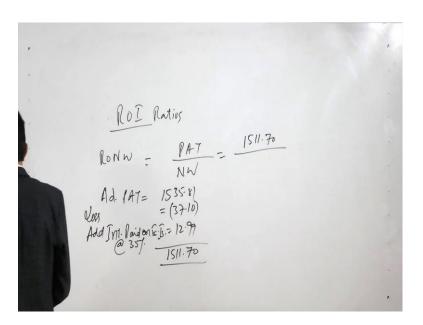
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Lecture – 40 Ratio Analysis - A case of Grasim Industries Part-I

Welcome students. So, in the last part we were discussing the balance sheet of Grasim industries and I have explained that, how would the balance sheet is. But now we will like to confirm with the help of certain ratios that, whatever we could see as a raw balance sheet about the company or its performance is it the same while calculating certain important ratios or there is some different information about it.

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So, first we will be calculating the RoI ratios return on investment ratios and the first ratio in the RoI ratios was that is the return on net worth. So, we have discussed already the formula that how to calculate this ratio and as I told you that that is the PAT. Profit after tax and it has to be divided by the net worth. Net worth was the total paid up equity capital plus reserve and surpluses. So, that is the net worth, I told you how to calculate the net worth and the net worth can be calculated either from the asset side or from the liability side of balance sheet. And if the liability side of balance sheet, if you calculate the net worth then we have to take the only the total paid up capital plus free reserves and that is the only the figure of net worth.

So, we will take the PAT in the numerator and if you will talk about the PAT in the numerator, so what is the pattern the numerator profit after tax? In the numerator you will find this figure in this is the here it is the PAT figure profit after tax.

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Profit before Tax & Exceptional Items	2,189.26	1,201.90
Surplus on pre-payment of sales tax loan		4.13
Write back of provision for diminution	37.10	
Profit before Tax	2,226.36	1,206.03
Provision for Current Tax	(692.38)	(369.82)
Deferred Tax	1.83	_27.00
Profit after Tax	1,535.81	863.21
Debenture Redemption Reserve No Longer Required	38.56	8.62
Investment Allowance Reserve No Longer Required	0.05	0.25
Balance brought forward from Previous year	878.37	815.35
Profit available for Appropriation	2,452.79	1.687.43
Appropriations:		
Interim Dividend	252.10	
Proposed Dividend		183.15
Corporate Dividend Tax	35.36	25.71
General Reserve	1,200.00	600.00
Balance carried to Balance Sheet	965.33	878.37
	2,452.79	1,687.43
Basic and diluted earnings per share (In Rs.)	167.50	94.14

So, if you calculate the PAT figure, if you see no need to calculate this figure given to us is 1535.81 that is the [FL] for the current year it is, it is 1535.81 [FL] that is 1535.81 [FL] figure of the profit after tax is given to us and in this profit we will have to take some see we will make some adjustments and once you make some adjustments then we will be calculating the real PAT.

So, now for calculating the PAT we will have to adjust the PAT and we will have to calculate the adjusted PAT. It is not take this PAT as it is profit after tax. Will not take it as it is for calculating the ratio, we will have to calculate the adjusted PAT. So, PAT here is if you look at the PAT for this current year is that is 1535.81, 1535.81 [FL] and in this you have to subtract something, which is means what you have to subtract is that kind of the income which is not the regular income. Any income which is once in a while which is not a regular income we will have to subtract that income. That income is of no use to us, for calculating the PAT profit after tax we should take the regular profits they are from which the profit which are normally from the operations of the firm right.

And if there is any exceptional item which is there in the one year what is not in the other year if you take that into account. So, what will happen? In one year the financial prefer

performance of the company profit after tax will go up very high and the other year when the exceptional income is not there or that a regular income is not there, the profit will go down. So, to keep it as a static figure or a say real figure, regular figure you will have to make some adjustments. So, here we will have to subtract some items which is given to us here is the. If you talk about here is the profit before exceptional items if you talk about the profit before tax and exceptional items. So, profit before tax and exceptional items is this 12189 and then we have added in this right back the provisions for the given ratios.

