

A Case Study on Valuation of Tata Motors Ltd.

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Abstract

In this case study, the fundamental value of Tata Motors has been calculated using one of the most popular techniques of valuation, Discounted Cash Flow Valuation. Ravi Nigam, who is an equity analyst has been given the task to calculate the value of Tata Motors. The first step taken to calculate the value was to prepare the forecasted income statement and balance sheet. In order to do so, the first task was to forecast the sales of Tata Motors for the next coming five years. On the basis of forecasted sales, various items of expenses like the cost of goods sold and selling, general & administrative expenses were forecasted. Subsequently, Free Cash Flow to the Firm was calculated which was discounted by a weighted average of the cost of capital to arrive at the present value of Tata Motors. The terminal value and its present value has been also calculated to complete the valuation process.

Calculating the fundamental value of an organization has never been an easy task. Calculating the value of a firm falls in the subject area of Finance, more specifically in Corporate Valuation. Ravi Nigam has been hired as an Equity Analyst by ABC Company Ltd. The first task in-hand given to him is to calculate the value of Tata Motors.

1. Indian Automobile Sector

Sales across vehicle segments fell considerably during FY 2019-20. While the Indian automotive industry expanded by 5.9% in FY 2018-19, it contracted by 20.3% in FY 2019-20 as per data released by SIAM. The passenger vehicle segment in line with the Indian automotive industry fell by 17.3% in FY 2019-20 while it grew in FY 2018-19 by 2.8%. The fall in total Indian automotive industry size has been attributed to a slowdown in the domestic economy, a fall in consumer sentiments, and the rising cost of vehicle ownership. If a fall in passenger vehicle sales was bad news, a fall in commercial vehicle sales made matter worse in FY 2019-20. The sale of the commercial vehicle fell by 30% in FY 2019-20 as compared to an increase of 17.1% in FY 2018-19. Due to the pandemic consumers have been postponing purchasing vehicles. The revival of the industry now depends on the revival of the Indian economy to a large extent. Indian economy is expected to recover which will consist of recovery of the rural economy, normal monsoon, and improvement in consumer sentiments.

1.1 Indian Economy

The country is experiencing a slowdown in its economic activity which is getting reflected in the sluggish growth rate of GDP. In 2019, GDP grew at a slow pace of 4.18%. This is due to low credit offtake and low demand. Due to low credit offtake and low demand, the consumption expenditure and gross fixed capital formation have been hit negatively. Additionally, low global growth and stress in the balance sheet of the financial sector also have facilitated the slowness in the economy.

1.2 Global Economy

The world economy has not been doing well either in the recent past. Global growth decelerated in the FY 2019-20. It has fallen to the slowest rate of expansion post-global financial crisis. This fall in growth was widespread across developed economies (especially Europe) and developing countries. In the United States, the pandemic has totally disrupted the economic activity of the country. USA's Industrial production and retail sales have fallen significantly. To get the economy back on the growth track, the US government has reduced the interest to near zero level and Federal Reserve Bank has started to buy US Government debt and corporate-issued debt.

2. About Tata Motors

Most of the revenue of Tata Motors comes from automotive operations which include manufacturing & sale of vehicles (along with spare parts), distribution & service, and financing of own vehicles in certain markets. The automotive operations of the firm have been divided into four segments which are

- 1) Commercial vehicles.
- 2) Passenger vehicles.
- 3) Jaguar Land Rover
- 4) Vehicle Financing.

The following table gives the worldwide sales of Tata Motors.

Table 1: Worldwide Sales of Tata Motors

	Financial Year 19-20	Financial Year 19-20	Financial Year 18-19	Financial Year 18-19
	Units	%	Units	%
Total Passenger Vehicles	1,37,924	28.4	2,34,500	30.8%
Total Commercial Vehicle	3,47,587	71.6	5,27,286	69.2%
Total	4,85,511	100%	7,61,786	100%

Table 2: Market Share of Tata Motors (Based on Wholesale Volume)

Category	For Financial Year ending on 31,2020	For Financial Year ending on March 31, 2019
Passenger Cars	4.2%	5.9%
Utility Vehicles	5.6%	7.0%
Total –Passenger Vehicle	4.8%	6.3%
Medium and Heavy Commercial Vehicles	57.4%	55.0%
SCV's & Pickups	37.9%	40.1%
Intermediate and Light Commercial Vehicle	47.2%	45.4%
CV Passenger Vehicles	40.89%	44.01%
Total CV	43.01%	45.01%
Total Four-Wheel Vehicles	12.71%	15.51%

For a smooth transition to BS VI, the company has tried to reduce inventory by pushing sales in retail outlets. The company has achieved the transition to BS VI by launching the “New Forever” range. In Jan 2020, Tata Motors launched “Altroz” and received

a positive response from the market by selling 8,426 units until Mar 31, 2020. In the Medium and Heavy Commercial Vehicle category, the overall sale of the firm declined by 49.7% in FY 2019-20 in comparison to the previous FY but the company managed to increase its market share in the falling market by 2.4%. The medium and Heavy Commercial vehicles category is facing the problem of low freight rates, low development of infrastructure, and slowness in the overall economy. The intermediate and Light Commercial Vehicle category total market in India contracted in FY 2019-20 because of a lack of replacement demand, the decline in discretionary spending, and slowness in the economy.

