Financial Management for Managers
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Lecture 08
Financial Planning and Forecasting Part III

Welcome all. So, we are in the process of learning about the financial planning and in the previous class I discussed with you that if you want to find out the external financial requirements for attaining a given rate of the growth. So, how we can work out that?

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And with the help of this small given model. We can easily find out the external financial requirement and in the say with this particular model here where we can take the say assets as a proportion of sales liabilities as the proportion of the sales and then is the profit margin and the dividends. If these say estimates are given to us then easily we can find out the external financing requirements.

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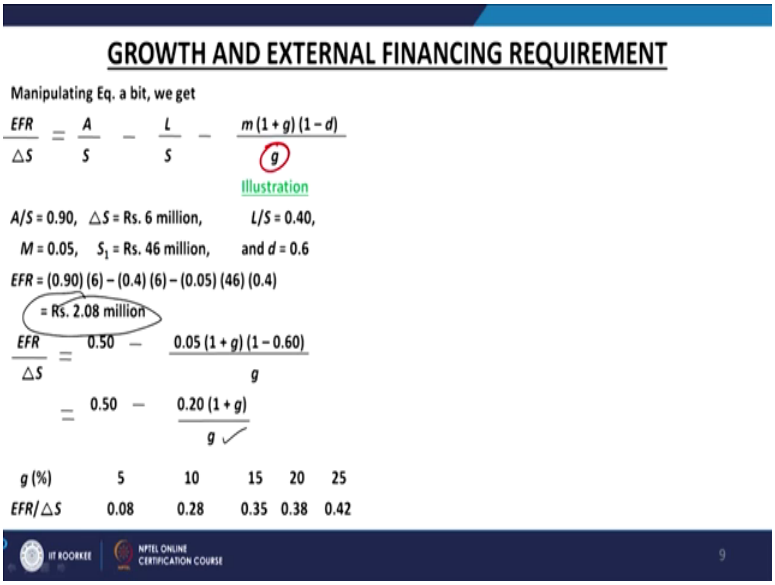

And the second important thing we discussed in the previous class was the growth means say for the given amount of the growth for the given rate of the growth of the firm means what would be the external financial requirement? Because when the firm grows at a particular rate of the growth, growth of the firm means that the growth of the sales of the firm when the sales of the firm grow at a particular rate of the growth, so it means your financial requirements also increase.

Because your internal funds we have whatever the internal funds are available from the retained earnings or from the other sources that are available with us, but we are more concerned and worried about the external sources of the finance and external financial requirement. We have to work out so that external financial requirement to a larger extent depends upon the growth rate of the form or in a term, I would say that the growth rate of the sales of the firm.

So, what is the given amount of the sales in the current year and in the next year what is expected amount of the sales. So, what is the growth of the sales? Accordingly you can work out you can plan for the external financial requirement and see the financial planning why we do that if you know that what are going to be our say future needs for the funds or the finance if we have plan that in the beginning and we know that this much of the requirement of the funds is going to be there in future.

Certainly mean if you know it in advance certainly we are going to be in a very comfortable position that happens in the individual life also. That happens in the corporates life also, that happens everywhere that if you are able to estimate or plan for your future whether it is

finance or whether it is any other need we remain at a very comfortable position. And to run the business organization or business firms comfortably or in a professional manner.

If we are able to plan for our finances well in advance that gives us a means extra importance and the extra comfort and the firms can performs is operations. Well say with the given amount of the comfort and the given amount of laxity. So, financial planning is very, very important component and to manage your finances very well and to arrange the funds for your future requirements.

If you know well in advance then certainly we are going to be is at a means at an ease and we are going to be means say perform the business operations with the more say comfort with more laxity and we are not going to dig the well as it when there is a need for the water. We have already dug the well we have already estimated our requirement. And we know that our sales are going to grow at this rate.

So, our financial requirement is also going to grow at this rate. We have already known that requirement. We have already identified the sources. So, when there is a need we can get the funds from the source and the business operations can be carried on very smoothly. So, there is a relevance of the financial planning. So, for example in this entire say setup, when we saw this model and we discussed one thing is that what is external financial requirement how to work it out?