So, we had made some provisions, but now we have returned back this diminision was not required. So, we have added this income back 337.10 [FL]. So, that is not a very regular income because you not right back all these provisions every year sometime it can be sometime it cannot be. So, why to take this into account, we have to subtract this figure and when you subtract this figure in this case you will find that finally, your PAT will also come down. So, their PAT will come down by 37.10 and if this comes down 37 point this this amount of the exceptional income is 37.10 and for calculating this figure you will have to find out that the amount of the PAT is changed.

So, what is this that is the 131535.1 divide 0.81 [FL] minus 37.10 [FL] you have to subtract and in this case you have to add something. Because, this is the analysts job anybody cannot do this. This is the analyst job because, if anybody who is not aware about the say real financial analysis, then what is able to? They will take only this PAT that is 1535.81 [FL] and they will not adjust this PAT. So, 1 year the performance will be shown is very high, very good either here the performance will go down. So, this is a job of the good learned financial analyst that he should take into account the consistent figures because convention of consistency is important.

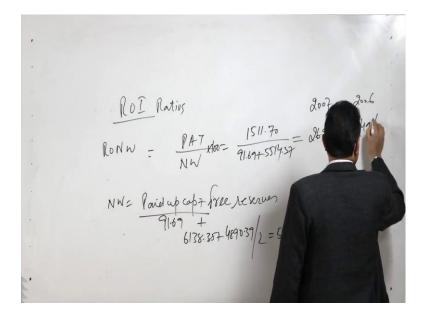
We are subtracting here the exceptional income which is 37.10, 37.10 [FL], but you have to add here something and now if you add here something think about what we were going to add here now because, when this income was added, the profit has become 1535.81 [FL] I mean the profit has become 1005 or may be if you talk about the profit before exceptional incomes. Profit before tax and exceptional incomes this profit was 22189.26 [FL] it means when this profit is there in this profit we are now adding back the total profit before tax was that this profit became a total profit became 2 to 2226.36 [FL].

This was the profit after tax and this profit includes the exceptional income also and when you include this 37.10 [FL] as exceptional income, it means we have paid the tax at the rate of 35 percent on this amount also. So, when we are subtracting this income we should add back the interest paid. So, add interest paid on exceptional incomes EI's we have to add back the interest paid on that and that what was the rate of interest that is at the rate of 35 percent and if you calculate that rate of interest on 37.10 [FL] at the rate of 35 percent then this works out as 1299 [FL].

So, this means we will have to subtract one figure and we will have to add one more figure. So, this is subtraction, this is addition we are making and finally, if you if you calculate the amount of the profit here this works out as 1511, 1511.70 [FL] this is the now final adjusted profit for the current year. And if you adjust the profit for the previous also previous year also because in the previous year also we have some exceptional income to extent of 14 4.13 [FL], so we have 4.13 [FL], you to adjust that also and finally, you have to calculate the adjusted profit for the previous year also. So, this way we have calculated the PAT and if you calculate the PAT means talk about the PAT here then we will be talking say that the new numerator will be what that is 1511.70 [FL] divided by net worth. Now, we will have to calculate the net worth also.

Net worth should not be taken as the year and figure. Net worth we have also to adjust, for calculating the net worth we also have to adjust. So, when we are calculating the net worth what we are including in the net worth? We are net worth means the paid up capital, paid up capital plus free reserves plus free reserves.

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Now, paid up capital has to be taken as it is because, paid up capital in this case especially and in other cases also. What are the paid up capital is there that is the same in the previous year also, previous to previous year also in the next year also current year also every was that is going to be same because equity capital is not going to be paid back by the company until and un unless it is going to be closed though the by back of the capital is allowed now.

But normally it is not done by the companies because if until analyze the companies over capitalized. So, in this case we have to take the paid up capital as it is which is in this case is 91.69 [FL], but for the free reserves people have to calculate the adjusted figure. Adjusted figure means that we should is better always that you take the reserves figure as the average figure of the previous year reserve plus current years reserve divided by 2. So, it should be taken is always better you take the average because some time what happens that in because of sometime uncontrollable circumstances sometime because of some uncontrollable circumstances the profit maybe more in 1 year and the profit maybe less in the other year is now because that some exceptional has happened in the business, but maybe because of certain other factors.

