Financial Statements Analysis and Reporting

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Lecture - 36
Ratio Analysis Part-II

Welcome students. So, we are in the process of discussing the ratio analysis and in the last part of discussion we have discussed, we have talked about say the first category of the ratios that was the RoI ratios.

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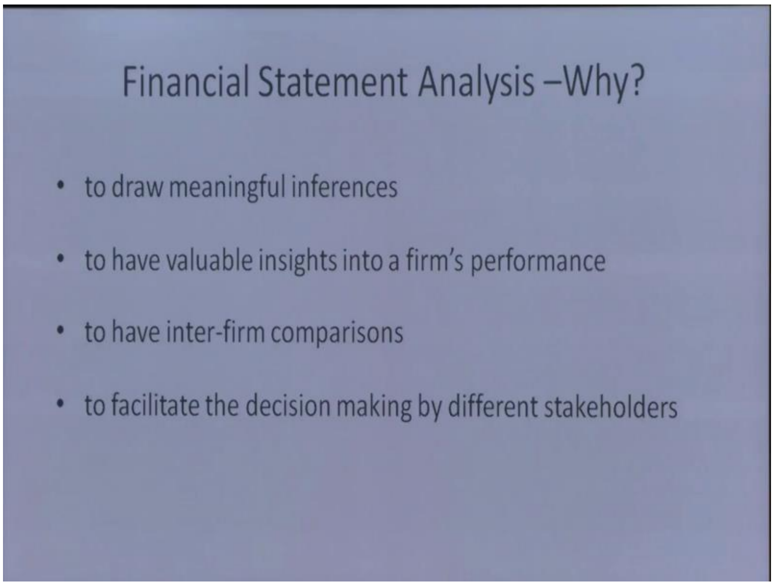

And these ratios are we talked about their we talked about the 3 ratios that is return on net worth that is earning per share and cash earning per share then we have the next set of the ratio that is they are called as the solvency ratios.

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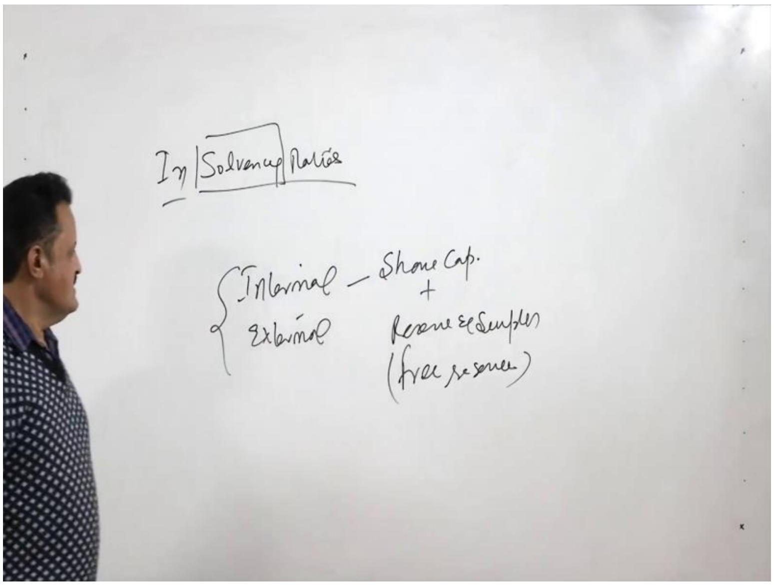

And solvency ratios are solvency ratios, solvency means as the word says solvency. I told you in the past also that solvency means how strength full how strong the firm is how strength full or how strong the firm is that is the solvency.

So, in this case solvency ratios tell us about the performance of the company about the overall financial and operating health of the company largely we talk about the financial health of the company. So, solvency is means there are 2 words solvency and insolvency solvency and insolvency. So, when it is solvency how strength full for the company is how strength full the financial structure of the company is and insolvency means when the company is not doing well that is the insolvency company. Now we want to study that how strength full the company is how strong the company is what is the future scope of the growth of the company because ultimately you need the funds.

