Financial Accounting
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Lecture – 37
Financial Statement Analysis: TCS Case 2

Namaste. In last few sessions, we are discussing Analysis of Financial Statements and in the last session we had taken up case of TCS limited. So, TCS Limited, you all know is a leading Indian MNC which is one of the largest private sector employer in India.

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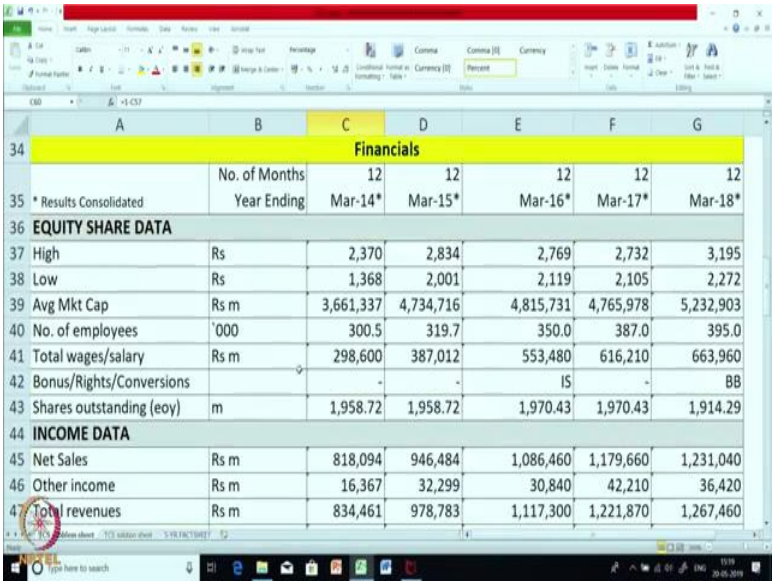

	A	B	C	D	E	F	G
34	Financials						
35	* Results Consolidated	No. of Months Year Ending	12 Mar-14*	12 Mar-15*	12 Mar-16*	12 Mar-17*	12 Mar-18*
36	EQUITY SHARE DATA						
37	High	Rs	2,370	2,834	2,769	2,732	3,195
38	Low	Rs	1,368	2,001	2,119	2,105	2,272
39	Avg Mkt Cap	Rs m	3,661,337	4,734,716	4,815,731	4,765,978	5,232,903
40	No. of employees	'000	300.5	319.7	350.0	387.0	395.0
41	Total wages/salary	Rs m	298,600	387,012	553,480	616,210	663,960
42	Bonus/Rights/Conversions		-	-	IS	-	BB
43	Shares outstanding (eoy)	m	1,958.72	1,958.72	1,970.43	1,970.43	1,914.29
44	INCOME DATA						
45	Net Sales	Rs m	818,094	946,484	1,086,460	1,179,660	1,231,040
46	Other income	Rs m	16,367	32,299	30,840	42,210	36,420
47	Total revenues	Rs m	834,461	978,783	1,117,300	1,221,870	1,267,460

And, we had discussed their market data, equity market data, then income data, balance sheet data and cash flow. And, we had also calculated some basic ratios related to P and L and related to balance sheet.

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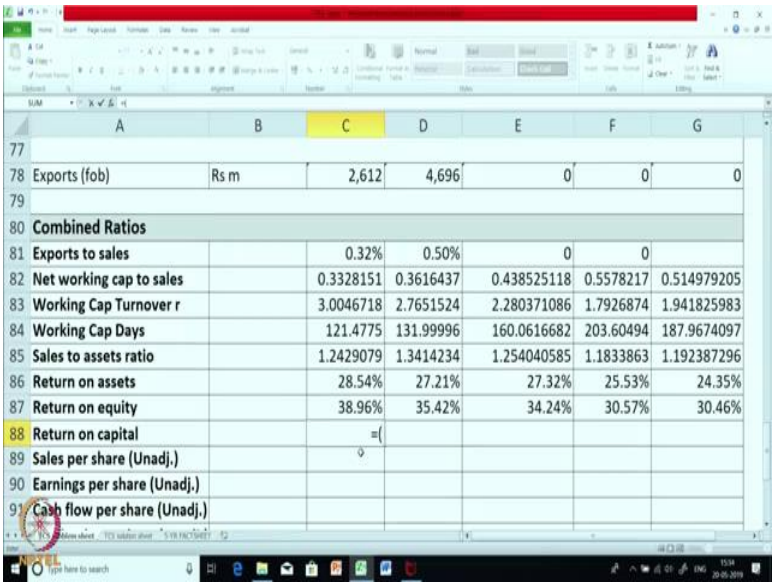