So, you have to relate it with g that is a growth and the growth rate is important here that with the growth rate, you can find out at what rate we are going to grow other way around you can look it at the problem that for example, we want to grow at a one particular rate. We know that we have the capability to manufacture the product or the series of the product or the product mix which we are already into and we can sell that to the market.

We have the demand for our product in the market. But the question mark is whether we have the required amount of the funds from the external sources or not? So, you will go in search of the external funds of the sources provided you know the amount, if you know the amount you will go in search or you will go for the extra production and sales you will be sure about the extra production and sales if you know the funds are going to be available with me.

So, first you have to work out the requirement, then you have to go in search of the funds. And if the funds are available, then we can be sure about that the growth rate of the firm is assured. So, in this case we have seen we have first of all calculated the external financial

requirement. Second we have seen the growth rate. So, g without g because g is a function of all other things.

External financial requirement also depends upon the growth rate. Then the growth rate of the assets growth rate of the liabilities that is also directly linked to the external financial requirements. And this all depends upon the growth rate of the sales because everywhere we are seeing sales is the common denominator. So, firms grow in size and in the turnover means when their sales go up.

So, in this case we have found out that for example these rates we have found out that g… Percentage of the g and then the external financial requirement is a proportion of this change in sales. So, we have seen that if we are growing at the rate of 5 percent. Then the external financial requirement as a proportion of the sales or the increased sales will be 8 percent. If you are growing at the rate of 10 percent your external financial requirement as a proportion of the increased sales would be 28 percent.

Similarly in this case we have seen that we are going to have that increased total sales, which is S1 in this case is the 46 million rupees. And now out of this 46 million rupees 6 million, we are going to manufacture as a increased sales. It means what was that before that 40 million was our base sales till the current period and next year. We are going to add 6 million sales more. So, delta S is the 6 million sales. So, in this case if you calculate the proportion of external financial requirement, which we have worked out is 2.08 million.

So, 2.08 million as a proportion of the 6 million works out as how much 35 percent and if you calculate this that the say change in sales increased amount of the sales as compared to the current sales. So, the current sales are 40 million and the say increased sales. We are going to add up the sales by 6 million more rupees so that comes up as it means we are going to increase the sales from the 40 to 46 million rupees.

It means the growth rate the g percentage here is 15 percent. So, you will be dividing 6 million by 40. So, you will find out at the 15 percent growth rate of my sales my external financial requirement as a proportion of the increased sales is going to increase by 35 percent. So, it means there is a clear cut relationship between the growth and the external financing requirement.

But as I told you in the previous class, there are some points of caution that every time because here we are talking about that when the sales change assets also change total assets

also change largely the current assets current liabilities and provisions also change your profit also change and your dividend ratio also changes that happens. But it may not be that it changes constantly or the change is constant it may there may be some ups and downs.

As I told you in the previous class that if you are going to cover up the increased amount of the sales of from the adjusting inventory, which we have already with us. So, what will happen your current assets rather than going up with the increased amount of the sales will come down it will come down it will not go up.