When you need the funds you have to look at it from the 2 angles. A big company has certain borrowing capacity and if that borrowing capacity is already exhausted then we do not have the future or the further borrowing capacity for expansion diversification and any kind of growth one. But if that capacity is not exhausted this company is doing the entire business from its own resources there are 2 sources of doing the business - one source is the internal sources of funds and internal sources of fund and second is the external sources of funds internal source of fund is that the funds come from the shareholders of the owners of the company and that is the share capital first this is the share capital and then it is the reserves and surplus or you call it as reserves and surplus or you call it as free reserves; free reserves.

Reserve and surplus or free reserves these are the internal funds. So, when we start the business initially when we start the business may be as sole proprietary as a partnership firm or as a private company or as a public company we have only internal source of the fund until and unless we go to the venture capitalist. Venture capitalist can provide us the external source of funding, but they have so many there are, so many disadvantages of the venture capitalist as rate of return their interference in the company's management and so on and so forth. So, we normally do not like to go to the venture capitalist if it is having if it is sufficient to have the funds from the internal sources and then doing the business at the say lower scale at the small laborer with these funds and then developing or generating the funds internally, growing with the capital appreciating the capital and then when the company reaches at a point at level when the solvency of the company increases when distance of the company increases then outside funding also start becoming available, external sources also start pouring in the kitty of the companies funds. So, for example, you talk about the loans.

If we are going to set up a new company or a new business organization business firm we if go to the bank that please I want to start a company my requirement is 20,00,000, I have got 10,00,000 with me and you give me 10,00,000 rupees with me bank would say that what is the credibility of your company and what is the security of our parts.

So, finally, you whatever the way you try to convince them they said that no, it is not possible first prove your credibility and once we feel that our funds are secured and our investment is going to have the say fruitful return then its fine we can think about you. So, initially you do not have the funds. So, you have the funds only internal funds that is the share capital and first year of the operation will do with that as the lower scale and you earn the profit in the first year second year third year then we will keep on investing that profit back in the capital initially we do not draw dividend out of the companies investments we do not draw any dividend out of the companies investment.

So, only it is the share capital and then we create the reserves and reserve and surplus is create and add it back and then capital of the company keep on appreciating and when continuously we have the profitability and profitability in the form is growing. So, ultimately you see the solvency of the firm is growing when the solvency instance of the financial strengths of the firm are growing in that case you can expect that now many external source will also be available. So, in this case we talk about first internal source of funds and we would like to exhaust these internal source of you funds your capital reserve and surplus and free reserve completely and after that we will look forward for or towards the external funds or external sources of the funds, and external source of funds are like bank loans or debentures or bonds or something like that or maybe selling the coming out with the IPO in the market or selling the shares in the market it to some extent that is also called as external source later on it becomes internal source. But those potential shareholders withholds would also be interested to buy the shares from of your company if you have proven track record and we are going to assurance to the people that yes we are going to give them a better or assured returns then only the people are going to buy the shares of the company.

Till then even in a public limited company also IPOs are not brought in initial promoters 7 promoters provide the funds they make investment of the capital and they do not like to go for the IPO because if the company does not turn on enjoy a good brand name or good reputation in the market and if company comes out with an IPO and if the IPO is not properly subscribed or well subscribed in that case it creates the problem. So, till then we have to use internal sources that is the funds provided by the initial seven shareholders and then the profits and profits have to reinvested back and when we keep on say when this capital base improves or strengthen then the external sources can be expected.

So, it means in the solvency ratios we have to think about that how much internal funds were invested by the firm, how these funds are utilized by the firm, how much wealth is created by utilizing the internal source of the funds by the company and then how we can expect or to what extent we can see expect the external support or the external sources of support from the external sources.

