

# FY 2013

## Equity Research Report

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# [TATA MOTORS]

Tata Motors is an Indian Automotive Company that manufactures and markets Passenger and Commercial Vehicles. Apart from their own Tata brand, they also own the global luxury brands 'Jaguar' and 'Land Rover'. This research report looks at the company's performance and future potential to arrive at a valuation for the company using a value investment approach. It endeavors to provide an investment recommendation on the Tata Motors stock to value investors.

## Value Investment Philosophy and Analysis Framework

Value Investing is a discipline that assesses the performance of a business independent of market perceptions. This enables us to identify major mispricing of stocks and use this to our advantage. Popular investment theory believes in efficient markets free of any mispricing, a notion that 'the markets are always right'. We dispel such notions and specifically look for such mispricing as investment opportunities. The discipline of value investing believes that the markets have wild mood swings ranging from exuberance to pessimism, thus implying that 'the markets are always wrong' when it comes to pricing stocks.

The mispricing that we observe in the market often tends to last for very long periods. Hence, it is important for us to be very long term investors. If one does not have the patience to hold onto an investment for 3 to 5 years, this is not an appropriate investment approach for them.

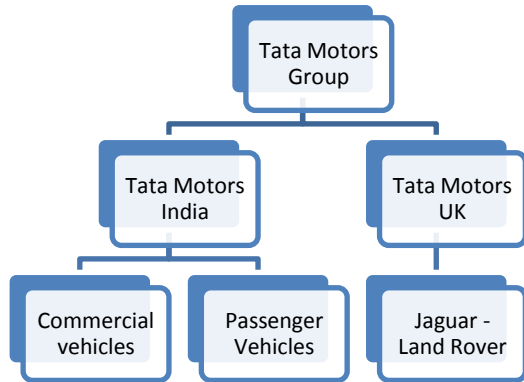
Since we start with the notion that the market is inaccurate at pricing stocks, what consequently follows is that there is no single correct valuation for a company and that value is a perception of every individual investor. The problem for small investors under such an approach is that transactions can only be executed at the market price, whatever may be their perception of value. Thus there is always a risk that one's perceived value may never be realized in the market. In order to reduce this risk, we have a section on 'market perception' in our report, to keep us cognizant of how the market has historically valued a company and how different is it from our valuation.

Another major concept in our valuation approach is conservatism. We are fully aware of the fact that there a multitude of assumptions that go into a valuation, many of which could be wrong. Hence, it is important to maintain a margin of safety in our recommendations. It is because of this that we come up with a very wide price range between the 'undervalued' and 'overvalued' state for a stock. This reduces our ability to do frequent trades in a stock but enables us to do a few transactions with very little risk and high return potential.

## Market Structure Analysis

It is the economy and the market in which a business operates that determines how it will perform in future. Thus an analysis of these markets enables us to come up with good projections for the future performance.

### Tata Motors' Group Structure



Tata Motors' business can be broken down into 3 sub-segments

1. Jaguar Land Rover Business (JLR)
2. Indian Passenger Vehicles
3. Indian Commercial Vehicles

The Indian Commercial Vehicles business can be further sub-divided into LCV and M&HCV. In some cases we have used this sub-division for analysis, while in other cases we have looked at the entire CV business as a whole.

All three of these businesses although part of the same industry, cater to a completely different market segment and hence behave in a very different way.

