



Amit Deshpande

**TATA MOTORS**

# FINANCIAL MODELING REPORT

( A Comprehensive DCF and Comparable Comps Valuation )

## INDIA'S MOST VALUED AUTOMAKER



**TATA MOTORS LTD**  
(NSE: TATAMOTORS | BSE:500570)



Amit Deshpande

**TATA MOTORS**

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| #                              | Balance Sheet       |               |               |               |               |               |               |
|--------------------------------|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Equity Share Capital           | ₹ 679.22            | ₹ 719.54      | ₹ 765.81      | ₹ 765.88      | ₹ 766.02      | ₹ 766.50      | ₹ 736.00      |
| Reserves                       | ₹ 59,500.34         | ₹ 62,358.99   | ₹ 54,480.91   | ₹ 43,795.36   | ₹ 44,555.77   | ₹ 84,151.52   | ₹ 1,00,326.00 |
| Borrowings                     | ₹ 1,06,175.34       | ₹ 1,24,787.64 | ₹ 1,42,130.57 | ₹ 1,46,449.03 | ₹ 1,34,113.44 | ₹ 1,07,262.50 | ₹ 1,06,549.00 |
| Other Liabilities              | ₹ 1,39,348.59       | ₹ 1,32,313.22 | ₹ 1,44,192.62 | ₹ 1,38,051.22 | ₹ 1,55,239.20 | ₹ 1,77,340.09 | ₹ 1,83,045.00 |
| Total Liabilities              | ₹ 3,05,703.49       | ₹ 3,20,179.39 | ₹ 3,41,569.91 | ₹ 3,29,061.49 | ₹ 3,34,674.43 | ₹ 3,69,520.61 | ₹ 3,90,656.00 |
|                                |                     |               |               |               |               |               |               |
| Fixed Assets Net Block         | ₹ 1,11,234.47       | ₹ 1,27,107.14 | ₹ 1,38,707.61 | ₹ 1,38,855.45 | ₹ 1,32,079.76 | ₹ 1,21,285.46 | ₹ 1,57,718.00 |
| Capital Work in Progress       | ₹ 31,883.84         | ₹ 35,622.29   | ₹ 20,963.93   | ₹ 10,251.09   | ₹ 14,274.50   | ₹ 35,698.43   | ₹ 15,526.00   |
| Investments                    | ₹ 15,770.72         | ₹ 16,308.48   | ₹ 24,620.28   | ₹ 29,379.53   | ₹ 26,379.16   | ₹ 22,971.07   | ₹ 33,381.00   |
| Other Assets                   | ₹ 56,155.74         | ₹ 58,784.94   | ₹ 61,717.96   | ₹ 62,223.77   | ₹ 68,432.09   | ₹ 79,018.86   | ₹ 86,296.00   |
| Total Non Current Assets       | ₹ 2,15,044.77       | ₹ 2,37,822.85 | ₹ 2,46,009.78 | ₹ 2,40,709.84 | ₹ 2,41,165.51 | ₹ 2,58,973.82 | ₹ 2,92,921.00 |
|                                |                     |               |               |               |               |               |               |
| Receivables                    | ₹ 18,996.17         | ₹ 11,172.69   | ₹ 12,679.08   | ₹ 12,442.12   | ₹ 15,737.97   | ₹ 16,951.81   | ₹ 13,685.00   |
| Inventory                      | ₹ 39,013.73         | ₹ 37,456.88   | ₹ 36,088.59   | ₹ 35,240.34   | ₹ 40,755.39   | ₹ 47,788.29   | ₹ 54,682.00   |
| Cash & Bank                    | ₹ 32,648.82         | ₹ 33,726.97   | ₹ 46,792.46   | ₹ 40,669.19   | ₹ 37,015.56   | ₹ 45,806.69   | ₹ 29,368.00   |
| Total Current Assets           | ₹ 90,658.72         | ₹ 82,356.54   | ₹ 95,560.13   | ₹ 88,351.65   | ₹ 93,508.92   | ₹ 1,10,546.79 | ₹ 97,735.00   |
|                                |                     |               |               |               |               |               |               |
| Total Assets                   | ₹ 3,05,703.49       | ₹ 3,20,179.39 | ₹ 3,41,569.91 | ₹ 3,29,061.49 | ₹ 3,34,674.43 | ₹ 3,69,520.61 | ₹ 3,90,656.00 |
|                                |                     |               |               |               |               |               |               |
| Check                          | TRUE                | TRUE          | TRUE          | TRUE          | TRUE          | TRUE          | TRUE          |
| #                              | Cash Flow Statement |               |               |               |               |               |               |
| Operating Activities           |                     |               |               |               |               |               |               |
| Profit from operations         | ₹ 28,771.00         | ₹ 23,352.00   | ₹ 31,198.00   | ₹ 26,943.00   | ₹ 41,694.00   | ₹ 65,106.00   |               |
| Receivables                    | (₹9,109.00)         | ₹ 9,950.00    | (₹5,505.00)   | ₹ 185.00      | (₹2,213.00)   | (₹1,875.00)   |               |
| Inventory                      | ₹ 2,069.00          | ₹ 2,326.00    | ₹ 3,814.00    | ₹ 472.00      | (₹5,665.00)   | (₹7,265.00)   |               |
| Payables                       | (₹4,692.00)         | (₹8,085.00)   | ₹ 5,748.00    | (₹7,012.00)   | ₹ 6,945.00    | ₹ 13,706.00   |               |
| Loans Advances                 | -                   | -             | -             | -             | -             | -             |               |
| Other WC items                 | ₹ 4,512.00          | ₹ 875.00      | (₹4,150.00)   | (₹4,396.00)   | (₹2,194.00)   | ₹ 2,760.00    |               |
| Working capital changes        | (₹7,220.00)         | ₹ 5,066.00    | (₹93.00)      | (₹10,751.00)  | (₹3,127.00)   | ₹ 7,326.00    |               |
| Direct taxes                   | (₹2,659.00)         | (₹1,785.00)   | (₹2,105.00)   | (₹1,910.00)   | (₹3,179.00)   | (₹4,516.00)   |               |
| Cash from Operating Activities | ₹ 18,892.00         | ₹ 26,633.00   | ₹ 29,000.00   | ₹ 14,282.00   | ₹ 35,388.00   | ₹ 67,916.00   |               |
| Investing Activities           |                     |               |               |               |               |               |               |
| Fixed assets purchased         | (₹35,304.00)        | (₹29,702.00)  | (₹20,205.00)  | (₹15,168.00)  | (₹19,230.00)  | (₹31,414.00)  |               |
| Fixed assets sold              | ₹ 67.00             | ₹ 171.00      | ₹ 351.00      | ₹ 230.00      | ₹ 285.00      | ₹ 231.00      |               |
| Investments purchased          | (₹130.00)           | (₹1,439.00)   | (₹7,530.00)   | (₹3,008.00)   | (₹50.00)      | (₹74.00)      |               |
| Investments sold               | ₹ 5,644.00          | ₹ 21.00       | ₹ 226.00      | ₹ 104.00      | ₹ 6,895.00    | ₹ 10,820.00   |               |
| Interest received              | ₹ 761.00            | ₹ 1,104.00    | ₹ 428.00      | ₹ 653.00      | ₹ 973.00      | ₹ 2,493.00    |               |
| Dividends received             | ₹ 232.00            | ₹ 21.00       | ₹ 18.00       | ₹ 32.00       | ₹ 46.00       | ₹ 47.00       |               |
| Investment in group cos        | (₹9.00)             | (₹606.00)     | (₹10.00)      | -             | -             | (₹150.00)     |               |
| Redemp n Canc of Shares        | ₹ 533.00            | -             | -             | -             | ₹ 19.00       | ₹ 108.00      |               |
| Acquisition of companies       | (₹8.00)             | (₹27.00)      | -             | (₹98.00)      | -             | -             |               |
| Inter corporate deposits       | -                   | -             | -             | -             | -             | (₹24.00)      |               |
| Other investing items          | ₹ 7,335.00          | (₹2,659.00)   | ₹ 1,051.00    | ₹ 12,813.00   | (₹4,357.00)   | (₹4,817.00)   |               |
| Cash Investing Activities      | (₹20,879.00)        | (₹33,116.00)  | (₹25,671.00)  | (₹4,442.00)   | (₹15,419.00)  | (₹22,780.00)  |               |
| Financing Activities           |                     |               |               |               |               |               |               |
| Proceeds from shares           | -                   | ₹ 3,889.00    | ₹ 2,603.00    | ₹ 19.00       | ₹ 20.00       | ₹ 82.00       |               |
| Redemption of debentures       | -                   | -             | -             | -             | -             | -             |               |
| Proceeds from borrowings       | ₹ 51,128.00         | ₹ 38,297.00   | ₹ 46,641.00   | ₹ 46,578.00   | ₹ 43,934.00   | ₹ 18,747.00   |               |
| Repayment of borrowings        | (₹35,198.00)        | (₹29,847.00)  | (₹29,709.00)  | (₹42,816.00)  | (₹62,557.00)  | (₹47,332.00)  |               |
| Interest paid fin              | (₹7,005.00)         | (₹7,518.00)   | (₹8,123.00)   | (₹9,251.00)   | (₹9,336.00)   | (₹9,332.00)   |               |
| Dividends paid                 | (₹95.00)            | (₹57.00)      | (₹30.00)      | (₹100.00)     | (₹141.00)     | (₹1,059.00)   |               |
| Financial liabilities          | -                   | (₹1,346.00)   | (₹1,477.00)   | (₹1,559.00)   | (₹1,517.00)   | (₹1,924.00)   |               |
| Other financing items          | -                   | (₹29.00)      | -             | ₹ 3,750.00    | ₹ 3,355.00    | ₹ 3,812.00    |               |
| Cash From Financing Activities | ₹ 8,830.00          | ₹ 3,389.00    | ₹ 9,905.00    | (₹3,379.00)   | (₹26,242.00)  | (₹37,006.00)  |               |
|                                |                     |               |               |               |               |               |               |
| Net Cash Flow                  | ₹ 6,843.00          | (₹3,094.00)   | ₹ 13,234.00   | ₹ 6,461.00    | (₹6,273.00)   | ₹ 8,130.00    |               |

