

Study on Measurement and Management of Cash Flow Efficiency of Tata Steel Limited (Standalone Company)

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Abstract – Cash is very important component in business. The main purpose of this study is to examine the incremental information content of operating cash flows in predicting the cash flow position of Tata Steel Limited. The present study covers 15 financial years from 2000-01 to 2014-15 to make analysis of cash flows is deemed quiet sufficient. Detailed cash flow analysis was made in Tata Steel (Standalone) company by adopting case study method. Ratio analysis, Simple percentage and cash management efficiency model were used for analysis. The overall cash flows of the company are good. If the company increases the operating cash flows to meet the total debt capital, it will lead to increase the better performance in cash flows.

Keywords – Cash flow, Incremental, Case study, Efficiency, Ratio.

1. INTRODUCTION

Cash is an obvious and inescapable input into company's operations as it has to be available in sufficient amounts according to needs, on a continuing basis. Cash is also the major and much awaited output of the company's operations and there is the need for effective plans to deploy this liquid resource to utmost productive use. A company that is growing fast turning out a lot of profits may be continuously faced with a state of shortage of cash and a threat to the uninterrupted flow of production.

Cash analysis is useful for management, to assess its ability to meet obligations to trade creditors, to pay bank loans, to pay interest to debenture holders and pay dividend to shareholders and evaluating financial policies, cash position, and management plans and to coordinate the financial operations properly. So finding adequate funds for operating needs is a perennial preoccupation for the company's finance manager. Paucity of cash, even on a temporary phase, is a source of trouble to most enterprises. Hence the study has analyzed the cash details of Tata Steel Limited in different dimensions.

A. Review of Literature

N. V. R. Rajagopalan (2005) analyzed the liquidity, profitability and solvency position of Indian cement limited. The study used the financial tools like ratios, common size statements, percentage analysis, Profitability Multipliers

Effect Scoring Sheet, Equivalent Cash Point Model, Y score and Z score analysis in appropriate places. He found that inter-corporate loans is the cause of major problems in profitability and liquidity. The solvency position of the company stressed the need for getting rid off from highly levered capital structure. It caused major setback in bottom lines of profitability and solvency.

N. V. R. Rajagopalan (2009) in his study testing the cash management efficiency through developing a new model namely Equivalent Cash Points Model by taking India cements limited as a sample unit for testing. The study covers 8 financial years from 1998-99 to 2005-06 for testing. It is concluded that out of six criteria the company shows three criteria namely excellent, very good and poor performance of cash management efficiency.

D. Sharmila (2013) in her study focused on the liquidity and cash position of JSW Steel limited examined through the ratios applications. The study founded that liquidity position and cash position of the company is very poor and concluded that the management should concentrate on their liquidity and cash position to improve in future periods.

B. Statement of the Problem

The Indian Steel industry need large investment and suffers from paucity of capital. Many of the public sector undertaking units integrated steel plants with the help of foreign aid. The Steel Industry is facing high cost and limited availability of coking coal; low labour productivity; inefficient parameters such as energy consumption; poor infrastructure including transport and electricity supply. Lack of modern technological and capital inputs and weak infrastructural facilities leads to a process of steel making that is more time consuming, expensive and yields inferior variety of goods. Such a situation forces to import better quality steel from abroad.

Tata Steel is one of the best steel industries and occupies 11th position among the steel companies in the world, having subsidiaries and joint ventures throughout the world.

Surely, unique problems of Indian steel industries namely high conversion cost, underutilization of installed capacity, limited availability of coking coal, low productivity may have some influence in Tata Steel and that may be reflected in cash flows. In this context, the present study has taken Tata Steel Limited as a study unit to study the cash flows.

C. Objective of the Study

The present study focused on fulfilling the following objectives;

- 1) To analyse the operational cash flows of selected company and
- 2) A detailed analyse made cash flow management efficiency through Equivalent Cash Points Model.