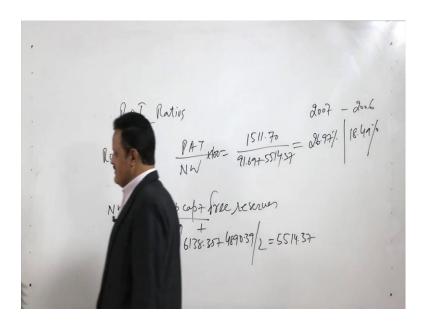
So, it is always better therefore, calculating the return on net worth ratio. So, when you calculate the net worth the free reserve should be taken as a average figure. So, if you calculate the average for the 2 years the in 2006 and 7 that is ended on 31st march 2007.

What was the reserve and surplus? That was the figure of 6138.35 [FL] plus the second figure previous years reserve was 4890.39 [FL] and you divided by 2, if you divided by 2 you will find a figure here that is 5514 [FL].

So, this figure will be the adjusted figure will come out this will work out as 5514 point 5514.37 [FL] figures will be here. So, it is the total now that is 91.69 [FL] plus 5514.37 [FL] this is the total net worth that is the average reserve and surplus total equity capital and by total of these 2 here dividing the numerator that is a PAT, but PAT is also adjusted profit there you do not take the exceptional incomes. So, finally, if you calculate the ratio on the basis of it, for the year 2006 and 2007 and then ratio for 2006, so the ratio for the 2000 return on net worth ratio will be 26.97 percent in terms of the percent you have to take because you have to multiplied here by 100s.

So, if you multiplied by 100s you will get it in the percentage 26.97 percent and then for the previous year this ratio is 18 point something like 49 percent.

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So, these are the 2 net worth return on net worth ratios. One is the say 26.97 percent and second ratio of previous years ratio that is the return on net worth is 18.49 percent. It means it shows that there is increase in the return on net worth has compared to the previous year current year the network has gone up how much it is gone up we will analyze it after we calculate the all the 3 ratios. Then we go to the next ratio, calculation of the next ratio here and that next ratio is EPS earning per share.

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Let us calculate the earning per share. So, you have got the figure of. So, what we will take here that is the; and we discuss the formula that is that profit after tax divided by the average number of average number of equity shares.

So, it means we do not have any different number of the equity shares in the previous year, in the current year or something like there. We are the same number of the equity shares and we are taking a rounded off figure for that. So, you take PAT again the adjusted PAT 1511.70 [FL] divided by the number of equity shares and that is 9.17 [FL] 9.17 [FL] shares in this case. So, if you calculate the ratio for the current year dividing this 1511.70 [FL] by 9.17 [FL] of the shares this works out as rupees 164.85 and in the previous year this ratio was 93.84 rupees 93.84 and current year the ratio is 164.89. So, it means earning per share if you look at it has also gone up.

This is the second indicator and the third ratio is cash earning per share cash earning per share. So, again I would like to discuss with you the difference between the two ratios earning per share and the cash earning per share right, in my previous lecture also I told you that there are the 2 ratios earning for share we calculate which is calculated with the help of PAT and then we calculate the cash earning per share and when we discuss the formula for the cash earning per share we had a formula here like PAT plus noncash charges, noncash charges PAT plus noncash charges divided by the average number of (Refer Time: 14:41) same average number of equity shares.

Now, we are adding for calculating the cash earning per share we are calculating it with the help of PAT plus noncash charges and non cash charges largely is or noncash charges the depreciation amount right. Now why be add up this the non cash charge in the PAT for calculating the cash earning per share? Sometimes what happens, that when the firms when the firm is new and it is in the initial years what happens when we start a company or any business organizations initial years you do not get the profit first year of the operations will have a loss, second year also we will have a loss, third year will also have a loss, but the fourth year let us now the fourth year the company should reach at the position of the nonprofit no loss which is called as the situation of the breakeven point and then from the fifth year at least fifth year onwards the company should start earning the profits.