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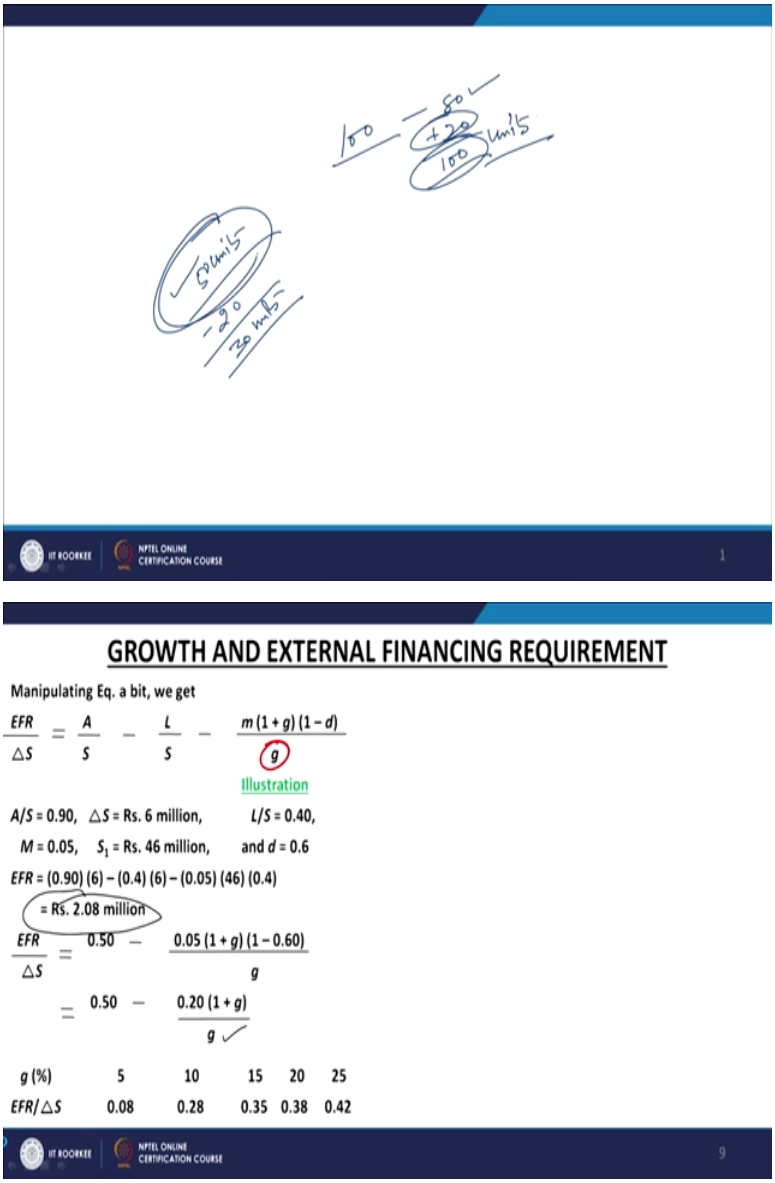

Because you for example what we are going to do here is we are going to sell the 100 units in the market out of that we are 80 units we were already selling and 20 units we are going to add up here. So, this is becoming the 100 units of the sales in the market in the current period

out of this what is happening that we have some say 50 units, in the stock which is we are keeping for our means you can call it as a bumpy days.

So, 50 units are lying with us. We are currently manufacturing the 80 units. So, units we were selling currently and 80 units, we are manufacturing and 20 units. We are going to add up now. So, now we have two options that if you want to increase the 20 units production from 80 to 100, if you want to take the total production and sales you can manufacture the 100 units.

80 we are currently manufacturing and 20, 20 units more we will manufacture if the plant capacity permits. So, we will manufacture the 100 units currently sell them in the market and our stock will remain intact. We will not touch the stock but there may be another decision taken by the firm that say for example 80 units we are currently selling which we are manufacturing 20 units, which we are going to sell additional in the next year.

We will not manufacture that but we will draw that from this 50 units. So, your inventory will come down to how many units 30 units and this 20 units will be adding up here and selling in the market. So, it means the total sales will become 100 units and 30 units will be now left over there in the finished goods inventory.

So, in that case what is happening we are assuming here that your assets will increase, but in this case assets not increasing assets are rather than increasing the current asset inventory rather than increasing has decreased from the 50 unit to 30 units. So, there can be any kind of the changes or for example it may be possible that the entire 100 units we are going to manufacture.

If the plant capacity permits from the current production. So, it means in that case your current assets as inventory will not change it will remain as a 50 units. So, all the times blind fully we will have not to follow this model that every time when there is a change in the sales from the present period to the next period featured period always the assets increase liabilities increase or some changes take place.

We have to see that what practical is going to happen if certainly if there is an increase in the sales, certainly you have to factor for it. If there is increase in the short term liabilities you have to factor for that. But if there is no change you have not to factor for that. So, this I discussed with you in the previous class also this I wanted to thought of reminding you in the current class also.