D. Methodology

The study is purely base on secondary data. Data relating to Tata Steel Limited have been collected through company website, capital line and annual report of Tata Steel. Detailed cash flow analysis was made in Tata Steel (Standalone) company by adopting case study method. Ratio analysis, Equivalent Cash Points Model and Simple percentage were used for analysis.

To examine the cash flows management efficiency, Equivalent Cash Points Model (ECPM) used in the present study which is developed by N. V. R. Rajagopalan. The subsidiary and associate company of Tata Steel Limited are excluded from the current study. The present study covers 15 financial years from 2000-01 to 2014-15 to make analysis of cash flows is deemed quiet sufficient.

E. Limitation of the Study

Reliability of results of the study has purely based on the reliability of the secondary data. The study has not covered subsidiary and foreign companies of the Tata Steel Limited. The study does not cover any non-financial data.

II. ANALYSIS AND INTERPRETATION

A. Operating Cash Flow Ratio

It relates operating cash flow to current liabilities. The ratios measure the firms' liquidity, which means the firm capacity to meet out the current liability through the operating cash flows of the firm. A high ratio indicates the good liquidity of the firm.

TABLE-I
OPERATING CASH FLOW RATIO

Particulars	Operating Cash Flow (in crores)	Current Liabilities (in crores)	Operating Cash Flow Ratio (in per cent)
2000-2001	1455.45	1712.38	85.00
2001-2002	1154.13	3291.68	35.06
2002-2003	2093.15	3594.23	58.24
2003-2004	2914.44	3908.93	74.56
2004-2005	3816.83	4247.43	89.86

2005-2006	3631.39	4552.39	79.77
2006-2007	5118.10	6349.24	80.61
2007-2008	6254.20	6842.26	91.41
2008-2009	7397.22	8965.76	82.51
2009-2010	8369.22	8699.34	96.21
2010-2011	8339.00	12037.59	69.27
2011-2012	10256.47	15958.34	64.27
2012-2013	11068.67	17098.06	64.74
2013-2014	12432.80	19957.78	62.30
2014-2015	4851.89	18251.65	26.58

Source: Computed from Secondary Data, Annual Reports of Tata Steel Limited.

It is observed from Table-I that operating cash flow ratio ranges from 26.58 per cent to 96.21 per cent over the study period. In the year 2001-02, operating cash flow is 35.06 per cent of the current liabilities and in the year 2014-15, operating cash flow is 26.58 per cent of the current liabilities. In remaining years of the study period, the operating cash flow ratio is more than 58 per cent.

B. Operating Cash Flow to Total Debt

This ratio measures the firms' ability to manage the total debt through operating cash flow. If the ratio is lesser than one (1), it indicates that the firm is not in a position to redeem all the debt with operational cash flow.

TABLE-II
OPERATING CASH FLOW TO TOTAL DEBT RATIO

Particulars	Operating Cash Flow (in crores)	Total Debt (in crores)	OFC to Total Debt (in times)
2000-2001	1455.45	4672.22	0.3115
2001-2002	1154.13	4707.82	0.2452
2002-2003	2093.15	4225.61	0.4953
2003-2004	2914.44	3373.28	0.8640
2004-2005	3816.83	2739.70	1.3932
2005-2006	3631.39	2516.15	1.4432
2006-2007	5118.10	9645.33	0.5306
2007-2008	6254.20	18021.69	0.3470
2008-2009	7397.22	26946.18	0.2745
2009-2010	8369.22	25239.20	0.3316
2010-2011	8339.00	26148.18	0.3189
2011-2012	10256.47	23693.82	0.4329
2012-2013	11068.67	25911.51	0.4272
2013-2014	12432.80	26126.78	0.4759
2014-2015	4851.89	26210.25	0.1851

Source: Computed from Secondary Data, Annual Reports of Tata Steel Limited.