So, what happens? In the initial years when the companies increasing a loss. So, it means the company will not be able to have any earning that is because PAT this not a PAT profit after tax, but there is a net loss. So, when there is a loss in that case also we would like to see whether the company has some cash earning with itself or not. So, means out of the total expenses you talk about whatever the expensive which are the cash expenses material expense, wage expense, other direct expenses, salary, then your say what are the other expenses you talk about they are going to be paid to the different stakeholders who are supplying the materials for working in the firm, who are supplying this utilities power water and other kind of things, but only depreciation amount is the one which is not paid to anybody that is kept by the firm.

So, though the firm has a loss net loss reported in the first or second or third year, but still it has some cash available to pay its some contingencies right. So, non cash payments noncash charges are can we made use of for paying some emergent payments. So, it is not the case that the firm has no cash, firm is paying all the expenses efficiently and firm is charging for the non cash expenses also, but that non cash is not going out still remaining with the firm and in that case some cash is available with the firm. So, we calculate this ratio that is cash earning per share that if it is a loss even still it is cash available and still some cash is there. So, to pay some emergent expenses or unforeseen expenses firm is in the position to pay for that.

So, that is why we calculate the cash earning per share and when you calculate the cash earning per share. So, we will have a PAT here this PAT is 1 5 profit after tax is 1511.70

[FL] plus we will have to add in this case the non cash charges and if you look at the noncash charges here you will find the figure of depreciation here provisions and depreciation and if you try to find out the provisions for depreciation in that case we have one figure that is depreciation and amortization that is the last figure 317.91 [FL].

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AS ON 31st March 2007 Schedule Current Year Previous Year						
	Schedule	Current Year	Previous Year			
INCOME						
Gross Sales		9,607.97	7,638.41			
Less: Excise Duty		1,004.38	985.80			
Net Sales		8,603.59	6,652.61			
Interest and Dividend Income	13	113.27	67.53			
Other Income	14	168.49	152.41			
Increase/(Decrease) in stocks	15	(16.44)	_(43.48)			
		8,868.91	6,829.07			
EXPENDITURE						
Raw materials consumed	16	2,219.32	1,822.69			
Manufacturing Expenses	17	1,744.33	1,580.34			
Purchases of Finished and Other Products		321.16	240.15			
Payments to and Provisions for Employees	18	459.40	407.64			
Selling, Distribution, Administration and Other Expenses	19	1,505.69	1,181.33			
Interest	20	111.84	103.38			

371.9[FL], 317 point this figure is 0.91 [FL] is the noncash charge and again the denominator is the same that is 9.17 [FL] of the equity shares. So, now this ratio will be different ratio and this ratio stands improved. So, for 2006-7 if you calculate this ratio this works out as 139.52 rupees per share and in the previous year this ratio was rupees if you calculate this ratio this ratio is 125.65 rupees. So, it is cash earning has improved because in the profit you have added the non cash charges also, if you look at the cash position of the firm that is above 200 rupees per share and if you talk about the simple earning per share which is the pure earning which is the true earning per share that is depending upon the profit the firm has earned that is about 165 rupees.

So, there is a appreciation that is increased by 35 rupees per share because total cash available is including the non cash charges that is more as compared to the only profit after tax. So, here we are calculating these 3 ratios and if you calculate look at these 3 ratios that return on investment, that is return on net worth, if you compare if this is 18.49 percent and now current year is 26.79 percent. So, what is the increases in the return on net worth? So, if you calculate the percentage increase in the net worth. So, the

percentage increase in the net worth as compared to previous share is by 85 point sorry 45.86 percent.

Very good increase, substantial increase as compared to previous year as on the return on net worth is that is on the return on investment you can say, net worth means return on the investment internal investment which is as compared to previous year in the current year 2007 it was 45.86 percent. If you calculate this percentage change in the earning per share EPS is gone by 75.67 percent that is EPS change, in the EPS is up by about 76 percent again a very good increased very good change and if you calculate the CEPS clash earning per share per share. So, in this case CEPS the cash earning per share is also very good has also improved seriously CEPS it has improved significantly and if you talk about the cash earning per share in this case the growth is by 58.79 percent. 58.79 percents increase is there in the cash earning per share.

