



Aadish Gangwal

FINANCIAL MODELING REPORT

(A Comprehensive DCF and Comparable Comps Valuation)



TATA MOTORS

TATA MOTORS LTD

(NSE: TATAMOTORS | BSE: 500570)

TABLE OF CONTENTS

- o1 One Page Profile
- o2 Historical Statement
- o3 Ratio Analysis & Forecasting
- o4 Beta Drifting & WACC
- o5 Common Size Statement
- o6 DCF Valuation
- o7 Comparable Comps Valuation
- o8 VAR & Football Field Analysis
- o9 Dupont Analysis
- lo Altman's Z Score

TATA MOTORS LTD - One Page Profile



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. It has operations in India, the UK, South Korea, South Africa, China, Brazil, Austria and Slovakia through a strong global network of subsidiaries, associate companies and Joint Ventures (JVs).

INR (Cr)

Key Financial Metrics	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Total Sales	2,61,068	2,49,795	2,78,454	3,45,967	4,37,928
Sales Growth (y-o-y)	-13.54%	-4.32%	11.47%	24.25%	26.58%
Gross Profit Margins (%)	19.42%	21.81%	19.81%	20.69%	28.01%
EBITDA Margins (%)	6.89%	12.93%	8.88%	9.20%	13.60%
EBIT Margins (%)	-1.32%	3.50%	-0.04%	2.01%	7.37%
Net Profit Margins (%)	-4.24%	-0.76%	-4.91%	-1.15%	5.97%
Earnings per Share (in Rs)	-35.86	-5.72	-41.13	-11.97	78.63
EPS Growth (y-o-y)	-360.68%	84.06%	-619.43%	70.91%	757.14%
Dividend per Share (in Rs)	-	-	-	2.31	3.46
Dividend Growth (y-o-y)	0.00%	0.00%	0.00%	-19.28%	4.40%

Key Financial Ratios	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Price to Earnings	-1.98x	-52.79x	-10.55x	-35.17x	12.63x
EV/EBITDA	6.28x	6.06x	10.11x	7.44x	6.57x
EV/Sales	0.43x	0.78x	0.90x	0.68x	0.89x
Price to Book Value	0.35x	1.81x	3.23x	3.08x	3.89x
Return on Equity (%)	-17.81%	-3.44%	-30.65%	-8.77%	30.78%
Return on Capital Employed (%)	-1.84%	4.43%	-0.06%	3.88%	16.79%

Top 10 Shareholders	N. Shares (in Crs)	% Holding	Market Value (in Crs)
Tata Sons Private Limited	145	43.69%	1,34,008
Life Insurance Corporation Of India	10	3.01%	9,245
Sbi Nifty 50 Etf	8	2.35%	7,221
Tata Industries Limited	7	2.11%	6,663
Rekha Jhunjhunwala	4	1.29%	3,950
Axis Mutual Fund Trustee Limited	4	1.20%	3,668
Uti - Nifty Exchange Traded Fund	3	1.03%	3,144
Tata Investment Corporation Limited	1	0.33%	1,015
Investor Education & Protection Fund	1	0.29%	899
Ewart Investments Limited	0	0.09%	285

Managerial Remuneration	Designation	Remuneration	X of Median Salary
Mr N Chandrasekaran	Chairman	-	-
Mr Girish Wagh	Executive Director	6.96	60.21x
Mr P B Balaji	Chief Financial Officer	20.78	NA
Mr Maloy Kumar Gupta	Company Secretary	1.69	NA

As a Policy, Mr N Chandrasekaran, Chairman, has abstained from receiving commission from the Company and hence not stated.

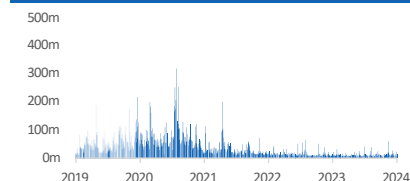
The median remuneration of employees for the FY24 is ₹11.57 lakh.

The percentage increased in the median remuneration of employees in the financial year was 6.1%.

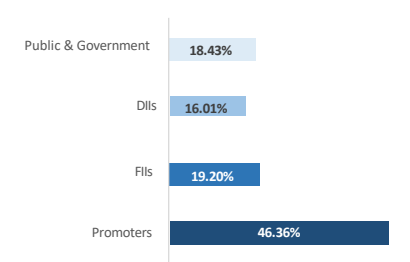
Share Price - 5Y



Volume - 5Y



Shareholding Pattern



Key Points

Tata Passenger Vehicles: This includes Tata PV, EV India, FIAPL JO results and International business (PV + EV). VAHAN Domestic Market share in H1FY24 was 13.5%. The company has 287 dealers for EVs in 190+ cities in H1FY24 and ~75% market share in EV market. The charging infra also reached to ~77800 in H1FY24.

Capex: The company spent Rs. ~3781 crs. in H1FY24. Major expenditure was done on PV + EV segment. FY24 capex estimated at ~ Rs. 8,000 crs. as electrification investments step up.

Expansion: The company is expanding its manufacturing capacity after acquiring the facility from Ford in Sanand. The annual capacity of 300,000 units - scalable to 420,000 units. Industrialization of Sanand plant to begin in CY2024.










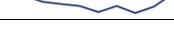



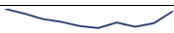



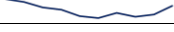
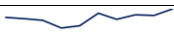



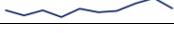







Robust Infrastructure: The Group owns 10 manufacturing facilities in India, 5 in UK, 2 in Europe, and has also set up a manufacturing facility in China in a Joint Venture with Chery Automobiles. It also operates various R&D centres from UK, North America, Europe and India.

IPO of Tata Technologies: In Nov,23, Tata Technologies (a subsidiary of Tata Motors) issued its IPO at offer price of Rs. 500/-. IPO aggregated to ~Rs. 30,000 mn, comprising of an offer for sale of 46,275,000 Equity Shares by the Company amounting to Rs. 23,137.50 mn, 9,716,853 Equity Shares by Alpha TC Holdings Pte. Ltd. amounting to Rs. 4,858.43 mn and 4,858,425 Equity Shares by Tata Capital Growth Fund I amounting to Rs. 2,429.21 mn. Consequently, Company's shareholding in Tata Technologies Limited reduced from 64.79% to 53.39%

[illegible]