# TATA MOTORS LTD

( TATAMOTORS | BSE Code: 500570 )



## Common Size Statement - TATA MOTORS LTD

| Particular          | Mar-19         | Mar-20         | Mar-21         | Mar-22         | Mar-23         | Mar-24         |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Sales</b>        | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> |
| Raw Material Cost   | 64.34%         | 63.16%         | 61.49%         | 64.39%         | 66.84%         | 62.64%         |
| Change in Inventory | -0.68%         | -0.85%         | -1.88%         | -0.57%         | 1.38%          | 0.36%          |
| Power and Fuel      | 0.53%          | 0.48%          | 0.45%          | 0.78%          | 0.73%          | 0.50%          |
| Other Mfr. Exp      | 3.87%          | 4.42%          | 3.31%          | 3.39%          | 3.40%          | 3.91%          |
| Employee Cost       | 11.01%         | 11.66%         | 11.07%         | 11.06%         | 9.73%          | 9.70%          |
| Selling and admin   | 10.84%         | 11.20%         | 9.21%          | 10.49%         | 10.07%         | 9.77%          |
| Other Expenses      | 0.57%          | 1.32%          | -0.33%         | 0.44%          | 1.42%          | 0.24%          |
| Other Income        | -8.84%         | 0.04%          | -4.45%         | 0.87%          | 1.93%          | 1.30%          |
| Depreciation        | 7.81%          | 8.21%          | 9.43%          | 8.92%          | 7.19%          | 6.23%          |
| Interest            | 1.91%          | 2.77%          | 3.24%          | 3.34%          | 2.96%          | 2.28%          |
| Profit before tax   | -10.39%        | -4.05%         | -4.19%         | -2.52%         | 0.98%          | 6.38%          |
| Tax                 | -0.81%         | 0.15%          | 1.02%          | 1.52%          | 0.20%          | -0.88%         |
| Net profit          | -9.55%         | -4.62%         | -5.38%         | -4.11%         | 0.70%          | 7.17%          |
| Dividend Amount     | 0.00%          | 0.00%          | 0.00%          | 0.00%          | 0.22%          | 0.53%          |
| EBITDA              | -0.63%         | 6.51%          | 8.30%          | 9.67%          | 11.04%         | 14.80%         |





















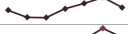









## Common Size Statement - TATA MOTORS LTD

| Particular               | Mar-19         | Mar-20         | Mar-21         | Mar-22         | Mar-23         | Mar-24         | Sep-24         |
|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Total Liabilities</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> |
| Equity Share Capital     | 0.22%          | 0.22%          | 0.22%          | 0.23%          | 0.23%          | 0.21%          | 0.19%          |
| Reserves                 | 19.46%         | 19.48%         | 15.95%         | 13.31%         | 13.31%         | 22.77%         | 25.68%         |
| Borrowings               | 34.73%         | 38.97%         | 41.61%         | 44.51%         | 40.07%         | 29.03%         | 27.27%         |
| Other Liabilities        | 45.58%         | 41.32%         | 42.21%         | 41.95%         | 46.39%         | 47.99%         | 46.86%         |
| <b>Total Assets</b>      | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> | <b>100.00%</b> |
| Net Block                | 36.39%         | 39.70%         | 40.61%         | 42.20%         | 39.47%         | 32.82%         | 40.37%         |
| Capital Work in Progress | 10.43%         | 11.13%         | 6.14%          | 3.12%          | 4.27%          | 9.66%          | 3.97%          |
| Investments              | 5.16%          | 5.09%          | 7.21%          | 8.93%          | 7.88%          | 6.22%          | 8.54%          |
| Other Assets             | 18.37%         | 18.36%         | 18.07%         | 18.91%         | 20.45%         | 21.38%         | 22.09%         |
| Receivables              | 6.21%          | 3.49%          | 3.71%          | 3.78%          | 4.70%          | 4.59%          | 3.50%          |
| Inventory                | 12.76%         | 11.70%         | 10.57%         | 10.71%         | 12.18%         | 12.93%         | 14.00%         |
| Cash & Bank              | 10.68%         | 10.53%         | 13.70%         | 12.36%         | 11.06%         | 12.40%         | 7.52%          |

# TATA MOTORS LTD

( TATAMOTORS | BSE Code: 500570 )

**TATA MOTORS**

| Ratio Analysis - TATA MOTORS LTD |        |         |          |           |         |          |          |   |          |          |
|----------------------------------|--------|---------|----------|-----------|---------|----------|----------|---|----------|----------|
| Years                            | Mar-19 | Mar-20  | Mar-21   | Mar-22    | Mar-23  | Mar-24   | LTM      | Trend   | Mean     | Median   |
| Sales Growth                     |        | -13.54% | -4.32%   | 11.47%    | 24.25%  | 26.58%   | 0.49%    |    | 8.89%    | 11.47%   |
| EBITDA Growth                    |        | -27.07% | 79.50%   | -23.44%   | 28.70%  | 87.13%   | 12.72%   |    | 28.97%   | 28.70%   |
| EBIT Growth                      |        | 128.00% | -106.02% | -1564.91% | -65.31% | -781.41% | 42.23%   |    | -477.93% | -106.02% |
| Net Profit Growth                |        | 392.87% | -82.86%  | 619.52%   | -70.90% | -757.61% | 29.39%   |    | 20.20%   | -70.90%  |
| Dividend Growth                  |        | 0.00%   | 0.00%    | 0.00%     | 0.00%   | 199.97%  | -100.00% |    | 39.99%   | 0.00%    |
| Gross Margin                     | 19.57% | 19.42%  | 21.81%   | 19.81%    | 20.69%  | 23.61%   | 13.75%   |    | 20.82%   | 20.25%   |
| EBITDA Margin                    | 8.17%  | 6.89%   | 12.93%   | 8.88%     | 9.20%   | 13.60%   | 15.25%   |    | 9.94%    | 9.04%    |
| EBIT Margin                      | 0.36%  | -1.32%  | 3.50%    | -0.04%    | 2.01%   | 7.37%    | 9.21%    |    | 1.98%    | 1.18%    |
| EBT Margin                       | -1.55% | -4.09%  | 0.26%    | -3.39%    | -0.95%  | 5.09%    | 7.20%    |    | -0.77%   | -1.25%   |
| Net Profit Margin                | -0.74% | -4.24%  | -0.76%   | -4.91%    | -1.15%  | 5.97%    | 7.68%    |    | -0.97%   | -0.95%   |
| SalesExpenses%Sales              | 11.40% | 12.53%  | 8.88%    | 10.93%    | 11.49%  | 10.01%   | 0.00%    |    | 10.87%   | 11.17%   |
| Depreciation%Sales               | 7.81%  | 8.21%   | 9.43%    | 8.92%     | 7.19%   | 6.23%    | 6.04%    |    | 7.96%    | 8.01%    |
| OperatingIncome%Sales            | 0.36%  | -1.32%  | 3.50%    | -0.04%    | 2.01%   | 7.37%    | 9.21%    |    | 1.98%    | 1.18%    |
| Return on Capital Employed       | 0.65%  | -1.83%  | 4.43%    | -0.06%    | 3.88%   | 16.79%   | 19.52%   |    | 3.97%    | 2.26%    |
| Retained Earnings%               | 0.00%  | 0.00%   | 0.00%    | 0.00%     | 0.00%   | 91.20%   | 100.00%  |    | 15.20%   | 0.00%    |
| Return on Equity%                | -3.73% | -17.56% | -3.44%   | -30.65%   | -8.77%  | 30.78%   | 33.46%   |    | -5.56%   | -6.25%   |
| Self Sustained Growth Rate       | 0.00%  | 0.00%   | 0.00%    | 0.00%     | 0.00%   | 28.07%   | 33.46%   |    | 4.68%    | 0.00%    |
| Interest Coverage Ratio          | 0.19x  | -0.47x  | 1.08x    | -0.01x    | 0.68x   | 3.23x    | 4.58x    |    | 78.17%   | 43.33%   |
| Debtor Turnover Ratio            | 15.89x | 23.37x  | 19.70x   | 22.38x    | 21.98x  | 25.83x   | 32.16x   |  | 21.53x   | 22.18x   |
| Creditor Turnover Ratio          | 2.17x  | 1.97x   | 1.73x    | 2.02x     | 2.23x   | 2.47x    | 2.40x    |  | 2.10x    | 2.09x    |
| Inventory Turnover Ratio         | 7.74x  | 6.97x   | 6.92x    | 7.90x     | 8.49x   | 9.16x    | 8.05x    |  | 7.86x    | 7.82x    |
| Fixed Asset Turnover Ratio       | 2.71x  | 2.05x   | 1.80x    | 2.01x     | 2.62x   | 3.61x    | 2.79x    |  | 2.47x    | 2.34x    |
| Capital Turnover Ratio           | 5.02x  | 4.14x   | 4.52x    | 6.25x     | 7.63x   | 5.16x    | 4.35x    |  | 5.45x    | 5.09x    |
| Debtor Days                      | 23     | 16      | 19       | 16        | 17      | 14       | 11       |  | 17       | 16       |
| Payable Days                     | 168    | 185     | 211      | 181       | 164     | 148      | 152      |  | 176      | 175      |
| Inventory Days                   | 47     | 52      | 53       | 46        | 43      | 40       | 45       |  | 47       | 47       |
| Cash Conversion Cycle (In days)  | -98    | -117    | -139     | -118      | -104    | -94      | -95      |  | -112     | -111     |
| CFO/Sales                        | 6.26%  | 10.20%  | 11.61%   | 5.13%     | 10.23%  | 15.51%   |          |  | 9.82%    | 10.22%   |
| CFO/Total Assets                 | 6.18%  | 8.32%   | 8.49%    | 4.34%     | 10.57%  | 18.38%   |          |  | 9.38%    | 8.40%    |
| CFO/Total Debt                   | 17.79% | 21.34%  | 20.40%   | 9.75%     | 26.39%  | 63.32%   |          |  | 26.50%   | 20.87%   |

