

The long night with financial analysis of Tata Motors

Soli Kandavan knew this was going to be a long night. The next day at 9 am the submission of his special paper forming part of the Financial Analysis course would be due. The instructor for the course Mr. Pora Namekku was a no-nonsense person and had allocated 40% of the total evaluation of the course to this special paper. His words were “Do not expect to get away with a paper full of mechanical calculation. The correctness of your calculation carries only 10% and the rest of the evaluation is based on your ability to make original analysis”

Soli had put off this work for several days now. The assignment had been given 10 days back, and soon thereafter he had downloaded the crucial figures from the Capitaline database (See Annexure 1 and 2). For several reasons he did not get around to working on the case until now, when he had no more room. This, he told himself, is his typical problem. Putting off things till the last minute when one would not get enough time to reflect. He vowed to be more systematic in future.

But the immediate problem had to be tackled. The special paper was very briefly worded, as was the practice of Prof. Pora Namekku. This read as follows:

“Analyse Tata Motors’ financial parameters and comment on the financial health of the company with reference to key parameters”.

From the discussion in the class, Soli knew that an industry analysis would be expected by Prof. Namekku and that was why he had downloaded this too (Annexure 3)



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Soli realised that he would need to be systematic in his analysis, at the same time brief. His final comments would need to be unambiguous. He quickly referred some old notes which had been assigned as part of the course.

He collected together the portions which he had highlighted.

To begin with we go back to our discussion on the two systems of accounting that Companies follow -viz. the cash system and the mercantile system. Under the cash system, we take into consideration only those transactions that result in a cash outflow or inflow. In fact, transactions are recorded in the books of account only if there is either cash coming in or going out. At this point, it must be realised, that the word "Cash" means not just hard currency, but a Bank transaction as well. The other system - the mercantile system- not only takes cash transactions into account, but also items where money is payable or receivable. As soon as a transaction resulting in a right to receive or pay takes place, it is recorded in the books. We have also seen that the mercantile system is widely practiced and forms the basic Accounting Standard in India.

Further, let us recall our discussion on capital and revenue items. Items of expenditure which are deemed as 'Capital' expenditure will not be deducted from the income of the Company for determining profits. Only the revenue expenses will be considered for the purpose. Of course, an amortized portion of the Capital items will also be included as expenditure. It follows that regardless of whether cash has been paid or not, items of revenue expenditure will be considered for determining the profitability, whereas even if cash has been paid in respect of Capital expenditure, these will not be considered for profitability purposes

As seen earlier, depreciation is an "expenditure" in a Profitability statement, but does not involve any cash outflow. Similarly, provisions made for bad debts; taxation and other items of anticipated expenditure will go to reduce profits, although not involving any cash outflow.

The following table depicts the impact of various transactions appearing in the Profit & loss account of a Company on the Balance Sheet and Cash Flow statements.

Profit & loss account	Related balance sheet items	Possible cash flow effects
Sales proceeds	Sundry Debtors	Cash Receipts from customers
Cost of production	Stock of materials, sundry creditors	Cash payments to suppliers
Depreciation expense	Deduction from asset account concerned	None
Administrative expenses	Prepaid expenses, outstanding payables, appearing on the Asset and Liability sides respectively	Cash payments for operating expenses

We know that any item of expenditure incurred in the running of an organisation is to be deducted from its income to arrive at the profits, provided the expenditure is “revenue” in nature. We also know that we have to make provisions for Depreciation, Provisions for Bad debts and other known items of expenditure. These expenses, which must compulsorily be deducted from the income, are called “charges” to the profits. In other words, regardless of whether the Company makes a profit or loss, these expenses have to be taken into account.

An “appropriation”, on the other hand, arises only after the Company has made a profit. From the figure of profits, companies set apart a portion for taxation provision, a portion for reserves for equalising dividends, a portion for dividends to the shareholders etc. These items will be taken into account only if the Company makes a profit. Should profits not be there, these deductions or “expenditure” would not be there too. Such items are called “appropriation” to profits.

While it is useful to understand the absolute quantum of each asset, liability and revenue item in isolation, far greater understanding of its implication with respect to the trend and performance of the

Company can be achieved by a “relationship” study. For instance, if we study profits in relation to sales for the current year and compare it with the same relationship for a series of years, greater understanding of the trend and performance can be had.