	A	B	C	D	E	F	G
77							
78	Exports (fob)	Rs m	2,612	4,696	0	0	0
79							
80	**Combined Ratios**						
81	Exports to sales		0.32%	0.50%	0	0	
82	Net working cap to sales		0.3328151	0.3616437	0.438525118	0.5578217	0.514979205
83	Working Cap Turnover r		3.0046718	2.7651524	2.280371086	1.7926874	1.941825983
84	Working Cap Days		121.4775	131.99996	160.0616682	203.60494	187.9674097
85	Sales to assets ratio		1.2429079	1.3414234	1.254040585	1.1833863	1.192387296
86	Return on assets		28.54%	27.21%	27.32%	25.53%	24.35%
87	Return on equity		38.96%	35.42%	34.24%	30.57%	30.46%
88	Return on capital		=(				
89	Sales per share (Unadj.)						
90	Earnings per share (Unadj.)						
91	Cash flow per share (Unadj.)						

Now, let us go for their combined ratios. By combined what I mean is one figure is picked up from one statement, the other one is picked from the other statement. Some of the ratio has have also been calculated on the extra information which is provided by the company ok. So, first one, now the formulas for the ratios are pretty simple almost common sense, but let us try to calculate the important ratios and observe the trends in it.

Now, first one is Exports to Sales. So, what is a formula here? We are trying to look at the export as a percentage of total sales. So, exports are given only for first 2 years and we will divide it by their net sales which comes to about 3 percent. I am sorry not 3 percent, it is just 0.32 percent in March 14, and was 0.5 percent and in more current years it in the figure has not been given. So, it is just 0 amount.

The next one is net working capital to sales. Now which is the important ratio for working capital? We have seen that for liquidity we normally calculate current ratio, which we have already calculated.

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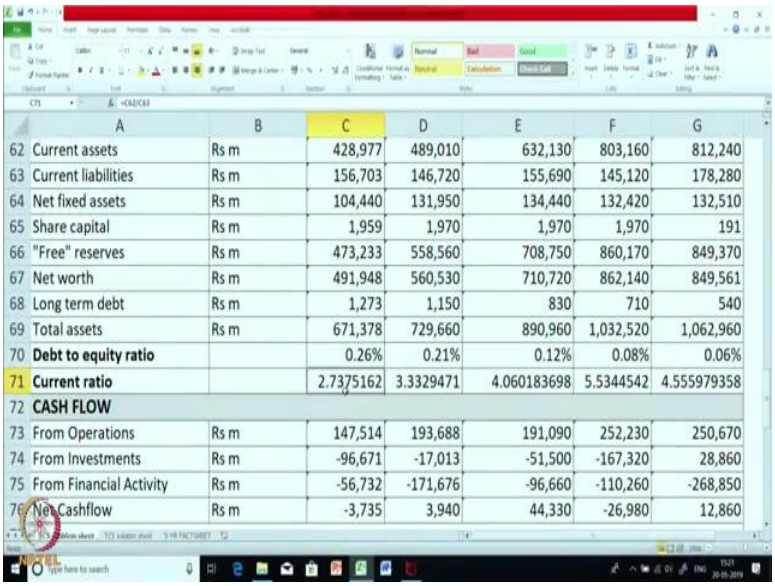

	A	B	C	D	E	F	G
62	Current assets	Rs m	428,977	489,010	632,130	803,160	812,240
63	Current liabilities	Rs m	156,703	146,720	155,690	145,120	178,280
64	Net fixed assets	Rs m	104,440	131,950	134,440	132,420	132,510
65	Share capital	Rs m	1,959	1,970	1,970	1,970	191
66	"Free" reserves	Rs m	473,233	558,560	708,750	860,170	849,370
67	Net worth	Rs m	491,948	560,530	710,720	862,140	849,561
68	Long term debt	Rs m	1,273	1,150	830	710	540
69	Total assets	Rs m	671,378	729,660	890,960	1,032,520	1,062,960
70	**Debt to equity ratio**		0.26%	0.21%	0.12%	0.08%	0.06%
71	**Current ratio**		2.7375162	3.3329471	4.060183698	5.5344542	4.555979358
72	**CASH FLOW**						
73	From Operations	Rs m	147,514	193,688	191,090	252,230	250,670
74	From Investments	Rs m	-96,671	-17,013	-51,500	-167,320	28,860
75	From Financial Activity	Rs m	-56,732	-171,676	-96,660	-110,260	-268,850
76	Net Cashflow	Rs m	-3,735	3,940	44,330	-26,980	12,860

But, here we just compare between current assets and liabilities between two balance sheet items. But if we know working capital is mainly required to finance the operations, which is required to finance the day to day business activities.