# TATA MOTORS LTD

( TATAMOTORS | BSE Code: 500570 )



## TATA MOTORS LTD - Sales forecasting

| Year Weight | Year  | Sales      | Sales Growth |
|-------------|-------|------------|--------------|
| 1           | 2019A | 3,01,938.4 |              |
| 2           | 2020A | 2,61,068.0 | -13.54%      |
| 3           | 2021A | 2,49,794.8 | -4.32%       |
| 4           | 2022A | 2,78,453.6 | 11.47%       |
| 5           | 2023A | 3,45,967.0 | 24.25%       |
| 6           | 2024A | 4,37,927.8 | 26.58%       |
| 7           | 2025A | 4,08,855.2 | -6.64%       |
| 8           | 2026A | 4,36,378.1 | 6.73%        |
| 9           | 2027A | 4,63,901.1 | 6.31%        |
| 10          | 2028A | 4,91,424.0 | 5.93%        |
| 11          | 2029A | 5,18,946.9 | 5.60%        |
| 12          | 2030A | 5,46,469.9 | 5.30%        |

## SUMMARY OUTPUT

| Regression Statistics |              |
|-----------------------|--------------|
| Multiple R            | 0.251637811  |
| R Square              | 0.063321588  |
| Adjusted R Square     | -0.040753791 |
| Standard Error        | 107142.9809  |
| Observations          | 11           |

| ANOVA      |    |             |             |             |                |
|------------|----|-------------|-------------|-------------|----------------|
|            | df | SS          | MS          | F           | Significance F |
| Regression | 1  | 6984434427  | 6984434427  | 0.608420437 | 0.455406129    |
| Residual   | 9  | 1.03317E+11 | 11479618366 |             |                |
| Total      | 10 | 1.10301E+11 |             |             |                |

|           | Coefficients | Standard Error | t Stat      | P-value     | Lower 95%    | Upper 95% | Lower 95.0%  | Upper 95.0% |
|-----------|--------------|----------------|-------------|-------------|--------------|-----------|--------------|-------------|
| Intercept | 389989.2974  | 36693.32283    | 10.62834509 | 2.14986E-06 | 306983.2344  | 472995.36 | 306983.2344  | 472995.3605 |
|           | 220593.5827  | 282807.5356    | 0.780013101 | 0.455406129 | -419161.5096 | 860348.68 | -419161.5096 | 860348.6751 |

## TATA MOTORS LTD - EBITDA Forecasting

| Year Weight | Year  | EBITDA     | EBITDA Growth |
|-------------|-------|------------|---------------|
| 1           | 2019A | -1,914.5   |               |
| 2           | 2020A | 16,993.2   | -987.63%      |
| 3           | 2021A | 20,734.4   | 22.02%        |
| 4           | 2022A | 26,937.4   | 29.92%        |
| 5           | 2023A | 38,204.2   | 41.83%        |
| 6           | 2024A | 64,803.3   | 69.62%        |
| 7           | 2025A | 67,968.8   | 4.88%         |
| 8           | 2026A | 79,108.8   | 16.39%        |
| 9           | 2027A | 93,782.7   | 18.55%        |
| 10          | 2028A | 1,07,811.4 | 14.96%        |
| 11          | 2029A | 1,19,891.3 | 11.20%        |
| 12          | 2030A | 1,29,858.6 | 8.31%         |

## SUMMARY OUTPUT

| Regression Statistics |             |
|-----------------------|-------------|
| Multiple R            | 0.407407462 |
| R Square              | 0.16598084  |
| Adjusted R Square     | 0.073312044 |
| Standard Error        | 38844.20184 |
| Observations          | 11          |

| ANOVA      |    |             |            |             |                |
|------------|----|-------------|------------|-------------|----------------|
|            | df | SS          | MS         | F           | Significance F |
| Regression | 1  | 2702569331  | 2702569331 | 1.791118995 | 0.213615561    |
| Residual   | 9  | 13579848150 | 1508872017 |             |                |
| Total      | 10 | 16282417481 |            |             |                |

|           | Coefficients | Standard Error | t Stat      | P-value     | Lower 95%    | Upper 95% | Lower 95.0%  | Upper 95.0% |
|-----------|--------------|----------------|-------------|-------------|--------------|-----------|--------------|-------------|
| Intercept | 73313.60507  | 12028.49384    | 6.094994608 | 0.000180337 | 46103.26158  | 100523.95 | 46103.26158  | 100523.9486 |
|           | 5381.15908   | 4020.810554    | 1.338326939 | 0.213615561 | -3714.546314 | 14476.864 | -3714.546314 | 14476.86447 |

## TATA MOTORS LTD - Net profit forecasting

| Year Weight | Year  | Net Profit | Net Profit Growth |
|-------------|-------|------------|-------------------|
| 1           | 2019A | -28,826.2  |                   |
| 2           | 2020A | -12,070.9  | -58.13%           |
| 3           | 2021A | -13,451.4  | 11.44%            |
| 4           | 2022A | -11,441.5  | -14.94%           |
| 5           | 2023A | 2,414.3    | -121.10%          |
| 6           | 2024A | 31,399.1   | 1200.55%          |
| 7           | 2025A | 29,329.8   | -6.59%            |
| 8           | 2026A | 39,904.3   | 36.05%            |
| 9           | 2027A | 54,833.4   | 37.41%            |
| 10          | 2028A | 68,584.1   | 25.08%            |
| 11          | 2029A | 78,916.8   | 15.07%            |
| 12          | 2030A | 87,522.6   | 10.90%            |

## SUMMARY OUTPUT

| Regression Statistics |              |
|-----------------------|--------------|
| Multiple R            | 0.06218784   |
| R Square              | 0.003867327  |
| Adjusted R Square     | -0.106814081 |
| Standard Error        | 39340.02296  |
| Observations          | 11           |

| ANOVA      |    |             |             |             |                |
|------------|----|-------------|-------------|-------------|----------------|
|            | df | SS          | MS          | F           | Significance F |
| Regression | 1  | 54076115.73 | 54076115.73 | 0.034941076 | 0.855865049    |
| Residual   | 9  | 13928736658 | 1547637406  |             |                |
| Total      | 10 | 13982812773 |             |             |                |

|           | Coefficients | Standard Error | t Stat      | P-value     | Lower 95%   | Upper 95% | Lower 95.0% | Upper 95.0% |
|-----------|--------------|----------------|-------------|-------------|-------------|-----------|-------------|-------------|
| Intercept | 31703.84887  | 12367.30131    | 2.56352199  | 0.030510325 | 3727.069621 | 59680.628 | 3727.069621 | 59680.62812 |
|           | 633.7995269  | 3390.656349    | 0.186925321 | 0.855865049 | -7036.39802 | 8303.9971 | -7036.39802 | 8303.997074 |

## TATA MOTORS LTD

( TATAMOTORS | BSE Code: 500570 )