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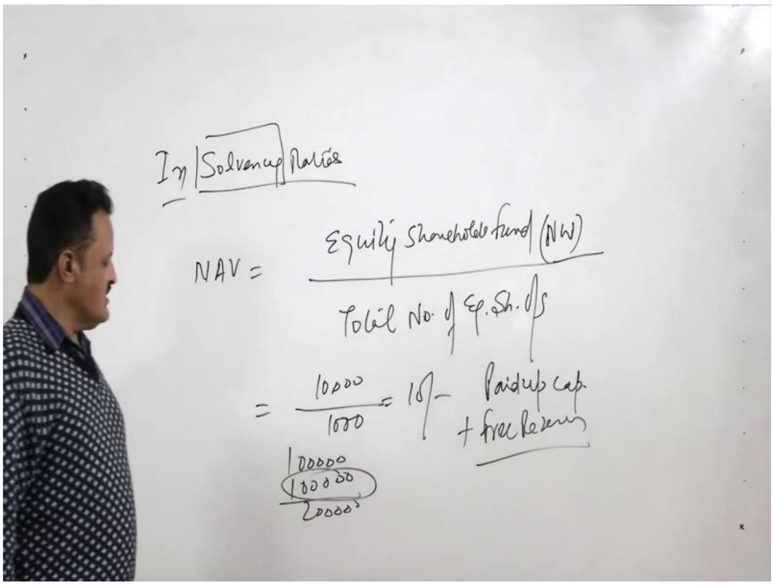

So, here it is the first ratio which we are going to calculate here is that is the NAV net asset value or first solvency ratio is a the NAV which is called as net asset value and this net asset value is that is the equity shareholders fund, equity shareholders fund divided by total number of total number of equity shares equity shares outstanding, total number of equity shares outstanding n a v sorry NAV means net worth asset value net asset value means or you can call it as net worth, net worth divided by total number of equity shares outstanding net worth divided by the total number of equity shares outstanding.

Means how much shares are there in the market sold by the company and how much shares are represented or justified by the net worth of the company how much net worth is there and how much total number of equity shares are there for example, net worth of the company is 10,000 and then total number of shares are 1000 it means net worth per share is 10 rupees, net worth per share is 10 rupees.

Now, there may be a case that the company has only net worth they have not borrowed even a single penny from the market whatever the investment is made that is made because net worth is paid up capital paid up equity capital paid up capital plus free reserves plus free reserves these are the 2 things. So, paid up means capital contributed by the 7 share holders plus free reserves are those reserves which are now finally, owned by are available to the equity shareholders it has no claim against or it has nobody else has a claim against the free reserves. So, these are the 2 things which made the net worth and if you see if the total business by the companies being run with the help of net worth all the assets are funded from the net worth only that is the paid up capital and free reserves in that case you can make out that what is a solvency position of the firm.

For example some company started the business initially with a sum of rupees 1,00,000 sum of rupees 1,00,000 and today say after say 3 years the company's total net worth has become 2,00,000 it means they have added on lakh worth of rupees from the internal generation. They have efficiently use their own money that is 1,00,000 rupees and they have generated a profit almost one-third of the capital is added every year in the form of the profit and now the company's network has become 2,00,000 rupees and there is not even a single penny as a outsiders obligation of outsiders fund that is the loan or the borrowed capital or the borrowed money.

Now, how strength full it is that 2,00,000 rupees it means it is a highly profitable firm they are earning about 33 percent of the profit every year and they are appreciating their capital by reinvesting that entire amount of the profit and in the 3 years period of time 1,00,000 rupees off the net worth or the capital has become 2,00,000 rupees it means 100 percent increase. Now you see this situation if they want to come out with an IPO and if they give this kind of information in the newspaper or in the electronic media everybody will be allowed to subscribe to the shares of this company. Second thing is that if you want to borrow money from the financial institutions or from any other source then there is no issue at all there is no problem at all every banker would be say would be all the leading banks would be lining up outside the office of this company that this company is say solvency structure is so strong and solvency structure is so strong this company. So, solvent that it is the say generate a very good returns very good profits and this if you talk about the potential shareholders they say that very good return on investment will be available because of the very high solvency of the company one.