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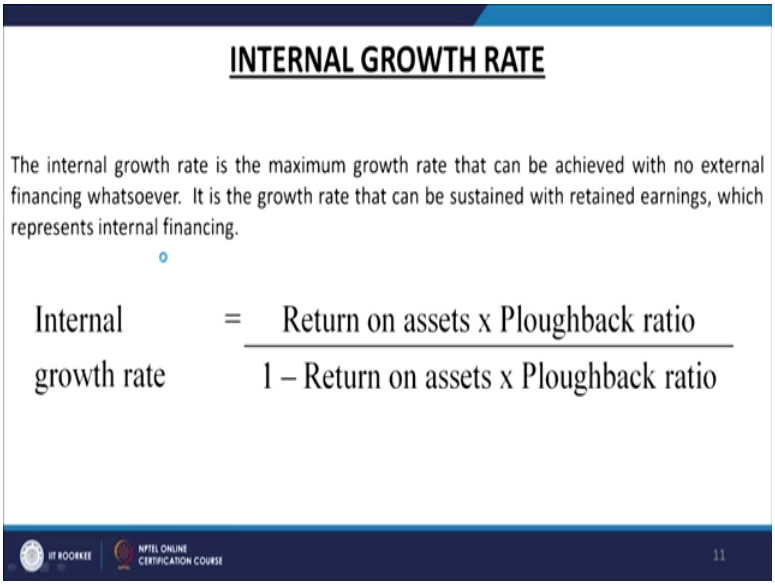

So next thing now the two more important things which we are going to learn here are the say important other corollaries of the financial planning and these corollaries of the financial planning are one is the internal growth rate and second one is the sustainable growth rate. Because why the financial planning is important? Currently if we want to keep on performing at the present rate.

Then there is no issue at all. We have the sufficient amount of the funds may be from the internal and external sources and if you want to generate the funds from external sources, we know it that what is our current requirement as per the current volume of the production and sales.

So, we are at a comfortable position financial planning is always required. When the firm wants to grow in the market and since firm is a dynamic organization is not a static organization growth is always expected to be there with every business organization. At whatever the level they are performing in the current year next year. They expect to increase their level of production their level of sales their level of operations.

So, growth is means you can call it as is directly related to the performance of firm without growth. There is no business and a business which is a static business you cannot call it as a, the business which is professionally managed. So, growth is directly related it is linked to the firm performance.

So, you always have to be careful about that. So, when there is a growth in the firm, maybe the overall growth and the overall growth takes place with the growth in the sales when the sales of any firm grow then in that case how we have to fund that growth, how we have to

fund that growth? So, here we are going to talk about that one important thing is internal growth rate and second one is the sustainable growth rate.

So, what is internal growth it? Let us see it here, the internal growth rate is the maximum growth rate that can be achieved with no external financing what so ever. No external financing. That is why it is written here as internal growth rate. We do not want to depend upon the external borrowings. We do not want to grow in the market by external borrowings or external source of financing.

We do not want to risk the firm because here the point of caution is that when you raise extra funds from the market by borrowing, especially in the firm of the debt it creates so many problems for the firm. It is always good that the borrowing is always good if you are assured about your production and sales in the market and the growth rate of the firm, but because of certain ups and downs in the market as in these days, for example, the recession is going on in the market and firms are not able to means say sell-off in the market whatever they are producing.

Many a times their production. They have to stop for example you talk about the automobiles companies almost every company is stopping the production from one day two day one week or 15 days or something like that. Their retrenching their contractual employees and the demand is not there in the market. So, because recession recessionary face is there in the market the market is hit badly by the recessionary phase.

So, the performance is not up to the mark. So, in this situation if you have raised the funds from the external sources, especially by way of borrowing. So, borrowing sources they do not wait for that you are not selling in the market as per the expected amount. So, you are not able to return their funds back you have to return their funds back.

So, if there is a sustainable growth and sustainable production and sales in the market than fine, you can service the external debt and you can be the principal amount also as and when it is due. But sometime if it is hit by the recessionary problems in the market, then external financing becomes a problem.

In the capital structure also, I told you in some previous class that capital structure. Basically, what is the capital structure? It is the mix of the equity, is a mix of the internal and external sources. So, if you are funding the growth of any organization from internal sources though it

is expensive it is costly that is cheaper, because it is tax detectable but that comes with so many limitations.

That debt is always cheaper supportive and better, if the firm is maintaining the sustainable performance and the growth rate. But if it is hit by the negative economic environment or because of the negative say conditions in the market then it is not good for the firms to depend more and more upon the external borrowing.

The well managed organization like Reliance industries, Grasim industries or may be well functioning other say business houses if you look at their balance sheet she will find that they are external borrowings are much less as compare to their internal reinvestment of the funds whatever they are generating internally.

