that as the earnings are going up to, dividend is also going up and for example this is a relationship here it is a relationship.

Here it is a relationship and here it is a relationship, so it means the dividend payout ratio directly depends upon or is directly linked to the, the earnings capacity of the firm or the profitability of the firm. So it means sometimes if higher the profits or higher the earnings higher will be the dividend but if sometimes the lower the earnings, lower the profits, lower will be the dividends.

So this is one way say deciding the dividend policy with regards to the stability. So, you can say that dividend will be paid for sure certainly bit it will be depending upon or it will depend upon the profitability or earning of the company and directly linking to the earning of the company, so sometime more dividend will be paid, sometime lesser dividend will be paid but dividend will be paid for sure.

So, policy is stable but the say amount of dividend, percentage is also stable or the payout ratio is also stable but the absolute amount of the dividend is not stable. Sometime it goes up, sometime it comes down.

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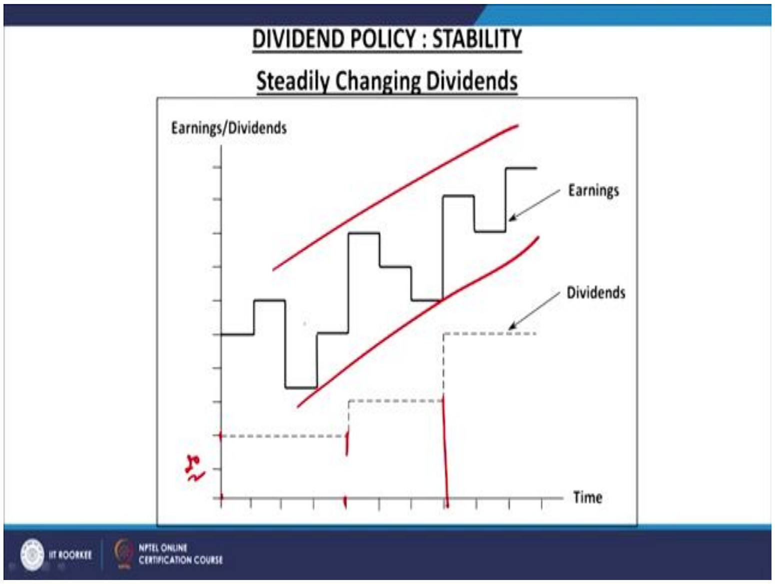

And second version of the stability can be something like this or trend something like this that when your earnings are whatever the trend they are following like, this is the trend of the earning if you look at this, this is the trend of the earning these are fallings.

But, dividend is rather more stable, there is no change in the dividend company not changing the dividend for a certain period of time after that they are changing the dividend again it remains stable for more number of years and after that they are changing but its again changing upwards and further remains a stable for a number of years.

So, it is not linked to the earnings at all the standard payout ratio is used or standard fixed amount of the dividend is used and it is not as a percentage or payout ratio of say the earnings but a standard that for example per share this much of the dividend will be paid. So for example, you talked about the years here 1, 2, 3, 4 for the first 4 years dividend will be this much from this to this, dividend will be this much whatever that amount.

It may be for example, 20 rupees per share the dividend is in being paid or 2 rupees per share the dividend is being paid but it is stable for the 4 years. After that it continues and remains the stable for the another 3 years, right it is 1, 2, 3, so its again stable for the another 3 years. So dividend is like this and whatever the profits, profits are fluctuating like the previous structure profits are not changing, profits are like that but the dividend is say means profits are fluctuating going up, coming down.

But the dividend are stable for the certain number of years. I think this is a better say way of stabilizing the dividends so that the shareholders can predict that how much dividend they are going to get in the next say number of years or at least the predictable number of years so that they can understand that this much of the return is sure for them.

Otherwise if it is like the previous structure, if it is linked to the profitability like this then means people will not come to know what is going to be the return in their investment. So, normally companies follow this structure where the dividend largely remains a stable and that is not linked to the earnings of the company. Yes, the dividend has to be paid out of the profits only if the company is into loss, no dividend can be paid. But the dividend remains a stable under this policy for certain number of years it is not linked to the say fluctuations in the earnings or the profitability.

Rather its say link to the number of years therefore the this much number of years, this much of the dividend will be paid, this much is the number of years and this much of the percentage of the dividend will be paid and their percentage will be worked out on the basis of the equity investment not on the basis of earnings.