## Regression Beta - 2 Years Weekly

## Yahoo Finance

| Tata Motors Weekly Returns |             |                | NIFTY Weekly Returns |                | ReturnsBeta Drifting |        |
|----------------------------|-------------|----------------|----------------------|----------------|----------------------|--------|
| Date                       | Close Price | Weekly Returns | Close Price          | Weekly Returns | Levered Raw Beta     | 1.42   |
| Feb 13, 2023               | 437.18      |                | 17944.2              |                | Raw Beta Weight      | 70.00% |
| Feb 20, 2023               | 425.11      | -2.8%          | 17465.8              | -2.7%          |                      |        |
| Feb 27, 2023               | 425.36      | 0.1%           | 17594.35             | 0.7%           | Market Beta          | 1.00   |
| Mar 6, 2023                | 433.16      | 1.8%           | 17412.9              | -1.0%          | Market Beta Weight   | 30.00% |
| Mar 13, 2023               | 416.41      | -3.9%          | 17100.05             | -1.8%          |                      |        |
| Mar 20, 2023               | 413.93      | -0.6%          | 16945.05             | -0.9%          | Adjusted Beta        | 1.29   |
| Mar 27, 2023               | 418.2       | 1.0%           | 17359.75             | 2.4%           |                      |        |
| Apr 3, 2023                | 434.95      | 4.0%           | 17599.15             | 1.4%           |                      |        |
| Apr 10, 2023               | 466.6       | 7.3%           | 17828                | 1.3%           |                      |        |
| Apr 17, 2023               | 468.29      | 0.4%           | 17624.05             | -1.1%          |                      |        |
| Apr 24, 2023               | 481.96      | 2.9%           | 18065                | 2.5%           |                      |        |
| May 1, 2023                | 474.15      | -1.6%          | 18069                | 0.0%           |                      |        |
| May 8, 2023                | 512.76      | 8.1%           | 18314.8              | 1.4%           |                      |        |
| May 15, 2023               | 521.71      | 1.7%           | 18203.4              | -0.6%          |                      |        |
| May 22, 2023               | 515.25      | -1.2%          | 18499.35             | 1.6%           |                      |        |
| May 29, 2023               | 532.59      | 3.4%           | 18534.1              | 0.2%           |                      |        |
| Jun 5, 2023                | 558.83      | 4.9%           | 18563.4              | 0.2%           |                      |        |
| Jun 12, 2023               | 566.28      | 1.3%           | 18826                | 1.4%           |                      |        |
| Jun 19, 2023               | 556.19      | -1.8%          | 18665.5              | -0.9%          |                      |        |
| Jun 26, 2023               | 591.87      | 6.4%           | 19189.05             | 2.8%           |                      |        |
| Jul 3, 2023                | 614.38      | 3.8%           | 19331.8              | 0.7%           |                      |        |
| Jul 10, 2023               | 621.04      | 1.1%           | 19564.5              | 1.2%           |                      |        |
| Jul 17, 2023               | 621.89      | 0.1%           | 19745                | 0.9%           |                      |        |
| Jul 24, 2023               | 631.38      | 1.5%           | 19646.05             | -0.5%          |                      |        |
| Jul 31, 2023               | 613.11      | -2.9%          | 19517                | -0.7%          |                      |        |
| Aug 7, 2023                | 609.92      | -0.5%          | 19428.3              | -0.5%          |                      |        |
| Aug 14, 2023               | 613.91      | 0.7%           | 19310.15             | -0.6%          |                      |        |
| Aug 21, 2023               | 603.24      | -1.7%          | 19265.8              | -0.2%          |                      |        |
| Aug 28, 2023               | 609.32      | 1.0%           | 19435.3              | 0.9%           |                      |        |
| Sep 4, 2023                | 625.32      | 2.6%           | 19819.95             | 2.0%           |                      |        |
| Sep 11, 2023               | 632.3       | 1.1%           | 20192.35             | 1.9%           |                      |        |
| Sep 18, 2023               | 618.54      | -2.2%          | 19674.25             | -2.6%          |                      |        |
| Sep 25, 2023               | 628.26      | 1.6%           | 19638.3              | -0.2%          |                      |        |
| Oct 2, 2023                | 620.54      | -1.2%          | 19653.5              | 0.1%           |                      |        |
| Oct 9, 2023                | 665.05      | 7.2%           | 19751.05             | 0.5%           |                      |        |
| Oct 16, 2023               | 661.16      | -0.6%          | 19542.65             | -1.1%          |                      |        |
| Oct 23, 2023               | 639.08      | -3.3%          | 19047.25             | -2.5%          |                      |        |
| Oct 30, 2023               | 645.51      | 1.0%           | 19230.6              | 1.0%           |                      |        |
| Nov 6, 2023                | 649.05      | 0.5%           | 19425.35             | 1.0%           |                      |        |
| Nov 13, 2023               | 679.45      | 4.7%           | 19731.8              | 1.6%           |                      |        |
| Nov 20, 2023               | 671.63      | -1.2%          | 19794.7              | 0.3%           |                      |        |
| Nov 27, 2023               | 703.28      | 4.7%           | 20267.9              | 2.4%           |                      |        |
| Dec 4, 2023                | 712.35      | 1.3%           | 20969.4              | 3.5%           |                      |        |
| Dec 11, 2023               | 730.15      | 2.5%           | 21456.65             | 2.3%           |                      |        |
| Dec 18, 2023               | 722.47      | -1.1%          | 21349.4              | -0.5%          |                      |        |
| Dec 25, 2023               | 777.55      | 7.6%           | 21731.4              | 1.8%           |                      |        |
| Jan 1, 2024                | 788.52      | 1.4%           | 21710.8              | -0.1%          |                      |        |
| Jan 8, 2024                | 813.94      | 3.2%           | 21894.55             | 0.8%           |                      |        |
| Jan 15, 2024               | 821.02      | 0.9%           | 21622.4              | -1.2%          |                      |        |
| Jan 22, 2024               | 809.35      | -1.4%          | 21352.6              | -1.2%          |                      |        |
| Jan 29, 2024               | 876.05      | 8.2%           | 21853.8              | 2.3%           |                      |        |
| Feb 5, 2024                | 912.19      | 4.1%           | 21782.5              | -0.3%          |                      |        |
| Feb 12, 2024               | 935.71      | 2.6%           | 22040.7              | 1.2%           |                      |        |
| Feb 19, 2024               | 934.52      | -0.1%          | 22212.7              | 0.8%           |                      |        |
| Feb 26, 2024               | 974.39      | 4.3%           | 22338.75             | 0.6%           |                      |        |
| Mar 4, 2024                | 1036.1      | 6.3%           | 22493.55             | 0.7%           |                      |        |
| Mar 11, 2024               | 942.94      | -9.0%          | 22023.35             | -2.1%          |                      |        |
| Mar 18, 2024               | 976.79      | 3.6%           | 22096.75             | 0.3%           |                      |        |
| Mar 25, 2024               | 989.75      | 1.3%           | 22326.9              | 1.0%           |                      |        |
| Apr 1, 2024                | 1004        | 1.4%           | 22513.7              | 0.8%           |                      |        |
| Apr 8, 2024                | 1015.37     | 1.1%           | 22519.4              | 0.0%           |                      |        |
| Apr 15, 2024               | 960.24      | -5.4%          | 22147                | -1.7%          |                      |        |
| Apr 22, 2024               | 996.43      | 3.8%           | 22419.95             | 1.2%           |                      |        |
| Apr 29, 2024               | 1010.28     | 1.4%           | 22475.85             | 0.2%           |                      |        |
| May 6, 2024                | 1043.43     | 3.3%           | 22055.2              | -1.9%          |                      |        |
| May 13, 2024               | 951.02      | -8.9%          | 22466.1              | 1.9%           |                      |        |
| May 20, 2024               | 957.59      | 0.7%           | 22957.1              | 2.2%           |                      |        |
| May 27, 2024               | 920.16      | -3.9%          | 22530.7              | -1.9%          |                      |        |
| Jun 3, 2024                | 967.51      | 5.1%           | 23290.15             | 3.4%           |                      |        |
| Jun 10, 2024               | 990.34      | 2.4%           | 23465.6              | 0.8%           |                      |        |
| Jun 17, 2024               | 961.8       | -2.9%          | 23501.1              | 0.2%           |                      |        |
| Jun 24, 2024               | 989.75      | 2.9%           | 24010.6              | 2.2%           |                      |        |
| Jul 1, 2024                | 993.65      | 0.4%           | 24323.85             | 1.3%           |                      |        |
| Jul 8, 2024                | 1016.75     | 2.3%           | 24502.15             | 0.7%           |                      |        |
| Jul 15, 2024               | 990         | -2.6%          | 24530.9              | 0.1%           |                      |        |
| Jul 22, 2024               | 1118.3      | 13.0%          | 24834.85             | 1.2%           |                      |        |
| Jul 29, 2024               | 1096.65     | -1.9%          | 24717.7              | -0.5%          |                      |        |
| Aug 5, 2024                | 1068.1      | -2.6%          | 24367.5              | -1.4%          |                      |        |
| Aug 12, 2024               | 1098.35     | 2.8%           | 24541.15             | 0.7%           |                      |        |
| Aug 19, 2024               | 1085.15     | -1.2%          | 24823.15             | 1.1%           |                      |        |
| Aug 26, 2024               | 1111.35     | 2.4%           | 25235.9              | 1.7%           |                      |        |
| Sep 2, 2024                | 1049.35     | -5.6%          | 24852.15             | -1.5%          |                      |        |
| Sep 9, 2024                | 992.1       | -5.5%          | 25356.5              | 2.0%           |                      |        |
| Sep 16, 2024               | 970.85      | -2.1%          | 25790.95             | 1.7%           |                      |        |
| Sep 23, 2024               | 993         | 2.3%           | 26178.95             | 1.5%           |                      |        |
| Sep 30, 2024               | 930.75      | -6.3%          | 25014.6              | -4.4%          |                      |        |
| Oct 7, 2024                | 930.7       | 0.0%           | 24964.25             | -0.2%          |                      |        |
| Oct 14, 2024               | 910.15      | -2.2%          | 24854.05             | -0.4%          |                      |        |
| Oct 21, 2024               | 864.3       | -5.0%          | 24180.8              | -2.7%          |                      |        |
| Oct 28, 2024               | 843.45      | -2.4%          | 24304.35             | 0.5%           |                      |        |
| Nov 4, 2024                | 805.45      | -4.5%          | 24148.2              | -0.6%          |                      |        |
| Nov 11, 2024               | 774.3       | -3.9%          | 23532.7              | -2.5%          |                      |        |
| Nov 18, 2024               | 791         | 2.2%           | 23907.25             | 1.6%           |                      |        |
| Nov 25, 2024               | 786.45      | -0.6%          | 24131.1              | 0.9%           |                      |        |
| Dec 2, 2024                | 816.8       | 3.9%           | 24677.8              | 2.3%           |                      |        |
| Dec 9, 2024                | 790.3       | -3.2%          | 24768.3              | 0.4%           |                      |        |
| Dec 16, 2024               | 724.05      | -8.4%          | 23587.5              | -4.8%          |                      |        |
| Dec 23, 2024               | 750.5       | 3.7%           | 23813.4              | 1.0%           |                      |        |
| Dec 30, 2024               | 790.4       | 5.3%           | 24004.75             | 0.8%           |                      |        |
| Jan 6, 2025                | 774.65      | -2.0%          | 23431.5              | -2.4%          |                      |        |
| Jan 13, 2025               | 779.75      | 0.7%           | 23203.2              | -1.0%          |                      |        |
| Jan 20, 2025               | 734.1       | -5.9%          | 23092.2              | -0.5%          |                      |        |