So, one way to know the adequacy of working capital is to link it to the revenue which we generate or the sales which we generate using that working capital. So, the ratio which is calculated is net working capital to sales.

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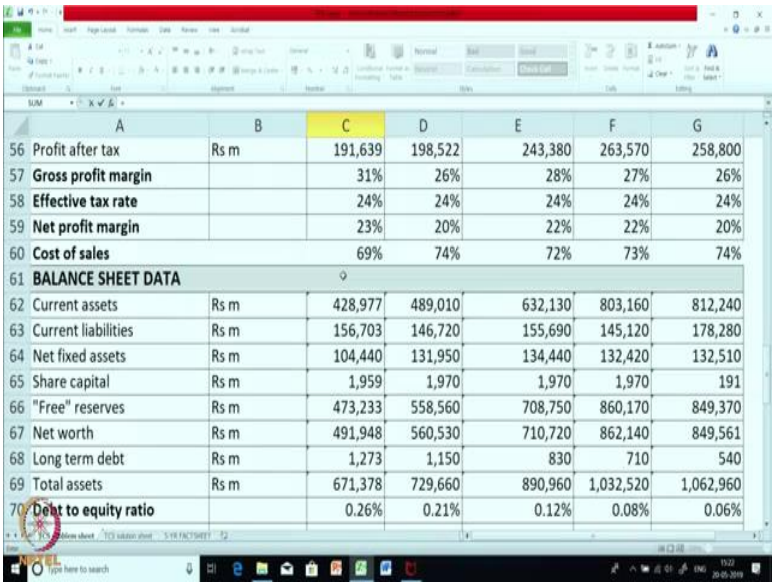

	A	B	C	D	E	F	G
56	Profit after tax	Rs m	191,639	198,522	243,380	263,570	258,800
57	**Gross profit margin**		31%	26%	28%	27%	26%
58	**Effective tax rate**		24%	24%	24%	24%	24%
59	**Net profit margin**		23%	20%	22%	22%	20%
60	**Cost of sales**		69%	74%	72%	73%	74%
61	**BALANCE SHEET DATA**						
62	Current assets	Rs m	428,977	489,010	632,130	803,160	812,240
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70	**Debt to equity ratio**		0.26%	0.21%	0.12%	0.08%	0.06%

So, now the working capital figure is not given although we have been given current assets and current liabilities. So, compute CA minus CL which will be working capital for the numerator and divided by sales.

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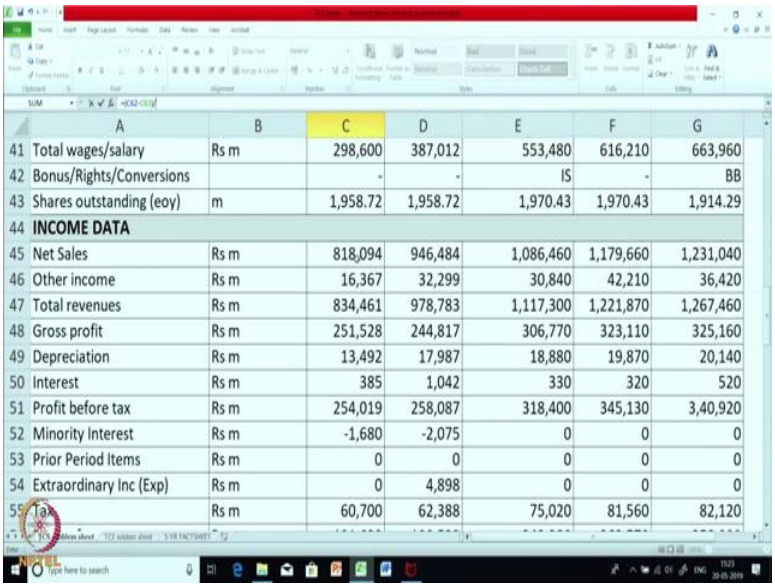