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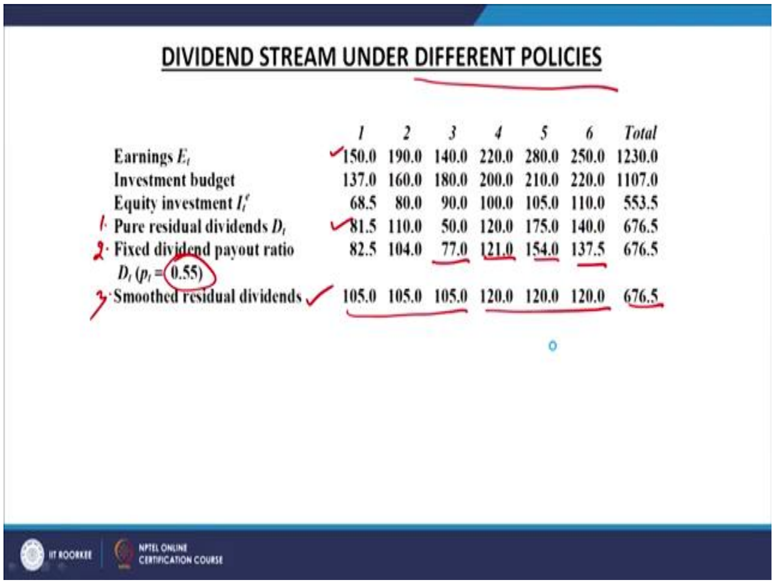

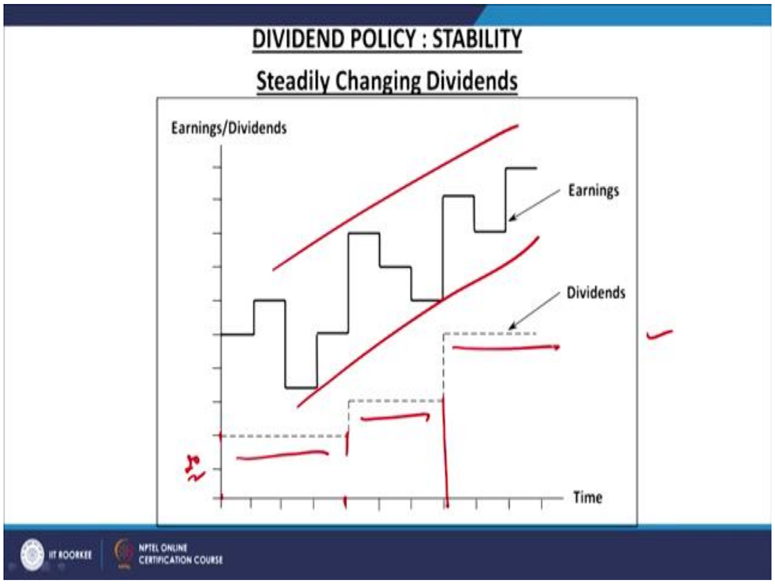

Now for example, this say structure or these calculations predict the different type of the policies. These calculations predict the different type of the policies say for example dividend stream under the different policies So for example, in the we are given the total number of years here 1 to 6 years total is just given like this and first column says earning, earning for the year T,right, Et earning for the year t.

For example in this year if we talk about it is 150000 you can say right or 150 millions this is earning after tax which is available for now to be provided to the shareholders or maybe for any purpose. Investment budget is 137000right for example we assume it is thousands, 137000 out of this it is estimated that equity investment will come 68 to the tune of 68.5 thousands and pure residual dividend will be the balance amount.

Now, they are the 3 policies policy number 1, policy number 2 and policy number 3, right. These are the 3 policies, so first is a pure residual policy under the pure residual policy from the total earnings whatever the say investment budget is there that is taken into account and part of the earnings is provided for investment into the say investment part of the firm and then remaining amount which is called as the pure residual, remaining amount which is called as a pure residual that amount is distributed to the equity share holders.

So, for example in this case 150 is the earning right and the total investment which the firm is going to make in this year in the year number 1 is to the tune of 137000 right But in this 137000 it is assumed there 68.5 thousand will come from the equity, from the external equity and from the retained earnings only the say in this case for example not, not equity we can say that investment is going to be 137.

Total earnings are 150 in this year 1 and the investment is, investment budget is 137 and equity investment means part of the earnings which are going to be invested into this capital expenditure is 68.5. So it means remaining amount is going to be there that is 81.5 is going to be distributed to the shareholders as the dividend, right.

So, this total amount becomes equal to this, so in this total process we can, you can find out that pure residual means after making the investment into the capital projects whatever the amount is left that is called as the pure residual and the pure residual in this case is 81.5 percent, 81.5 thousands and this amount is available for paying the dividend to the equity share holders. Under the fixed dividend payout ratio the amount is 82.5 percent.

But this dividend payout ratio is here, this is 0.55, so that you can say 55 percent will be distributed, 55 percent of this 150 will be distributed as the dividend and only the remaining amount that is 82.5 thousands is available for paying the dividend to the shareholders. And under the smoothed residual dividends which we saw in the structure, which we saw in this structure this is called as basically the smoothed residual dividends.

So, in this case what is happening? For the 3 years, first 3 is the dividend is same for the next 3 years the dividend is same and then it is going to change in the sorry, say the total dividend is 676.5. So, in this case for example, if you look at this, this is a same structure says for the first 4 years the dividend is same, for the next 3 years the dividend is same and the remaining time the dividend is same its going to go up upwards but it is not directly linked to the earning of the firm.