Balance Sheet											
Equity Share Capital	₹ 643.78	₹ 679.18	₹ 679.22	₹ 679.22	₹ 679.22	₹ 719.54	₹ 765.81	₹ 765.88	₹ 766.02	₹ 766.50	-
Reserves	₹ 55,618.14	₹ 78,273.23	₹ 57,382.67	₹ 94,748.69	₹ 59,500.34	₹ 61,491.49	₹ 54,480.91	₹ 43,795.36	₹ 44,555.77	₹ 84,151.52	-
Borrowings	₹ 73,610.39	₹ 69,359.96	₹ 78,603.98	₹ 88,950.47	₹ 1,06,175.34	₹ 1,24,787.64	₹ 1,42,130.57	₹ 1,46,449.03	₹ 1,34,113.44	₹ 1,07,262.50	-
Other Liabilities	₹ 1,07,442.48	₹ 1,14,871.75	₹ 1,35,914.49	₹ 1,42,813.43	₹ 1,39,348.59	₹ 1,33,180.72	₹ 1,44,192.62	₹ 1,38,051.22	₹ 1,55,239.20	₹ 1,78,483.44	-
Total Liabilities	₹ 2,37,314.79	₹ 2,63,184.12	₹ 2,72,580.36	₹ 3,27,191.81	₹ 3,05,703.49	₹ 3,20,179.39	₹ 3,41,569.91	₹ 3,29,061.49	₹ 3,34,674.43	₹ 3,70,663.96	-
Fixed Assets Net Block	₹ 88,479.49	₹ 1,07,231.76	₹ 95,944.08	₹ 1,21,413.86	₹ 1,11,234.47	₹ 1,27,107.14	₹ 1,38,707.61	₹ 1,38,855.45	₹ 1,32,079.76	₹ 1,46,046.56	-
Capital Work in Progress	₹ 28,640.09	₹ 25,918.94	₹ 33,698.84	₹ 40,033.50	₹ 33,883.84	₹ 35,622.29	₹ 20,963.93	₹ 10,251.09	₹ 14,274.50	₹ 10,937.33	-
Investments	₹ 15,336.74	₹ 23,767.02	₹ 20,337.92	₹ 20,812.75	₹ 15,770.72	₹ 16,308.48	₹ 24,620.28	₹ 29,379.53	₹ 26,379.16	₹ 22,971.07	-
Other Assets	₹ 30,891.17	₹ 29,579.36	₹ 37,360.78	₹ 48,286.86	₹ 56,155.74	₹ 58,784.94	₹ 61,717.96	₹ 62,223.77	₹ 68,432.09	₹ 80,162.21	-
Total Non Current Assets	₹ 1,63,347.49	₹ 1,86,497.08	₹ 1,87,341.62	₹ 2,30,546.97	₹ 2,15,044.77	₹ 2,37,822.85	₹ 2,46,009.78	₹ 2,40,709.84	₹ 2,41,165.51	₹ 2,60,117.17	-
Receivables	₹ 12,579.20	₹ 13,570.91	₹ 14,075.55	₹ 19,893.30	₹ 18,996.17	₹ 11,172.69	₹ 12,679.08	₹ 12,442.12	₹ 15,737.97	₹ 16,951.81	-
Inventory	₹ 29,272.34	₹ 32,655.73	₹ 35,085.31	₹ 42,137.63	₹ 39,013.73	₹ 37,456.88	₹ 36,088.59	₹ 35,240.34	₹ 40,755.39	₹ 47,788.29	-
Cash & Bank	₹ 32,115.76	₹ 30,460.40	₹ 36,077.88	₹ 34,613.91	₹ 32,648.82	₹ 33,726.97	₹ 46,792.46	₹ 40,669.19	₹ 37,015.56	₹ 45,806.69	-
Total Current Assets	₹ 73,967.30	₹ 76,687.04	₹ 85,238.74	₹ 96,644.84	₹ 90,658.72	₹ 82,356.54	₹ 95,560.13	₹ 88,351.65	₹ 93,508.92	₹ 1,10,546.79	-
Total Assets	₹ 2,37,314.79	₹ 2,63,184.12	₹ 2,72,580.36	₹ 3,27,191.81	₹ 3,05,703.49	₹ 3,20,179.39	₹ 3,41,569.91	₹ 3,29,061.49	₹ 3,34,674.43	₹ 3,70,663.96	-
CHECK	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Cash Flow Statements											
Operating Activities											
Profit from operations	₹ 43,397.00	₹ 38,626.00	₹ 28,840.00	₹ 33,312.00	₹ 28,771.00	₹ 23,352.00	₹ 31,198.00	₹ 26,943.00	₹ 41,694.00	₹ 65,106.00	-
Receivables	₹ (3,179.00)	₹ (2,223.00)	₹ (4,152.00)	₹ (10,688.00)	₹ (9,109.00)	₹ 9,950.00	₹ (5,505.00)	₹ 185.00	₹ (2,213.00)	₹ (1,875.00)	-
Inventory	₹ (3,692.00)	₹ (5,743.00)	₹ (6,621.00)	₹ (3,560.00)	₹ 2,069.00	₹ 2,326.00	₹ 3,814.00	₹ 472.00	₹ (5,665.00)	₹ (7,265.00)	-
Payables	₹ 3,598.00	₹ 3,947.00	₹ 9,301.00	₹ 7,320.00	₹ (4,692.00)	₹ (8,085.00)	₹ 5,748.00	₹ (7,012.00)	₹ 6,945.00	₹ 13,706.00	-
Loans Advances	-	₹ (520.00)	-	-	-	-	-	-	-	-	-
Other WC items	₹ (398.00)	₹ 5,852.00	₹ 4,727.00	₹ 494.00	₹ 4,512.00	₹ 875.00	₹ (4,150.00)	₹ (4,396.00)	₹ (2,194.00)	₹ 2,760.00	-
Working capital changes	₹ (3,672.00)	₹ 1,313.00	₹ 3,254.00	₹ (6,434.00)	₹ (7,221.00)	₹ 5,065.00	₹ (93.00)	₹ (10,750.00)	₹ (3,127.00)	₹ 7,325.00	-
Direct taxes	₹ (4,194.00)	₹ (2,040.00)	₹ (1,895.00)	₹ (3,021.00)	₹ (2,659.00)	₹ (1,785.00)	₹ (2,105.00)	₹ (1,910.00)	₹ (3,179.00)	₹ (4,516.00)	-
Cash from Operating Activities	₹ 31,860.00	₹ 39,212.00	₹ 33,454.00	₹ 17,423.00	₹ 11,671.00	₹ 31,698.00	₹ 28,907.00	₹ 3,532.00	₹ 32,261.00	₹ 75,241.00	-
Investing Activities											
Fixed assets purchased	₹ (31,962.00)	₹ (31,503.00)	₹ (16,072.00)	₹ (35,079.00)	₹ (35,304.00)	₹ (29,702.00)	₹ (20,205.00)	₹ (15,168.00)	₹ (19,230.00)	₹ (31,414.00)	-
Fixed assets sold	₹ 74.00	₹ 59.00	₹ 53.00	₹ 30.00	₹ 67.00	₹ 171.00	₹ 351.00	₹ 230.00	₹ 285.00	₹ 231.00	-
Investments purchased	₹ (5,461.00)	₹ (4,728.00)	₹ (6.00)	₹ (329.00)	₹ (130.00)	₹ (1,439.00)	₹ (7,530.00)	₹ (3,008.00)	₹ (50.00)	₹ (74.00)	-
Investments sold	₹ 42.00	₹ 89.00	₹ 1,965.00	₹ 2,381.00	₹ 5,644.00	₹ 21.00	₹ 226.00	₹ 104.00	₹ 6,895.00	₹ 10,820.00	-
Interest received	₹ 698.00	₹ 731.00	₹ 638.00	₹ 690.00	₹ 761.00	₹ 1,104.00	₹ 428.00	₹ 653.00	₹ 973.00	₹ 2,493.00	-
Dividends received	₹ 80.00	₹ 58.00	₹ 620.00	₹ 1,797.00	₹ 232.00	₹ 21.00	₹ 18.00	₹ 32.00	₹ 46.00	₹ 47.00	-
Investment in group cos	₹ (160.00)	-	₹ (107.00)	₹ (4.00)	₹ (9.00)	₹ (606.00)	₹ (10.00)	-	-	₹ (150.00)	-
Redemp n Canc of Shares	-	-	-	₹ 14.00	₹ 533.00	-	-	-	₹ 19.00	₹ 108.00	-
Acquisition of companies	-	₹ (111.00)	-	-	₹ (8.00)	₹ (27.00)	-	₹ (98.00)	-	-	-
Inter corporate deposits	-	-	-	-	-	-	-	-	-	₹ (24.00)	-
Other investing items	₹ 456.00	₹ (1,289.00)	₹ (26,663.00)	₹ 5,360.00	₹ 7,335.00	₹ (2,659.00)	₹ 1,051.00	₹ 12,813.00	₹ (4,357.00)	₹ (4,817.00)	-
Cash from Investing Activities	₹ (36,233.00)	₹ (36,694.00)	₹ (39,572.00)	₹ (25,140.00)	₹ (20,879.00)	₹ (33,116.00)	₹ (25,671.00)	₹ (4,442.00)	₹ (15,419.00)	₹ (22,780.00)	-
Financing Activities											
Proceeds from shares	-	₹ 7,433.00	₹ 5.00	-	-	₹ 3,889.00	₹ 2,603.00	₹ 19.00	₹ 20.00	₹ 82.00	-
Redemption of debentures	₹ (744.00)	-	-	-	-	-	-	-	-	-	-
Proceeds from borrowings	₹ 36,363.00	₹ 19,519.00	₹ 33,390.00	₹ 37,482.00	₹ 51,128.00	₹ 38,297.00	₹ 46,641.00	₹ 46,578.00	₹ 43,934.00	₹ 18,747.00	-
Repayment of borrowings	₹ (23,332.00)	₹ (24,924.00)	₹ (21,732.00)	₹ (29,964.00)	₹ (35,198.00)	₹ (29,847.00)	₹ (29,709.00)	₹ (42,816.00)	₹ (62,557.00)	₹ (47,332.00)	-
Interest paid fin	₹ (6,307.00)	₹ (5,716.00)	₹ (5,336.00)	₹ (5,411.00)	₹ (7,005.00)	₹ (7,518.00)	₹ (8,123.00)	₹ (9,251.00)	₹ (9,336.00)	₹ (9,332.00)	-
Dividends paid	₹ (720.00)	₹ (108.00)	₹ (121.00)	₹ (96.00)	₹ (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	₹ (57.00)	-	-	-	-	₹ (29.00)	-	₹ 3,750.00	₹ 3,355.00	₹ 3,812.00	-
Cash from Financing Activities	₹ 5,203.00	₹ (3,796.00)	₹ 6,206.00	₹ 2,011.00	₹ 8,830.00	₹ 3,389.00	₹ 9,905.00	₹ (3,379.00)	₹ (26,242.00)	₹ (37,006.00)	-
Net Cash Flow	₹ 830.00	₹ (1,278.00)	₹ 88.00	₹ (5,706.00)	₹ (378.00)	₹ 1,971.00	₹ 13,141.00	₹ (4,289.00)	₹ (9,400.00)	₹ 15,455.00	-