Tata Motors export to 46 countries but international sales of the firm declined by 41.41% to 31,143 units in FY 2019-20 as compared to 53,141 units in FY 2018-19. The company intends to strengthen its position in international sales and explore new markets which have user characteristics similar to that of the Indian market. The firm's market share in international markets has improved or sustained in the FY 2019-20.

Indian market is becoming more competitive as it attracts more foreign companies because of it being a rapidly developing market. Moreover, foreign companies have to face the problem of mature markets which makes it necessary for them to enter India. Global companies are tough to beat because they have more international experience, huge financial resources, advanced technology, and brands popular at the international level.

3. Jaguar Land Rover's Performance in Important Markets

There is a fall of 12.1% in retail sales volume in FY 2019-20 (5, 08,659 no. of vehicles in FY 2019-20 from 5, 78,915 no. of vehicles in FY 2018-19). It is important to note that a significant part of the decline occurred in the fourth quarter of FY 2019-20 when the covid-19 was spreading throughout the world.

3.1 United Kingdom

The market in the UK was very volatile as the time of general elections approached on Dec 19 and there was a lot of uncertainty regarding Brexit. Jaguar sales were 32,533 vehicles in FY 2019-20 which is lower than 38,515 vehicles in FY 2018-19. Land Rover retail sales were 74,079 vehicles in FY 2019-20 which is lower by 6.7% compared to FY 2018-19.

3.2 North America

Jaguar Retail sales in units for the FY 2019-20 was 30,095 units which were 36,767 units in FY 2018-19. The sales of Land Rover were also lower in FY 2019-20 in comparison to FY 2018-19 but the fall in sales was less steep. Land Rover sales in FY 2019-20 were 99,251 Units which was 1, 03,010 in FY 2018-19.

3.3 Europe

Europe's economy was not performing well in the FY 2019-20 because of the adverse impact of Brexit, rising measures of protectionism taken by the EU, and uncertainty of diesel. Jaguar sales were 35,335 in FY 2019-20, which is lower by 28.6% compared to 49,474 vehicles in FY 2019-20. Land Rover retail sales were 71,702 in FY 2019-20, lower by 8.2% when compared to 78,092 vehicles in FY 2018-19.

3.4 China

China's economy was severely hit in the fourth quarter of FY 2019-20 due to the pandemic. Also, the trade tension with the US increased the uncertainty in the business environment. As a result, industry vehicle sales fell by 16.6% in FY 2019-20 in comparison to FY 2018-19. However, the decline in sales of Jaguar Land Rover (Jaguar and Land Rover combined) was less than the fall in industry sales with only a fall of 8.9%. In FY 2019-20, 90,124 units of Jaguar Land Rover were sold as compared

to 98,921 units in FY 2018-19. Jaguar retail sales were 26,061 units in FY 2019-20, lower by 20.5% when compared to unit sales of FY 2018-19. Land Rover sold 64,063 vehicles in FY 2019-20, lower by 3.1% compared to 66,125 vehicles in FY 2018-19.

3.5 Additional Overseas Market

The situation in the additional overseas market was not different when compared to the countries mentioned above. Due to bushfires in Australia, increased tension in the Middle East, trade tension between USA and China impacted the sales in Asia (especially in South Korea) and slow growth in Russia dampened automobile sales. Jaguar retail sales were 16,569 in FY 2019-20 when compared to 22,644 units in 2018-19. Land Rover managed to sell 58,971 vehicles in FY 2019-20 which was 72,090 vehicles in FY 2018-19.