So it means same is a thing done here, we are taking first of all, I am repeating, I am just explaining it again to you earnings are 150, investment budget is 137000, right, so out of 137000 say out of 150 earnings 68.5 percent will be, 68.5 thousands will be invested for the capital investment and remaining amount is called as a pure residual amount out of the earnings which is 81.5.

So, fix dividend payouts means this 81.5 will be available as a dividend under this policy that is a pure residual dividend policy under this. Fix dividend payout ratio for example, the second policy will follow fixed dividend payout ratio, so it means in this case the dividend amount will be a fix ratio, payout ratio that is 0.55. So 150 is the earnings and 0.55 will be the dividend which works out as 82.5 thousands.

And under the smoothed residual policy, residual dividend policy the dividend will be paid at a certain amount which will remain fix for certain number of years and after that it will change, its not changing every year. For example in this case, if it is 55 percent is the dividend payout ratio so it means it is directly linked to the profitability, how it is linked? For example here the profit is or the earning is 150 your fixed dividend is 82 as per this ratio the dividend amount is 82.5.

When the profit has gone up the, this amount is 104 but when the profit is come down from 150 to 140 dividend also has come down to 77. In this case when the profit has further gone up it has gone up also in this case it has gone up and in this again it has come down. So it is directly linked to profitability if there is a fixed dividend payout ratio. And in case of the residual also, pure residual dividends also it will depend upon the capital expenditure, how much capital expenditure the firm is going to make?

And in that total capital expenditure what part of the capital expenditure is going to be provided from the equity investment in the form of retained earnings, right. So in this case for example, the pure residual equity investment for example in this case is 68.5 in the second case it is 80, right. So, the total earnings are 190 equity investment in that total capital investment is going to be, total investment is in the second year it is how much? 160000, so equity investment in that is going to be 80.

So out of 190, 80 will be provided for the capital investment and 110 will be available as the, as a pure residual amount it will be available as for paying the dividends. Third year if you go about 140 is the earning, investment budget is 180 it is decided that 90000 will be coming from the equity earnings or maybe the retained earnings. So it means out of this amount 140 of the earnings 90 will go towards the capital investment and 50 are available to be paid as the dividend which is called as the residual dividend.

And as per the fixed dividend payout ratio which is 0.55, so of this 140000, 0.55 will be available as to be paid as a dividend which works as 77000, so this as per the fixed dividend payout ratio. But under the third smoothed residual dividend means there is no fluctuations and there is no linking of dividend with the profits there is a standard amount which is fixed by the company that for the first 3 years 105000 will be paid total amount will be paid as a dividend in the next 3 years 120000 will be paid as a dividend and then so on and so forth.

So, we have shown it that how the 3 different dividend policies pure residual dividend, fixed dividend payout ratio and as per the smoothed residual dividends how the dividends are calculated and pay to the equity share holders. So, I think this is a best policy which is called as a smoothed residual dividend policy and which is the say the presentation of the policy is in this structure where you can say that for the certain number of years up to this your dividend is fixed.

Then up to this the dividend is fixed and up to this the dividend is fixed. So, I think that is better that its predictable by the investor that how much dividend they are going to get on their say investment in the companys stocks if it is linked to the profitability like the previous structure, so means it will be depending upon that if the profits go up dividend will also be go up, profit go down dividend will also go down.

So people cannot predict their dividend income and they cannot plan of say making use of that income for any other purpose. So, means the smoothed residual policy, smoothed residual dividend policy is the best policy and practically also I will discuss with you at the end of the discussion that it has been found that the firms are falling largely the firms are falling smoothed residual dividend policy who do not link the dividend payment with the profitability and do not fluctuate the dividend payment every now and then, right.

So, this is the way the dividend is decided under the different policies largely 3 policies and the best one is the third policy. Now we will quickly go for the key considerations in formulating the dividend policy. What are the key considerations in formulating the dividend policy?

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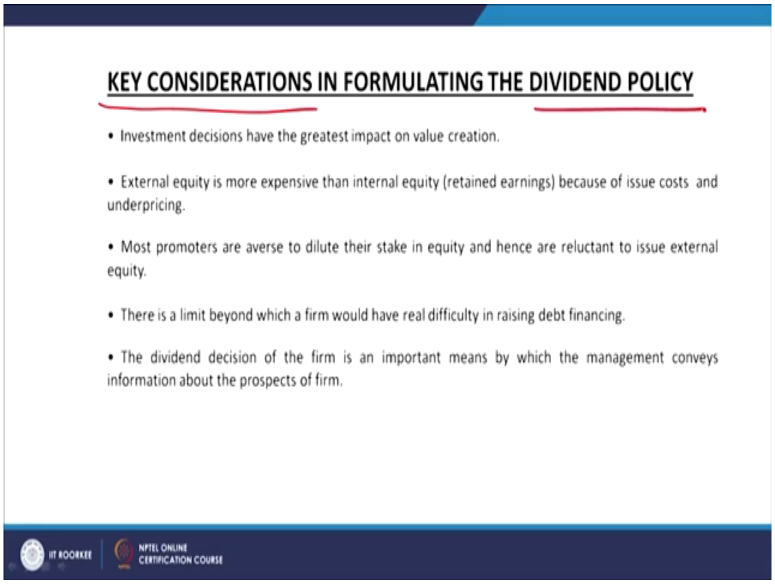