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49	Depreciation	Rs m	13,492	17,987	18,880	19,870	20,140
50	Interest	Rs m	385	1,042	330	320	520
51	Profit before tax	Rs m	254,019	258,087	318,400	345,130	3,40,920
52	Minority Interest	Rs m	-1,680	-2,075	0	0	0
53	Prior Period Items	Rs m	0	0	0	0	0
54	Extraordinary Inc (Exp)	Rs m	0	4,898	0	0	0
55	Tax	Rs m	60,700	62,388	75,020	81,560	82,120

So, CA minus CL this is the working capital divided by shall we take total revenue or net sales both the figures are possible, but since working capital is mainly for our own business operations, not for other income it will be more authentic to take net sales.

So, it comes to 0.33 you can see gradually it is going up from 0.33, then 0.36, it went to 0.55 and in last year it has slightly come down to 0.51. So, what does it mean that company is now keeping more and more working capital. So, for one rupee of sales they had 0.33, now it is almost 0.5.

Now is it a good sign? Not necessarily they are from liquidity angle it is good, but they are keeping too much of too much of working capital. They are having slightly higher working capital than required as I said we need to check from audit angle the composition of their debtors, because they do not have any inventory.

So, their major current assets are the receivables from customers. So, they need to be checked. Do you remember any other ratio which is similar to this ratio? We had discuss that ratio earlier, that ratio would be sales to working capital, which is known as working capital turnover ratio, which is just a transposition of this ratio though it is not required in

the case, I will just try to calculate it. So, I am writing it down here. You know that there are turnover ratios which we calculate to know the efficiency in use of that particular asset.

So, to know the efficiency in use of working capital, we can calculate working capital turnover ratio. What is the formula sales upon working capital? So, let us take net sales and divide it by working capital. So, again in bracket, we have to take sorry there is some confusion in bracket we have to take CA minus CL.

So, you can see the working capital turnover ratio is slowly going down; it has gone down from 3 to 1.94. What does it show; it means the efficiency of use of working capital has been falling. Actually net working capital to sales and working capital turnover ratio is showing the same thing. I have just calculated it again to make you understand that different ratios can be used actually to calculate the same thing.

Now, the same thing can you calculate one more ratio for it, do you remember we have discussed that ratio. We can express this working capital turnover ratio in terms of number of sales number of days of sales, let us do that also. So, that you get even more clarity this we will call it as working capital in terms of days the formula is already with you. So, try to calculate it. So, working capital days we will use the transposition now. So, it will be 1 divided by the turnover ratio, it is 1 upon I do not know why it is not taking 1 upon C. So, you will get the ratio into if you want to do it in terms of number of days we will multiplied by 365.

So, you get 121 days. So, from 121 it has gone up to 187. So, in a year of 365 days if a particular amount is locked up in the form of working capital earlier it was 121 it has now gone up to 187 days, which is you can understand is a very high amount; that means, almost for half the period of the year their working capital is locked up. It is normally suppose you sell some item you can give a credit for 2 months, 3 months, 4 months, which we will mean a 90 days or 120 days period, but here it is very high it is 187. So, all these 3 ratios actually were essentially same conveying the same meaning, but in a different way. Are you getting it?

Now, next one is sale to assets ratio. Now this is similar to this working capital turnover, but it refers to the total assets. So, now, the total assets are used to generate sales. So, we will take the total revenue here. Because, we are going to divide it by total assets and we

will divide it from the balance sheet we get total assets, we will divide it by that. So, we get 1.24.

So, you can see there is more or less stagnancy in this ratio although it ratio increased in 2015. It has now fallen to 1 point fallen a bit, but still better than slightly less than March 14 1.19; that means, 1 rupee of assets are converted into sale of 1.19 still norm compared to other industries it is a ratio on a lower side ok. So, this is showing efficiency in utilization of total assets.

Now, next is ROTA, Return On Total Assets or Return on, Assets as it has been called here. So, in the denominator as the name suggest, we will take the total assets, here return signifies profitability. So, the final profits which you earned or profit after tax divided by total assets give you return ratio on total assets. So, take profit after tax in the numerator and from balance sheet take total assets, we get 0.28 normally we will express it as a percentage.