And second thing would be that financial institutions will feel their investment is highly secured in the firm. So, they would like to land a sizable some of the money to this company. So, NAV means net worth divided by the total number of equity shares and net worth is how much times because it is basically telling to the firm, to the external stakeholders maybe the new shareholders or to the financial institutions the intentions of the existing shareholders the intentions and efficiency of the existing management that intentions of the distance shareholders is that they are plowing back larger part of the profit into the firm, whatever the returns investment they had made, whatever the return they are getting now larger extent to larger extent or larger part of that is being plowed back in the business and by that way the capital is appreciating, the capital is growing capital is appreciating.

Now, if you have and this is the one important indicator also when the financial institutions lend money or maybe anybody has to learn to the any source has to lend the money to the financial to the business undertaking they should also look at this particular indicator that what part of the profit company has earned and reinvested back in the business. If the larger part of the profit is reinvested back in the business it means the intention of the initial shareholders and the management is to grow with the company and to carry on the business to the commanding heights.

But if the largest of the profit is being grabbed by the existing shareholders and very little amount is being flowed in the company and for the investment needs the companies looking towards a external sources in that case you can easily make out the intentions of the company's shareholders and management that they do not have the good intentions and to carry on the business for the longer duration, they would like to they would like to close down the business in the near future. So, it means the investment made by any external entity is not safe. So, solvency NAV means net asset value means that what part of the net assets is funded.

For example if you have this balance sheet with us and here you are saying that we have the paid up capital paid up capital plus free reserves plus free reserves in that case and total all assets your fixed assets and your current assets if they both are financed from these 2 sources it means net assets value or the net worth of the company is fully represented by the share existing shareholders or the existing number of shares in the company and they have borrowed in a single penny and large chunk of this capital has come by play plowing back of the profit by creating and appreciating the free reserves available. It means is a very good company very solvent company and very good potential institution for the investment, but if it is the reverse that the net worth is very low major financing of these assets in the balance sheet is from the external sources you are borrowing the money and everything in that case company solvency position is not good. So, NAV is the very good indicator very good ratio which can tell us about that how the company is expected to do in the future, what is a financial health of the company and how it can do the business; this is the first ratio in the solvency ratios.

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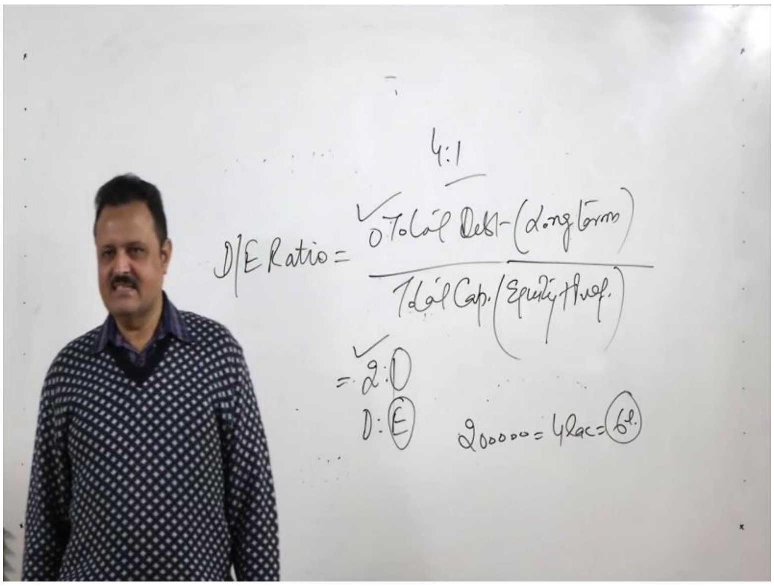

Second ratio is the in the solvency ratios is the debt equity ratio D E debt equity ratio now what is or what is D E ratio? Debt equity ratio is debt equity ratio is total debt divided by total equity, total debt divided by total equity or the paid up capital that is the debt equity ratio or you call it as the debt equity ratio means total debt when we talk about we talk about the long term we do not include the short term debt in this ratio long term debt and total equity that is for you can say that is the total capital, I will not say total equity it is the total capital debt equity ratio means total capital and then you say total capital it includes the equity capital and plus preference capital this is the ratio between the total long term debt and the total equity of the firm.