So, it means if you talk about the overall 3 ratios that is the return on net worth than earning per share and if you talk about the cash earning per share in that case, all the 3 ratios have shown very good appreciation very good increase and there is no doubt that this firm is really a wonderful organization, performing very well, doing a very good job and means there is no problem that whatever we could see in this balance sheet without any kind of analysis. That if you look at the profitability position and if you talk about the other kind of the financial indicators we could find out the same information by calculating the ratios, but the only difference was that when we look at with the say net balance or the raw balance sheet then we calculate some ratios and when you calculate the ratios we should be knowing how to calculate the 2 ratio means what is the proper method of calculating ratios.

If we are not the students of this particular subject, if you do not know the real financial statement analysis then we can take the profit after tax as it is we will not adjusted. So, it will not be the right wave similarly when we take the reserve and surplus we can take only the year and figure, but for calculating this return on investment ratios we should take the average figure of the reserve and surplus not the year and figure it is always better because it maintains is the balance and it gives us some better information. So, you should be knowing it that how to calculate the profit after tax. So, we have to take the adjusted PAT here and then we have to take the average of the reserve and surplus this is the financial analyst normally do and if we are not knowing anything about if yesterday

the simple financial analysis without a proper say technique of analyzing the financial statements with the help of some ratios. Then we can take the wrong figures and that we will help us to draw the wrong conclusions or wrong meanings.

So, in this case as this case is very good this firm is very good without even any kind of analysis shows that it is really good performer, but some time you have to say comfort in a situation that when the firm is found as something different and not doing very well balance sheet is also not depicting the good picture, but when you calculate certain ratios the picture may change. So, in that case it will be really very useful to learn this kind of the analysis and the important points taken care of in the analysis part.

So, this is how we calculate the first set of ratios that is the RoI ratios of the return on net worth ratios and now after this we will learn about the second set of ratios that is the solvency ratios. And in the solvency ratios as we have seen we have talked about the 3 important ratios that is the return on net assets that is the net asset value NAV then we have one more ratio that is interest coverage ratio and then is the debt service coverage ratio. So, we will be talking about those ratios now and we will be learning how to calculate the nap how to calculate the say interest coverage ratio and how to calculate the debt service coverage ratio. So, this 3 ratios will be studying will be calculating and we will be knowing about the overall solvency position of the firm solvency as I have told you earlier and the name indicates.

How solvent and the strength for the firm is, how finished with the powerful the firm is, that is talks about the solvency analysis solvency and insolvency 2 words. Insolvent means bankrupt and solvent means strong financially strong. So, when the firm is insolvent it is financially very weak and it is almost insolvent and when it is insolvent when it is not able to pay for its liabilities or its obligations and when it is solvent then it means it is very strong powerful firm and it is easily able to manage its all liabilities and whenever any liability becomes due to be paid they have sufficient funds for that and these liabilities can be easily paid.

So, now we will be learning the solvency ratios, we will be learning how to calculate the solvency ratios again for the Grasim industries we will calculate the solvency ratios and the first ratio that we learned in the previous part of discussion was that is the NAV or it is called as the net assets value.

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So, for calculating the ratio we will have to take the net worth divided by the total number of the or the number of the equity shares outstanding that is number of equity shares outstanding this is the how we calculate the NAV or net assets value net worth divided by the number of equity shares outstanding. So, what is the net worth of the company and what is the total number of equity shares. So, we will have to calculate the nap per share.

So, it means what are the internal funds available and how many shares the company has issued in the market because if we have not earned any reserve and surplus in the net worth if only equity capital is there and firm has not earned any reserve and surplus because firm has not earned any profit in that case NAV will be the same that is only the share capital as it is in case of the 91.69 [FL]. But when the NAV when the NAV is improving and the equity capital is appreciating and when the equity capital appreciates, equity capital appreciates only when the firm is earning the good amount of the profits.

So, and in this case also we have seen that the initial investment was 91.69 [FL] and equity capital even today is the same even 2007 was the same, but it has total internal funds have gone up means because of the reserve and surplus is huge reserves and surplus is reserve and surplus figure if you look at you have seen that reserve and surplus figure is very very high here and that figure was 6000 if you look at this figure it is 61328.35 [FL].