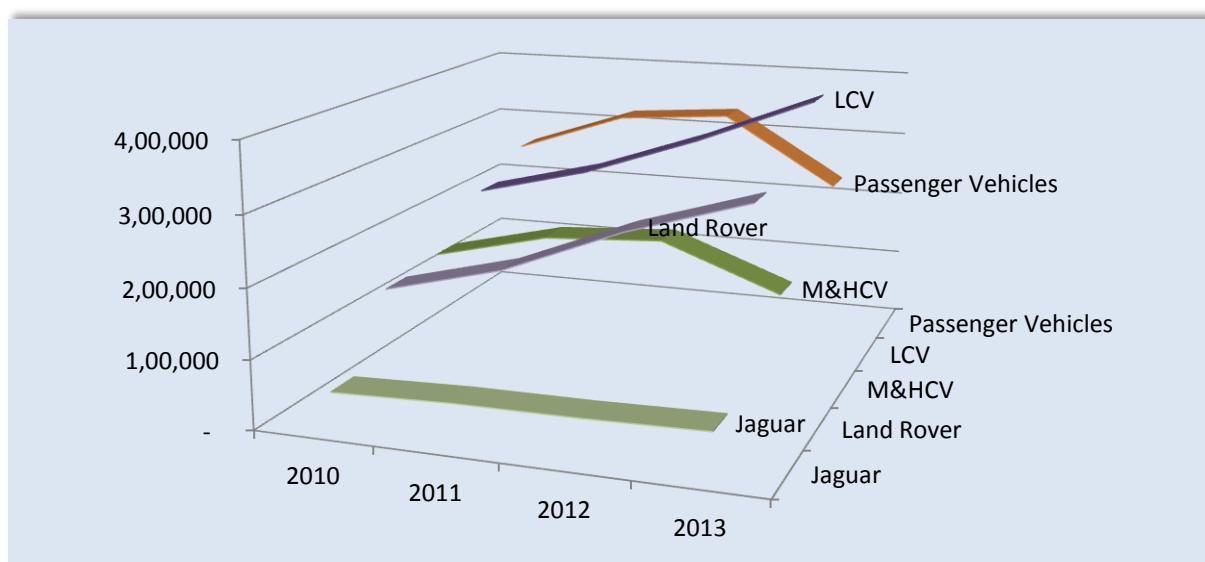


JLR is a very strong luxury brand and caters to the luxury car market globally. This is a high growth market in which JLR has a well established presence.

The Indian passenger vehicles business caters mostly to the Indian market. This market is also a rapidly growing one, but faces intense competition from major global brands. In this market, Tata is not the strongest brand and faces declining market share trends.

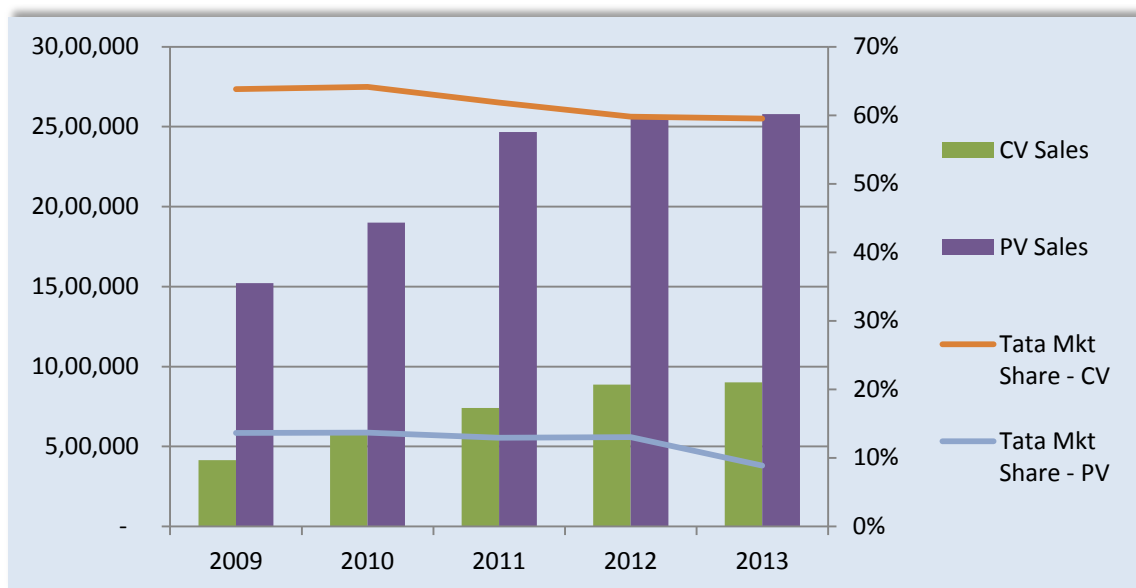
The Indian commercial vehicle market is a cyclical one, strongly linked to the growth rate of the Indian economy. While Tata Motors is a market leader in this space along with Ashok Leyland, it continues to remain a commoditised business with high price competition. It is a market where the company cannot expect to enjoy the kind of customer loyalty and consequent margin premium as in the case of luxury vehicles or passenger vehicles.