Ratio Analysis

Ratio Analysis - TATA MOTORS LTD													
Years	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Trend	Mean	Median
Sales Growth		3.76%	-1.23%	8.10%	3.56%	-13.54%	-4.32%	11.47%	24.25%	26.58%		6.52%	3.76%
EBITDA Growth		-2.15%	-22.94%	6.32%	-21.60%	-27.07%	79.50%	-23.44%	28.70%	87.13%		11.61%	-2.15%
EBIT Growth		-19.98%	-55.67%	-29.86%	-189.71%	128.00%	-106.02%	-1564.91%	-65.31%	-781.41%		-298.32%	-65.31%
Net Profit Growth		3.18%	-69.54%	-79.01%	-355.28%	392.87%	-82.86%	619.52%	-70.90%	-757.61%		-44.40%	-70.90%
Dividend Growth		0.00%	-100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	49.99%		-5.56%	0.00%
Gross Margin	22.91%	24.73%	23.82%	21.65%	19.57%	19.42%	21.81%	19.81%	20.69%	28.01%		22.24%	21.73%
EBITDA Margin	14.91%	14.06%	10.97%	10.79%	8.17%	6.89%	12.93%	8.88%	9.20%	13.60%		11.04%	10.88%
EBIT Margin	9.82%	7.94%	4.33%	3.40%	0.36%	-1.32%	3.50%	-0.04%	2.01%	7.37%		3.74%	3.45%
EBT Margin	7.98%	6.15%	2.76%	1.79%	-1.55%	-4.09%	0.26%	-3.39%	-0.95%	5.09%		1.41%	1.02%
Net Profit Margin	5.07%	5.04%	1.56%	0.30%	-0.74%	-4.24%	-0.76%	-4.91%	-1.15%	5.97%		0.61%	-0.22%
Sales Expenses % Sales	8.00%	10.67%	12.85%	10.86%	11.40%	12.53%	8.88%	10.93%	11.49%	14.42%		11.20%	11.17%
Depreciation % Sales	5.09%	6.12%	6.64%	7.39%	7.81%	8.21%	9.43%	8.92%	7.19%	6.23%		7.30%	7.29%
Operating Income % Sales	9.82%	7.94%	4.33%	3.40%	0.36%	-1.32%	3.50%	-0.04%	2.01%	7.37%		3.74%	3.45%
Return on Capital Employed	19.90%	14.62%	8.55%	5.37%	0.65%	-1.84%	4.43%	-0.06%	3.88%	16.79%		7.23%	4.90%
Retained Earnings %	100.00%	99.51%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	95.60%		49.51%	47.80%
Return on Equity %	23.72%	17.44%	7.22%	0.92%	-3.73%	-17.81%	-3.44%	-30.65%	-8.77%	30.78%		1.57%	-1.26%
Self Sustained Growth Rate	23.72%	17.36%	7.22%	0.92%	0.00%	0.00%	0.00%	0.00%	0.00%	29.42%		7.86%	0.46%
Interest Coverage Ratio	5.32x	4.44x	2.76x	2.12x	0.19x	-0.47x	1.08x	-0.01x	0.68x	3.23x		1.93x	1.60x
Debtor Turnover Ratio	20.92x	20.12x	19.16x	14.66x	15.89x	23.37x	19.70x	22.38x	21.98x	25.83x		20.40x	20.52x
Creditor Turnover Ratio	2.45x	2.38x	1.98x	2.04x	2.17x	1.96x	1.73x	2.02x	2.23x	2.45x		2.14x	2.10x
Inventory Turnover	8.99x	8.36x	7.69x	6.92x	7.74x	6.97x	6.92x	7.90x	8.49x	9.16x		7.91x	7.82x
Fixed Asset Turnover	2.97x	2.55x	2.81x	2.40x	2.71x	2.05x	1.80x	2.01x	2.62x	3.00x		2.49x	2.58x
Capital Turnover Ratio	4.68x	3.46x	4.64x	3.06x	5.02x	4.20x	4.52x	6.25x	7.63x	5.16x		4.86x	4.66x
(in days)													
Debtor Days	17	18	19	25	23	16	19	16	17	14		18	18
Payable Days	149	154	184	179	168	186	211	181	164	149		172	174
Inventory Days	41	44	47	53	47	52	53	46	43	40		47	47
Cash Conversion Cycle	-91	-92	-117	-101	-98	-118	-139	-118	-104	-95		-107	-103
CFO/Sales	12.11%	14.36%	12.40%	5.98%	3.87%	12.14%	11.57%	1.27%	9.32%	17.18%		10.02%	11.84%
CFO/Total Assets	13.43%	14.90%	12.27%	5.33%	3.82%	9.90%	8.46%	1.07%	9.64%	20.30%		9.91%	9.77%
CFO/Total Debt	43.28%	56.53%	42.56%	19.59%	10.99%	25.40%	20.34%	2.41%	24.06%	70.15%		31.53%	24.73%

TATA MOTORS LTD

NSE: TATAMOTORS | BSE: 500570



Forecasting

TATA MOTORS LTD - Sales Forecasting

Year Weight	Year	Sales	Sales Growth
1	2015A	2,63,159.0	
2	2016A	2,73,045.6	3.76%
3	2017A	2,69,692.5	-1.23%
4	2018A	2,91,550.5	8.10%
5	2019A	3,01,938.4	3.56%
6	2020A	2,61,068.0	-13.54%
7	2021A	2,49,794.8	-4.32%
8	2022A	2,78,453.6	11.47%
9	2023A	3,45,967.0	24.25%
10	2024A	4,37,927.8	26.58%
11	2025E	3,62,627.6	-17.19%
12	2026E	3,74,512.7	3.28%
13	2027E	3,86,397.7	3.17%
14	2028E	3,98,282.8	3.08%
15	2029E	4,10,167.9	2.98%