It can be inferred from Table-II that the Tata Steel can discharge the debts from the operating cash flow itself in the years 2004-05 and 2005-06. Remaining years have less operating cash flow than the total debt. In the year 2014-15, operating cash flow is mere 18.51 per cent in the total debt.

C. Operating Cash Flow per Share

Operating cash flow studies the relationship between operating cash flow minus the preference dividend and the number of equity shares. It measures the ability of the firm to pay dividend and also meet the needs of investment with cash generated from operations (depreciation + cash earnings).

TABLE-III
OPERATING CASH FLOW PER SHARE

Particulars	OCF-Preference Dividend (in crores)	No. of Equity Shares (in crores)	OCF per Share
2000-2001	1455.45	367.97	3.96
2001-2002	1152.06	367.97	3.13
2002-2003	2093.15	367.97	5.69
2003-2004	2914.44	369.18	7.89
2004-2005	3816.83	553.67	6.89
2005-2006	3631.39	553.67	6.56
2006-2007	5118.10	580.67	8.81
2007-2008	6232.01	730.78	8.53
2008-2009	7287.77	730.79	9.97
2009-2010	8323.34	887.41	9.38
2010-2011	8339.00	959.41	8.69
2011-2012	10256.47	971.41	10.56
2012-2013	11068.67	971.41	11.39
2013-2014	12432.80	971.41	12.80
2014-2015	4851.89	971.41	4.99

Source: Computed from Secondary Data, Annual Reports of Tata Steel Limited.

It is observed from Table-III that the operating cash per equity share ranges from Rs. 3.13 to 12.80. In all the years of the study period, the company is in a position to give dividend out of operating cash flows.

D. Operating Cash Flow to Cash Dividend

It indicates the firms' ability to cover cash dividend with operating cash flow generated by the firm. Investors generally use this ratio to judge the firms' ability to pay cash dividends.

TABLE-IV
OPERATING CASH FLOW TO CASH DIVIDEND

Particulars	Operating Cash Flow (in crores)	Cash Dividends (in crores)	OCF to Cash Dividends (in times)
2000-2001	1455.45	217.61	6.69
2001-2002	1154.13	149.39	7.73
2002-2003	2093.15	333.01	6.29
2003-2004	2914.44	416.25	7.00
2004-2005	3816.83	821.37	4.65
2005-2006	3631.39	820.43	4.43
2006-2007	5118.10	1104.33	4.63
2007-2008	6254.20	1393.55	4.49
2008-2009	7397.22	1492.50	4.96
2009-2010	8369.22	878.45	9.53
2010-2011	8339.00	1307.77	6.38
2011-2012	10256.47	1347.03	7.61
2012-2013	11068.67	905.70	12.22
2013-2014	12432.80	1037.40	11.98
2014-2015	4851.89	929.99	5.22

Source: Computed from Secondary Data, Annual Reports of Tata Steel Limited.

Table-IV shows that operating cash flows, cash dividend and operating cash flows to cash dividend for the study period. Operating cash flow to cash dividend varies from 5.22 times to 12.22 times the cash dividend, meaning that in all the years operating cash flows are more than cash dividend. The study unit can pay cash dividend only out of operating cash flows of the study period.

E. Quality of Earnings Ratio

Quality of Earnings Ratio measures the relationship between operating cash flow and operating income and indicates the proportion of income generated in cash. If the ratio decreases, it may indicate the firm's bankruptcy.

TABLE-V

QUALITY OF EARNINGS RATIO

Particulars	Operating Cash Flow (in crores)	Operating Income (in crores)	Quality of Earnings Ratio (in per cent)
2000-2001	1455.45	1706.53	85.29
2001-2002	1154.13	1271.18	90.79
2002-2003	2093.15	2301.98	90.93
2003-2004	2914.44	3495.41	83.38
2004-2005	3816.83	6045.36	63.14
2005-2006	3631.39	5931.51	61.22
2006-2007	5118.10	6973.27	73.40
2007-2008	6254.20	8223.54	76.05
2008-2009	7397.22	9133.43	80.99
2009-2010	8369.22	8952.09	93.49
2010-2011	8339.00	11432.86	72.94
2011-2012	10256.47	11536.77	88.90
2012-2013	11068.67	11126.24	99.48
2013-2014	12432.80	12816.90	97.00
2014-2015	4851.89	10008.80	48.48

Source: Computed from Secondary Data, Annual Reports of Tata Steel Limited.