# TATA MOTORS LTD

( TATAMOTORS | BSE Code: 500570 )



## Return on Market

## PrimeInvestor

| Year | Annual  |                            |                    |
|------|---------|----------------------------|--------------------|
| 2000 | -0.1465 | <b>Average Return</b>      | 0.153348           |
| 2001 | -0.1618 | <b>Dividend Yeild</b>      | 1.27% <sup>1</sup> |
| 2002 | 0.0325  | <b>Total Market Return</b> | 15.33%             |
| 2003 | 0.719   |                            |                    |
| 2004 | 0.1068  |                            |                    |
| 2005 | 0.3634  |                            |                    |
| 2006 | 0.3983  |                            |                    |
| 2007 | 0.5477  |                            |                    |
| 2008 | -0.5179 |                            |                    |
| 2009 | 0.7576  |                            |                    |
| 2010 | 0.1795  |                            |                    |
| 2011 | -0.2462 |                            |                    |
| 2012 | 0.277   |                            |                    |
| 2013 | 0.0676  |                            |                    |
| 2014 | 0.3139  |                            |                    |
| 2015 | -0.0406 |                            |                    |
| 2016 | 0.0301  |                            |                    |
| 2017 | 0.2865  |                            |                    |
| 2018 | 0.0315  |                            |                    |
| 2019 | 0.1202  |                            |                    |
| 2020 | 0.149   |                            |                    |
| 2021 | 0.2412  |                            |                    |
| 2022 | 0.0432  |                            |                    |
| 2023 | 0.1942  |                            |                    |
| 2024 | 0.0875  |                            |                    |

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# TATA MOTORS LTD

( TATAMOTORS | BSE Code: 500570 )



## Weighted Average Cost of Capital

[investing.com](https://www.investing.com)

### Peer Comps

| Name                | Country | Total Debt | Total Equity | Tax Rate <sup>1</sup> | Debt/<br>Equity | Debt/<br>Capital | Levered<br>Beta <sup>2</sup> | Unlevered<br>Beta <sup>3</sup> |
|---------------------|---------|------------|--------------|-----------------------|-----------------|------------------|------------------------------|--------------------------------|
| Tata Motors         | india   | 1,09,200   | 3,22,000     | 25.00%                | 33.91%          | 25.32%           | 1.21                         | 0.96                           |
| Mahindra & Mahindra | india   | 1,19,000   | 1,99,000     | 25.00%                | 59.80%          | 37.42%           | 1.57                         | 1.08                           |
| Maruti Suzuki       | india   | 164        | 3,35,000     | 25.00%                | 0.05%           | 0.05%            | 1.19                         | 1.19                           |
| Bajaj Auto          | india   | 5,119      | 2,19,000     | 25.00%                | 2.34%           | 2.28%            | 1.07                         | 1.05                           |
| Force Motors        | india   | 273.7      | 2,562.16     | 25.00%                | 10.68%          | 9.65%            | 1.18                         | 1.09                           |
| <b>Average</b>      |         |            |              | 25.00%                | 21.36%          | 14.95%           | 1.24                         | 1.08                           |
| <b>Median</b>       |         |            |              | 25.00%                | 10.68%          | 9.65%            | 1.19                         | 1.08                           |

### Cost of Debt

|                        |        |
|------------------------|--------|
| Pre-tax Cost of Debt   | 9.14%  |
| Tax Rate               | 25.00% |
| After tax cost of Debt | 6.86%  |

### Capital Structure

|                       |             | Current | Target |
|-----------------------|-------------|---------|--------|
| Total Debt            | 1,09,200    | 25%     | 27.95% |
| Market Capitalization | 3,22,000.00 | 75%     | 72.05% |
| Total Capitalization  | 4,31,200.00 | 100%    | 100%   |
| Debt / Equity         |             | 34%     | 39%    |

### Cost of Equity

|                           |        |
|---------------------------|--------|
| Risk Free Rate            | 6.79%  |
| Equity Risk Premium       | 8.54%  |
| Levered Beta <sup>4</sup> | 1.40   |
| Cost of Equity            | 18.75% |

### Levered Beta

|                             |        |
|-----------------------------|--------|
| Comps Median Unlevered Beta | 1.08   |
| Target Debt/ Equity         | 39%    |
| Tax Rate                    | 25.00% |
| Levered Beta                | 1.40   |

### Weighted Average Cost of Capital

|                                  | Total Cost | Total Weight |
|----------------------------------|------------|--------------|
| Debt Capital                     | 6.86%      | 27.95%       |
| Equity Capital                   | 18.75%     | 72.05%       |
| Weighted Average Cost of Capital |            | 15.42%       |

# TATA MOTORS LTD

( TATAMOTORS | BSE Code: 500570 )



(Figures In Rs. Crores)

| Calculation of PV of FCFF     | Mar-24A   | Mar-25F         | Mar-26F         | Mar-27F         | Mar-28F         | Mar-29F         |
|-------------------------------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| EBIT                          | 37,533.21 | 49,697.72       | 65,804.76       | 87,132.08       | 1,15,371.58     | 1,52,763.51     |
| Tax Rate                      | 25%       | 25%             | 25%             | 25%             | 25%             | 25%             |
| EBIT(1-T)                     | 28,149.91 | 37,273.29       | 49,353.57       | 65,349.06       | 86,528.69       | 1,14,572.63     |
| Less: Reinvestment Rate       | 75.98%    | 78.36%          | 80.74%          | 83.12%          | 85.50%          | 85.50%          |
| Free Cash Flow to Firm (FCFF) | 6,761.61  | 8,065.94        | 9,505.50        | 11,030.92       | 12,546.66       | 16,613.03       |
| Mid Year Convention           |           | 0.5             | 1.5             | 2.5             | 3.5             | 4.5             |
| Discounting Factor            |           | 0.918           | 0.773           | 0.651           | 0.548           | 0.462           |
| <b>PV of FCFF</b>             |           | <b>7,401.92</b> | <b>7,345.87</b> | <b>7,178.92</b> | <b>6,876.29</b> | <b>7,667.50</b> |

|                 |        |
|-----------------|--------|
| Expected Growth | 32.41% |
| Terminal Growth | 6.50%  |
| WACC            | 18.75% |

## Calculation of Terminal Value

|                       |                    |
|-----------------------|--------------------|
| FCFF(n+1')            | 17,692.88          |
| WACC                  | 18.75%             |
| Terminal Growth Rate  | 6.50%              |
| <b>Terminal Value</b> | <b>1,44,471.95</b> |

## Sensitivity Analysis of EV

|       | 14%         | 15%         | 16.20%      | 17%         | 18%         |
|-------|-------------|-------------|-------------|-------------|-------------|
| 4%    | 1,18,129.38 | 1,10,705.85 | 1,03,404.01 | 99,285.02   | 94,798.27   |
| 5%    | 1,27,202.59 | 1,18,129.38 | 1,09,380.21 | 1,04,519.57 | 99,285.02   |
| 6.50% | 1,45,349.01 | 1,32,539.77 | 1,20,654.91 | 1,14,240.86 | 1,07,478.22 |
| 7%    | 1,53,126.05 | 1,38,544.10 | 1,25,230.15 | 1,18,129.38 | 1,10,705.85 |
| 8%    | 1,72,568.64 | 1,53,126.05 | 1,36,054.50 | 1,27,202.59 | 1,18,129.38 |

## Calculation of Equity Value per Share

|                                  |                    |
|----------------------------------|--------------------|
| Present Value of FCFF            | 36,470.50          |
| PV of Terminal Value             | 66,678.90          |
| <b>Value of Operating Assets</b> | <b>1,03,149.40</b> |
| Add: Cash                        | 45806.69           |
| Less: Debt                       | 49018              |
| <b>Value of Equity</b>           | <b>99,938.09</b>   |
| No. of Shares                    | 368.11             |
| <b>Equity Value per Share</b>    | <b>271.49</b>      |

## Sensitivity Analysis of Equity Value per Share

|       | 14%    | 15%    | 16.20% | 17%    | 18%    |
|-------|--------|--------|--------|--------|--------|
| 4%    | 312.18 | 292.02 | 272.18 | 260.99 | 248.80 |
| 5%    | 336.83 | 312.18 | 288.41 | 275.21 | 260.99 |
| 6.50% | 386.13 | 351.33 | 319.04 | 301.62 | 283.25 |
| 7%    | 407.25 | 367.64 | 331.47 | 312.18 | 292.02 |
| 8%    | 460.07 | 407.25 | 360.88 | 336.83 | 312.18 |

|                  |       |
|------------------|-------|
| Share Price      | 746   |
| Discount/Premium | 2.75x |