TATA MOTORS LTD - EBITDA Forecasting

Year Weight	Year	EBITDA	EBITDA Growth
1	2015A	39,238.7	
2	2016A	38,395.3	-2.15%
3	2017A	29,588.7	-22.94%
4	2018A	31,457.7	6.32%
5	2019A	24,664.3	-21.60%
6	2020A	17,987.1	-27.07%
7	2021A	32,287.4	79.50%
8	2022A	24,720.1	-23.44%
9	2023A	31,815.8	28.70%
10	2024A	59,538.3	87.13%
11	2025E	36,573.0	-38.57%
12	2026E	37,228.2	1.79%
13	2027E	37,883.4	1.76%
14	2028E	38,538.6	1.73%
15	2029E	39,193.9	1.70%

TATA MOTORS LTD - Earning per Share Forecasting

Year Weight	Year	EPS	EPS Growth
1	2015A	46.2	
2	2016A	47.7	3.19%
3	2017A	14.5	-69.54%
4	2018A	3.0	-79.01%
5	2019A	-7.8	-355.28%
6	2020A	-35.9	360.68%
7	2021A	-5.7	-84.06%
8	2022A	-41.1	619.43%
9	2023A	-12.0	-70.91%
10	2024A	78.6	-757.14%
11	2025E	-6.5	-108.29%
12	2026E	-9.3	42.63%
13	2027E	-12.1	29.89%
14	2028E	-14.9	23.01%
15	2029E	-17.6	18.71%



Beta Drifting

Regression Beta - 2 Years Weekly

Tata Motors Weekly Returns			Nifty Returns		Beta Drifting	
Date	Closing Price	Return	Date	Return	Levered Raw Beta	1.11
27-06-2022	410.2		27-06-2022		Beta Weight	75.00%
04-07-2022	438.8	6.99%	04-07-2022	2.97%		
11-07-2022	437.5	-0.31%	11-07-2022	-1.06%	Market Beta	1.00
18-07-2022	452.1	3.34%	18-07-2022	4.18%	Market Beta Weight	25.00%
25-07-2022	446.8	-1.17%	25-07-2022	2.62%		
01-08-2022	462.4	3.48%	01-08-2022	1.39%	Adjusted Beta	1.09
08-08-2022	474.6	2.64%	08-08-2022	1.73%		
15-08-2022	468.1	-1.37%	15-08-2022	0.34%		
22-08-2022	462.2	-1.26%	22-08-2022	-1.12%		
29-08-2022	458.9	-0.71%	29-08-2022	-0.11%		
05-09-2022	443.1	-3.43%	05-09-2022	1.68%		
12-09-2022	429.8	-3.01%	12-09-2022	-1.70%		
19-09-2022	420.5	-2.17%	19-09-2022	-1.16%		
26-09-2022	402.1	-4.37%	26-09-2022	-1.34%		
03-10-2022	409.6	1.87%	03-10-2022	1.29%		
10-10-2022	393.8	-3.86%	10-10-2022	-0.74%		
17-10-2022	395.6	0.45%	17-10-2022	2.27%		
24-10-2022	407.4	2.98%	24-10-2022	1.20%		
31-10-2022	422.7	3.77%	31-10-2022	1.86%		
07-11-2022	420.9	-0.43%	07-11-2022	1.28%		
14-11-2022	421.2	0.07%	14-11-2022	-0.23%		
21-11-2022	430.5	2.22%	21-11-2022	1.12%		
28-11-2022	432.7	0.51%	28-11-2022	0.99%		
05-12-2022	410.7	-5.08%	05-12-2022	-1.07%		
12-12-2022	419.0	2.01%	12-12-2022	-1.23%		
19-12-2022	376.0	-10.26%	19-12-2022	-2.53%		
26-12-2022	385.6	2.54%	26-12-2022	1.68%		
02-01-2023	379.6	-1.53%	02-01-2023	-1.36%		
09-01-2023	409.0	7.72%	09-01-2023	0.54%		
16-01-2023	400.7	-2.03%	16-01-2023	0.40%		
23-01-2023	442.8	10.53%	23-01-2023	-2.35%		
30-01-2023	442.7	-0.03%	30-01-2023	1.42%		
06-02-2023	443.1	0.09%	06-02-2023	0.01%		
13-02-2023	437.2	-1.33%	13-02-2023	0.49%		
20-02-2023	425.1	-2.76%	20-02-2023	-2.67%		
27-02-2023	425.4	0.06%	27-02-2023	0.74%		
06-03-2023	433.2	1.83%	06-03-2023	-1.03%		
13-03-2023	416.4	-3.87%	13-03-2023	-1.80%		

TATA MOTORS LTD

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Weighted Average Cost of Capital

All figures are in INR unless stated otherwise

Peer Comps

Peer Comps					Debt /	Debt /	Levered	Unlevered
Name of the Comp	Country	Total Debt	Total Equity	Tax Rate ¹	Equity	Capital	Beta ²	Beta ³
Tata Motors	India	107262.5	361144.3	30.00%	29.70%	22.90%	0.92	0.76
Ashok Leyland	India	40802.2	71325.8	30.00%	57.21%	36.39%	0.74	0.53
Olectra Greentec	India	120.8	14677.3	30.00%	0.82%	0.82%	0.59	0.59
Force Motors	India	524.5	11875.2	30.00%	4.42%	4.23%	0.67	0.65
SML ISUZU	India	421.3	3060.6	30.00%	13.76%	12.10%	0.80	0.73
Average				30.00%	21.18%	15.29%	0.74	0.65
Median				30.00%	13.76%	12.10%	0.74	0.65

Cost of Debt

Pre-Tax Cost of Debt	2.08%
Tax Rate	30.00%
Post-Tax Cost of Debt	1.46%

Cost of Equity

Risk Free Rate	6.95%
Equity Risk Premium	8.66%
Levered Beta ⁴	0.73
Cost of Equity	13.29%

Capital Structure

		Current	Target
Total Debt	107262.5	22.90%	15.29%
Market Capitalisation	361144.3	77.10%	84.71%
Total Capital	468406.8	100.00%	100.00%
Debt/ Equity		29.70%	18.05%

Levered Beta

Comps Median Unlevered Beta	0.65
Target Debt/ Equity	18.05%
Tax Rate	30.00%
Levered Beta	0.73

Weighted Average Cost of Capital

Cost of Equity	13.29%
Equity Weight	84.71%
Cost of Debt	1.46%
Debt Weight	15.29%
WACC	11.48%

Notes

1. Tax Rate considered as Marginal Tax rate for the country
2. Levered beta is based on 5 year monthly data
3. Unlevered beta= Levered Beta/ 1+(1-Tax rate)*Debt by Equity
4. Levered beta= Unlevered Beta* 1+(1-Tax rate)*Debt by Equity

TATA MOTORS LTD

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TATA MOTORS

Common Size Statement

Common Size Income Statement - TATA MOTORS LTD

Particulars	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Sales	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Raw Material Cost	62.03%	60.84%	64.26%	64.45%	64.34%	63.16%	61.49%	64.39%	66.84%	62.64%
Change in Inventory	1.27%	1.01%	2.74%	0.70%	-0.68%	-0.85%	-1.88%	-0.57%	1.38%	0.36%
Power and Fuel	0.43%	0.42%	0.43%	0.45%	0.53%	0.48%	0.45%	0.78%	0.73%	0.00%
Other Mfr. Exp	6.15%	4.43%	3.73%	3.76%	3.87%	4.42%	3.31%	3.39%	3.40%	0.00%
Employee Cost	9.74%	10.58%	10.51%	10.39%	11.01%	11.66%	11.07%	11.06%	9.73%	9.70%
Selling and admin	8.97%	8.05%	11.14%	10.63%	10.84%	11.20%	9.21%	10.49%	10.07%	0.00%
Other Expenses	-0.97%	2.62%	1.71%	0.23%	0.57%	1.32%	-0.33%	0.44%	1.42%	14.42%
Other Income	0.27%	-0.98%	0.69%	2.03%	-8.84%	0.04%	-4.45%	0.87%	1.83%	1.30%
Depreciation	5.09%	6.12%	6.64%	7.39%	7.81%	8.21%	9.43%	8.92%	7.19%	6.23%
Interest	1.85%	1.79%	1.57%	1.61%	1.91%	2.77%	3.24%	3.34%	2.96%	2.28%
Profit before tax	8.25%	5.17%	3.45%	3.83%	-10.39%	-4.05%	-4.19%	-2.52%	0.88%	6.38%
Tax	2.90%	1.11%	1.21%	1.49%	-0.81%	0.15%	1.02%	1.52%	0.20%	-0.88%
Net profit	5.31%	4.24%	2.76%	3.08%	-9.55%	-4.62%	-5.38%	-4.11%	0.70%	7.17%
Dividend Amount	0.00%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.22%	0.26%

