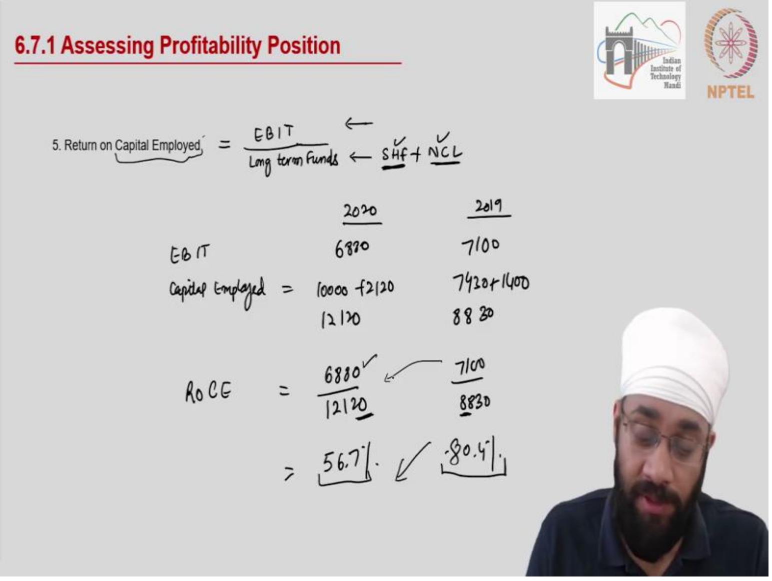
Financial Accounting
Dr. Puran Singh
School of Humanities and Social Sciences
Indian Institute of Technology, Mandi

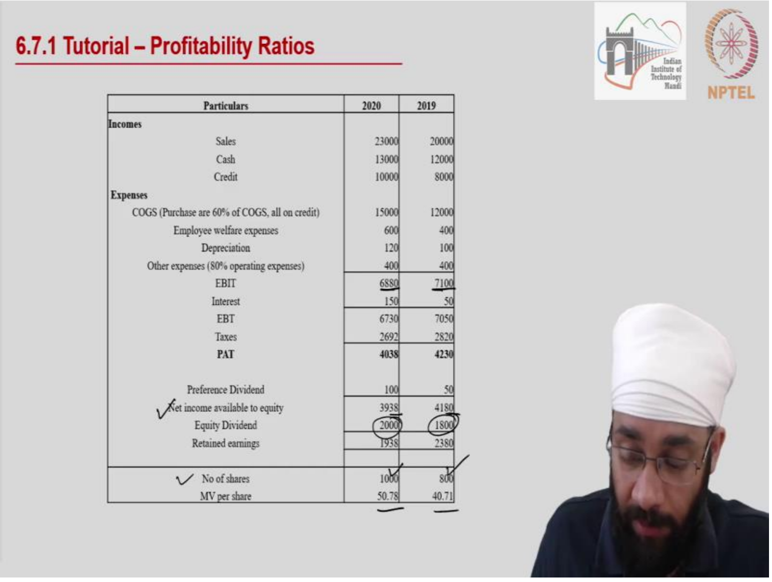
Lecture – 77
6.7 Tutorial - Profitability Ratios (Part 2)

(Refer Slide Time: 00:16)



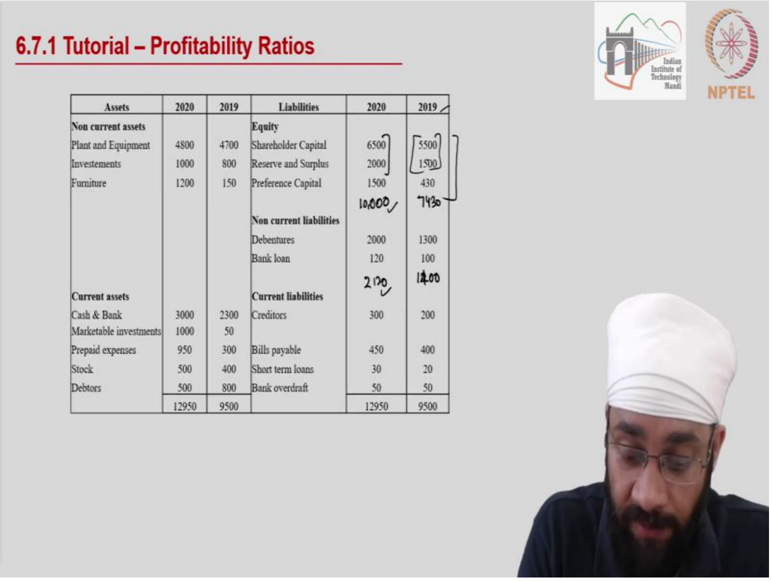
Alright, this is the continuation of the tutorial on calculation of the Profitability Ratios. We are now going to take the 5th indicator which is return on capital employed. The return on capital employed can be calculated as follows. We will take earnings before interest & taxes and we will divide this by the long-term funds in the business. The long-term funds in the business, as we discussed earlier, are equal to the shareholders' funds plus the non-current liabilities and EBIT. You can just look at the income statement and you can pick up this number from there. For the two years: 2020 and 2019, for which we have the statement, we will figure out the amount of EBIT first, and then we will look at the capital employed. The capital employed is equal to shareholders' funds plus the non-current liabilities. So, here is the balance sheet.