# TATA MOTORS LTD

( TATAMOTORS | BSE Code: 500570 )



Amounts in crores

## Comparable Company Valuation

| Company          | Ticker     | Market Data |                   |              |          |                  | Financials |        |            | Valuation  |           |       |
|------------------|------------|-------------|-------------------|--------------|----------|------------------|------------|--------|------------|------------|-----------|-------|
|                  |            | Share Price | Share Outstanding | Equity Value | Net Debt | Enterprise Value | Revenue    | EBITDA | Net Income | EV/Revenue | EV/EBITDA | P/E   |
| Tata Motors      | TATAMOTORS | 621         | 368.1             | 228474       | 60742    | 289216           | 443059     | 66188  | 32249      | 0.7x       | 4.4x      | 7.1x  |
| Ashok Leyland    | ASHOKLEY   | 213         | 293.7             | 62530        | 37218    | 99748            | 47445      | 8025   | 3071       | 2.1x       | 12.4x     | 20.4x |
| Olectra Greentec | OLECTRA    | 1072        | 8.2               | 8798         | 12       | 8810             | 1642       | 186    | 133        | 5.4x       | 47.5x     | 65.9x |
| Force Motors     | FORCEMOT   | 6671        | 1.3               | 8806         | -220     | 8586             | 7727       | 935    | 506        | 1.1x       | 9.2x      | 17.4x |
| SML ISUZU        | SMLISUZU   | 1056        | 1.5               | 1531         | 242      | 1773             | 2307       | 183    | 121        | 0.8x       | 9.7x      | 12.6x |
| High             |            |             |                   |              |          |                  |            |        |            | 5.4x       | 47.5x     | 65.9x |
| 75th Percentile  |            |             |                   |              |          |                  |            |        |            | 2.1x       | 12.4x     | 20.4x |
| Average          |            |             |                   |              |          |                  |            |        |            | 2.0x       | 16.6x     | 24.7x |
| Median           |            |             |                   |              |          |                  |            |        |            | 1.1x       | 9.7x      | 17.4x |
| 25th Percentile  |            |             |                   |              |          |                  |            |        |            | 0.8x       | 9.2x      | 12.6x |
| Low              |            |             |                   |              |          |                  |            |        |            | 0.7x       | 4.4x      | 7.1x  |

| TATA MOTORS LTD - Comparable Valuation |  |  |  |  |  |  |  |  |  | EV/Revenue | EV/EBITDA | P/E    |
|--|--|--|--|--|--|--|--|--|--|------------|-----------|--------|
| Implied Enterprise Value               |  |  |  |  |  |  |  |  |  | 492338.2   | 640547.6  | 621517 |
| Net Debt                               |  |  |  |  |  |  |  |  |  | 60742      | 60742     | 60742  |
| Implied Market Value                   |  |  |  |  |  |  |  |  |  | 431596     | 579805    | 560775 |
| Shares Outstanding                     |  |  |  |  |  |  |  |  |  | 368.1      | 368.1     | 368.1  |
| Implied Value Per Share                |  |  |  |  |  |  |  |  |  | 1172.4     | 1575.0    | 1523.3 |

# TATA MOTORS LTD

( TATAMOTORS | BSE Code: 500570 )



(Figures In Rs. Crores)

| Calculation of ROIC              | Mar-21            | Mar-22            | Mar-23            | Mar-24            |
|----------------------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Current Assets</b>            |                   |                   |                   |                   |
| Inventories                      | 36,089.0          | 35,240.0          | 40,755.0          | 47,788.0          |
| Trade receivables -              | 12,679.0          | 12,442.0          | 15,738.0          | 16,952.0          |
| Loans n Advances                 | 4,520.0           | 4,583.0           | (4,029.0)         | (1,797.0)         |
| Other asset items                | 57,198.0          | 57,641.0          | 72,461.0          | 80,816.0          |
| <b>Total Current Assets</b>      | <b>1,10,486.0</b> | <b>1,09,906.0</b> | <b>1,24,925.0</b> | <b>1,43,759.0</b> |
| <b>Current Liabilities</b>       |                   |                   |                   |                   |
| Trade Payables                   | 76,040.0          | 69,750.0          | 79,252.0          | 93,979.0          |
| Advance from Customers           | 0.0               | 0.0               | 0.0               | 0.0               |
| Other liability items            | 66,579.0          | 64,030.0          | 68,710.0          | 75,186.0          |
| <b>Total Current Liabilities</b> | <b>1,42,619.0</b> | <b>1,33,780.0</b> | <b>1,47,962.0</b> | <b>1,69,165.0</b> |
| <b>Net Working Capital</b>       | <b>(32,133.0)</b> | <b>(23,874.0)</b> | <b>(23,037.0)</b> | <b>(25,406.0)</b> |
| <b>Non Current Assets</b>        |                   |                   |                   |                   |
| Land                             | 7,819.0           | 7,760.0           | 8,045.0           | 7,930.0           |
| Building                         | 35,537.0          | 36,466.0          | 38,674.0          | 40,584.0          |
| Plant Machinery                  | 1,38,868.0        | 1,48,585.0        | 1,53,672.0        | 1,51,878.0        |
| Equipments                       | 0.0               | 0.0               | 0.0               | 0.0               |
| Computers                        | 3,172.0           | 3,383.0           | 3,499.0           | 3,667.0           |
| Furniture n fittings             | 1,956.0           | 1,984.0           | 2,084.0           | 2,029.0           |
| Vehicles                         | 845.0             | 725.0             | 788.0             | 956.0             |
| Intangible Assets                | 1,14,809.0        | 1,14,323.0        | 1,12,538.0        | 1,16,714.0        |
| Other fixed assets               | 10,686.0          | 10,870.0          | 11,841.0          | 10,724.0          |
| <b>Gross Block</b>               | <b>3,13,692.0</b> | <b>3,24,096.0</b> | <b>3,31,141.0</b> | <b>3,34,482.0</b> |
| Accumulated Depreciation         | 1,74,985.0        | 1,85,241.0        | 1,99,062.0        | 2,13,197.0        |
| <b>Net Non Current Assets</b>    | <b>4,88,677.0</b> | <b>5,09,337.0</b> | <b>5,30,203.0</b> | <b>5,47,679.0</b> |
| <b>Invested Capital</b>          | <b>4,56,544.0</b> | <b>4,85,463.0</b> | <b>5,07,166.0</b> | <b>5,22,273.0</b> |
| <b>EBIT</b>                      | <b>8,740.7</b>    | <b>(115.6)</b>    | <b>6,955.4</b>    | <b>32,268.2</b>   |
| <b>ROIC</b>                      | <b>1.91%</b>      | <b>-0.02%</b>     | <b>1.37%</b>      | <b>6.18%</b>      |

| Calculation of Reinvestment Rate | Mar-21   | Mar-22            | Mar-23         | Mar-24         |
|----------------------------------|----------|-------------------|----------------|----------------|
| Net Capex                        | 31,888.0 | 31,444.0          | 16,019.0       | 35,049.0       |
| Change in working Capital        |          | (8,259.0)         | (837.0)        | 2,369.0        |
| EBIT                             | 8,740.7  | (115.6)           | 6,955.4        | 32,268.2       |
| Marginal Tax Rate                | 25%      | 25%               | 25%            | 25%            |
| EBIT(1-T)                        | 6,555.5  | (86.7)            | 5,216.6        | 24,201.2       |
| Reinvestment                     |          | 23,185.0          | 15,182.0       | 37,418.0       |
| <b>Reinvestment Rate</b>         |          | <b>-26741.64%</b> | <b>291.03%</b> | <b>154.61%</b> |

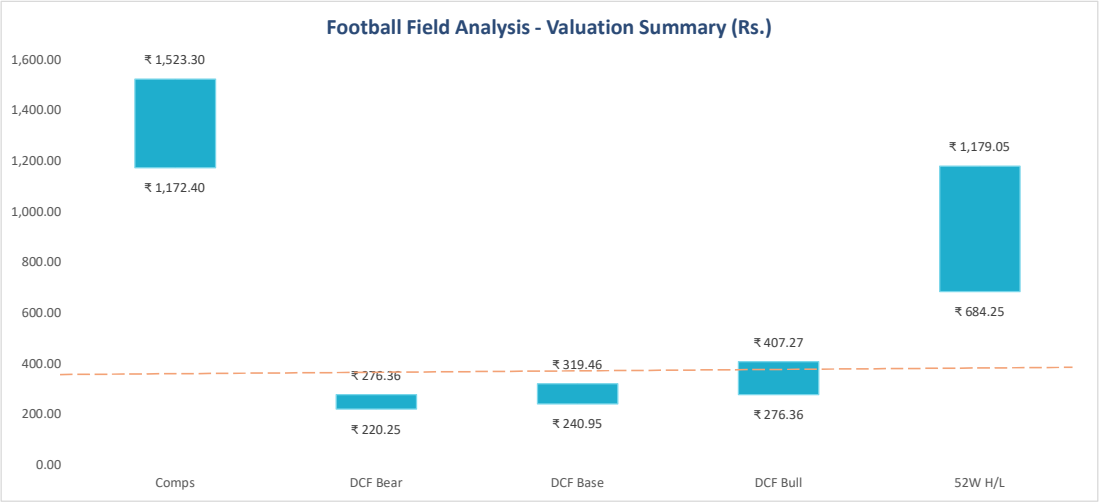
|                |           |
|----------------|-----------|
| 3 Year Average | -8765.33% |
| 3 Year Median  | 154.61%   |

| Calculation of Growth Rate | Mar-21 | Mar-22       | Mar-23       | Mar-24       |
|----------------------------|--------|--------------|--------------|--------------|
| Reinvestment Rate          |        | -26741.64%   | 291.03%      | 154.61%      |
| ROIC                       |        | -0.02%       | 1.37%        | 6.18%        |
| <b>Intrinsic Growth</b>    |        | <b>6.37%</b> | <b>3.99%</b> | <b>9.55%</b> |

|                |       |
|----------------|-------|
| 3 Year Average | 6.64% |
| 3 Year Median  | 6.37% |