Now, you see in case of the Vijay mallya's companies what happened he resorted to the external borrowing so much 9000 crores and internal say whatever the funds were being generated. They were misappropriated not properly reinvested back into the business. So, finally when they resorted to the external borrowing so much that one day a time came that they were not able to justify that what is their borrowing and how properly they are means making use of it.

Finally the business collapsed all Kingfisher group companies they collapsed and finally the chief promoter of the company is now in the difficult state of affairs. Similarly you talk about the Nirav Modi because why they, they had to meet this kind of the fate because they are borrowing was so much from the market. Because they thought easy funds are available from the market so borrow it and we will think at the time of return of the funds whether we are able to return it or not.

And finally they have to means pass through this kind of the phase that they have to leave the country. So, be careful always be always as a good financial manager you have to be very careful that external borrowings has not to be resorted or if it is to be resorted at a minimum possible amount. And if you are borrowing a 1 rupee from the market at least invest 1 rupee from your own pocket also or from the internal sources also.

So, if the internal generation of the funds is there and reinvestment of the internal funds is there then certainly you can borrow from the market also, but always keep your borrowing power intact. So, that tomorrow if the internal say funds are not available and somehow we

have to borrow funds from the market then yes, you can make use of that always unused borrowing capacity.

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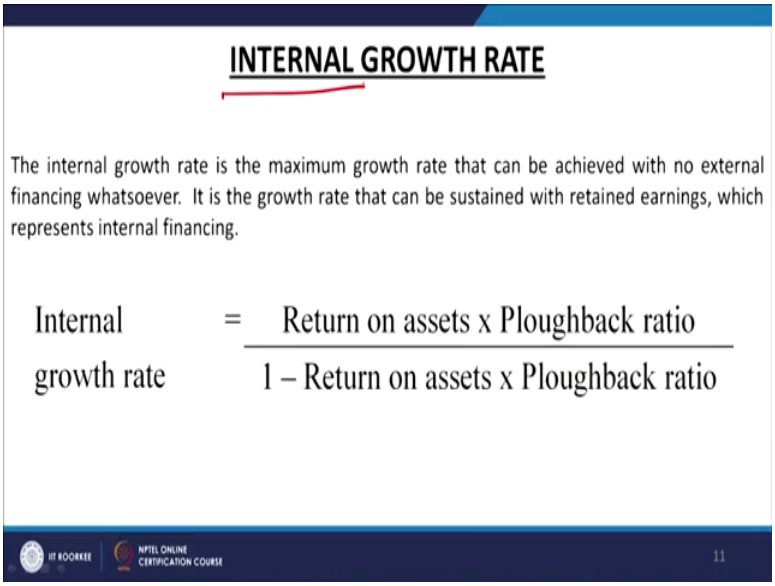

So, we are talking about here the one important corollary of the financial planning internal growth rate. When you talk about the internal growth rate internal growth rate is the maximum growth rate that can be achieved with the no external financing whatsoever. It is a growth rate that can be sustained with the retained earnings which represents internal financing.

Which represents internal financing, so it means you can find out the internal growth rate you can work out is that is the return on assets into plough back ratio divided by the 1 minus return on asset into the plough back ratio. So, internal growth rate can be worked out, internal growth rate can be worked out that is a return on assets into plough back ratio and 1 minus return on assets into plough back ratio with this help of this model internal growth rate can be worked out.

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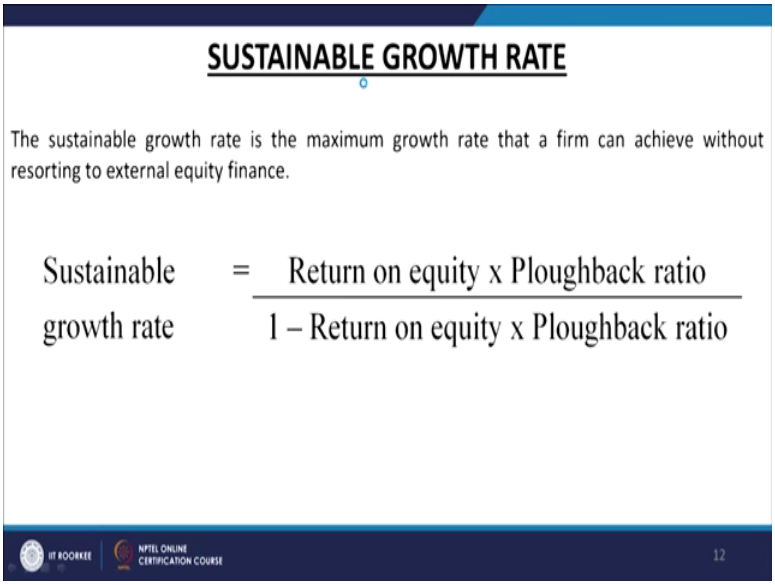