(Refer Slide Time: 01:26)



Particulars	2020	2019
Incomes		
Sales	23000	20000
Cash	13000	12000
Credit	10000	8000
Expenses		
COGS (Purchase are 60% of COGS, all on credit)	15000	12000
Employee welfare expenses	600	400
Depreciation	120	100
Other expenses (80% operating expenses)	400	400
EBIT	6880	7100
Interest	150	50
EBT	6730	7050
Taxes	2692	2820
PAT	**4038**	**4230**
Preference Dividend	100	50
Net income available to equity	3938	4180
Equity Dividend	2000	1800
Retained earnings	1938	2380
No of shares	1000	800
MV per share	50.78	40.71

(Refer Slide Time: 01:28)

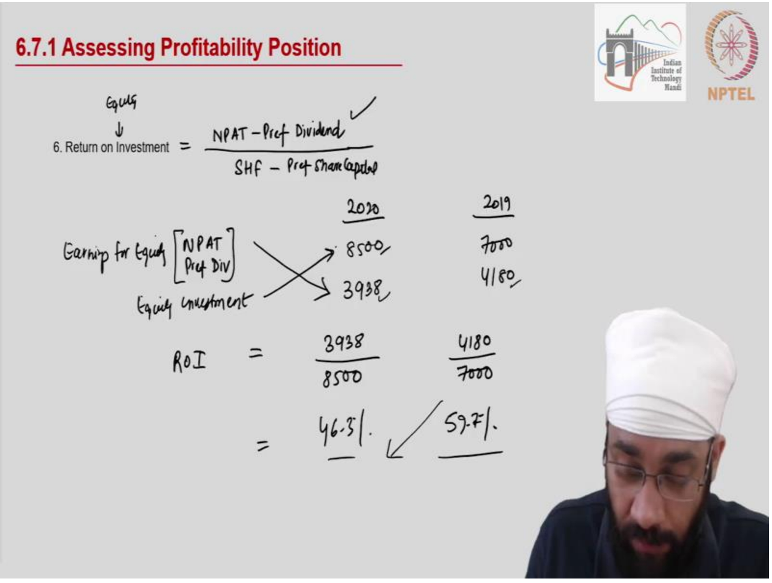


Assets	2020	2019	Liabilities	2020	2019
Non current assets			**Equity**		
Plant and Equipment	4800	4700	Shareholder Capital	6500	5500
Investements	1000	800	Reserve and Surplus	2000	1500
Furniture	1200	150	Preference Capital	1500	430
				10,000	7430
			Non current liabilities		
			Debentures	2000	1300
			Bank loan	120	100
				2120	1400
Current assets			**Current liabilities**		
Cash & Bank	3000	2300	Creditors	300	200
Marketable investments	1000	50			
Prepaid expenses	950	300	Bills payable	450	400
Stock	500	400	Short term loans	30	20
Debtors	500	800	Bank overdraft	50	50
	12950	9500		12950	9500

In the balance sheet, the shareholders' funds are going to be equal to this section, the total in this section. The total here comes out to be 10,000 for 2020. So, let me just write it here 10,000 and shareholders' funds for 2019 are going to be 7,430. So, we have one of the two components. The second component is the non-current liabilities which comes out to be 2,120 and this is going to be 1,400. Now, let me go back to the slide here, capital employed is equal to this plus this, shareholders' funds are equal to 10,000 plus 2,120 for 2020 and in the case of 2019, this is 7,430 plus 1,400. So, total capital employed is 12,120 and in this case, this becomes 8,830.