So, here you see that the ratio has been falling earlier they were able to generate 28 percent return on the assets, which has now come down to 24 percent. So, more assets are getting locked up relatively giving lesser profitability. Now, from the equity shareholders angle what could be interesting to them is return on equity or return on owner's fund. So, what is a formula return is profit. So, PAT, Property after Tax divided by equity or owners funds.

So, let us calculate it PAT divided by net worth 0.38 let us express it as a percentage. So, 38.96 percent was return in March 14 slowly the return has been falling. Mainly because of lower profitability they are able to generate lesser return than equity. Now, the next one similar ratio, but very important ratio is return on capital.

Now, what is the difference in return on equity and return on capital? Return on equity is a return only on equity shareholders money, return on capital is a total capital employed. Although this company does not have much debt, but normally it is capital that is owners fund plus debt, taken together what is the long term capital. And, what do you take in the numerator; numerator also we will not just take PAT we will take PAT plus tax plus finance cost ok.

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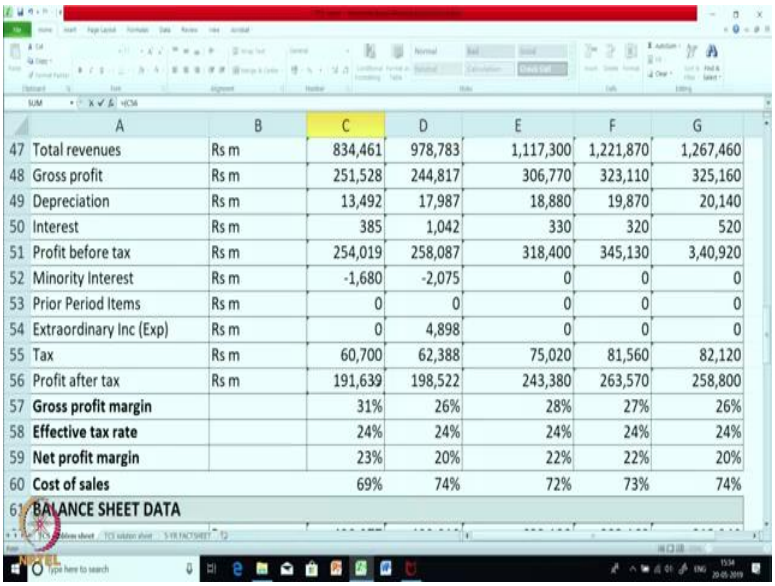

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61	**BALANCE SHEET DATA**						

So, I will put this in bracket return on capital is equal to we have been given profit after tax add taxes or we could have also taken PBT directly and to this we can add interest or the finance cost, divided by in the denominator. We are going to take total long term capital. So, we will take again put it in bracket net worth sorry it got closed net worth plus so, net worth plus long term debt.

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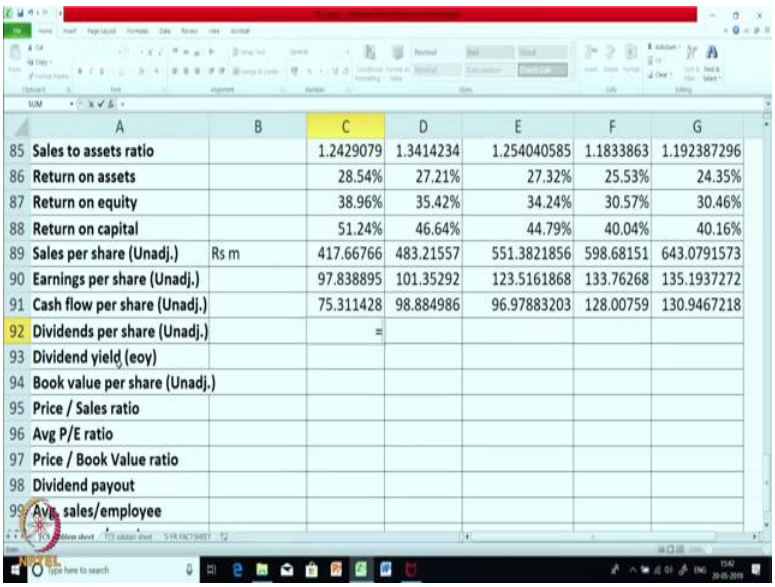