Table-V shows the operating cash flow, operating income and quality of earnings ratio of the study unit. The ratio of the operating cash flow to the operating income is varied from 48.48 to 99.48 per cent. Quality of Earnings ratio is more than 60 per cent in all the years except for the year 2014-15.

F. Capital Acquisition Ratio

Capital acquisition ratio can be calculated by finding the percentage of cash from operations from cash paid for plant and equipment and measures the ability of the enterprise to finance investment from internally generated cash.

TABLE-VI
CAPITAL ACQUISITION RATIO

Particulars	Operating Cash Flow (in crores)	Cash Paid to Assets and Plants (in crores)	Capital Acquisition Ratio (in per cent)
2000-2001	1455.45	7042.39	20.67
2001-2002	1154.13	7213.55	16.00
2002-2003	2093.15	7342.72	28.51
2003-2004	2914.44	7094.21	41.08
2004-2005	3816.83	7239.58	52.72
2005-2006	3631.39	8707.32	41.71
2006-2007	5118.10	8543.12	59.91
2007-2008	6254.20	8256.11	75.75
2008-2009	7397.22	10994.54	67.28
2009-2010	8369.22	12162.44	68.81
2010-2011	8339.00	11805.10	70.64
2011-2012	10256.47	11366.26	90.24
2012-2013	11068.67	24875.05	44.50
2013-2014	12432.80	24265.75	51.24
2014-2015	4851.89	25248.52	19.22

Source: Computed from Secondary Data, Annual Reports of Tata Steel Limited.

Table-VI exhibits operating cash flow, cash paid to assets and plants and capital acquisition ratio. Operating cash flow used for capital acquisition of assets and plants ranges from 16 per cent to 90.24 per cent. In the year 2011-12, 90.24 per cent of the operating cash flow is used for purchase of assets and plants.

G. Equivalent Cash Points Model

TABLE-VII
EQUIVALENT CASH POINTS MODEL - RESULTS

Year	Opening Balance	NCP Component-I	NCP Component-II	Closing Balance
2000-01	1	2.15	0.35	1.23 (Excellent)
2001-02	1	1.81	0.74	0.92 (Excellent)
2002-03	1	2.67	0.57	1.7 (Excellent)
2003-04	1	2.59	0.59	0.67 (Excellent)
2004-05	1	2.2	0.69	0.98 (Excellent)
2005-06	1	1.94	0.72	1.17 (Excellent)
2006-07	1	2.42	1.13	26.64 (Very Good)
2007-08	1	2.22	0.84	0.06 (Excellent)
2008-09	1	2.04	0.94	3.42 (Excellent)
2009-10	1	2.12	0.98	2.03 (Excellent)
2010-11	1	2.25	0.95	1.28 (Excellent)
2011-12	1	2.34	0.56	0.95 (Excellent)
2012-13	1	2.77	0.42	0.56 (Excellent)
2013-14	1	3.19	0.37	0.42 (Excellent)
2014-15	1	1.24	0.82	0.46 (Excellent)

Source: Computed from Annual reports, Tata Steel Limited.

*Figures in Parenthesis denoted performance of NCPs

It observed from the table-VII that, the company has done extraordinarily well in all the fourteen years 2000-01, 2001-02, 2002-03, 2003-04, 2004-05, 2005-06, 2007-08, 2008-09, 2009-10, 2010-11, 2011-12, 2012-13, 2013-14 and 2014-15, and end with very good performance in the year 2006-07. Out of fifteen years, the company experienced the two extremes in cash management efficiency in the proportion of 14:1 in excellent and very good. The fourteen extraordinary performance years had one thing in common namely, getting the excellent criteria NCP in Component – I >1 ; NCP in Component – II <1 but each year is unique in the sense that the cash from operation showed a high-level variability in the fourteen years.