In other way round if you look at this ratio this is the ratio between the internal funds and the external funds or you can say that this is the ratio of owned funds and the borrowed funds. Now see that every company has some boring capacity and in the standard as per the literature available in the financial management this ratio is expected to be 2 is to 1 which is a standard rule of thumb 2 is to 1 when we talk to the previous ratio that is NAV here you can say there is no standard rule of thumb of interpreting that ratio, but simple you can say higher the ratio better it is the because in the numerator you have the net worth. So, higher the network and the lesser number of the equity shares it means the ratio will be very high. So, higher the ratio better it is and if the ratio is not that high then it is not good.

Similarly, when you talk about the debt equity ratio the standard rule of thumb of the debt equity ratio is 2:1, it means if you invest 1 rupee debt is 2 means debt and equity is 1. It means if you invest 1 rupee here then you can expect to borrow 2 rupees from the market if you invest 1 rupee for your own pocket as a shareholder or as the owner of the company you can expect 2 rupees from the market that is the ratio of 2:1 that is the ratio of 2 is 1 debt equity ratio. Now for example, if the total debt component is very high this ratio is for example, 4 is to 1 it means the company has already borrowed a huge amount from the external sources whereas, their internal investment or the investment internal sources is very very low. In that case now you see that one indication is that the magnitude of the external funds being very high as compared to the internal funds it means the company's over all solvency position is not good.

Second thing is that if for the further expansion and growth if company want to borrow the funds from the market rather than us being invested from the pocket by the shareholder then the scope is very very less because they have already exhausted the borrowing capacity. So, once these 2 things are there in that case the solvency is indicated by this ratio. So, if this ratio is for example, there is no external debt now we look at that there is nothing the numerator is 0 that is 0 is to 1 it means the company has not borrowed even a single penny and an entire funding is being done from the internal sources it means look at the saved borrowing capacity of the firm.

Saved borrowing capacity of the firm that how much money they can borrow from the market, so if their own net worth is 2,00,000 rupees minimum 4, ,00,000 rupees they can borrow from the market and companies capital base can be taken to the 6,00,000, company's base can be taken to the 6,00,000, it means there can be 3 times growth there is a 3 time financial requirement there can be 3 times growth. So, we have to look at that that what is the debt equity ratio by calculating this ratio at look at that the firm solvency structural the firm that to what extend the borrowing capacity has been exhausted by the firm and how much is still left, how much is still preserved and how much they can expect to borrow more from the market that is one thing.

And if they have fully exhausted then the future scope is limited, but if they have not exhausted at all future scope is very good and if they have partly exhausted then yes you can expect that this company can still grow that if this company expects or if they have to borrow more funds from the market they have to invest their own internal funds also. So, in that case if the company is a profit making funds they have to stop paying the dividend and increase the total profit to be reinvested back in the business that magnitude has to be increased. Or second thing is that if they are expecting, they have to increase the profitability they have to increase the solvency of the form they have to increase the net worth of the firm then they can expect a borrowing.

But you see this ratio is only a guiding rule of thumb that is a 2 is to 1 that is a debt equity ratio should be 2 is to 1, but you see if you analyze a balance sheet of the company you might see that some company might have the ratios like 4 is to 1, 5 is to 1, 6 is to 1 or sometime 10 is to 1. So, that is not the case that this ratio is not binding any financial institution to lend to the companies. This company this ratio is not binding if the lender is assured about that yes his returns are safe and secured or his funds are safe and secured if it his investment is safe and secured and there is nothing to worry about the investment then he has not to look for it.