So the key considerations are number 1, investment decisions have the greatest impact on the value creation. Certainly investment decisions have the say greatest impact on the value creation. If you are making investment into the profit making projects then certainly the dividend will be high because value of the firm will be going up because of the increased earnings. So, certainly your say profitability will increase, earnings will increase, profitability will increase and value of the firm as your whole will increase so dividends will also increase.

External equity is more expensive than internal equity retained earnings because of the issue cost and the underpricing, right. So or because of flotation cost also issue cost or you call it as the say into this you can include the flotation cost as sometime the underpricing cost is also there, their companys stocks maybe underpriced or maybe say not properly subscribed, so they have to sell it less than the normal price.

So the cost is high in issuing the external equity, so it is always better that we should say first make use of the internal equity and if the firm plans like that then the dividend to be paid to the shareholders will certainly come down because larger part of the earnings after tax will be used for investment into the new projects.

Third point is most promoters are averse to dilute their stake in the equity and hence are reluctant to issue the external equity. So, certainly they want that their larger part of their earning should be reinvested back into the business because if the new equity is issued by the company then their stake will be diluted. So they are also and if the people are of so this kind of the view as per the third point then certainly you can make out dividend will go down.

There is a limit beyond which a firm would have the real difficulty in raising debt financing. Because normal ratio of the debt capital is debt to equity is 2 is to 1, right. So there may be the ratio which can be more than that also depending upon the credit worthiness of the firm but in the normal term the ratio 2 is to 1. So, when it is not possible to raise the funds with the help of debt then the only way out left is the retained earnings.

And if that is the case then certainly the dividend will be impacted. And the last point is the dividend decision of the firm is an important means by which the management conveys information about the prospects of the firm. So it is also true, higher the amount of the dividend the firm is paying, it conveys a good feeling, good gesture, it gives a good signal also in the market.

So people will be inclined to buy the share of the company and the stock price may go up but there so many limitation also of paying the higher amount of dividend and dividend can ultimately be paid as the say liberal amount of the dividend only if the say requirement of the retained earnings is not much in the company or within in the firm and sufficient surplus funds are available, sufficient profitability surplus funds are available for the payment of the dividend.

So there are the positives of declaring liberal dividend, negative is also declaring say liberal dividend but the dividend largely will depend upon the internal financing requirements of the company and the available of the funds to the company from the different sources of the funds.

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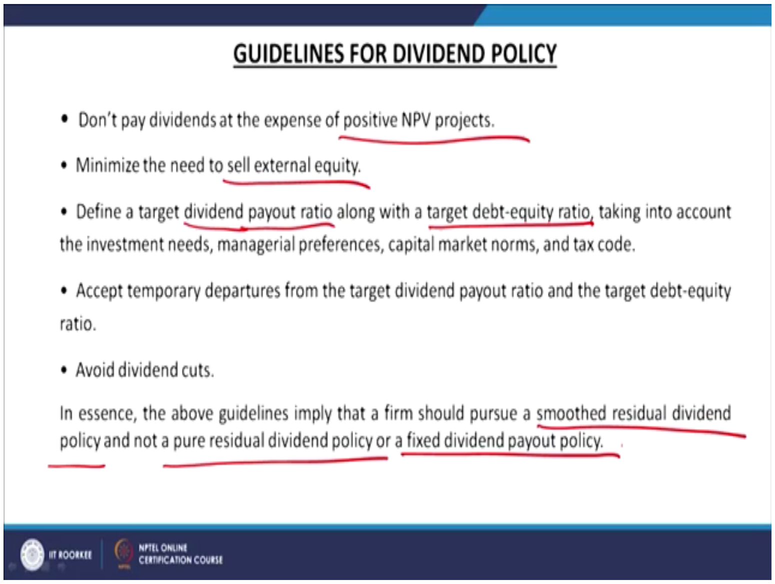

Now we take into account the next some important guidelines, guidelines for the dividend policy. When the firms decide their dividend policy what are the important guidelines which is take into account. Number 1, do not pay dividends at the expense of positive NPV projects, so this is a first guideline. If there is a possibility of investing the surplus savings or maybe the say as the profits earned by the firm into the positive NPV projects.

Then certainly first use of the earning after the tax should be in making the investment into the companys projects and not into the say paying the dividends. It should not be something that you have the NPV projects for which you are looking for funds from the external sources and for the dividend requirements means for the external sources and your own internal say retained earnings, your own internal profits you are distributing as dividends, it should not be the case right.