The year 2000-01 Component – I showed that the company earned 9.29 cash points, which is consist of a high portion contributed by the operating profit of the company in the particular period and company spent a gradual amount in the component-I as a 4.32 cash points so the company resulted a surplus of 4.97 cash points. In component-II of the respect of the year rose 2.39 cash point from borrowings and other items has a smallest portion with the cash points the company disbursed cash points to purchase of investment as 3.13 and redeemed securities as 3.61 even though the company kept closing stock as high when compare with opening balance of cash.

The year 2001-02 component-I showed that the company earned 6.23 cash points, which is consist of the high points contributed by operating profit of the company and it spent only 3.45 cash points, which is consist of high portion of interest paid the remaining had a minimum points to spent so it has a surplus of 2.78 cash points and component-II consist

of CPM and CPD, the company cash point disbursed of 4.78 points to repayment of borrowings the total cash points 2.87 utilized for meeting the capital outflows so it adjusted against opening balance so the closing balance of cash showed lower than the opening balance of cash.

In 2002-03 the earnings of cash points has showed 12.11 and cash points spent only 4.53 cash points to have a surplus of 7.58 cash points, the major contribution is operating profit of the company which contributed 10.71 points to the cash points earning and the maximum cash points spent in the component-I is interest and direct tax paid. It utilized only 6.87 cash points from the surplus of component-I for meeting the capital outflows in which the major item is purchase of investment and repayment of borrowings with the surplus effected the opening balance of the cash so it lead to a higher cash balance in the end.

In the year 2003-04 cash points earned 11.34 out of which the company spent only 4.37 cash points and it has a surplus of 6.97 cash points, in the component-II the cash point disbursed as the maximum to the purchase of investment and redemption of securities the company totally utilized 7.30 cash points for disbursement. Therefore, the excess disbursement adjusted against the opening cash balance so it leads to a lower cash balance in the end of period.

The year 2004-05 the company totally earned 24.62 cash points in which the maximum earnings contributed by operating profit out of which the company spent only 11.20 cash points the surplus of 13.42 cash points. Component-II has the cash points mobilized of 29.41 points major contributed by the investment sales and cash points disbursements have 42.85 points, the excess payment made on the surplus of component-I and opening balance of cash. Totally the company utilized 13.44 cash points in meeting the capital outflows so it lead to a lower cash balance in the end compare with opening so the Net Cash Points of the company is excellent.

The year 2005-06 earned 25.04 cash points and spent only 12.93 cash points to have a surplus of 12.11 cash points in component-I. The component-II showed that the cash points mobilized 31.26 points by the way of sale of investment and other component has minimum contributed. The payment against capital is 43.20 points out of this the company is major out flow is purchase of investment so totally the company utilized 11.94 cash points to meet the capital outflows. The adjustment made against the opening balance of the cash so it low when compare with opening balance.

During the year 2006-07, the company earned 26.91 cash points and spent only 11.11 cash points so it has a surplus of 15.8 cash points. Component-II shows that the company mobilized a maximum of 84.35 cash points and spent 74.51 cash points in which the company issues shares, sale the company investment and proceeds from borrowings are the major contributed element in CPM and CPD on purchase of

investment and redemption of securities and so on. Therefore, the component II reveals that the CPD set-off by the CPM itself so it has mobilization surplus of 9.84 cash points after meeting the capital outflows. The total surplus combined and reflected in the closing balance of cash as 26.64 points it is very highest balance maintain year in the period but the performance of cash management according to the model indicated as very good.