	A	B	C	D	E	F	G
85	**Sales to assets ratio**		1.2429079	1.3414234	1.254040585	1.1833863	1.192387296
86	**Return on assets**		28.54%	27.21%	27.32%	25.53%	24.35%
87	**Return on equity**		38.96%	35.42%	34.24%	30.57%	30.46%
88	**Return on capital**		51.24%	46.64%	44.79%	40.04%	40.16%
89	**Sales per share (Unadj.)**	Rs m	417.66766	483.21557	551.3821856	598.68151	643.0791573
90	**Earnings per share (Unadj.)**		97.838895	101.35292	123.5161868	133.76268	135.1937272
91	**Cash flow per share (Unadj.)**		75.311428	98.884986	96.97883203	128.00759	130.9467218
92	**Dividends per share (Unadj.)**		=				
93	**Dividend yield (eoy)**						
94	**Book value per share (Unadj.)**						
95	**Price / Sales ratio**						
96	**Avg P/E ratio**						
97	**Price / Book Value ratio**						
98	**Dividend payout**						
99	**Avg. sales/employee**						

So, now you got 0.51 this is for the March 14 debtors. So, 0.51 slowly it has come down to 40 percent, sorry not 0.51 51 percent in as a percentage and it has gone down to 40 percent.

So, because of the falling margins the return on the capital employed has also fallen. Why is it higher than return on equity? Because, now you are taking profit before taxes, since this company is more or less 0 debt company; there was no much effect of interest.

Because of addition of taxes the return on capital or long term capital is much better, and if you compare with return on say bank, bank might give you 8 or 9 percent return whereas, TCS is able to earn as much as 51 percent return on their capital and on owners funds it is 38 percent.

So, for most of the healthy companies it should be on a higher side are you getting it. So, these return ratios are very important for owners as well as for anybody who wanting to take over the company or who wants to study the company from a long term angle.

Now, next is sales per share, now this is one of the hybrid ratio, this is not a financial ratio per say, because denominator is number of shares, but shareholders might be interested to know that how much sale is generated for one share. So, it is sales. So, we will take the data of net sales and let us divide it by number of shares. They have given this share outstanding data e o y means at the end of the year. So, we get 417 since all the data is in rupees million, this is also in rupees million.

So, for one share I will copy it here. So, for one share they are able to generate 417 millions of sales you can see there is a gradual rise. So, company is able to increase, it is revenue. Although it is profitability is in sort of pressure. Now the next is earning per share this refers to as you know profit available per share. So, what is a formula which profit will you take, operating profit, profit before tax or after tax you will take profit after tax. In fact, if there is a preference dividend we will deduct preference dividend also.

So, PAT or profit available to the owners should be in the numerator right now let us take PAT, profit after tax divided by number of shares. So, you can see earning per share has been increasing gradually. Because company's total profit is going up although

profitability is falling a bit total profits are rising. So, earning per share is also slowly going up.

Next is cash flow per share. Now some shareholders may not be happy just by knowing the earning, they would probably be interested in knowing the cash generated per share, again we do not know whether they want total cash flow or whether they want operating cash flow per share, probably they are looking for operating cash flow.

So, let us go for this is a new formula. So, note the formula cash flow per share operating cash generated from operating activities divided by number of shares. So, you can see there is a good rise from 75 to 130 more or less consistent rise in the cash flow from operating activity per share basis, next is dividend per share. So, how much money is company distributing as a dividend, which will be received on a per share basis.

So, it is simple now we will take total dividend and divide it by number of shares. I think here dividend data is not available. So, you will not be able to calculate dividend per share. Let us check once again no dividend data is not available.

Now, the next one is dividend yield. Now, what do you mean by dividend yield; that means, as a percentage what return you are getting based on dividend. So, it is dividend upon will you take number of shares no. If you take dividend upon share capital, you will get the rate of dividend declared, but they are talking about market yield.

So, we will take dividend upon market price of the share or DPS upon market price since we do not have dividend data, we are not able to calculate dividend yield also, but it is already given on in as a share information above I will just show you.