So, do not pay dividends at the expense of the positive NPV projects if you have the positive NPV projects first requirement of the company should be, the policy of the company should be that the retained earnings larger part of the retained earnings will be invested into the positive NPV projects. So means it should not be the situation that for your own investments you are looking the external sources of the finance and your own internal retained earnings which is internal free source of finance, right.

Free in the sense of that there is no cost of issuing the retained earnings so you are paying it as a dividend and for your own investments you are looking towards outside that should not be the policy. Minimize the need to sell external equity. External equity as I told you there are so many cost associated, right. There is a issuing cost, there is a flotation cost, there is a underpricing cost so if the sufficient funds are internally available by way of the earnings after profit or the earnings after tax.

Earnings after tax or profits after tax then the larger part of the retained earnings should be invested into the companys projects and dividend should be maybe it will be affected negatively but it will create a value of the firm in the long run. Reliance industry is the one case, classical case were now they have started paying the dividend but in the past when they were requiring the funds in the larger amount for the reinvestment in the business they have been paying the dividend at very-very lesser rate.

Define a target dividend payout ratio along with target debt equity ratio. Define a dividend payout ratio, dividend payout ratio along with the target debt equity ratio taking into account the investment needs, managerial preferences, capital market norms and tax code, right. So it should be very properly, clearly defined the dividend payout ratio will be this much and that will be according to the debt equity ratio.

Because if the if you do not want to raise much amount with the help of debt because debt brings means so many problems with it, though it come as a cheaper source of finance but it comes with so many problems financial distress is the one out of the many. So if the internal funds are available, so you would stipulate that this much of the debt will be raised for our future investment requirements largely we will say, say bring the funds from the retained earnings so that is important consideration.

Accept temporary departures from the target dividend payout ratio and the target debt equity ratio. Means you should not deviate from the target debt equity ratio, there should not be any departure, right. If it is there it has to be only a temporary but not in the say on the regular basis debt equity ratio should be the basis that this is going to be our maximum debt equity ratio remaining amount is going to come.

If there has to be any departure then it can be temporary but not in the long term. So, largely you, you again focus upon more funds will come from the internal sources not through external equity or neither through borrowings. Avoid the dividend cuts, yes, that I means discuss with you that we should follow the largely the smoothed residual dividends. If dividend remains the stable for the next number of years people are at least able to say predict that what is going to be their income from dividend or from this source as dividend.

So, dividend cuts can be avoided if it is for example linked to the profitability. So if you are paying say for example 55 percent dividend or out of that say total your profitability if somebody is getting 1 rupee as a dividend per share and next time it goes 2 rupees per share then third year comes down to 50 paisa per share, so lot of fluctuations are there and you are applying a severe cut on the dividend also. So that should be avoided, right.

So, lastly it is written in essence the above guidelines imply that a firm should pursue a smoothed look at this I just was telling you that a firm should pursue a smoothed residual dividend policy and not a pure residual dividend policy or a fixed dividend payout policy. Smooth residual dividend policy a pure not a pure dividend policy or the fixed dividend payout policy because smoothed means (pick) people remain sure about that for the next 3 years, next 4 years this much of the dividend is going to be available to them.

And this much of the income they are going to receive from the dividend for their investment into the equity of this company or different companies so that they can plan of that investment or that amount coming to them as investment somewhere or fulfilling some of the requirements. So out of the 3 policies looking at these guidelines, these guidelines should be followed in such a way that ultimately a smooth residual dividend policy is followed and we are not fluctuating the dividend.

We are not applying the cut on dividend and we are not linking it to the profitability also otherwise means the dividend does not remains the smooth and people are not able to predict how much income they are going to get and it does not give a good reflection in the market also with regards to the companies say overall financial performance and how they are treating their say the equity share holders. Next part is the conference board survey.

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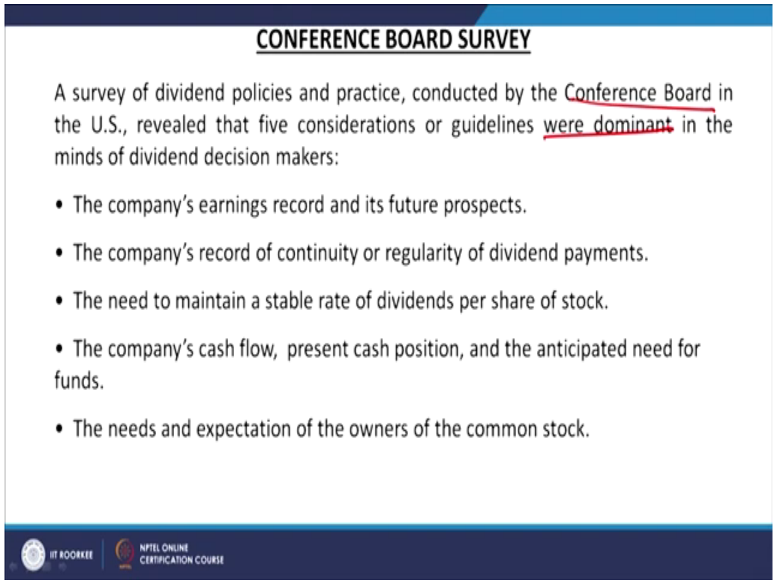

Here are some of the say reporting means a findings of the survey which was conducted in US, the survey was conducted in US and this survey has a very important implications on the dividend policy of the firms all around the globe. So they have come out with the important say guidelines means the important points which are here which have come out after the survey.