May be possible that the investor is not investing from his own sources, but his borrowing more from the market and if the lender is convinced that whatever is lending to him his investment is secure his total funds are secured he is getting good return on investment or his lending in that case the ratio can go up to ten times you have seen heard about the Vijay Mallya's case, you know Vijay Mallya has got lot of money borrowing from the banks and in that case today when the banks are been asked that how this lending was given 9000 plus crores who were given by the banks to the a single person or the person of the companies being large being held by a single person there is no security not at all, even the net worth was not good his own investment in his own companies was not very high.

At large part of the business was funded by borrowed capital by loans from the financial institutions and that is largely from the banks. So, you see that today when the banks are being asked why you lend. So, much of the money when the net worth was not very high they simply say only on the basis of the brand name. Kingfisher brand name on the basis of that they have lent huge amount of the money to the companies of Vijay Mallya and today their brand name when they had it is a flop show and it has not worked well in the market, now there is no security there is no say you can call it as a collateral taken no security is taken, now the funds are at the risk and almost see that they are almost the larger part of the funds will become the bad debts.

So, that equity ratio means it tells about what is the borrowing capacity of the firm what part of the borrowing capacity has been utilized by the firm what part is left to be utilized and how they can expect to further borrow the money from the market and normal rule of thumb for this ratio is 2 is to 1, but it can be more than also if the lender is assured of proper returns, better returns, effective returns from the company in which the investment is being made by the lenders.

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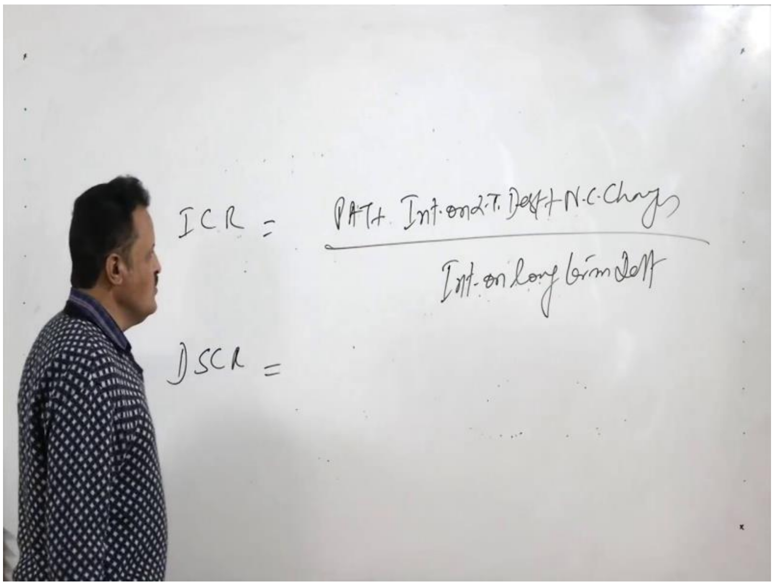

Then is the next ratio we are going to talk is 2 more ratio we are going to talk about here is that is one is the ICR interest coverage ratio and then second I will be talk about after this is the debt service coverage ratio. Interest coverage ratio when we talk about we take care that is the numerator is profit after tax plus interest on long term debt interest on long term debt plus noncash charges and divided by the interest on the long term debt interest on long term debt, interest on long term debt that plus noncash charges plus interest on the long term loans. This ratio is going to tell us about the interest paying capacity of the firm, how much interest the firm is going to pay because for pay the interests it is a revenue expense.

And for the paying the interest on any loan borrowed by the company you must have the liquid resources and the liquidity comes number one from the profit if it is a cash profit larger part. Second thing is you have to first add back the interest which is already paid. So, that if it is not paid then that money is also available plus that depreciation fund noncash charges like depreciation fund that sometime if you do not have the cash ability of the profit sufficient profits are not available or the profits are there, but cash profits are not there then the depreciation fund can be used to link with normally for the short duration and then we convert that normal profit into the cash profit then the depreciation fund can be replenished back.