Common Size Balance Sheet - TATA MOTORS LTD

Particulars	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Total Liabilities	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Equity Share Capital	0.27%	0.26%	0.25%	0.21%	0.22%	0.22%	0.22%	0.23%	0.23%	0.21%
Reserves	23.44%	29.74%	21.05%	28.96%	19.46%	19.21%	15.95%	13.31%	13.31%	22.70%
Borrowings	31.02%	26.35%	28.84%	27.19%	34.73%	38.97%	41.61%	44.51%	40.07%	28.94%
Other Liabilities	45.27%	43.65%	49.86%	43.65%	45.58%	41.60%	42.21%	41.95%	46.39%	48.15%
Total Assets	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Net Block	37.28%	40.74%	35.20%	37.11%	36.39%	39.70%	40.61%	42.20%	39.47%	39.40%
Capital Work in Progress	12.07%	9.85%	12.36%	12.24%	10.43%	11.13%	6.14%	3.12%	4.27%	2.95%
Investments	6.46%	9.03%	7.46%	6.36%	5.16%	5.09%	7.21%	8.93%	7.88%	6.20%
Other Assets	13.02%	11.24%	13.71%	14.76%	18.37%	18.36%	18.07%	18.91%	20.45%	21.63%
Receivables	5.30%	5.16%	5.16%	6.08%	6.21%	3.49%	3.71%	3.78%	4.70%	4.57%
Inventory	12.33%	12.41%	12.87%	12.88%	12.76%	11.70%	10.57%	10.71%	12.18%	12.89%
Cash & Bank	13.53%	11.57%	13.24%	10.58%	10.68%	10.53%	13.70%	12.36%	11.06%	12.36%

Intrinsic Growth

Calculation of ROIC	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Current Assets					
Inventories	37,457.0	36,089.0	35,240.0	40,755.0	47,788.0
Trade receivables	11,173.0	12,679.0	12,442.0	15,738.0	16,952.0
Short term loans	39.0	142.0	47.0	119.0	168.0
Other asset items	58,746.0	61,576.0	62,177.0	68,313.0	78,851.0
Total Current Assets	1,07,415.0	1,10,486.0	1,09,906.0	1,24,925.0	1,43,759.0
Current Liabilities					
Trade Payables	66,398.0	76,040.0	69,750.0	79,252.0	93,979.0
Advance from Customers	-	-	-	-	-
Other liability items	65,969.0	66,579.0	64,030.0	68,710.0	75,186.0
Total Current Liabilities	1,32,367.0	1,42,619.0	1,33,780.0	1,47,962.0	1,69,165.0
Net Working Capital	(24,952.0)	(32,133.0)	(23,874.0)	(23,037.0)	(25,406.0)
Non Current Assets					
Land	7,675.0	7,819.0	7,760.0	8,045.0	7,930.0
Building	32,665.0	35,537.0	36,466.0	38,674.0	40,584.0
Plant Machinery	1,24,158.0	1,38,868.0	1,48,585.0	1,53,672.0	1,51,878.0
Equipments	-	-	-	-	-
Computers	3,054.0	3,172.0	3,383.0	3,499.0	3,667.0
Furniture n fittings	1,890.0	1,956.0	1,984.0	2,084.0	2,029.0
Vehicles	601.0	845.0	725.0	788.0	956.0
Intangible Assets	91,157.0	1,14,809.0	1,14,323.0	1,12,538.0	1,16,714.0
Other fixed assets	9,380.0	10,686.0	10,870.0	11,841.0	10,724.0
Gross Block	2,70,579.0	3,13,692.0	3,24,096.0	3,31,141.0	3,34,482.0
Accumulated Depreciation	(1,43,471.0)	(1,74,985.0)	(1,85,241.0)	(1,99,062.0)	(2,13,197.0)
Net Non Current Assets	1,27,108.0	1,38,707.0	1,38,855.0	1,32,079.0	1,21,285.0
Invested Capital	1,02,156.0	1,06,574.0	1,14,981.0	1,09,042.0	95,879.0
EBIT	(3,438.4)	8,740.7	(115.6)	6,955.4	32,268.2
ROIC	-3.37%	8.20%	-0.10%	6.38%	33.66%
Calculation of Reinvestment Rate	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Net Capex	29,531.0	19,854.0	14,938.0	18,945.0	31,183.0
Change in Working Capital		(7,181.0)	8,259.0	837.0	(2,369.0)
EBIT	(3,438.4)	8,740.7	(115.6)	6,955.4	32,268.2
Marginal Tax Rate	30.00%	30.00%	30.00%	30.00%	30.00%
EBIT(1-T)	(2,406.9)	6,118.5	(80.9)	4,868.8	22,587.7
Reinvestment		12,673.0	23,197.0	19,782.0	28,814.0
Reinvestment Rate		207.13%	-28666.58%	406.30%	127.56%
				4 Year Average	-6981.40%
				4 Year Median	167.35%
Calculation of Growth Rate	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Reinvestment Rate		207.13%	-28666.58%	406.30%	127.56%
ROIC		8.20%	-0.10%	6.38%	33.66%
Intrinsic Growth		16.99%	28.82%	25.92%	42.93%
				4 Year Average	28.66%
				4 Year Median	27.37%

TATA MOTORS LTD

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TATA MOTORS

FCFF

Calculation of PV of FCFF	Mar-24A	Mar-25F	Mar-26F	Mar-27F	Mar-28F	Mar-29F
EBIT	37940.9	48324.8	61550.7	78396.4	99852.5	127180.9
Tax Rate	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%
EBIT(1-T)	26558.6	33827.4	43085.5	54877.5	69896.8	89026.6
Less: Reinvestment Rate	167.35%	146.88%	126.42%	105.96%	85.50%	85.50%
Free Cash Flow to Firm (FCFF)	-17886.0	-15859.6	-11384.3	-3271.4	10135.0	12908.9
Mid Year Convention		0.5	1.5	2.5	3.5	4.5
Discounting Factor		0.947	0.850	0.762	0.684	0.613
PV of FCFF		-15020.8	-9671.9	-2493.1	6928.4	7915.9

Expected Growth	27.37%
Terminal Growth	6.50%
WACC	11.48%

Calculation of Terminal Value	
FCFF (n+1)	16441.9
WACC	11.48%
Terminal Growth Rate	6.50%
Terminal Value	330157.0

Sensitivity Analysis					
	10.00%	11.48%	12.00%	14.00%	
4.00%	1,55,698.7	1,22,450.1	1,13,688.7	88,482.6	
5.00%	1,89,306.7	1,43,251.3	1,31,693.0	99,685.3	
6.50%	2,75,727.4	1,90,116.6	1,70,975.1	1,22,090.7	
7.00%	3,23,738.9	2,12,712.3	1,89,306.7	1,31,693.0	
8.00%	4,91,779.1	2,77,383.0	2,39,718.8	1,55,698.7	