They can help many companies to form means they connect as a guidelines to many companies to form their dividend policies. So what is written here? A survey of the dividend policies and practice conducted by the conference board in US revealed that 5 considerations or guidelines were dominant in the minds of the dividend decision makers and these guidelines these important points are not only linked to the companies in US they can help the companies in framing there dividend policies all around the globe.

So, what are these important points? First point is the companys earnings record and its future prospects, the companys earnings record and its future prospects, that how much is your earning today? How much they were in the past and how much of the total earnings you want to invest in to the future investment projects? So, that will be the first thing that your earning record and your future investment prospects they are important consideration.

Second is the companys record of continuity or regularity of the dividend payments, the companys record of continuity or regularity of dividend payments is a second point. Third point is the need to maintain a stable rate of dividends per share of the stock, the need to maintain a stable rate of dividend per share of the stock. Fourth point is the companys cash flow, present cash position and the anticipated need for funds and the anticipated need for the funds.

And the last important point is the needs and expectations of the owners of the common stock. These are the five important points which have come out after survey conducted in US by the conference board in US and they have means this is a practical experience how the people feel about and how these important 5 points can help the companies in devising there dividend policies.

So, they have to be taken into consideration and I as I told you these points are not important only for the companies in US but all around the globe that for forming their dividend policy they should take into consideration these 5 important points where the companys earnings and the future earnings prospects are to be properly evaluated. The companys record of continuity or regularity of dividend payments is the important consideration.

If you are continuously regularly paying the dividends you are considered as the better manager of the peoples equity or the stock or the shares which are held by the equity share holders. The need to maintain a stable rate of a dividend, a stable rate of a dividend also gives a clear cut feeling in the market of the feeling of say belongingness.

It creates the belongingness amongst the shareholders that, yes, if we make investment in this company we are going to gain out of it. Companys cash flow, yes, very important of you are selling in the market for example and larger part of your shares are on credit, so your cash flows will get affected because your profit is there but profit is a noncash profit, right. So their your cash flow will get affected so the companys cash flow, present cash position and the anticipated need for the funds they are important considerations.

Last point is the needs and expectations of the owners of the common stock always bear in your mind as the say director finance or CF of the company because the director finance or CF of the company will be playing the major role in influencing the dividend policy and there the expectations of the shareholders, equity share holders should also be kept in mind that what they expect from us, how we are managing their funds, what they expect from us and how there expectation should be factored in to the dividend policy of the firm.

So, these are the important 5 points which have come out after a survey in US and are very helpful, very useful for framing the dividend policies by the firms, not in India but anywhere or not in US but anywhere in the globe they can be helpful. Now, we talk about the corporate dividend behaviour and here we will discuss one important model, the model which is called as the Lintners model of deciding the dividend.

With the help of Lintners model we can learn practically how we can say calculate or how the dividend per share can be calculated, this model is very-very helpful model and many people have tested this model later on. This means Lintners was American professor he tested this model and say he develop this model and tested and it has a proved as a full proof model for deciding the amount of the dividend to be paid to the shareholders.

Where you can say that it takes into consider not the dividend to be paid in the current year but the dividend paid in the previous years. So, it is basically you can call it as it is based upon the model is based upon the weighted average of the dividend over the years and not on the current year only. So, current years dividend I mean to say here if you see this model if you understand this model current years dividend will depend upon the dividend paid in the previous year.

It will depend upon number of other factors also earning per share is a important consideration but the dividend paid in the previous years is also an important consideration that is also taken into account while deciding the dividend for the current year. So what is a dividends model given to us by Lintner and how this model has been developed lets discuss this model and learn about this model.

So that you can also practically work out if you work in some company or if you or if you happen to work tomorrow in some company maybe the CF of the director finance or in the finance department you can also contribute that how the dividend amount can be worked out.