Tata Motors’ Global Vehicle Sales Trends:



Year	2013	2012	2011	2010	2009
<b>Tata Motors</b>					
M&HCV	1,42,764	2,07,086	1,96,651	1,55,161	1,13,697
LCV	3,93,468	3,23,118	2,62,177	2,18,681	1,51,676
Commercial Vehicles	5,36,232	5,30,204	4,58,828	3,73,842	2,65,373
Passenger Vehicles	2,29,325	3,33,044	3,19,712	2,60,020	2,07,512
<b>Total</b>	<b>7,65,557</b>	<b>8,63,248</b>	<b>7,78,540</b>	<b>6,33,862</b>	<b>4,72,885</b>
<b>JLR</b>					
Jaguar	57,812	54,039	52,993	47,418	
Land Rover	3,14,250	2,60,394	1,90,628	1,46,564	
<b>Total</b>	<b>3,72,062</b>	<b>3,14,433</b>	<b>2,43,621</b>	<b>1,93,982</b>	

Indian Automobile Market and Tata Motors' Market Share

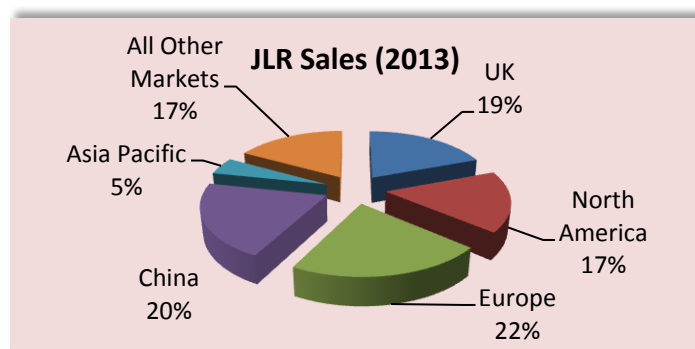
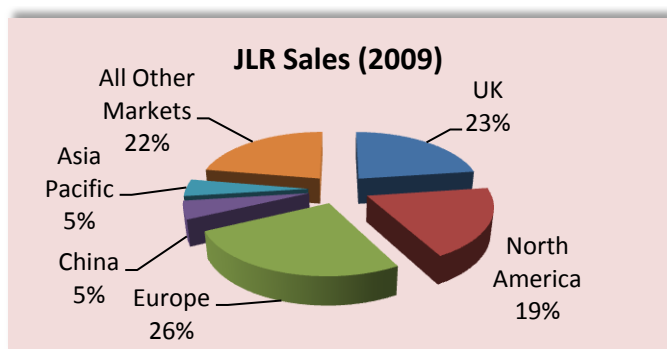