Calculation of Equity Value per Share	
PV of FCFF	-12341.491
PV of Terminal Value	202457.5
Value of Operating Assets	190116.1
Add: Cash	45806.7
Less: Debt	98501.0
Value of Equity	137421.7
No. of Shares	366.45
Equity Value per Share	375.0

Sensitivity Analysis					
	10.00%	11.48%	12.00%	14.00%	
4.00%	281.1	190.4	166.4	97.7	
5.00%	372.8	247.1	215.6	128.2	
6.50%	608.6	375.0	322.8	189.4	
7.00%	739.7	436.7	372.8	215.6	
8.00%	1,198.2	613.2	510.4	281.1	

Share Price	990
Discount/Premium	2.64x

TATA MOTORS LTD

NSE: TATAMOTORS | BSE: 500570



Comps Valuation

Amount in Crores

Comparable Companies Valuation

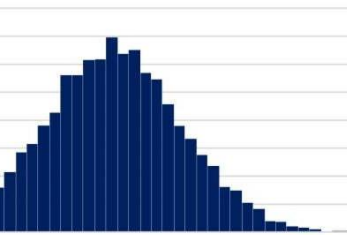
Company	Ticker	Share Price	Shares Outstanding	Market Data		Enterprise Value	Financials			Valuation		
				Equity Value	Net Debt		Revenue	EBITDA	Net Income	EV/Revenue	EV/EBITDA	P/E
Tata Motors	TATAMOTORS	990	332.40	3,28,993	61,456	3,90,449	4,37,928	60,912	31,807	0.9x	6.4x	12.3x
Ashok Leyland	ASHOKLEY	242	293.64	71,029	33,722	1,04,751	45,791	8,101	2,696	2.3x	12.9x	38.8x
Olectra Greentec	OLECTRAG	1,779	8.21	14,608	-54	14,554	1,154	186	79	12.6x	78.4x	185.0x
Force Motors	FORCEMOT	8,965	1.32	11,834	76	11,910	6,992	936	388	1.7x	12.7x	30.7x
SML ISUZU	SMLISUZU	2,099	1.45	3,043	373	3,415	2,196	185	108	1.6x	18.5x	31.7x
High										12.6x	78.4x	185.0x
75th Percentile										2.3x	18.5x	38.8x
Average										3.8x	25.8x	59.7x
Median										1.7x	12.9x	31.7x
25th Percentile										1.6x	12.7x	30.7x
Low										0.9x	6.4x	12.3x

Tata Motors Ltd. Comparable Valuation										EV/Revenue	EV/EBITDA	P/E
Implied Enterprise Value										7,45,946	7,87,598	10,68,435
Net Debt										61,456	61,456	61,456
Implied Market Value										6,84,490	7,26,142	10,06,979
Shares Outstanding										332.40	332.40	332.40
Implied Value per Share										2059.2	2184.5	3029.4

Source: The Valuation School, Screener.in

Undervalued Undervalued Undervalued

VAR & Monte Carlo Simulation

Date	Adj Close	Return	Sorted Returns	Replication	Simulated Returns	Calculation of Value at Risk - Tata Motors Ltd. (Simulation)				
04-02-1993	20.85	-0.958614778	0.672413832	1	-0.014872658	<div><div>Historical Approach</div><div><div>Mean</div><div>0.09%</div></div><div><div>Std Deviation</div><div>2.89%</div></div><div><div>Min</div><div>-40.51%</div></div><div><div>Max</div><div>67.24%</div></div><div><div>CMP</div><div>992.45</div></div></div>				
13-10-2021	503.77	4.435924772	0.204467068	2	0.002239508					
30-04-2020	92.67	0.405382897	0.193218178	3	-0.002891984					
20-05-2009	65.94	-0.615239059	0.188256666	4	-0.026234549					
29-10-2019	171.39	0.167569417	0.167569417	5	0.013091547					
27-10-2019	146.79	9.04328445	0.164367369	6	-0.017377592					
19-02-1991	14.62	-0.954328121	0.152542473	7	0.04840412					
02-02-2021	320.01	5.36274016	0.151645161	8	0.015344442					
08-04-1992	50.29	0.733749661	0.147058741	9	0.019549503					
29-10-2008	29.01	-0.46963157	0.141428578	10	-0.010026901	<div><div>Monte Carlo Simulation</div><div><div>Mean</div><div>0.09%</div></div><div><div>Std Deviation</div><div>2.89%</div></div><div><div>Min</div><div>-12.41%</div></div><div><div>Max</div><div>10.14%</div></div><div><div>CMP</div><div>992.45</div></div></div>				
18-05-2009	54.70	0.996025124	0.135909535	11	-8.32695E-05					
04-12-2008	27.40	-0.258777355	0.132832994	12	-0.032463908					
02-04-2009	36.97	-0.664116109	0.131388807	13	0.013702381					
05-06-2020	110.07	2.183568777	0.124365478	14	0.028592993					
03-11-2008	34.57	-0.32413992	0.123267472	15	-0.031267017					
22-04-1992	51.15	0.178217561	0.122641252	16	-0.00825037					
24-02-1994	43.42	-0.704577978	0.122222007	17	-0.053855816					
02-03-2010	146.97	-0.607229006	0.122117351	18	-0.0038178					
07-10-2021	374.18	27.12633407	0.120368866	19	-0.056147309	<div><div>Percentile</div><div>Confidence</div><div>VAR %</div><div>Stock Price</div><div>VAR (INR)</div><div><div>5.0%</div><div>95.0%</div><div>-4.70%</div><div>1039.1</div><div>-46.7</div></div><div><div>1.0%</div><div>99.0%</div><div>-6.58%</div><div>1057.8</div><div>-65.3</div></div><div><div>0.5%</div><div>99.5%</div><div>-7.37%</div><div>1065.6</div><div>-73.2</div></div><div><div>10%</div><div>90.0%</div><div>-3.61%</div><div>1028.3</div><div>-35.9</div></div></div>				
03-11-2000	13.30	-0.739669573	0.118293482	20	0.000268478					
15-04-2009	51.10	1.584302296	0.116398965	21	0.038885295					
29-07-1993	19.77	-0.909826346	0.115151273	22	-0.022100349					
11-01-2021	219.29	1.103842219	0.113550327	23	0.055127244					
07-09-2009	104.23	1.277106154	0.113515618	24	0.002306353					
13-04-2009	45.77	-0.749342848	0.111772631	25	0.014610594					
05-02-2020	182.62	0.3172043	0.108931845	26	0.001517284					
17-10-2019	138.64	2.505586117	0.108462456	27	0.049876643					
24-03-1992	39.55	2.320140318	0.108433353	28	-0.054472988					
24-07-2001	11.91	-0.841641527	0.108011578	29	-0.053535172	<div><div>Daily Returns Distribution</div></div>				
28-07-2009	75.22	1.562461285	0.107591617	30	-0.016733555					
13-03-2009	29.35	0.225841249	0.107155075	31	0.003684906					
11-06-2002	23.95	1.088530545	0.106609472	32	-0.022863073					
14-03-2001	11.47	-0.843272324	0.10526331	33	0.015771947					
23-01-2004	73.16	-0.013268595	0.104191345	34	-0.031751089					
09-04-2020	74.14	-0.444733977	0.103550367	35	-0.017650282					
11-09-2019	133.52	3.177853345	0.102133054	36	0.032125838					
02-01-2009	31.96	1.460645651	0.101345084	37	0.075236207					
22-10-2001	12.99	-0.96204008	0.100325605	38	0.01008291					
10-09-2013	342.15	0.83762313	0.100062904	39	-0.020852991					
01-04-2019	186.19	0.079827113	0.0985049	40	0.029688899					
18-11-2020	172.43	-0.447879423	0.098101315	41	-0.053856396					
14-08-2013	312.30	8.780276679	0.097129131	42	-0.021899153					