During the year 2007-08, the company earned 1.14 cash points, which is smallest amount of during the period and spent 0.52 cash point, the surplus of 0.62 points. The surplus has utilized against the capital outflow. Further, the company mobilized the funds of 8.11 points and meet out the CPD as 9.68 points. The shortage of payments adjusted against the opening balance of cash so the closing balance of the cash is too low in the year.

The fourth highest earning 22.81 cash points in the year 2008-09 out of which the company spent 11.18 points, the company retained a surplus of 11.63 cash points to meet out the outflow of capital of 9.22 points after meet out the capital outflow the company has the excess surplus 2.41 cash points from CPM so it added to the opening balance and showed a higher amount of closing balance compare with opening balance.

In 2009-10 earned 6.75 cash points and spent only 3.19 cash points to have a surplus of 3.56 cash points. The CPM of the company is very high due to sale of investment to meet out the purchase of new investment. The revenue surplus utilized for meeting the capital outflows. The excess outflow added back to the opening balance of cash so it leads to a higher closing cash balance.

In the year 2010-11, the company has a surplus of 2.01 cash point and 1.71 surplus cash points spend for capital outflow the reaming surplus added and showed higher closing balance. During 2011-12, the company earned 3.44 cash points and spends 1.47 cash points, and a surplus of 1.97 utilized for excess cash outflow of 2.01 so it reflected in lower closing balance of cash.

In 2012-13, the company had a surplus of 2.17 cash points and utilized the excess of cash points earned of 2.62 to capital outflow so it affected the closing balance of the year. In the year 2013-14, the company earned 7.23 cash points and spent 2.27, the surplus of 4.96 cash points to meet out the capital out flow of 5.54 cash points so the closing balance of the year is very low.

The last year 2014-15, the surplus of 2.32 cash points earned by the company and spent 2.85 cash points for capital outflow the excess of 0.53 shortages adjusted again the closing balance so it showed low in the year.

The very good performing year 2006-07 had four things in common. Increased Operating profit, reduced interest received, increased dividend received and decreases in working capital items made NCP more than one in component-I. NCP of component-II is more than one due to increase the issues of securities and sale of investment is the main reason for increasing the cash point mobilization. The result of the model in analysis and interpreted according to the criteria out of six criterions only two has identified namely excellent and very good.

III. CONCLUSION

Tata Steel group is one among the world's top global steel companies, established in 1907, as Asia's first integrated private sector steel company. It is the world's second-most geographically diversified steel producer with an annual crude steel capacity of nearly 30 million tonnes per annum. Tata Steel India serves its branded products to large number of consumers with 65 distributors and over 9,000 dealers.

The overall cash management efficient of company is good according to model. If the company increases the operating cash flows to meet the total debt capital, it will lead to increase the better performance in cash flows. Maintenance of closing balance of the company highly fluctuated during the study period. In a particular period, the company maintains a higher closing balance than the opening balance. Holding of excess cash is idle assets of the company so if the company deviate the idle fund, it will generate extra income and it can be liquidate at emergency period.

REFERENCES

- [1] Annual Reports, Tata Steel Limited, Mumbai, 2000-01 to 2014-15. <http://tatasteel.com/>
- [2] Khan M. Y. and P. K. Jain, Basic Financial Management: Financial Statement Analysis. New Delhi: Tata McGraw-Hill Publishing Company Limited, 2006.
- [3] Maheshwari, S. N. Financial Management: Ratio Analysis. New Delhi: S. Chand and & Sons Educational Publishers, 2011.
- [4] Sharmila, D. Management of Short-term Funds - A Study with Special Reference to JSW Steel Limited, Mumbai, (M.Phil., thesis, Annamalai University 2013).
- [5] Rajagopalan, N. V. R. "Financial Performance of Indian Cement Limited." M.Phil. thesis, Annamalai University, 2005.
- [6] Rajagopalan, N.V.R. Equivalent Cash Points Model: A New Dimension to Cash management Efficiency, Journal of Business & Finance, Vol. 2, No. 1, January-June, 2009.