Second one more corollaries is a sustainable growth rate. Sustainable growth rate is means what is written here? Let us see it sustainable growth rate is the maximum growth rate that a firm can achieve without resorting to the external equity finance, external equity finance. It means in the previous case what we have seen that it is a growth rate that can be sustained with retained earnings, which represent the internal financing.

It means internal growth rate is a maximum growth rate that can be achieved with no external financing whatsoever. In this case we are talking about both debt and equity that no means is sorry. We are talking about the largely the focus in this internal growth rate is upon the external funds and that is the emphasis here is on the debt. That without borrowing anything from the market in the form of the debt. We want to grow and what growth rate we can achieve that can be worked out with the help of this model.

In this case what we are talking about here is that sustainable growth rate means that whatever the amount of the funds is available with us. Whatever the amount is of the funds is available with us. We want to grow with that at with that rate of growth how much we can grow here. We are talking about of the 0 borrowing, 0 borrowing that no borrowing in the form of the equity we will not have any external financing.

So, whatever the funds we have internally available from within the internal operations that only means we want to make use of and with the help of that. It means if you are if the situation arises tomorrow that for example, if the firm is, firm equity is not very means preferred stock in the market. So, if they want to raise additional equity or the funds through additional equity by coming out with an FPO Followed on Public Offer in the market.

So, it may be possible that it will not be subscribed at all because adjusting stock of the this company is not doing well in the market in the stock market. So, people might have the say this see apprehension in the mind that no this company is not good and we will not buy the stock of this company. So, externally equity is not available at the same time because the reputation is not very good or maybe because of any temporary setback the borrowing is also not available.

So, it means in that case whatever the funds available with this company are they have to run the show for the time being with that given amount of the funds. It means you have to sustain in the market at the means whatever the amount of the funds are already available with them from both debt and equity. So, it means that rate is called as a sustainable growth rate that at what rate you can sustain in the market or what is your sustainable growth rate without resorting to any kind of the external financing debt or equity.

How can you stay in the market how can you perform in the market? So, this all is about the financial planning we wanted to discuss here and when you talk about the financial planning as a whole the concept of the financial planning is a whole you can understand that it is very very important to always look forward into the future. It is always important to look forward in to the future.

So, if you wanted to be sure about that, yes what is our financial requirement for the future period if it is estimated beforehand and if the funds are already arranged so as and when we need those funds they are already available with us. We can arrange the funds and carry on the show in the market. So, financial planning has a very, very important role to play and for every department every say unit and subunit budgeting is the one exercise which is the planning tool.

So, we prepare the budgets for all the units and subunits and we translate that into the financial terms and then we sum total it. So, we call it at that this is the total financial requirement of the firm and then at the end of the say this entire process. We prepare the projected financial statement projected your income statement projected your balance sheet and the projected cash flow statement.

So, that we are means going to create a balance sheet. We are going to create a profit and loss account which actually will be there in the next year. So, if that projected balance sheet is already with us. We means are a very comfortable position number one it acts as a roadmap

the guiding force and second thing it puts the pressure in the minds of the people working in the different units and subunits that what their performance is expected up to.

So, if they know well in advance that this is the target we have to achieve. So, in the production department is very careful how much production is expected purchase department is very careful how much purchases are expected. Marketing department is very careful R & D department yours sales and distribution department and finance department also is very clear that this is a requirement of the other departments.

So, this much of the funds we have to arrange we have already arranged the funds. So, the funds can be provided so that your budgeted profit which is we have calling it as a projected profit can become the real profit the budgeted financial position which we are calling it as a financial position becomes a real financial position. And similarly the budgeted you call it as the, your cash flow statement becomes the real cash flow statement.