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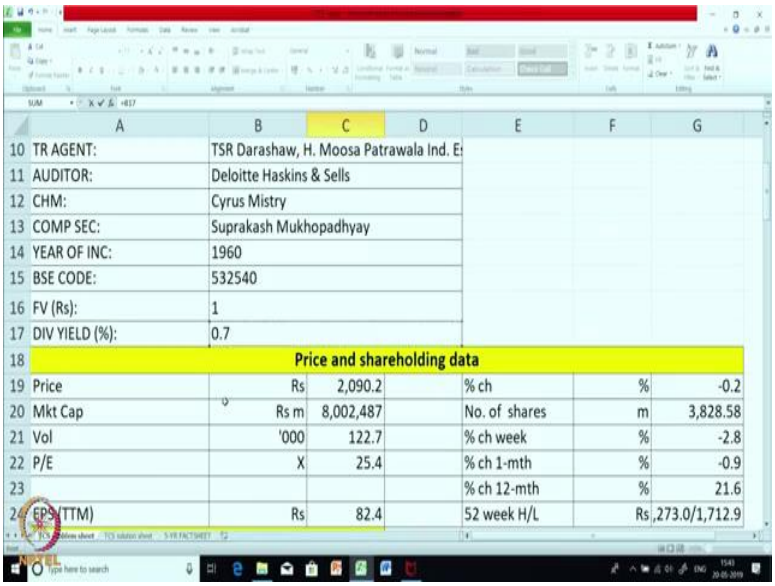

	A	B	C	D	E	F	G
10	TR AGENT:	TSR Darashaw, H. Moosa Patrawala Ind. E:					
11	AUDITOR:	Deloitte Haskins & Sells					
12	CHM:	Cyrus Mistry					
13	COMP SEC:	Suprakash Mukhopadhyay					
14	YEAR OF INC:	1960					
15	BSE CODE:	532540					
16	FV (Rs):	1					
17	DIV YIELD (%):	0.7					
18	Price and shareholding data						
19	Price	Rs	2,090.2		% ch	%	-0.2
20	Mkt Cap	Rs m	8,002,487		No. of shares	m	3,828.58
21	Vol	'000	122.7		% ch week	%	-2.8
22	P/E	X	25.4		% ch 1-mth	%	-0.9
23					% ch 12-mth	%	21.6
24	EPS (TTM)	Rs	82.4		52 week H/L	Rs	,273.0/1,712.9

So, they have given here dividend yield which is 0.7 percent this is the current dividend yield we do not have 5 year data, but the current yield is known to you. The next one is book value per share. Now, this is a very interesting and a important information. So, net worth is the value which shareholders will get we divided by number of shares to know that if the company is closed today, how much money will each shareholder get per share basis.

So, please take net worth and divide it by number of shares. So, from 251, you can see consistent rise to 443; that means, company is slowly earning profits and adding reserves. So, their book value is going up.

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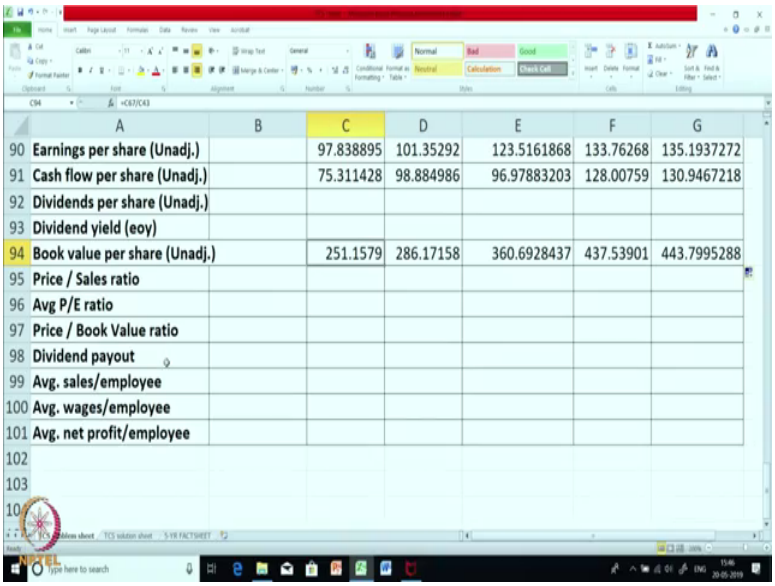

	A	B	C	D	E	F	G
90	Earnings per share (Unadj.)		97.838895	101.35292	123.5161868	133.76268	135.1937272
91	Cash flow per share (Unadj.)		75.311428	98.884986	96.97883203	128.00759	130.9467218
92	Dividends per share (Unadj.)						
93	Dividend yield (eoy)						
94	Book value per share (Unadj.)		251.1579	286.17158	360.6928437	437.53901	443.7995288
95	Price / Sales ratio						
96	Avg P/E ratio						
97	Price / Book Value ratio						
98	Dividend payout						
99	Avg. sales/employee						
100	Avg. wages/employee						
101	Avg. net profit/employee						
102							
103							

Now, price upon sales ratio this is referring to market prices. Now, I think market price information is not available for all the years yeah it is there. So, average market cap is given, but we are not been given number of we have not been given average market price, let us check again high and low market price is given, but average is not given. So, we will not be able to calculate price per share ratio average PE ratio that is price upon EPS, again we need average price and we divide it by earnings. So, we cannot calculate this also.