TATA MOTORS LTD

NSE: TATAMOTORS | BSE: 500570

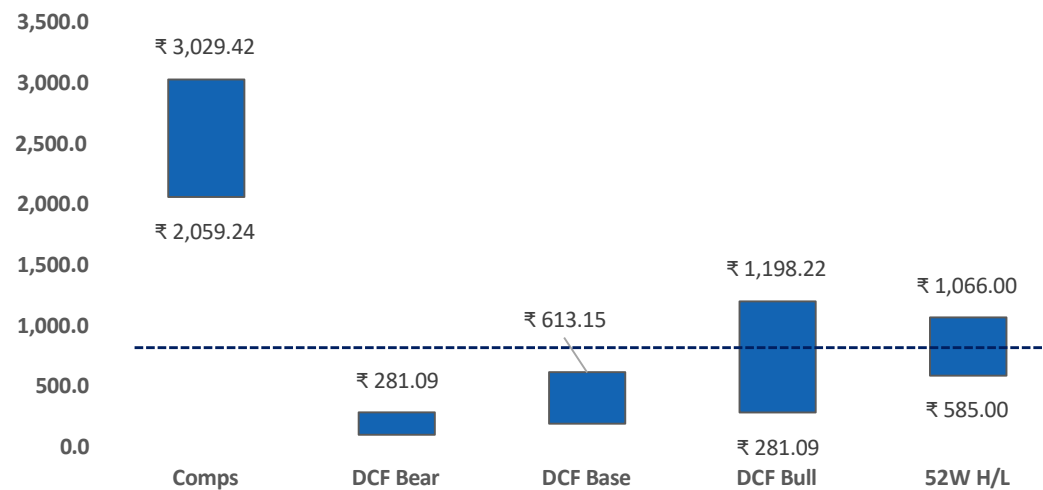


Football Field Analysis

Football Field Analysis - Data

	OpenLow	Low	OpenHigh	High
Comps	2059.2	2059.2	3029.4	3029.4
DCF Bear	97.7	97.7	281.1	281.1
DCF Base	190.4	190.4	613.2	613.2
DCF Bull	281.1	281.1	1198.2	1198.2
52W H/L	585.0	585.0	1066.0	1066.0

Football Field Analysis - Valuation Summary (Rs)



TATA MOTORS LTD

(TATAMOTORS | BSE Code: 500570)

INR 922.85

52 Week (High - INR 1066 & Low - INR 585)



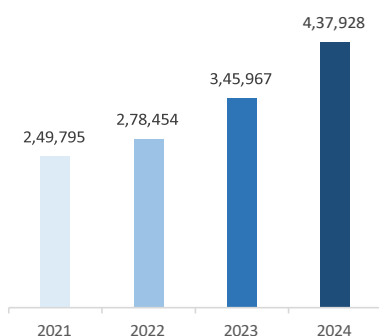
About the Company

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.

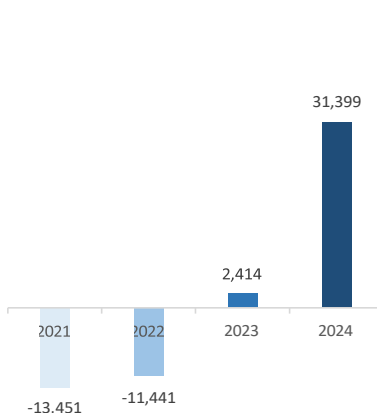
It has operations in India, the UK, South Korea, South Africa, China, Brazil, Austria and Slovakia through a strong global network of subsidiaries, associate companies and Joint Ventures (JVs), including Jaguar Land Rover in the UK and Tata Daewoo in South Korea.

Financial Summary

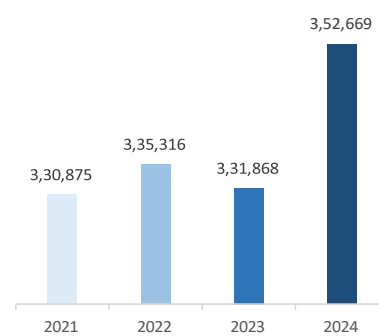
Revenues (INR Crs.)



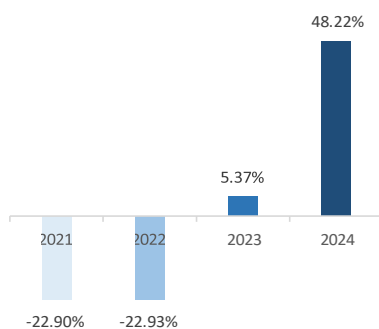
Net Profit (INR Crs.)



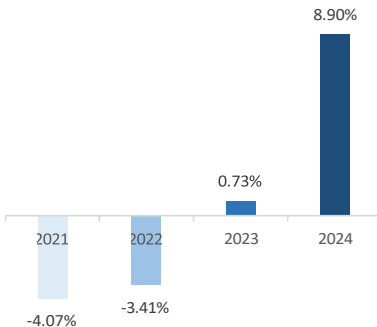
Total Assets (INR Crs.)



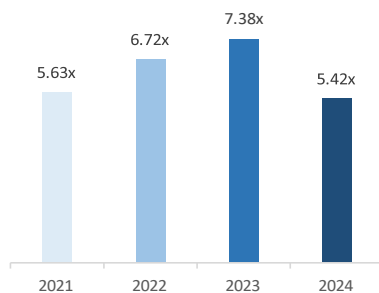
Return on Equity (%)



Return on Asset (%)



Financial Leverage



Recent Updates

- Tata Motors PV sales suffered YoY decline in June 24 - Total sales stood at 2.29 lakh units in Q1 FY25.
- Auto giant Tata Motors announced a consolidated net profit of Rs 17,529 crore for the quarter ending March 31, 2024, making a significant 46% increase from the net profit of Rs 12.033 crore reported in the corresponding period last year. The company surpassed Street estimates of Rs 6,225 crore.
- PAT likely to jump 33% YoY to Rs 7,640 crore on higher volume.
- Analysts anticipate robust results for Tata Motors, propelled by the advantages of operating leverage, favourable commodity trends and strong volume growth across its various segments.
- Tata Motors drives Tata group companies' finances to new high in FY24 recording the consolidated net profit to be up more than 1200% to Rs 32.203 crore from Rs 2,351 crore in FY23.
- June marked the third consecutive month of a YoY drop in sales of battery electric vehicles for market leader for Tata Motors, which reported sales of 4,657 EVs last month.

Dupont Analysis - Return on Equity & Return on Asset

Return on Equity (ROE)							
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Net Profit	8,988.9	-28,826.2	-12,070.9	-13,451.4	-11,441.5	2,414.3	31,399.1
Average Shareholder Equity	76,744.9	77,803.7	61,195.3	58,728.9	49,904.0	44,941.5	65,119.9
Return on Equity	11.71%	-37.05%	-19.73%	-22.90%	-22.93%	5.37%	48.22%

ROE - Dupont Equation							
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Net Profit	8,988.9	-28,826.2	-12,070.9	-13,451.4	-11,441.5	2,414.3	31,399.1
Revenue	2,91,550.5	3,01,938.4	2,61,068.0	2,49,794.8	2,78,453.6	3,45,967.0	4,37,927.8
Net Profit Margin (A)	3.08%	-9.55%	-4.62%	-5.38%	-4.11%	0.70%	7.17%
Revenue	2,91,550.5	3,01,938.4	2,61,068.0	2,49,794.8	2,78,453.6	3,45,967.0	4,37,927.8
Average Total Asset	2,99,886.1	3,16,447.7	3,12,941.4	3,30,874.7	3,35,315.7	3,31,868.0	3,52,669.2
Asset Turnover Ratio (B)	1.0x	1.0x	0.8x	0.8x	0.8x	1.0x	1.2x
Average Total Asset	2,99,886.1	3,16,447.7	3,12,941.4	3,30,874.7	3,35,315.7	3,31,868.0	3,52,669.2
Average Shareholder Equity	76,744.9	77,803.7	61,195.3	58,728.9	49,904.0	44,941.5	65,119.9
Equity Multiplier (C)	3.91x	4.07x	5.11x	5.63x	6.72x	7.38x	5.42x
Return on Equity (A*B*C)	11.71%	-37.05%	-19.73%	-22.90%	-22.93%	5.37%	48.22%