TATA MOTORS LTD

( TATAMOTORS | BSE Code: 500570 )



| Football Field Analysis |         |        |          |         |
|-------------------------|---------|--------|----------|---------|
|                         | OpenLow | Low    | OpenHigh | High    |
| Comps                   | 1172.4  | 1172.4 | 1523.3   | 1523.3  |
| DCF Bear                | 220.25  | 220.25 | 276.36   | 276.36  |
| DCF Base                | 240.95  | 240.95 | 319.46   | 319.46  |
| DCF Bull                | 276.36  | 276.36 | 407.27   | 407.27  |
| 52W H/L                 | 684.25  | 684.25 | 1179.05  | 1179.05 |

# TATA MOTORS LTD

( TATAMOTORS | BSE Code; 500570 )

**TATA MOTORS**

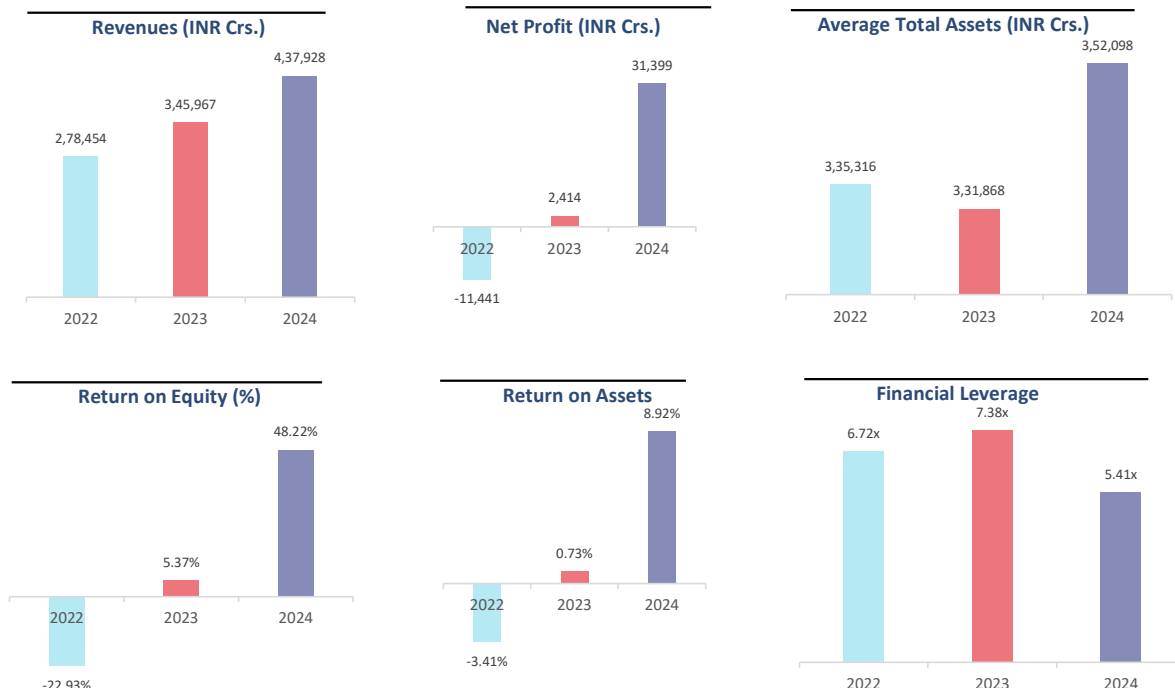
**INR 774.35**

52 week (High - 783.00 & Low - 767.00)

## About the company

Tata Motors Group is a leading global automobile manufacturer. Part of the illustrious multi-national conglomerate, the Tata group, it offers a wide and diverse portfolio of cars, sports utility vehicles, trucks, buses and defence vehicles to the world.

## Financial Summary



## Recent Updates

- Mumbai, December 9, 2024: Tata Motors, India's leading vehicle manufacturer announced today that it will take a price increase of up to 3% across its passenger vehicles portfolio, including EVs.
- Effective January, 2025, the price increase will vary depending on model and variant, and is being taken to partially offset the rise in input costs and inflation.
- Tata Motors has announced that it plans to increase the prices of its models by up to 3%. The revised prices will be effective from January 2025.
- Tata Motor's profit after tax (PAT) stood at Rs 5,578 crore, down from Rs 7,145 crore in the year-ago period
- Tata Motors reported a 2% increase in sales to domestic dealers in December 2024, indicating steady demand in a competitive market.

## Dupont Analysis - Return on Equity & Return on Assets

|                            | Mar-20         | Mar-21         | Mar-22         | Mar-23       | Mar-24        |
|----------------------------|----------------|----------------|----------------|--------------|---------------|
| Net Profit                 | (12,070.9)     | (13,451.4)     | (11,441.5)     | 2,414.3      | 31,399.1      |
| Average Shareholder Equity | 61,629.0       | 59,162.6       | 49,904.0       | 44,941.5     | 65,119.9      |
| <b>Return on Equity</b>    | <b>-19.59%</b> | <b>-22.74%</b> | <b>-22.93%</b> | <b>5.37%</b> | <b>48.22%</b> |

| ROE - Dupont Equation        |               |               |               |              |              |
|------------------------------|---------------|---------------|---------------|--------------|--------------|
|                              | Mar-20        | Mar-21        | Mar-22        | Mar-23       | Mar-24       |
| Net Profit                   | (12,070.9)    | (13,451.4)    | (11,441.5)    | 2,414.3      | 31,399.1     |
| Revenue                      | 2,61,068.0    | 2,49,794.8    | 2,78,453.6    | 3,45,967.0   | 4,37,927.8   |
| <b>Net Profit Margin (A)</b> | <b>-4.62%</b> | <b>-5.38%</b> | <b>-4.11%</b> | <b>0.70%</b> | <b>7.17%</b> |

|                                 |              |              |              |              |              |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|
| Revenue                         | 2,61,068.0   | 2,49,794.8   | 2,78,453.6   | 3,45,967.0   | 4,37,927.8   |
| Average Total Asset             | 3,12,941.4   | 3,30,874.7   | 3,35,315.7   | 3,31,868.0   | 3,52,097.5   |
| <b>Asset Turnover Ratio (B)</b> | <b>0.83x</b> | <b>0.75x</b> | <b>0.83x</b> | <b>1.04x</b> | <b>1.24x</b> |

|                              |              |              |              |              |              |
|------------------------------|--------------|--------------|--------------|--------------|--------------|
| Average Total Asset          | 3,12,941.4   | 3,30,874.7   | 3,35,315.7   | 3,31,868.0   | 3,52,097.5   |
| Average Shareholder Equity   | 61,629.0     | 59,162.6     | 49,904.0     | 44,941.5     | 65,119.9     |
| <b>Equity Multiplier (C)</b> | <b>5.08x</b> | <b>5.59x</b> | <b>6.72x</b> | <b>7.38x</b> | <b>5.41x</b> |

|                                 |                |                |                |              |               |
|---------------------------------|----------------|----------------|----------------|--------------|---------------|
| <b>Return on Equity (A*B*C)</b> | <b>-19.59%</b> | <b>-22.74%</b> | <b>-22.93%</b> | <b>5.37%</b> | <b>48.22%</b> |
|---------------------------------|----------------|----------------|----------------|--------------|---------------|

| Return on Asset (ROA)  |               |               |               |              |              |
|------------------------|---------------|---------------|---------------|--------------|--------------|
|                        | Mar-20        | Mar-21        | Mar-22        | Mar-23       | Mar-24       |
| Net Profit             | (12,070.9)    | (13,451.4)    | (11,441.5)    | 2,414.3      | 31,399.1     |
| Average Total Asset    | 3,12,941.4    | 3,30,874.7    | 3,35,315.7    | 3,31,868.0   | 3,52,097.5   |
| <b>Return on Asset</b> | <b>-3.86%</b> | <b>-4.07%</b> | <b>-3.41%</b> | <b>0.73%</b> | <b>8.92%</b> |

| ROA - Dupont Equation        |               |               |               |              |              |
|------------------------------|---------------|---------------|---------------|--------------|--------------|
|                              | Mar-20        | Mar-21        | Mar-22        | Mar-23       | Mar-24       |
| Net Profit                   | (12,070.9)    | (13,451.4)    | (11,441.5)    | 2,414.3      | 31,399.1     |
| Revenue                      | 2,61,068.0    | 2,49,794.8    | 2,78,453.6    | 3,45,967.0   | 4,37,927.8   |
| <b>Net Profit Margin (A)</b> | <b>-4.62%</b> | <b>-5.38%</b> | <b>-4.11%</b> | <b>0.70%</b> | <b>7.17%</b> |

|                                 |              |              |              |              |              |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|
| Revenue                         | 2,61,068.0   | 2,49,794.8   | 2,78,453.6   | 3,45,967.0   | 4,37,927.8   |
| Average Total Asset             | 3,12,941.4   | 3,30,874.7   | 3,35,315.7   | 3,31,868.0   | 3,52,097.5   |
| <b>Asset Turnover Ratio (B)</b> | <b>0.83x</b> | <b>0.75x</b> | <b>0.83x</b> | <b>1.04x</b> | <b>1.24x</b> |

|                              |               |               |               |              |              |
|------------------------------|---------------|---------------|---------------|--------------|--------------|
| <b>Return on Asset (A*B)</b> | <b>-3.86%</b> | <b>-4.07%</b> | <b>-3.41%</b> | <b>0.73%</b> | <b>8.92%</b> |
|------------------------------|---------------|---------------|---------------|--------------|--------------|