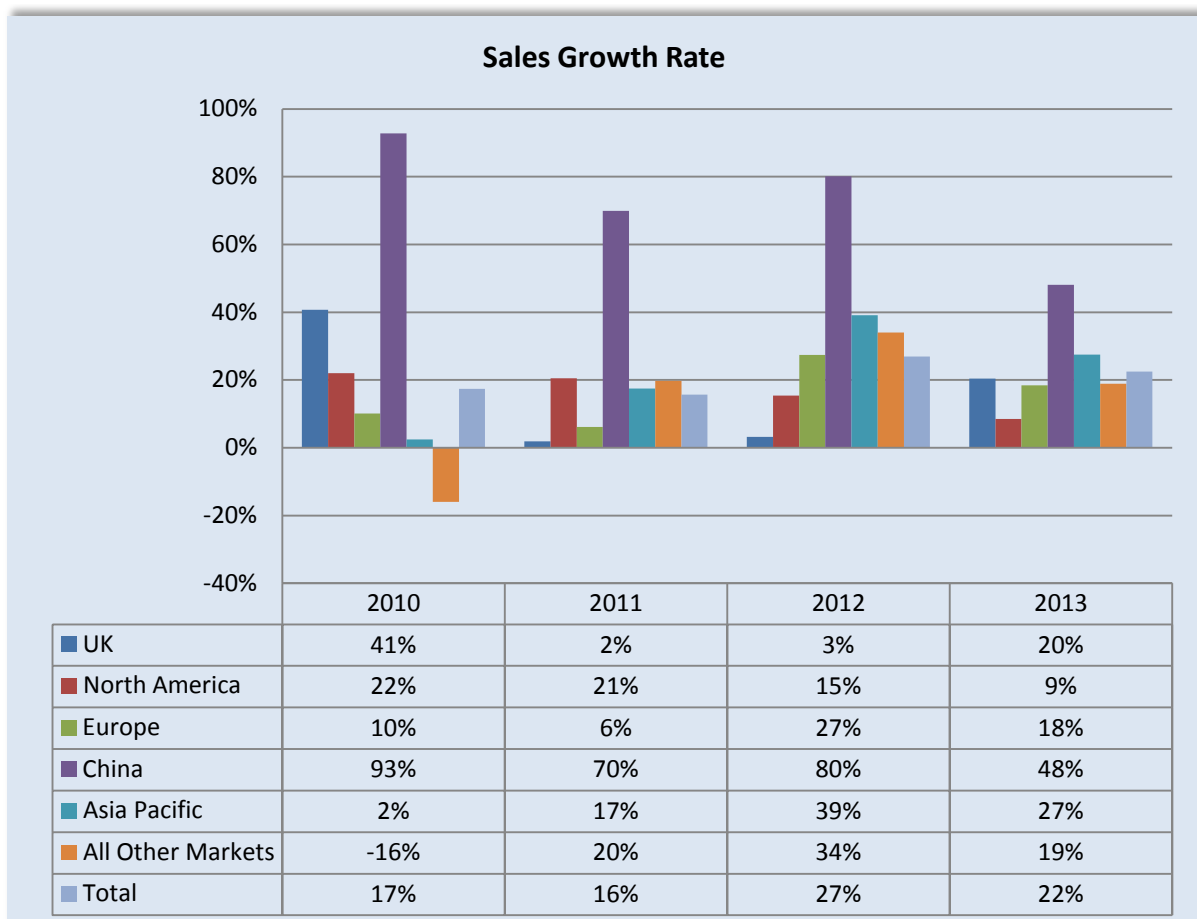
Year	2013	2012	2011	2010	2009
<b>Indian Market</b>					
Commercial Vehicles	9,01,120	8,86,362	7,42,091	5,82,933	4,15,724
Passenger Vehicles	25,78,538	25,56,035	24,66,814	19,00,704	15,21,421
<b>Mkt Share</b>					
Commercial Vehicles	60%	60%	62%	64%	64%
Passenger Vehicles	9%	13%	13%	14%	14%

As we can observe from the above tables, Tata Motors in India has lost market share in both CV and PV segments. However, in absolute terms, its sales have increased in the LCV segment. As far as JLR is concerned, Jaguar’s sales growth has been flat, while Land Rover’s sales have considerably picked up. These figures will further be used to build our projections for the future.