The EBIT in the 2 years is 6,880 and 7,100. This is the EBIT and the capital employed we have figured it out. Now, all we need to do is to calculate the return on capital employed which is going to be equal to 6,880 divided by 12,120 for 2020 and 7,100 divided by 8830 for 2019: seems like this is a highly profitable business. 6880 divided by 12,120 is equal to 56%. So, 56.7% is the return in 2020 and for the previous year 7,100 divided by 8,830 this is 80% the return was 80.4 percent in the previous year on the capital employed in the business. So, this is the return that the business was able to generate. The business invested the capital using the capital from the shareholders and from the lenders and then it generated 80 percent earnings at the top of that, which has now gone down to only 56 percent. So, profitability as we saw has gone down; of course, not only the shareholders', but all the capital, total capital has also gone up significantly by say 50 percent it has gone up, but the return has actually come down that is also contributing to this reason.

(Refer Slide Time: 04:37)



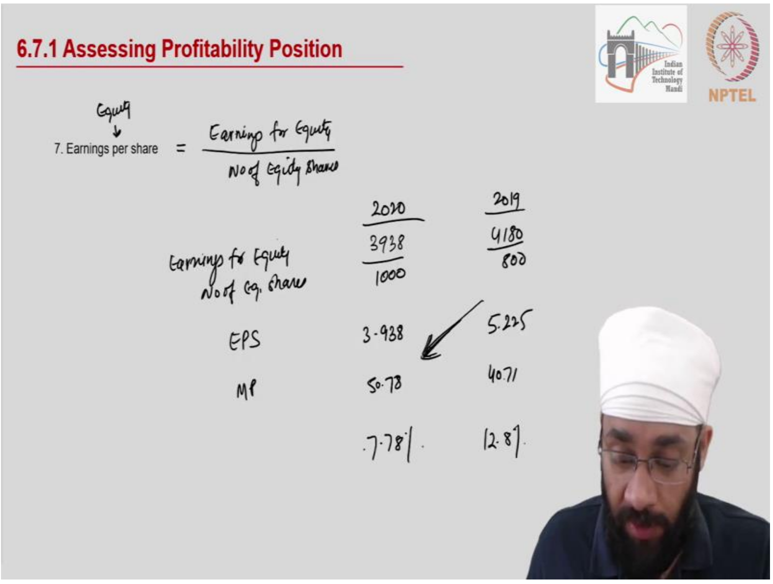
Let us go to the next ratio which is return on investment which is done from the point of view of the equity shareholders. This is calculated as follows; you have net profit after taxes and you take out the dividend which is paid to the preference shareholders. And, then you divide it by the shareholder funds which are only equity shareholders' funds; shareholders' funds minus the preference share capital there you go.

So, for the 2 years, we are going to figure out the net profit after taxes and the preference dividend which means we will have the earnings available to the equity shareholders. In fact, that number will be given to us directly. So, let me just write it here: we are looking for earnings available for equity shareholders. And then we need shareholders' funds minus the preferential capital to arrive at the investment made by the equity shareholder. So, equity investment there you go. Earnings for equity are given here, net income available to equity 3938, 4180. 3938, 4180 this is the earning and then equity investment in that 2 years is going to be equal to these two numbers here. So, 6500 plus 2000 this is 8500. On the other hand, you have 5500 plus 1500, this comes out to be 7000; so, 7000 here. So, now, you have the equity investment… oh by the way, so, this is the equity investment and these are the earnings. I switched the rows.

So, now you have to calculate return on investment which is equal to the earnings available which is 3938 divided by the investment by the equity which is 8500. Likewise, 4180 is divided by 7000 and you just do the calculations. I use my calculator here 3938 divided by 8500 gives you 46 %... 46.3 % and then you have 4180 divided by 7000. This is 59.7 percent.