Return on Asset							
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Net Profit	8,988.9	-28,826.2	-12,070.9	-13,451.4	-11,441.5	2,414.3	31,399.1
Average Total Asset	2,99,886.1	3,16,447.7	3,12,941.4	3,30,874.7	3,35,315.7	3,31,868.0	3,52,669.2
Return on Asset	3.00%	-9.11%	-3.86%	-4.07%	-3.41%	0.73%	8.90%

ROA - Dupont Equation							
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Net Profit	8,988.9	-28,826.2	-12,070.9	-13,451.4	-11,441.5	2,414.3	31,399.1
Revenue	2,91,550.5	3,01,938.4	2,61,068.0	2,49,794.8	2,78,453.6	3,45,967.0	4,37,927.8
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Asset Turnover Ratio (B)	1.0x	1.0x	0.8x	0.8x	0.8x	1.0x	1.2x
Return on Asset (A*B)	3.00%	-9.11%	-3.86%	-4.07%	-3.41%	0.73%	8.90%

Dupont Summary

- ROE of Tata Motors has been negative throughout the COVID pandemic centering around -20% for the next two years till FY22 which now has shown a tremendous increase to 48.22% as of March 2024.
- The company faced a significant decrease in net margins but was able to increase the same gradually post the COVID pandemic from -9.55% in FY19 to 7.17% in FY24. Asset efficiency of the company is constantly maintained throughout the period.
- Tata Motors had a negative ROA of -9.11% in FY19 which has been increased gradually to 8.90% as of FY24. While the asset efficiency remains constant, the reason for increase in ROA is increased net margin of the company.

Disclaimer: This report is made as part of educational assignment and is meant for educational purpose only. The author of the report is not liable for any losses due to actions taken basis this report. It is advisable to consult SEBI registered research analyst before making any investments

TATA MOTORS LTD

(TATAMOTORS | BSE Code: 500570)

INR 922.85

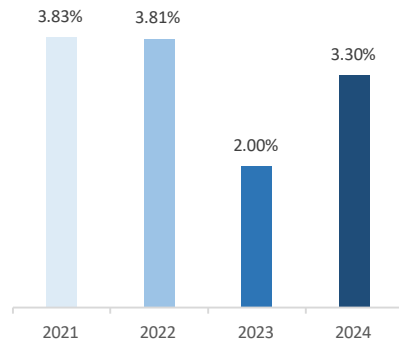
52 Week (High - INR 1066 & Low - INR 585)



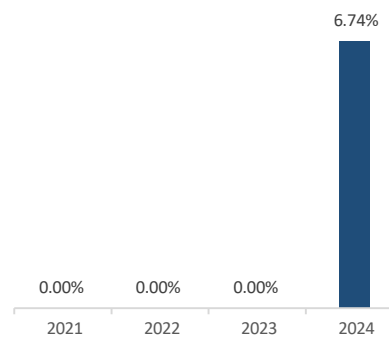
Altman's Z Score Analysis

Financial Summary

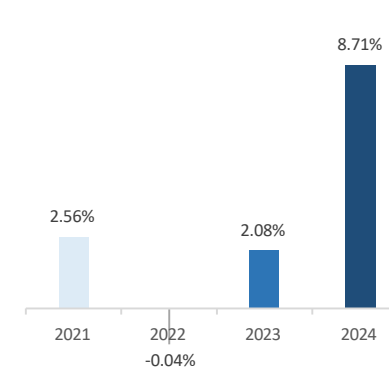
Working Capital / Total Assets



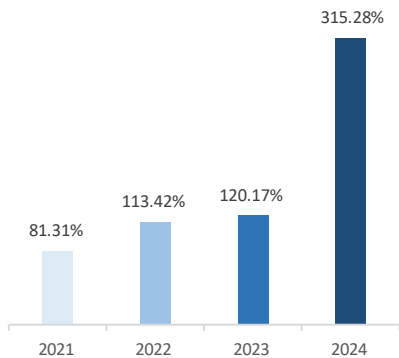
Retained Earnings / Total Assets



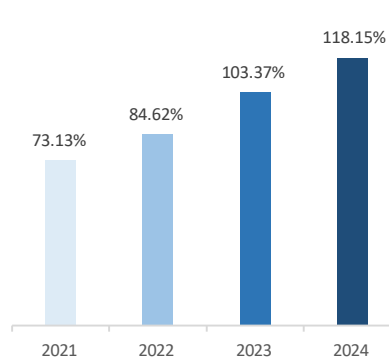
EBIT / Total Assets



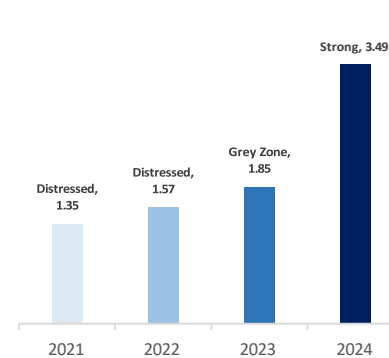
Market Cap / Long Term Liabilities



Sales / Total Asset



Altman's Z Score



Altman's Z Score Analysis Calculation

Working Capital / Total Assets							
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Working Capital	2,118.3	7,465.9	7,960.8	13,085.5	12,524.2	6,701.8	12,225.6
Total Assets	3,27,191.8	3,05,703.5	3,20,179.4	3,41,569.9	3,29,061.5	3,34,674.4	3,70,664.0
Working Capital / Total Assets (A)	0.65%	2.44%	2.49%	3.83%	3.81%	2.00%	3.30%

Retained Earnings / Total Assets							
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Retained Earnings	880.4	-	-	-	-	-	24,984.3
Total Assets	3,27,191.8	3,05,703.5	3,20,179.4	3,41,569.9	3,29,061.5	3,34,674.4	3,70,664.0
Retained Earnings / Total Assets (B)	0.27%	-	-	-	-	-	6.74%

EBIT / Total Assets							
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
EBIT	9,904.1	1,073.7	-3,438.4	8,740.7	-115.6	6,955.4	32,268.2
Total Assets	3,27,191.8	3,05,703.5	3,20,179.4	3,41,569.9	3,29,061.5	3,34,674.4	3,70,664.0
EBIT / Total Assets (C)	3.03%	0.35%	-1.07%	2.56%	-0.04%	2.08%	8.71%

Market Cap / Long Term Liabilities							
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Market Cap	1,11,001.6	59,177.1	25,561.8	1,15,561.1	1,66,100.9	1,61,170.5	3,38,175.6
Long Term Liabilities	88,950.5	1,06,175.3	1,24,787.6	1,42,130.6	1,46,449.0	1,34,113.4	1,07,262.5
Market Cap / Long Term Liabilities (D)	124.79%	55.74%	20.48%	81.31%	113.42%	120.17%	315.28%

Sales / Total Asset							
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Total Sales	2,91,550.5	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	3,27,191.8	3,05,703.5	3,20,179.4	3,41,569.9	3,29,061.5	3,34,674.4	3,70,664.0
Return on Asset (E)	89.11%	98.77%	81.54%	73.13%	84.62%	103.37%	118.15%

Altman's Z Score							
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Final Score	1.75	1.36	0.93	1.35	1.57	1.85	3.49
Financial Stability	<i>Distressed</i>	<i>Distressed</i>	<i>Distressed</i>	<i>Distressed</i>	<i>Distressed</i>	<i>Grey Zone</i>	<i>Strong</i>

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