So, this is a role of the financial planning which is very, very important in any kind of the financial management functions. And as a student of finance, you must be very clear about what is financial planning? What is the role of it? And how the financial planning is done in any organization.

Now, I will discuss with you small two problems that means where we will apply the concept of say calculating the growth rate without resorting to the external sources of the funds any kind of the external sources of the funds means internal growth rate.

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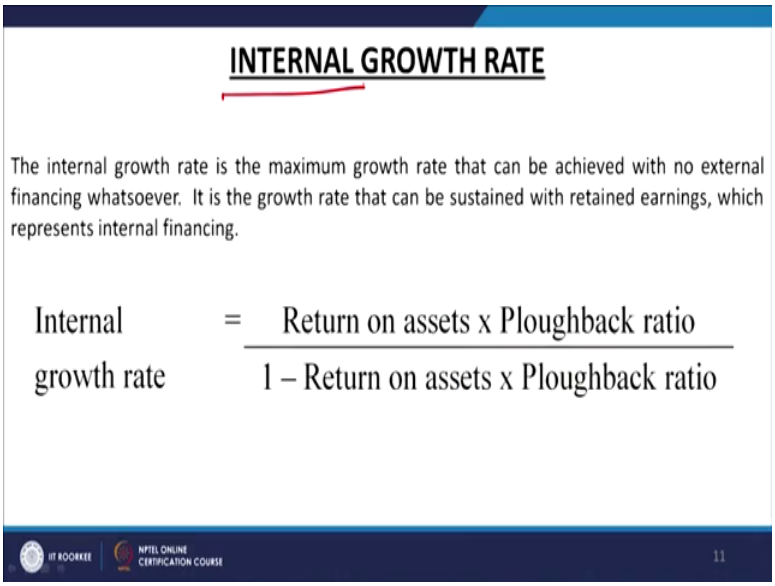

How we can achieve the internal growth rate and for that purpose we have some say information here and with the help of this information, we will calculate the internal growth rate without resorting to the external financial requirement. Because here we have calculated external financial requirement EFR. So, if there is no external funds are available then from the given internal funds how we can grow in the market and what can be the expected growth rate. How can you calculate that?

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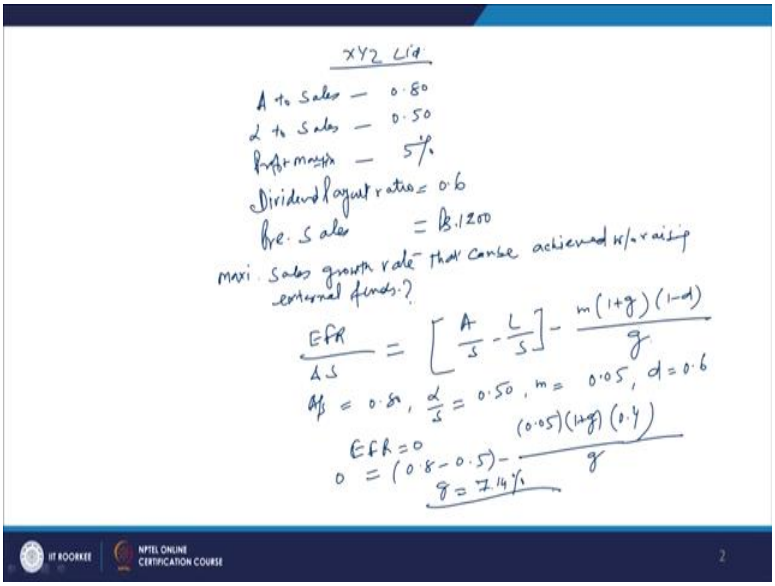

So, for example, there is a company call it as x y z limited and about this complete information available with us is assets to sales means assets to sales are expected to be in the ratio of 0.80 and then as the liabilities to sales L by S are expected to be say 0.50 in the ratio of 0.50 profit margin, if you look at here the profit margin that is expected to be say 5 percent and dividend pay-out ratio dividend pay-out ratio.