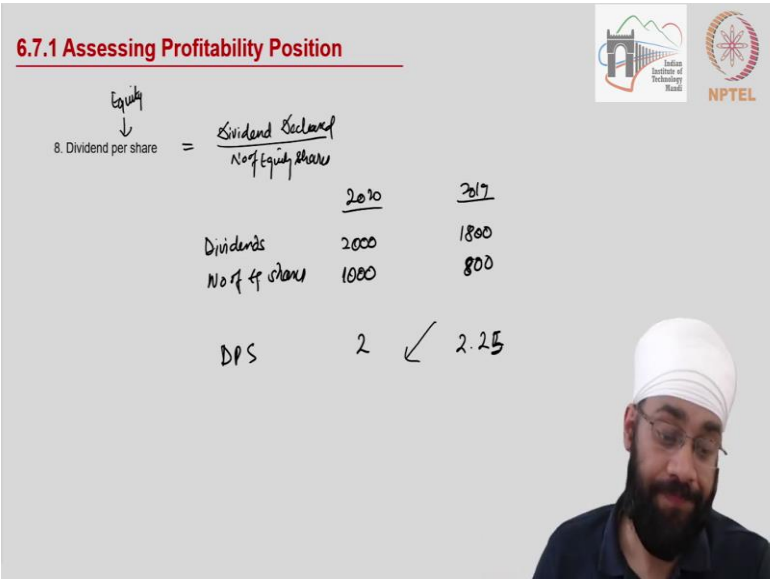
The equity shareholders, last year, earned about 60 percent return which has gone down to only 46 percent this year. Clearly things are not going in the right direction in this company. So, this is how you calculate return on investment taking the information from the income statement and the balance sheet.

(Refer Slide Time: 07:49)



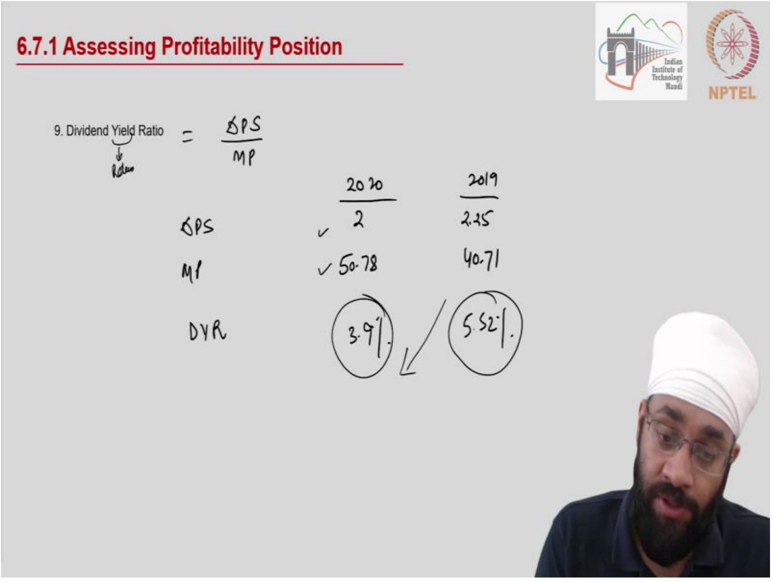
Let us look at earnings per share. Earnings per share are again from an equity shareholders point of view. These are earnings available for equity shareholders and the total earnings are divided by the number of equity shares to arrive at earnings per share. Number of equity shares should be straight forward; we have all this information given clearly. So, earnings for equity, and we calculated these numbers in the previous ratio as well. Earnings for equity are 3,938 and 4,180. All we need is the number of equity shares. Number of equity shares are 1,000 and 800. So, these numbers are also given to you 1,000 and 800. So, earnings per share is going to be simply the division of these two. So, this comes out to be 3.938 per share: this is the earning. In this case I will quickly use the calculator. 4180 divided by 800 is equal to 5.225; so, 5.225 per share. Clearly, this is also going down: per share the earnings available to the equity shareholders has deteriorated, has gone down, not a good sign for the company. The earnings are expected to go up year on year, but in this case it is going down. So, this is the 7th indicator.