### Dupont Summary

- ROE of Tata Motors has decreased to 19.59% during COVID and made a low of 22.74% in FY22 which now has rose to more than precovid levels and currently at 48.22% as of 31 March 2024.
- ROE has increased significantly in past 4 years from -19.59% to 48.22%. While the company was able to increase "the net margins from -4.08% in FY18 to 7.17% in FY24" and "Asset efficiency of 1.24x in FY24" which led to noticeable increase in ROE . The financial leverage of the company remain constant throughout the period.
- ROA of Tata Motors has increased from -3.86% in FY to 8.92% in FY24. While the Asset efficiency is slightly increased, the reason for increase in ROA is significantly increased net margin of the company in recent years.



# TATA MOTORS LTD

( TATAMOTORS | BSE Code; 500570 )

# TATA MOTORS

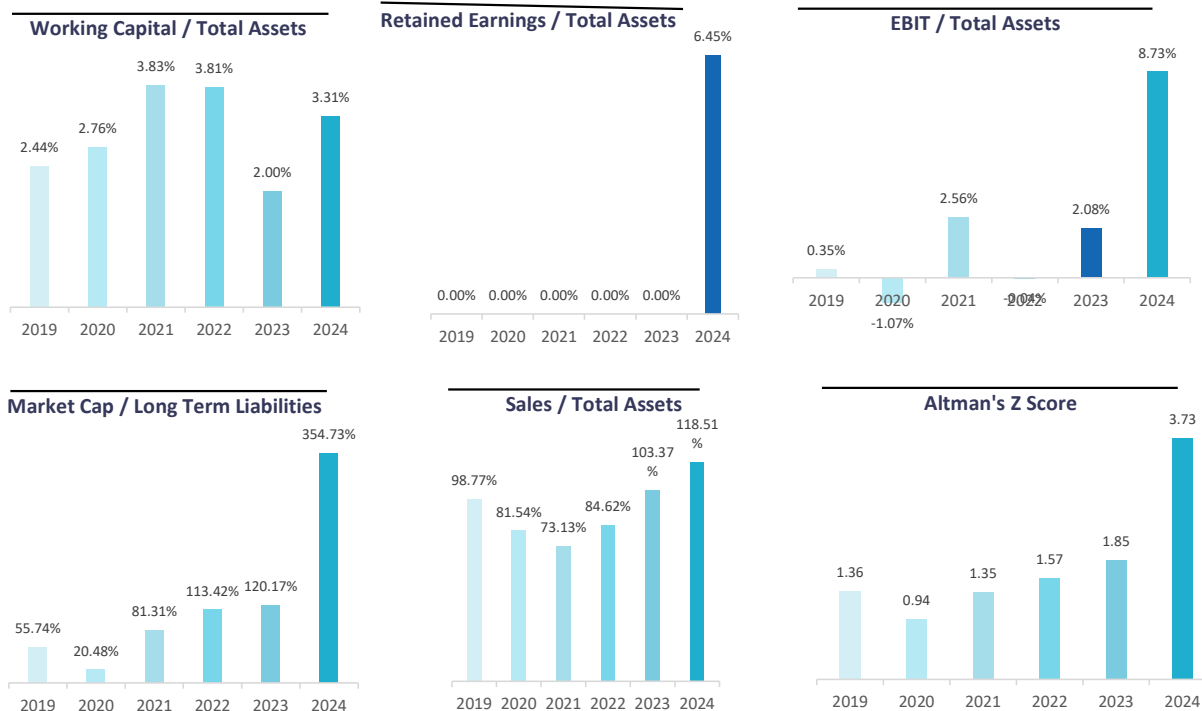
**INR 774.35**

52 week (High - 1179.00 & Low - 683.20)

## Altman Z Score Analysis

Tata Motors Group is a leading global automobile manufacturer. Part of the illustrious multi-national conglomerate, the Tata group, it offers a wide and diverse portfolio of cars, sports utility vehicles, trucks, buses and defence vehicles to the world.

### Financial Summary



### Recent Updates

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- Tata Motor's profit after tax (PAT) stood at Rs 5,578 crore, down from Rs 7,145 crore in the year-ago period
- Tata Motors reported a 2% increase in sales to domestic dealers in December 2024, indicating steady demand in a competitive market

## Altman Z Score Calculation

| Working Capital / Total Asset            |              |              |              |              |              |              |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
|  | Mar-19       | Mar-20       | Mar-21       | Mar-22       | Mar-23       | Mar-24       |
| Working Capital                          | 7,465.9      | 8,828.3      | 13,085.5     | 12,524.2     | 6,701.8      | 12,225.6     |
| Total Assets                             | 3,05,703.5   | 3,20,179.4   | 3,41,569.9   | 3,29,061.5   | 3,34,674.4   | 3,69,520.6   |
| <b>Working Capital / Total Asset (A)</b> | <b>2.44%</b> | <b>2.76%</b> | <b>3.83%</b> | <b>3.81%</b> | <b>2.00%</b> | <b>3.31%</b> |

| Retained Earnings / Total Asset            |              |              |              |              |              |              |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
|  | Mar-19       | Mar-20       | Mar-21       | Mar-22       | Mar-23       | Mar-24       |
| Retained Earnings                          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 23,834.6     |
| Total Assets                               | 3,05,703.5   | 3,20,179.4   | 3,41,569.9   | 3,29,061.5   | 3,34,674.4   | 3,69,520.6   |
| <b>Retained Earnings / Total Asset (B)</b> | <b>0.00%</b> | <b>0.00%</b> | <b>0.00%</b> | <b>0.00%</b> | <b>0.00%</b> | <b>6.45%</b> |

| EBIT / Total Asset            |              |               |              |               |              |              |
|-------------------------------|--------------|---------------|--------------|---------------|--------------|--------------|
|                               | Mar-19       | Mar-20        | Mar-21       | Mar-22        | Mar-23       | Mar-24       |
| EBIT                          | 1,073.7      | (3,438.4)     | 8,740.7      | (115.6)       | 6,955.4      | 32,268.2     |
| Total Assets                  | 3,05,703.5   | 3,20,179.4    | 3,41,569.9   | 3,29,061.5    | 3,34,674.4   | 3,69,520.6   |
| <b>EBIT / Total Asset (C)</b> | <b>0.35%</b> | <b>-1.07%</b> | <b>2.56%</b> | <b>-0.04%</b> | <b>2.08%</b> | <b>8.73%</b> |

| Market Cap / Long Term Liabilities            |               |               |               |                |                |                |
|---|---------------|---------------|---------------|----------------|----------------|----------------|
|   | Mar-19        | Mar-20        | Mar-21        | Mar-22         | Mar-23         | Mar-24         |
| Market Cap                                    | 59,177.1      | 25,561.8      | 1,15,561.1    | 1,66,100.9     | 1,61,170.5     | 3,80,489.8     |
| Long Term Liabilities                         | 1,06,175.3    | 1,24,787.6    | 1,42,130.6    | 1,46,449.0     | 1,34,113.4     | 1,07,262.5     |
| <b>Market Cap / Long Term Liabilities (D)</b> | <b>55.74%</b> | <b>20.48%</b> | <b>81.31%</b> | <b>113.42%</b> | <b>120.17%</b> | <b>354.73%</b> |

| Sales / Total Assets            |               |               |               |               |                |                |
|---------------------------------|---------------|---------------|---------------|---------------|----------------|----------------|
|                                 | Mar-19        | Mar-20        | Mar-21        | Mar-22        | Mar-23         | Mar-24         |
| Total Sales                     | 3,01,938.4    | 2,61,068.0    | 2,49,794.8    | 2,78,453.6    | 3,45,967.0     | 4,37,927.8     |
| Total Assets                    | 3,05,703.5    | 3,20,179.4    | 3,41,569.9    | 3,29,061.5    | 3,34,674.4     | 3,69,520.6     |
| <b>Sales / Total Assets (E)</b> | <b>98.77%</b> | <b>81.54%</b> | <b>73.13%</b> | <b>84.62%</b> | <b>103.37%</b> | <b>118.51%</b> |

| Altman's Z Score   |                   |                   |                   |                   |                  |               |
|--------------------|-------------------|-------------------|-------------------|-------------------|------------------|---------------|
|                    | Mar-19            | Mar-20            | Mar-21            | Mar-22            | Mar-23           | Mar-24        |
| Final Score        | 1.36              | 0.94              | 1.35              | 1.57              | 1.85             | 3.73          |
| Finacial Stability | <i>Distressed</i> | <i>Distressed</i> | <i>Distressed</i> | <i>Distressed</i> | <i>Grey Zone</i> | <i>Strong</i> |