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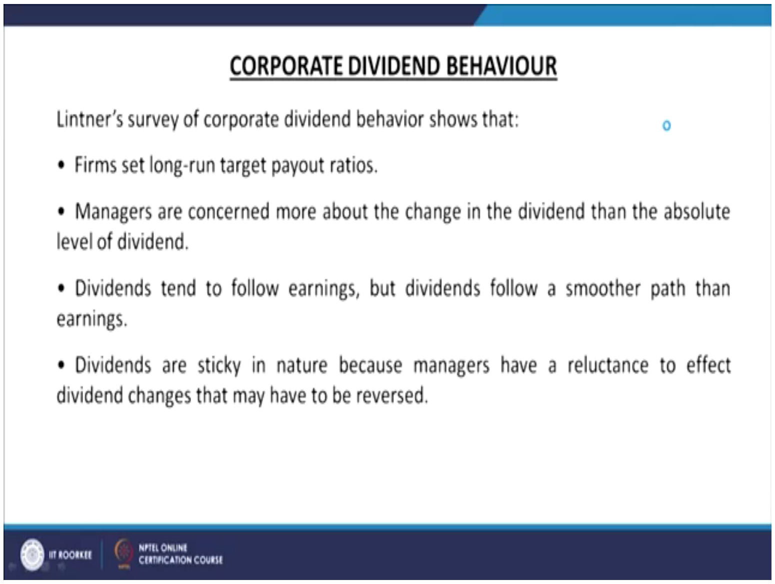

So, first of all he has developed this model after conducting a survey of many companies and this survey is called as Lintners survey of corporate dividend and say this is a survey is Lintners survey of the corporate dividend. And on the basis of that he has said that the behaviour of the companies is means he has narrated under the different points and what is the behaviour of the cooperate dividend behaviour of the companies. After conducting the survey on many companies Lintners has observed that number 1, firms set long term target payout ratios, firms set long term target payout ratios they do not change it everyday, they do not change the say payout ratio every year or every now and then. They set the payout ratios on the long term basis.

Number 2 point, managers are concerned more about the change in the dividend than the absolute level of the dividend. Third important point is dividends tend to follow earnings but dividends follows, dividend tends to follow earnings but dividends follow a smoother path than the earnings. Earnings are taken into account but normally the smoothed residual policy is followed by the firms.

Fourth point is, dividends are sticky in nature because manager have a reluctance to effect dividend changes that may have to be reversed, dividends are sticky in nature because manager have a reluctance to effect dividend changes that may have to be reversed. So any change which you want to means the reverse in the coming years or you want to reverse your old existing decisions or the old decisions people do not want to managers especially do not like to say go for this kind of the decisions.

So, four important points first point is, firms set long term target payout ratios. Second point, managers are concerned more about the change in the dividend than the absolute level of the dividend. Third point, dividends need dividends tends to follow earnings, but dividends follow a smoother path than the earnings, they are following earnings fluctuations in earnings they are also taken into account. But normally the dividend is not affected by earnings that remains smooth.

Fourth point is, dividends are sticky in nature because managers have a reluctance to effect dividend changes that may have to be reversed. So, these are the four important points given to us by a survey which was conducted by Mr. Lintner.

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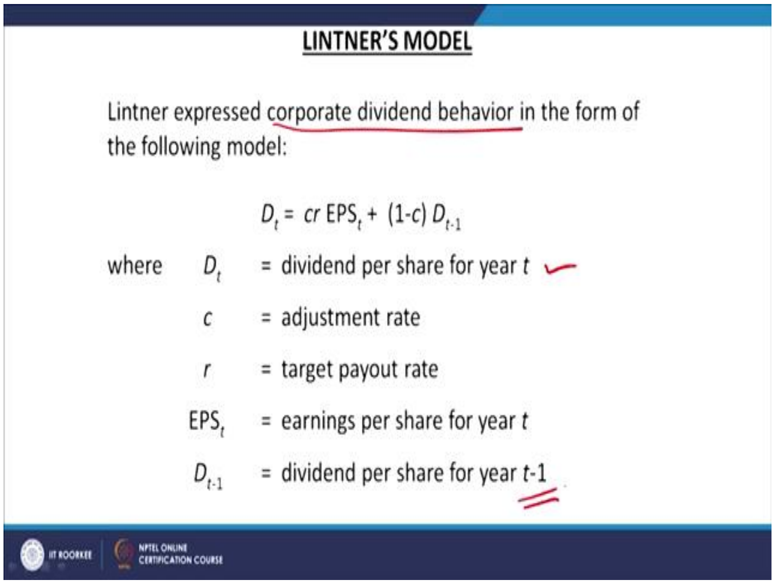

And on the basis of that he has developed a model which we is called as a Lintners model of dividend declaration or Lintners model of find out the amount of dividend. And if you look at this model how this model works, so you can say that these are the important components. The model is very simple how he has done it Lintner expressed corporate dividend behaviour in the form of the following model, he has expressed the corporate dividend behaviour in the form the following model. He has said Dt is equal to Cr E P S for the year T, plus 1 minus c multiplied by the Dt minus 1. What are these important components of this model now?

Where Dt is the dividend per share for the year t means the year, current year in the question, c is the adjustment rate, c is the adjustment rate as compared to the previous years and other important factors, r is a target payout ratio, how much you want to pay as a target payout ratio, EPS is EPS for the year T is a earnings per year for the year T, means the current year for which the dividend is going to be decided and Dt minus 1 is equal to dividend per share for the previous year t minus 1 is the previous year.