If we talk about the dividend pay-out ratio that is the 0.6 and previous years the sales. Previous year sales though, we do not require it. But previous year sales are given to us as rupees say 1200. For example, we assume it as rupees 1200. So, question is what is the maximum sales growth rate maximum, sales growth rate maximum sales growth rate that can be, that can be, what is the maximum sales growth rate that can be achieved?

That can be achieved, without raising without raising external funds without raising external funds. This is our question without raising the external funds. So, this is our question here maximum sales growth rate that can be achieved means. We have to find out that can be achieved without raising the external funds.

So, now if you look at this part, we have to find out this external growth rate and for this external rate we have to now go ahead with this is the simple formula given to us is that if you apply this formula. The formula is EFR External Financing Requirement delta sales and is equal to what is this A by S minus L by S bracket closed minus small m into 1 plus g.

That is the growth rate into 1 minus d and divided by g here. This is our model this is the formula. So, what we are given here is we are given the A by S. And A by S is how much 0.80 this amount is A by S is 0.80 that is acid to sales is 0.80.

We are given the L also or say L by S what is L by S, L by S is also given to us is 0.50 and then we are given the m small m which is given to us is how much that is 0.05 and then we are given the d is value is that is the dividend value the dividend ratio is also given to us and that is 0.6. And what is the question maximum sales growth rate that can be achieved without raising external funds.

So, EFR is, is equal to 0. So, it means we are given this all information. So, this side becomes 0 if we applied this into this model. So, what is going to happen here? This side will become 0 and this is going to be how much if you take it as, so this will become something like 0 point sorry 0.8 then minus 0.5 and then it is minus if you take this here this becomes as how much 0.05 this is the profit part.

And then what is the growth rate that is known to us that is not known to us. We want to find out this growth rate. So, we are going to close it and here we are going to find out this ratio is 1 minus d is 0.6. So, this 1 minus d becomes is the 0.4. So, now and what is the growth rate here that g is also not known to us we want to calculate this g. Now, if you solve this

particular equation, so I think that will value have put here 0.8 minus 0.5 into 0.05 and that is 1 plus g which we want to find out into 0.4 and divided by Z. So, finally this is equal to 0.

So, in this case, if you want to find out this growth rate, if you solve this particular equation, so what you will be able to find out here is that if you solve this equation your g will come out as finally the g will be 7.14 percent, g will be the 7.14 percent. So, what is here? We wanted to find out that this is a company XYZ limited and they are all information is given to us assets to sales will be 0.80 liability to sales will be 0.50.

And the profit margin will be 0 point will be 5 percent and dividend pay-out ratio is 0.6 and the say you can call it as the adjusting sales you call it as that is a pre period sale, or the present sales you call it as 1200. So, it means the sales will be increasing the growth rate of the sales will be 1200 into 7.14 percent. If you do not resort to any kind of the external financing. So, in this case, we have not taken the external finance as a say as a proportion of the increased sales.

So, it means we wanted to find out that from this given information. If you want to find out the growth rate so growth rate we have worked out is that without resorting to the external sources of financing. If you have the present rate of the sales or the level of the sales is worth rupees 1200.

So, it means without having any extra funds invested from outside your growth rate for the coming period will be 7.14 percent means now the next year the sales will be 1200 plus the 7.14 percent of the 1200. So, that will be the total amount of the sales. So, it will become 1 plus R is the growth rate or 1 plus g you can say.

So, g will be the growth rate and growth rate is a 7.1 percent. So, without say resorting to external sources of financing you can calculate the growth rate. And this way the growth rate can be worked out with the help of this model. One more problem relating to that say sort of that for example for the given amount of the sales. If we are going to predict that we want to achieve the certain amount of sales they are currently we are selling for example for 400 million rupees and next period we want to sell for the 500 million rupees.

So, if you want to increase the sales from the 400 to 500. So, what will be the external financing requirement that also can be worked out? So, that one more problem. I will do in the next class and then we will stop the discussion on the financial planning. You can refer to the books of for the detailed discussion. You can refer to the books on the financial

management and one book and again time and again referring to is the financial management by Prasanna Chandra.

If I refer to that book so detailed discussion on the financial planning you can have in that book. So, one more problem, we will discuss in the next class and then we will close the discussion on the financial planning. So, for this class, I will stop it here. So, thank you very much.