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Balance Sheet AS ON 31st March 2007							
	Schedule		Current Year	Previous Year			
SOURCES OF FUNDS							
Shareholders' Funds							
Share Capital		91.69		91.69			
Reserve and Surplus	2	6.138.35		4,890.39			
			6,230.04	4,982.08			
Loan Funds							
Secured Loans	3	2,291.00		1,386.12			
Unsecured Loans	4	660.56		593.55			
			2,951.56	1,979.67			
Deferred Tax Liabilities			582.55	584.38			
TOTAL			9.764.15	7,546.13			
APPLICATION OF FUNDS							
Fixed Assets							
Gross Block	5	6,770.97		6,114.12			
Less: Depreciation/Amortization		3,380.53		3,109.49			
Net Block		3,390.44		3,004.63			
Capital Work-in-Progress		1.192.35		293.64			
			4,582.79	3,298.27			

So, it means why this appreciation is there this appreciation is by way of the reserve and surplus is and reserve and surplus is improved by way of the improved profits and improved profits come because of the better financial management of the company, better operating management of the company and the result of this is the increase in the overall net worth and if the number of equity shares are remaining same net worth is going up it means the NAV will net assets valuable improve.

Because ultimately why they call it is a net asset value because this net worth is going to help us in financing the asset side of the balance sheet. If you want to say expand you want you have more land and more buildings, more plant and machinery, more furniture, more other kind of fixed assets we need funds and only two sources are there internal and external. So, if you not generating sufficient internal funds you have to look for the external funds and external funds can be only had to a limited extend as you have seen that debt equity ratio can be only 2 is to 1 normally so, but in this case we have seen the firm has more fund generated from internal source and less their depending upon the external sources by borrowing money from the market.

So, now if you calculate the NAV net asset value for this firm, but you have to take here is 91.69 [FL] as the equity capital plus reserve and surplus, but here point of concern is that reserve and surplus you have to take it as the average figure you have to take the year and figure. Because for calculating NAV we take the reserve and surplus as the year

and figure not as the average figure, why we do like this? I will tell you when we will calculate the secondary ratio that is the debt equity ratio. So, in this case now the here equity capital is 91.69 [FL] we are taking as it is and the year and reserve and surplus is how much that is 6138.35 [FL], 6138.335 [FL] and divided by the number of equity shares that is 19.17 [FL].

So, if you calculate the net asset value ratio for this is that is 679.38 rupees for this year for the year 2007 and for the year 2006 this ratio is going to be how much? This ratio is543.30, now, look at the net asset value net asset value which was 543.30 rupees has increased by you can say sufficient significant amount and it has become that is 679.38 rupees that is the net asset value you have calculated you can say it is the per share value, net asset value per share is this much. So, it means the net worth equity shareholders return is this much it means if this firm is closed today if this form is dissolved today, if this firm is closed today what will happen? Equity shareholders will get 679.38 rupees per share and the per share is of 10 rupees they have if you have purchase it for 10 rupees they will be getting 679.38 rupees.

This is the book value of the firm we are talking about because the other liabilities the loans part will be easily adjustable by say getting the money by selling the assets in the market. So, if you sell of the total assets in the market today and then you start settling the claims first of all we will settle the claims of the say loan providers lenders. So, both secured and unsecured loans have to be paid first and then after that fulfilling and paying all external liabilities whatever the amount is left will be given to the equity shareholders. So, this is the book value of the company that the company will be generating this much of the real cash and per share the net asset value is in the current year is 679.38 per share that is rupees 679.38 and previous year it was 543.3 per share.

So, it means there is a good appreciation there is a good increase and this increase is only all attributed to the increase in the reserve and surplus because of the increased profitability. So, when the profits are increasing your net asset value is also increasing and when the profit is static net asset value is static or when the profit is going down net asset value is going down. Apart from this ratio we will be calculating the other ratios also other. So, solvency ratios also what we discussed in the last part of discussion and then we will draw the conclusion about how solvent this firm is, how strength full this

firm is, how financially powerful this firm is and other issues in this category I will be talking to you in the last part of discussion.

Thank you very much.