3.5 Jaguar-Land Rover Competition

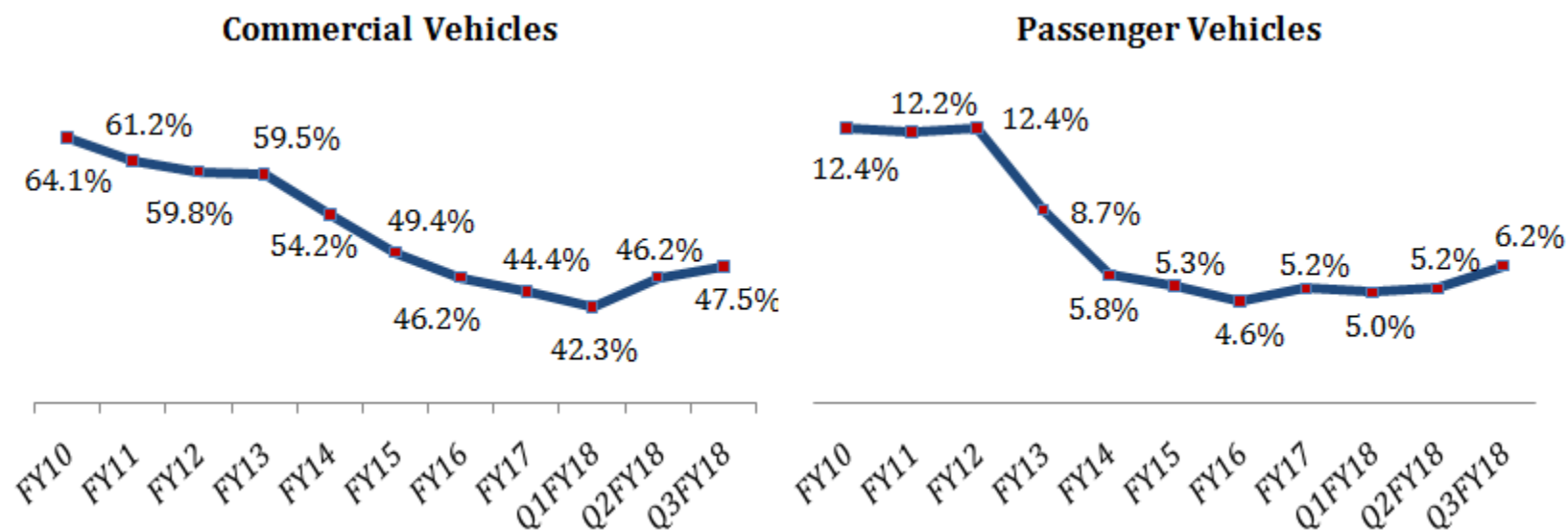
JLR is competing with premium-performance vehicle brands all over the world. Jaguar is battling with a strong and established brands like Audi, Porsche, BMW, and Mercedes Benz while Land Rover is competing in the SUV space with Audi, BMW, Lexus, Mercedes Benz, Porsche, and Volvo.

Source: Extracted from Annual Report of Tata Motors ([Annual Reports, Financial Statements, Balance Sheet of Tata Motors](#))

References:

- 1) *Annual Reports, Financial Statements, and Balance Sheet of Tata Motors* . (2021, March 7). Retrieved from Tata Motors: <https://www.tatamotors.com/>
- 2) *Tata Motors Financial Results*. (2021, March 11). Retrieved from Screener Web Site: <https://www.screener.in/company/TATAMOTORS/consolidated/>
- 3) *Tata Motors Stock Analysis*. (2018, March 23). Retrieved from Sanasecurities Web Site: <https://www.blog.sanasecurities.com/tata-motors-stock-analysis-latest/>

Figure 1: Market Share of Tata Motors in the Recent Past



Source: Downloaded from: <https://www.blog.sanasecurities.com/tata-motors-stock-analysis-latest/>

Table 3: Profit and Loss Account of Tata Motors Ltd.

Narration	Mar-11	Mar-12	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20
Sales	122,127.92	165,654.49	188,792.69	232,833.66	263,158.98	273,045.60	269,692.51	291,550.48	301,938.40	261,067.97
Expenses	105,310.44	143,439.06	164,276.80	198,094.88	224,039.90	234,650.35	240,171.43	261,737.86	277,779.66	243,333.86
Operating Profit	16,817.48	22,215.43	24,515.89	34,738.78	39,119.08	38,395.25	29,521.08	29,812.62	24,158.74	17,734.11
Other Income	660.47	73.96	292.97	42.21	833.60	2,669.62	1,936.71	7,577.79	-26,180.66	354.67