So, how many times the total liquidity liquid funds are available with the firm as against the total interest component that industry the company has to pay maybe monthly rent six monthly rent or quarterly sorry say monthly interest six monthly interest quarterly interest or yearend interest once in a year like that. So, in that case the; it is talking about the interesting paying capacity of the firm. Interest paying capacity of the firm is high then still you can expect to borrow more money off from the market because the solvency structure it is very good, but if the interest paying capacity is not high in that case they cannot expect to borrow more from the market and in that case their borrowing capacity will be reducing.

So, it means what should be the ratio as high as possible there is standard rule of thumb, but it should be minimum 2 to 3 times of the denominator and if it is more than that is really very good, but it should be really high to the extent it is possible. And one more will be talking under which category that is a debt service coverage ratio in this we include we keep everything same, but in the denominator be at one more thing is that the installment of the principle to be paid installment of the principal to be paid installment of the principal to be paid, that is interest on long term debt, interest on long term debt plus installment on principal.

So, here then we return the loan taken in any particular year we return 2 things one we return the interest on the loan and second we returned the installment of the principles. So, interest maybe the monthly payment installment maybe the six monthly or once in a year or quarterly. So, in this case also now we increase the this is the ratio that is the pat plus interest on long term debts plus noncash charges this is a numerator which will remain the same in both the ratios, but the denominator will be changed.

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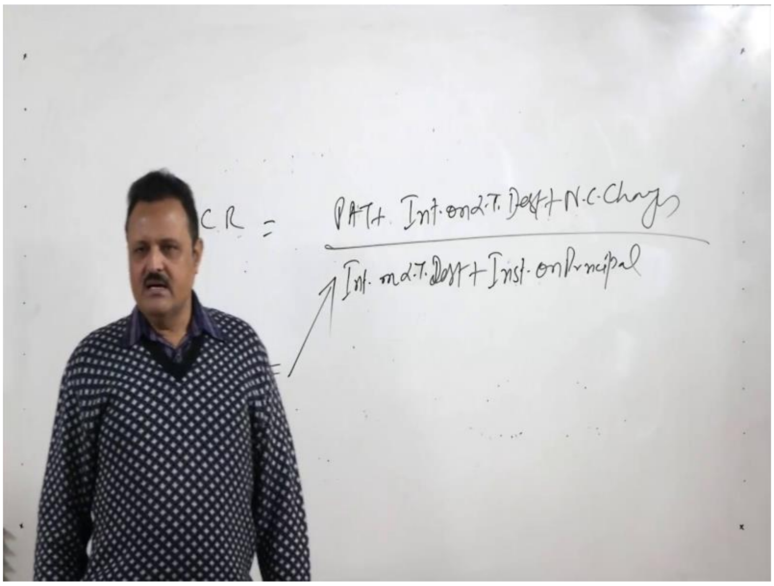

And in case of the DSCR, we will add in the interest on the long term debt we will add the interest on this installment of the principal part also and then we see that how much is a we are going to pay how much is due on account of the loan to be serviced back and how much cash is available, how much liquidity is available with the form. And again the ratio should be as high as possible as big as possible because higher the liquidity is better for the financial institutions because they can expect that the form will never default and the reforms will be or the return and the interest on the loan will be paid back on time principal will also be coming back on the time their funds are safe and secured and this is ultimate objective of any financial institutions that their lending should be same and their lending or their loan should be growing that should be earning the good rate of the interest also.

So, these are the 4 ratios which we have discussed in the solvency category and then we will be talking about the other ratios and then we will discuss a case in which we will calculate all the ratios interpret them about that company and tried find out about the financial health of that company and that all I will discuss in my next lectures.

Thank you.