Next is price to book value ratio again in absence of market price we do not know, but this is a important ratio which links market prices to book value, we have just calculated book value.

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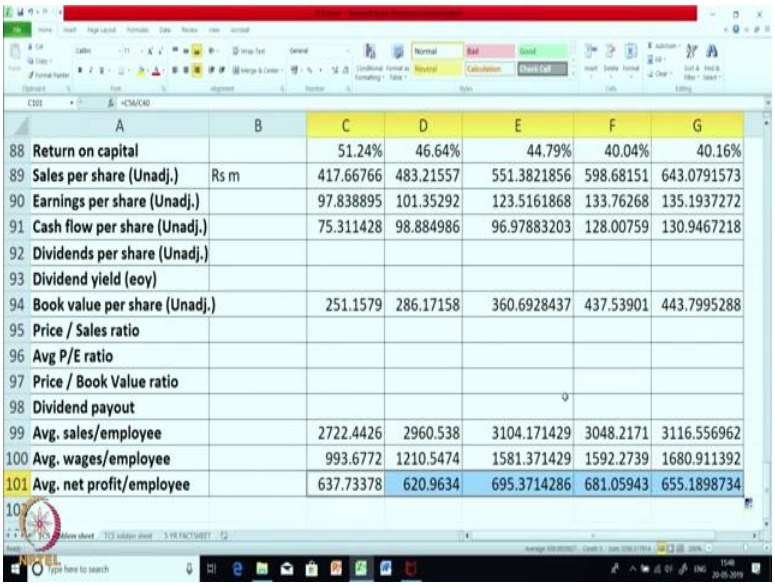

	A	B	C	D	E	F	G
88	Return on capital		51.24%	46.64%	44.79%	40.04%	40.16%
89	Sales per share (Unadj.)	Rs m	417.66766	483.21557	551.3821856	598.68151	643.0791573
90	Earnings per share (Unadj.)		97.838895	101.35292	123.5161868	133.76268	135.1937272
91	Cash flow per share (Unadj.)		75.311428	98.884986	96.97883203	128.00759	130.9467218
92	Dividends per share (Unadj.)						
93	Dividend yield (eoy)						
94	Book value per share (Unadj.)		251.1579	286.17158	360.6928437	437.53901	443.7995288
95	Price / Sales ratio						
96	Avg P/E ratio						
97	Price / Book Value ratio						
98	Dividend payout						
99	Avg. sales/employee		2722.4426	2960.538	3104.171429	3048.2171	3116.556962
100	Avg. wages/employee		993.6772	1210.5474	1581.371429	1592.2739	1680.911392
101	Avg. net profit/employee		637.73378	620.9634	695.3714286	681.05943	655.1898734

Next is dividend payout. So, this is based on the dividend; dividend upon the current market price sorry dividend payout is a percentage of amount which is distributed as a dividend from the profits. So, it is dividend upon profit or d p s upon e p s. So, we do not know dividend data. So, we do not know this.

Now, there are 3 last ratios which are interesting, because they are related to number of employees. Average sales per employee, average wages per employee and average net profit plus per employee, this we can calculate because we know the number of employee data.

So, let us go for it. Sales divided by number of employees. So, it was 2722 in rupees million and it has slowly increase to 3116, this is the revenue generated by one single employee. Now, let us see what employees get for it that is their wages. Now, total salaries and wages are given and divide it by number of employees. So, you may want to be employee of TCS perhaps, because 993 million was that time and today it is 1680 million for every employee single employ and net profit.

So, we will take net profit after tax and divide it by number of employees. So, 637 per employee and now it is 655. You can see it is more or less kind of stagnated because profitability is under pressure although the salaries of employees has increased quite healthily ok. So, this was an attempt to do to show you how a detail analysis is done by especially the analyst who are trying to study a particular company in detail.

So, in next session, we will try to take another company till that time study this carefully Namaste thank you.