(Refer Slide Time: 09:45)



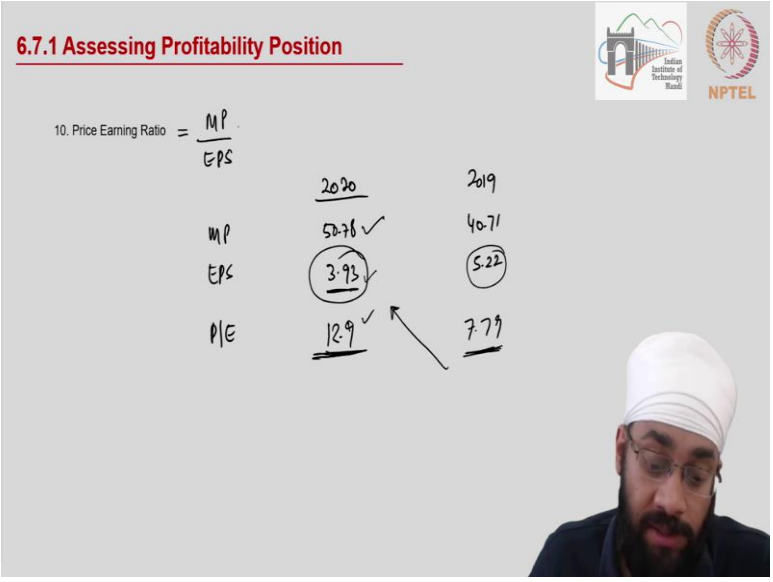
Let us move on to dividend per share. This is also from the point of view of equity shareholders. Dividend per share is going to be equal to the dividend declared divided by the number of equity shares and for these two years, the dividend declared can be figured out from the income statement. The dividend declared is 2000 and 1800. So, 2000 and 1800 are the amounts of dividends and you need a number of shares. Number of equity shares we know are 1000 and 800, we just use these two numbers. So, dividend per share simply is 2 rupees in 2020 and this is going to come out to be 2.25. So, the dividend per share has also gone down. The number seems small, but this is per share, if you hold thousands of shares in the company, then you are suffering a lot of downgrade in the earnings that you expected. So, dividend per share has been calculated. This is how you do the math for calculating dividend per share. The company is not clearly doing well here either.

(Refer Slide Time: 11:23)



Next ratio is dividend yield ratio which is equal to dividend per share and you divide this by the market price of the share of the company. So, for the 2 years you need to figure out the dividend per share which we just did in the previous slide 2 and 2.25. So, we are going to use these 2.25 and then you need market price. The market price per share is 50.78 and 40.71. The market price is 50.78 here and 40.71 in the case of 2019. So, all we have to do now is some calculations to figure out the dividend yield ratio. So, you divide dividend per share by the market price. I will use my calculator here: 2 divided by 50.78 gives me 3.9 percent and I have 2.25 divided by 40.71 which gives me 5.52 percentage. So, this is a dividend yield ratio. So, any new investor who wants to put money in the business has to invest, he has to buy one share for 50 rupees and in return he can expect 2 rupees as the dividend. So, he will earn a 3.9 percent return, the yield refers to return. On the other hand, in the last year this percentage was 5.52. We are deteriorating in terms of our dividend yield ratio as well. So, the investor will find the shares of this company less attractive this year compared to the previous year, that is what this ratio means.

(Refer Slide Time: 13:26)



The final ratio is price earnings ratio and it is calculated by dividing the market price by the earning per share of a company. We have both these numbers given to us. For 2020 and 2019 the market price is 50.78 and 40.71, respectively. The earnings per share have been calculated earlier and the earnings per share were 3.93 and 5.2. So, the P E multiple is equal to market price which is 50.78. You divide this by 3.93 and this is 12.9 times; for the previous year it was 40.71 divided by 5.22, this is 7.79. So, the P E ratio has gone up. This is good if the investors, if the shareholders are buying your shares at a higher price, you are offering lower returns, there seems to be market potential. So, in this case P E multiple is going up which means people are ready to pay 12.9 times the earnings that they will make. People are ready to invest 50 rupees per share in the company where they will only get 3.93 in return, the earnings are only 3.93. So, they are willing to invest 12.9 times the expected earnings and we are not even talking about dividend, it is only the earnings the company may further decide to distribute less amount. So, this situation has improved, and the company is doing well. Last year people were ready to pay only 7 times the earnings, now people are ready to pay 12 times the earnings; the expectations of people have gone up about the company. They expect the company to do better in the future is what this means. So, let me stop here. We have now discussed the rest of the profitability ratios as well and using these ratios, these indicators, we can comment on a wide variety of performance indicators of the business from the point of view of the business, or the existing shareholders, or the future shareholders of the company. I will see you in the next video.