JLR's Vehicle Sales Trends by Region

Year	Sales Nos				
	2009	2010	2011	2012	2013
<b>Jaguar</b>					
UK	15,350	17,971	16,009	13,765	15,084
North America	11,176	12,401	14,239	13,867	13,028
Europe	12,898	11,498	10,979	10,207	10,775
China	1,285	2,042	2,884	7,410	9,496
Asia Pacific	2,927	2,478	2,776	3,518	3,841
All Other Markets	5,242	4,630	4,931	5,460	6,402
<b>Total</b>	<b>48,878</b>	<b>51,020</b>	<b>51,818</b>	<b>54,227</b>	<b>58,626</b>
<b>Land Rover</b>					
UK	25,197	39,085	42,125	46,257	57,186
North America	23,008	29,319	36,041	44,136	49,931
Europe	33,040	39,086	42,732	58,213	70,252
China	7,536	14,962	26,009	44,622	67,579
Asia Pacific	5,436	6,092	7,288	10,485	14,008
All Other Markets	34,327	28,633	34,892	47,919	57,087
<b>Total</b>	<b>1,28,544</b>	<b>1,57,177</b>	<b>1,89,087</b>	<b>2,51,632</b>	<b>3,16,043</b>
<b>JLR Total</b>					
UK	40,547	57,056	58,134	60,022	72,270
North America	34,184	41,720	50,280	58,003	62,959
Europe	45,938	50,584	53,711	68,420	81,027
China	8,821	17,004	28,893	52,032	77,075
Asia Pacific	8,363	8,570	10,064	14,003	17,849
All Other Markets	39,569	33,263	39,823	53,379	63,489
<b>Total</b>	<b>1,77,422</b>	<b>2,08,197</b>	<b>2,40,905</b>	<b>3,05,859</b>	<b>3,74,669</b>





A region-wise look at JLR’s sales shows us that the company’s sales have grown exponentially in China and other Emerging Markets. Sales growth has been slow in the developed markets. We can further observe that China’s contribution to JLR’s sales has increased from 5% in 2009 to 20% in 2013. We see this as a positive trend, as growth in emerging markets is more sustainable in the long run as against growth in developed markets, which tends to be cyclical.

## Financial Results and Projections

The financial results of Tata Motors and our projections are as below. We have also mentioned our rationale for such projections, based on the market conditions that we have observed.

### Segment P&L:

Year	2013	2012	2011	2010
<b>Revenue</b>				
Tata Motors	50,920	59,921	52,331	40,359
JLR	1,36,822	1,04,751	70,219	49,344
Less: Intra Segment	-93	-68	583	2,816
<b>Total</b>	<b>1,87,649</b>	<b>1,64,604</b>	<b>1,23,133</b>	<b>92,519</b>
<b>Result (EBIT)</b>				
Tata Motors	1,737	4,152	4342	3758
JLR	14,976	12,359	7700	54
Others	266	174	119.69	177.84
<b>Total</b>	<b>16,979</b>	<b>16,685</b>	<b>12,162</b>	<b>3,990</b>
Finance Cost	-3,553	-2,982	-2045	-2240
Other Income	812	662	90	1793
Exceptional Items	-602	-831	231	84
Tax	-3,771	40	1216	1006
<b>PAT</b>	<b>9,865</b>	<b>13,574</b>	<b>11,654</b>	<b>4,633</b>
<b>EBIT Margins</b>				
Tata Motors	3%	7%	8%	9%
JLR	11%	12%	11%	0%
<b>Total</b>	<b>9%</b>	<b>10%</b>	<b>10%</b>	<b>4%</b>
<b>Avg Price / Vehicle (Rs. Lacs)</b>				
Tata Motors	6.65	6.94	6.72	6.37
JLR	36.77	33.31	28.82	25.44

As we observe from the above results, Tata Motors' revenue growth and profits are largely due to JLR performing well. The margins on JLR vehicles are also higher.



Tata Motors (India) projections:

<b>Tata Motors (India)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>CV</b>							
Market Size	9,01,120	9,01,120	9,46,176	10,12,408	11,33,897	13,03,982	14,99,579
Growth Rate	0%	0%	5%	7%	12%	15%	15%
Market Share	60%	59%	58%	57%	56%	55%	54%
Sales	5,40,672	5,31,661	5,48,782	5,77,073	6,34,982	7,17,190	8,09,773
<b>PV</b>							
Market Size	25,78,538	26,30,109	27,61,614	29,54,927	33,09,518	38,05,946	43,76,838
Growth Rate	0%	2%	5%	7%	12%	15%	15%
Market Share	9%	9%	8%	8%	7%	7%	6%
Sales	2,32,068	2,23,559	2,20,929	2,21,620	2,31,666	2,47,387	2,62,610
<b>Total Sales</b>	<b>7,72,740</b>	<b>7,55,220</b>	<b>7,69,711</b>	<b>7,98,692</b>	<b>8,66,649</b>	<b>9,64,577</b>	<b>10,72,383</b>
Average Price (Lacs)	6.65	6.78	6.92	7.13	7.34	7.49	7.64
Price Inflation	0%	2%	2%	3%	3%	2%	2%
<b>Revenue (Crores)</b>	<b>51,398</b>	<b>51,237</b>	<b>53,265</b>	<b>56,928</b>	<b>63,625</b>	<b>72,231</b>	<b>81,910</b>
EBIT margin	3%	3%	3%	4%	6%	7%	8%
<b>EBIT</b>	<b>1,541.93</b>	<b>1,537.11</b>	<b>1,597.94</b>	<b>2,277.13</b>	<b>3,817.51</b>	<b>5,056.16</b>	<b>6,552.79</b>

Assumptions rationale:

We have assumed the CV market to remain flat till 2015 and then start growing slowly. This is in line with the current slowdown in the economy which has caused overcapacity in the CV segment leading to an expectation of delayed recovery in the capex cycle. We have assumed Tata Motors' market share to continue dropping in line with past trends.

We have made a similar assumption with regards to the PV market, as the consumer market faces a downturn. Furthermore, as there is intense competition from major global brands, Tata Motors' market share is projected to continue declining.

We have projected price inflation of 2% to 3% per year and EBIT margin to recover back to 7%-8% levels, resulting from better capacity utilization in future.

JLR Projections

In case of JLR, we have done a detailed market by market analysis of past sales numbers and projected future sales numbers based on this.

Year	Sales Projections						
	2014	2015	2016	2017	2018	2019	2020
<b>Jaguar</b>							
UK	15,537	15,692	15,849	16,007	16,167	16,329	16,492
North America	12,637	12,384	12,384	12,384	12,508	12,633	12,760
Europe	11,098	11,209	11,321	11,435	11,549	11,664	11,781
China	11,395	13,104	14,415	15,856	16,649	17,482	18,356
Asia Pacific	4,033	4,235	4,658	5,124	5,636	5,918	6,214
All Other Markets	6,722	7,058	7,764	8,540	9,394	9,864	10,357
<b>Total</b>	<b>61,422</b>	<b>63,683</b>	<b>66,392</b>	<b>69,347</b>	<b>71,905</b>	<b>73,891</b>	<b>75,960</b>
<b>Land Rover</b>							
UK	65,764	72,340	75,957	79,755	83,743	84,580	85,426
North America	52,428	52,428	52,428	55,049	57,801	58,379	58,963
Europe	80,790	88,869	93,312	97,978	1,02,877	1,03,905	1,04,945
China	87,853	1,05,423	1,15,966	1,27,562	1,33,940	1,40,637	1,47,669
Asia Pacific	17,510	20,137	22,150	24,365	25,583	26,863	28,206
All Other Markets	65,650	72,215	79,437	87,380	91,749	96,337	1,01,154
<b>Total</b>	<b>3,69,994</b>	<b>4,11,411</b>	<b>4,39,249</b>	<b>4,72,089</b>	<b>4,95,694</b>	<b>5,10,702</b>	<b>5,26,362</b>
<b>JLR Total</b>							
UK	81,300	88,032	91,806	95,762	99,910	1,00,909	1,01,918
North America	65,065	64,812	64,812	67,433	70,310	71,013	71,723
Europe	91,888	1,00,078	1,04,634	1,09,412	1,14,426	1,15,570	1,16,726
China	99,248	1,18,528	1,30,380	1,43,419	1,50,589	1,58,119	1,66,025
Asia Pacific	21,543	24,371	26,808	29,489	31,220	32,781	34,420
All Other Markets	72,372	79,273	87,201	95,921	1,01,144	1,06,201	1,11,511
<b>Total</b>	<b>4,31,416</b>	<b>4,75,094</b>	<b>5,05,641</b>	<b>5,41,437</b>	<b>5,67,599</b>	<b>5,84,593</b>	<b>6,02,323</b>