The “relationship” study referred above has two facets to it - (1) the relationship of one item to another for the current or previous years, but in respect of the same Company and (2) the relationship of these parameters with industry figures or representative figures of competitors or of firms of similar size and operations. The first set enables us to understand the performance of the Company in isolation, while the second gives an insight as to where the Company stands vis-à-vis the industry or competition.

The intuitive way of arriving at a “relationship” is to develop ratios among key parameters. After the finalised statement of accounts is ready, we ascertain the ratio of one key parameter to another. A large number of ratios are in common use, but some of these are useful only for specific end uses like Project Appraisal, Working Capital analysis, Securities Analysis etc. We concentrate here only on those ratios which are universal in nature and which can be easily computed. The broad categories of these ratios and the formulae for computation of individual ratios are indicated in appropriate boxes alongside. The Liquidity ratios give a clear indication of the extent to which the Company is liquid. As seen earlier, liquidity and profitability are two separate yardsticks to gauge a Company’s performance. The Current Ratio gives an indication as to the number of times by which the current assets multiply the current liabilities. In a healthy industry, the current ratio should be upwards of 1.75. A figure of less than 1.25 would indicate that the Company’s working capital management has to be pretty rigid to keep the liquidity afloat. The Quick Ratio or the Acid Test ratio is a modification of the Current Ratio in that only the “quick” assets are considered in the numerator, and inventory, which is the slowest of the current assets is ignored. The measure gives the extent of fast liquidity enjoyed by the Company.

Just as important as liquidity is the level of profitability. While absolute figures of profitability may be adequate for some cases, we can have a better understanding of the performance of the Company by studying the profits in relation to select parameters like sales, capital employed and equity capital. These relationships are covered under Profitability ratios as shown in the box alongside. It may be noted that when we take the return on equity we have to take only the net income after interest, whereas for Return on Assets, the net income before interest is taken. This is because in the latter ratio, we are looking at what the total investment fetched and not what is left for the equity holders.

The Debt Ratio can ascertain the extent of reliance of external financing. The Debt-Equity Ratio gives the proportion of debt to equity. In capital-intensive industries, this ratio can be as high as 4. That is Debt can be up to four times the equity portion. Normally a Debt Equity ratio of 2 is considered acceptable. The Times Interest Earned Ratio is a matter of reassurance to the lenders that their interest dues are protected. If the Company is doing well in terms of having a high Times Interest Earned ratio, it means that the interest liability is only a relatively small portion of the Company's net surplus. However, if the ratio is small, there is cause for concern for the lender.

The relationship of the Market Value to the Book value is given by the ratios shown in the box. We have also seen the utility of the Price Earnings ratio in an earlier piece.

The above is not an exhaustive list of ratios that could be drawn up from a Company's accounts. Only the most essential and fundamental ratios are considered here. Depending on the specific needs of the user, more ratios could be utilised.

Soli knew that a mechanical application of the above principles would not do. Prof. Namekku's words rang in his ears. He set out to do as comprehensive an analysis as possible.

Annexure 1

Company : Tata Motors Ltd			
Industry : Automobiles - LCVs/HCVs			
Company >> Finance >> Balance Sheet (Rs in Crs.)			
Year	Mar 14	Mar 15	Mar 16
Sources of funds :			
Share Capital +	643.78	643.78	679.18
Reserves Total +	18,532.87	14,218.81	21,688.90
Equity Share Warrants	0	0	0
Equity Application Money	0	0	0
Total Shareholders Funds	19,176.65	14,862.59	22,368.08
Secured Loans +	4,471.94	4,818.48	3,729.50
Unsecured Loans +	10,580.86	16,315.93	12,157.75
Total Debt	15,052.80	21,134.41	15,887.25
Other Liabilities+	1,970.68	2,390.99	1,619.17
Total Liabilities	36,200.13	38,387.99	39,874.50
Application of funds :			
Gross Block +	28,791.45	31,814.21	34,291.46
Less : Accumulated Depreciation +	13,550.88	16,030.98	18,527.49
Less: Impairment of Assets	0	0	0
Net Block +	15,240.57	15,783.23	15,763.97
Lease Adjustment	0	0	0
Capital Work in Progress+	6,355.07	6,040.79	6,480.89
Producing Properties	0	0	0
Investments +	18,458.42	16,987.17	18,711.46
Current Assets, Loans & Advances			
Inventories +	3,862.53	4,802.08	4,902.20
Sundry Debtors +	1,216.70	1,114.48	1,568.46
Cash and Bank+	226.15	944.75	452.08
Loans and Advances +	1,332.83	1,691.44	2,047.17
Total Current Assets	6,638.21	8,552.75	8,969.91
Less : Current Liabilities and Provisions			
Current Liabilities +	11,598.27	10,942.09	11,336.26
Provisions +	1,892.91	613.09	1,215.49
Total Current Liabilities	13,491.18	11,555.18	12,551.75