So it means while deciding as I told you, while deciding the dividend to be paid in the current year Lintner has taken into a consideration important factors where adjustment rate is important, target payout ratio is important, earning per share in the current year is important and dividend paid in the previous year is important so it is not a simple way of deciding the dividend rather it is a weighted average of the dividend which we have used.

And say it is the weighted value of the dividend which we are going to calculate or the Lintner has a say suggested to calculate and this model as I told you that is a very-very say useful model many people have tested and tried this model in the industry after this model was coined up by Lintner and this model has been found as a full proof model very useful model, wonderful model and many people have use it afterwards.

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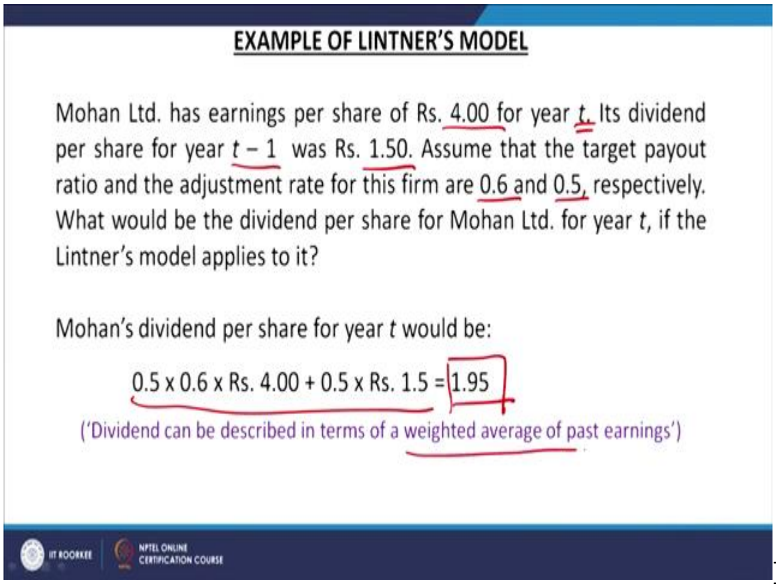

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So, let us take some examples here and with the help of this example we can learn the how the dividend amount can be calculated by factoring the different important components which are suggested to be factor by Lintner in his model. So what is a problem given here?

Mohan Limited has earnings per share of rupees 4 for the year T, for the year T means the current year Mohan Limited has earnings per share of rupees 4 for year T its dividend per share for the year T minus 1, previous year, year T minus 1 was rupees 1.5. Assume that target payout ratio and the adjustment rate for this year for this firm are 0.6 and 0.5 respectively. What would be the dividend per share for Mohan Limited for year t, if the Lintners model applies to it, right.

And looking at this now if you apply this model, so you can understand Mohans dividend as per the dividend per share, dividend per share for the year t, t means the current year would be if you see this has been calculated so same model is applied here this model has been applied in this to solve this particular problem, so this model is applied here and we have seen that the dividend amount to be paid will be rupees 1 and 95 paisa, 1.95 rupees.

1.95 rupees will be paid as the dividend and what is the earning per share? That is 4 rupees, so out of 4 rupees earned per share by the company what is the total number of shares means comparing to that the companys earnings per share EPS is 4 rupees per share right, out of that earning per share of the 4 rupees 1.95 almost you can say half of the amount will be distributed, you can calculate that should be as the dividend as per the Lintners model and remaining amount can be used for the reinvestment into the positive NPV projects.

Remaining amount can be reinvested into the say, can be invested into the positive NPV projects. So, with the help of this model which is scientific more useful, more smoothed model the dividend can be worked out or the dividend say payout can be worked out in the absolute value, this is further more useful that in the absolute value you can work out the dividend to be, to be paid to the equity share holders per share dividend to be paid to the equity share holders which is otherwise very difficult.

Even calculating in terms of percentage, proportions or anything sometime it is not that way very-very convincing or clear but in by using this model which is very simple that per share dividend amount has been calculated that if the company is earning per share EPS is 4 rupees then by applying this model by taking into consideration the say important factors you can find out easily that dividend out of the 4 rupees earning per share, dividend amount will be rupees 1.95, rupees 1.95.

So this amount has been worked out with the help of this model. So, finally it is remarked here dividend can be described in terms of a weighted average of the past earnings. It is the weighted average of the past earnings it is not only based calculator only on the basis of the EPS earning per share in the year t or in the current year but it is a weighted average of the past earnings and that is more wonderful thing that he is linking this model is linking.

The payment of the dividend in any year in the current year with the previous years earnings and that is a wonderful thing that he has means maintained the sequence that how much is the earning in the previous year and how much is the dividend paid in the previous year same way they are taking into account and the dividend for the current year and the future year is going to be future year is going to be decided with the help of this model.

So, for this particular discussion I will stop here and some more relevant concepts with regard to the dividend policy of the firms and some if the time permits in the next class then I will discuss I would like to discuss 1 or 2 problems also practical problems also which can be means useful in learning about the dividend decisions of the firm. But say that all I will discuss in the next class till then I will stop here and thank you very much.