Depreciation	4,655.51	5,625.38	7,601.28	11,078.16	13,388.63	16,710.78	17,904.99	21,553.59	23,590.63	21,425.43
Interest	2,385.27	2,982.22	3,560.25	4,749.44	4,861.49	4,889.08	4,238.01	4,681.79	5,758.60	7,243.33
Profit before tax	10,437.17	13,533.87	13,647.33	18,868.97	21,702.56	14,125.77	9,314.79	11,155.03	-31,371.15	-
Tax	1,216.38	40.04	3,776.66	4,764.79	7,642.91	3,025.05	3,251.23	4,341.93	-2,437.45	395.25
Net profit	9,273.62	13,516.50	9,892.61	13,991.02	13,986.29	11,579.31	7,454.36	8,988.91	-28,826.23	-
EPS	32.66	47.60	34.62	48.46	48.44	40.11	25.82	31.13	-99.84	-
Price to earning	7.56	5.72	7.69	8.14	11.24	9.64	18.04	10.50	-1.75	-1.82
Price	247.02	272.33	266.30	394.42	544.37	386.60	465.85	326.85	174.25	71.05
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Dividend Payout	13.69%	9.39%	6.45%	4.60%	0.00%	0.59%	0.00%	0.00%	0.00%	0.00%
OPEN	13.77%	13.41%	12.99%	14.92%	14.87%	14.06%	10.95%	10.23%	8.00%	6.79%
Retention Ratio	86.31%	90.61%	93.55%	95.40%	100.00%	99.41%	100.00%	100.00%	100.00%	100.00%

Source: Screener.com (Link: [Tata Motors Ltd financial results and price chart - Screener](#))

Table 4: Balance Sheet of Tata Motors Ltd.

Narration	Mar-11	Mar-12	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20
Equity Share Capital	634.65	634.75	638.07	643.78	643.78	679.18	679.22	679.22	679.22	719.54
Reserves	18,533.76	32,063.75	36,999.23	64,959.67	55,618.14	78,273.23	57,382.67	94,748.69	59,500.34	61,491.49

Borrowings	32,810.55	47,148.96	53,715.71	60,642.28	73,610.39	69,359.96	78,603.98	88,950.47	106,175.34	124,787.64
Other Liabilities	48,402.88	62,918.68	76,977.02	92,180.26	107,442.48	114,871.75	135,914.49	142,813.43	139,348.59	133,180.72
Total	100,381.84	142,766.14	168,330.03	218,425.99	237,314.79	263,184.12	272,580.36	327,191.81	305,703.49	320,179.39
Net Block	35,349.05	44,360.41	55,511.73	69,091.67	88,479.49	107,231.76	95,944.08	121,413.86	111,234.47	127,107.14
Capital Work in Progress	11,456.79	15,945.83	18,453.55	33,262.56	28,640.09	25,918.94	33,698.84	40,033.50	31,883.84	35,622.29
Investments	2,544.26	8,917.71	8,764.73	10,686.67	15,336.74	23,767.02	20,337.92	20,812.75	15,770.72	16,308.48
Other Assets	51,031.74	73,542.19	85,600.02	105,385.09	104,858.47	106,266.40	122,599.52	144,931.70	146,814.46	141,141.48
Total	100,381.84	142,766.14	168,330.03	218,425.99	237,314.79	263,184.12	272,580.36	327,191.81	305,703.49	320,179.39
Working Capital	2,628.86	10,623.51	8,623.00	13,204.83	2,584.01	8,605.35	13,314.97	2,118.27	7,465.87	7,960.76
Debtors	6,525.65	8,236.84	10,959.60	10,574.23	12,579.20	13,570.91	14,075.55	19,893.30	18,996.17	11,172.69
Inventory	14,070.51	18,216.02	21,036.82	27,270.89	29,272.34	32,655.73	35,085.31	42,137.63	39,013.73	37,456.88
Debtor Days	19.50	18.15	21.19	16.58	17.45	18.14	19.05	24.90	22.96	15.62
Inventory Turnover	8.68	9.09	8.97	8.54	8.99	8.36	7.69	6.92	7.74	6.97
Return on Equity	48%	41%	26%	21%	25%	15%	13%	9%	-48%	-19%
Return on Capital Emp		25%	20%	22%	21%	14%	10%	10%	-15%	-2%

Source: Screener.com (Link: [Tata Motors Ltd financial results and price chart - Screener](#))

Table 5: Cash Flow Statement of Tata Motors Ltd.

Narration	Mar-11	Mar-12	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20
Cash from Operating Activity	11,240.15	18,384.32	22,162.61	36,151.16	35,531.26	37,899.54	30,199.25	23,857.42	18,890.75	26,632.94
Cash from Investing Activity	- 7,023.41	- 19,463.89	- 22,969.45	- 27,990.91	- 36,232.35	- 36,693.90	- 39,571.40	- 25,139.14	- 20,878.07	- 33,114.55
Cash from Financing Activity	- 1,401.29	- 6,567.18	- 1,692.08	- 3,883.24	- 5,201.44	- 3,795.12	- 6,205.30	- 2,011.71	- 8,830.37	- 3,389.61
Net Cash Flow	2,815.45	5,487.61	2,498.92	4,277.01	4,500.35	2,589.48	3,166.85	729.99	6,843.05	3,092.00

Source: Screener.com (Link: [Tata Motors Ltd financial results and price chart - Screener](#))