Year	Projected Growth Rates						
	2014	2015	2016	2017	2018	2019	2020
<b>Jaguar</b>							
UK	3%	1%	1%	1%	1%	1%	1%
North America	-3%	-2%	0%	0%	1%	1%	1%
Europe	3%	1%	1%	1%	1%	1%	1%
China	20%	15%	10%	10%	5%	5%	5%
Asia Pacific	5%	5%	10%	10%	10%	5%	5%
All Other Markets	5%	5%	10%	10%	10%	5%	5%
<b>Total</b>	<b>5%</b>	<b>4%</b>	<b>4%</b>	<b>4%</b>	<b>4%</b>	<b>3%</b>	<b>3%</b>
<b>Land Rover</b>							
UK	15%	10%	5%	5%	5%	1%	1%
North America	5%	0%	0%	5%	5%	1%	1%
Europe	15%	10%	5%	5%	5%	1%	1%
China	30%	20%	10%	10%	5%	5%	5%
Asia Pacific	25%	15%	10%	10%	5%	5%	5%
All Other Markets	15%	10%	10%	10%	5%	5%	5%
<b>Total</b>	<b>17%</b>	<b>11%</b>	<b>7%</b>	<b>7%</b>	<b>5%</b>	<b>3%</b>	<b>3%</b>
<b>JLR Total</b>							
UK	12%	8%	4%	4%	4%	1%	1%
North America	3%	0%	0%	4%	4%	1%	1%
Europe	13%	9%	5%	5%	5%	1%	1%
China	29%	19%	10%	10%	5%	5%	5%
Asia Pacific	21%	13%	10%	10%	6%	5%	5%
All Other Markets	14%	10%	10%	10%	5%	5%	5%
<b>Total</b>	<b>15%</b>	<b>10%</b>	<b>6%</b>	<b>7%</b>	<b>5%</b>	<b>3%</b>	<b>3%</b>

We have projected a very slow growth rate in the developed markets, and a higher growth rate in developing markets like China and Asia Pacific. Based on this, we have arrived at the following projections for JLR.

JLR	2014	2015	2016	2017	2018	2019	2020
<b>Sales</b>	<b>4,31,416</b>	<b>4,75,094</b>	<b>5,05,641</b>	<b>5,41,437</b>	<b>5,67,599</b>	<b>5,84,593</b>	<b>6,02,323</b>
Average Price (Lacs)	38.61	40.54	42.57	44.70	46.04	47.42	48.84
Price Inflation	5%	5%	5%	5%	3%	3%	3%
<b>Revenue (Crores)</b>	<b>1,66,581</b>	<b>1,92,619</b>	<b>2,15,254</b>	<b>2,42,017</b>	<b>2,61,322</b>	<b>2,77,221</b>	<b>2,94,197</b>
EBIT margin	11.00%	10.50%	10.00%	9.50%	9.00%	8.50%	8.00%
<b>EBIT</b>	<b>18,323.95</b>	<b>20,224.99</b>	<b>21,525.38</b>	<b>22,991.59</b>	<b>23,519.00</b>	<b>23,563.76</b>	<b>23,535.78</b>

We have assumed higher price inflation for JLR, because of rupee depreciation against world currencies.

Overall Projections

Tata Motors (Consol)	2014	2015	2016	2017	2018	2019	2020
Total EBIT	19,866	21,762	23,123	25,269	27,337	28,620	30,089
PAT	11,458	12,640	14,041	15,632	17,376	18,189	18,990
No. of Shares o/s	324.34	324.34	324.34	324.34	324.34	324.34	324.34
EPS	35.33	38.97	43.29	48.20	53.57	56.08	58.55

Capital Structure

The past capital structure of the company is as below

Year	2010	2011	2012	2013
Equity	8,206	19,171	32,698	37,637
Long Term Debt	35,108	32,791	27,962	32,110
Short Term Debt	-	-	10,741	11,612
Total Debt	35,108	32,791	38,703	43,722
Capital Employed	45,324	53,973	73,413	83,372
Sales Qty	8,27,844	10,22,161	11,77,681	11,37,619
Capital Employed per vehicle (Rs. Lacs)	5.47	5.28	6.23	7.33

While projecting a future capital structure, we have assumed that retained profits are used to pay down debt. The projected capital structure is as below.