Net Current Assets	-6,852.97	-3,002.43	-3,581.84
Miscellaneous Expenses not written off +	0	0	0
Deferred Tax Assets	3,923.41	4,160.99	4,350.17
Deferred Tax Liability	3,966.52	4,160.99	4,350.17
Net Deferred Tax	-43.11	0	0
Other Assets+	3,042.15	2,579.23	2,500.02
Total Assets	36,200.13	38,387.99	39,874.50
Contingent Liabilities+	2,488.90	2,872.40	3,006.51
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Annexure 2

Company : Tata Motors Ltd			
Industry : Automobiles - LCVs/HCVs			
Company >> Finance >> Profit & Loss (Rs in Crs.)			
Year	Mar 14 (12)	Mar 15 (12)	Mar 16 (12)
Income :			
Sales Turnover +	37,758.00	39,531.23	46,646.67
Excise Duty	3,469.89	3,229.60	4,276.85
Net Sales	34,288.11	36,301.63	42,369.82
Other Income +	3,833.03	1,881.41	2,132.92
Stock Adjustments +	-371.72	878.82	-22.94
Total Income	37,749.42	39,061.86	44,479.80
Expenditure :			
Raw Materials +	25,542.69	27,920.47	29,572.35
Power & Fuel Cost+	392.09	395.88	402.36
Employee Cost +	2,924.97	3,174.71	3,036.79
Other Manufacturing Expenses +	2,584.06	2,825.70	2,761.68
Selling and Administration Expenses +	2,311.38	2,664.24	2,873.49
Miscellaneous Expenses +	2,605.66	2,959.43	2,782.06
Less: Pre-operative Expenses Capitalised+	1,009.11	1,118.75	1,034.18
Total Expenditure	35,351.74	38,821.68	40,394.55
Operating Profit	2,397.68	240.18	4,085.25
Interest +	1,353.18	1,611.68	1,481.11
Gross Profit	1,044.50	-1,371.50	2,604.14
Depreciation+	2,070.30	2,603.22	2,453.75
Profit Before Tax	-1,025.80	-3,974.72	150.39
Tax+	560	814.52	-88.52
Fringe Benefit tax+	0	0	0
Deferred Tax+	-1,920.32	-50.29	4.68
Reported Net Profit	334.52	-4,738.95	234.23
Extraordinary Items +	1,512.47	-320.23	436.33
Adjusted Net Profit	-1,177.95	-4,418.72	-202.1
Adjst. below Net Profit +	79.03	93.4	0

P & L Balance brought forward	1,342.79	977.59	-3,667.96
Statutory Appropriations	0	0	0
Appropriations +	778.75	0	-3,433.73
P & L Balance carried down	977.59	-3,667.96	0
Dividend	648.56	0	73
Equity Dividend %	100	0	10
Dividend Per Share(Rs)	2	0	0.2
Earnings Per Share-Unit Curr	0.75	0	0.69
Book Value-Unit Curr	59.5	46.1	65.8
Book Value(Adj)-Unit Curr	58.87	45.61	65.8
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Annexure 3

Industry : Automobiles - LCVs/HCVs			
Year	2014	2015	2016
No.of Companies	18	12	7
Key Ratios			
Debt-Equity Ratio	0.92	1.13	0.96
Long Term Debt-Equity Ratio	0.89	1.1	0.95
Current Ratio	1.01	1.03	1.06
Turnover Ratios			
Fixed Assets	1.56	1.44	1.77
Inventory	8.34	8.4	9.94
Debtors	13.62	15.36	21.07
Interest Cover Ratio	-0.41	-0.76	2.85
PBIDTM (%)	3.06	2.21	9.94
PBITM (%)	-1.35	-2.84	6.16
PBDTM (%)	-0.21	-1.54	7.77
CPM (%)	1.32	-2.91	6.58
APATM (%)	-3.09	-7.96	2.81
ROCE (%)	-1.68	0	9.25
RONW (%)	-7.36	0	8.28
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