Year	2014	2015	2016	2017	2018	2019	2020
Sales Qty	12,04,157	12,30,314	12,75,352	13,40,129	14,34,247	15,49,169	16,74,706
Capital Employed per vehicle (Rs. Lacs)	7.83	8.33	8.83	9.33	9.83	10.33	10.83
Capital Required	94,269	1,02,468	1,12,596	1,25,016	1,40,967	1,60,008	1,81,348
Debt	46,320	43,776	41,969	41,883	43,933	49,332	56,430
Equity	47,949	58,693	70,628	83,133	97,034	1,10,676	1,24,918
<u>Cash Flow:</u>							
EBIT	19,866	21,762	23,123	25,269	27,337	28,620	30,089
Interest Rate	8%	8%	7%	7%	6%	6%	6%
Interest Cost	3,498	3,706	3,064	2,938	2,513	2,636	2,960
PBT	16,368	18,056	20,059	22,331	24,824	25,984	27,129
Tax	4,910	5,417	6,018	6,699	7,447	7,795	8,139
PAT	11,458	12,640	14,041	15,632	17,376	18,189	18,990
Dividend Rate (% of PAT)	10%	15%	15%	20%	20%	25%	25%
Dividend	1,146	1,896	2,106	3,126	3,475	4,547	4,748
Retained Profits	10,312	10,744	11,935	12,505	13,901	13,642	14,243

Valuation

Based on the above projections, we have arrived at the following valuation for Tata Motors

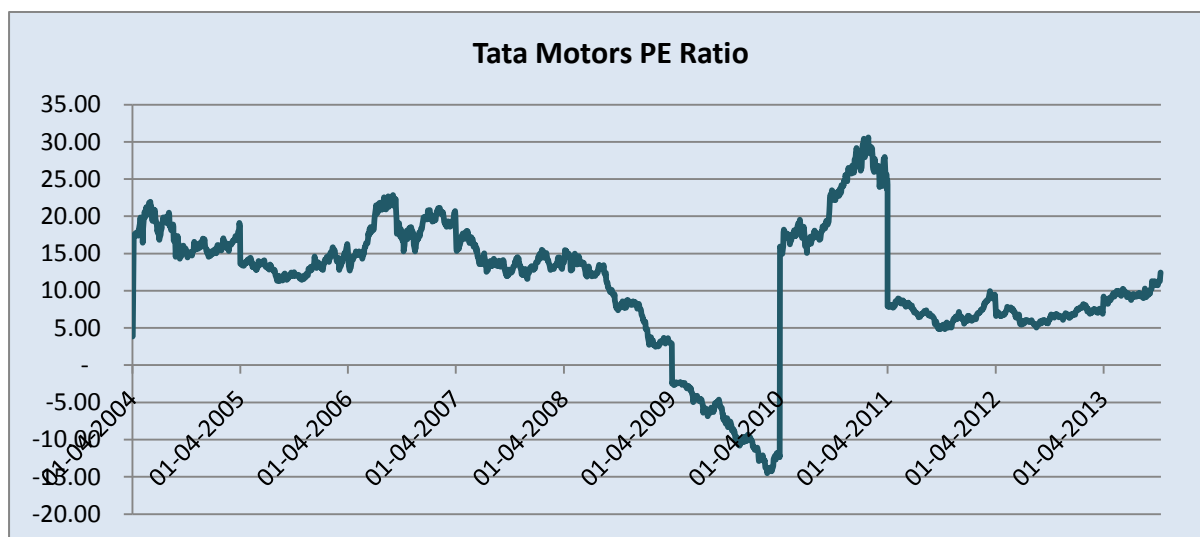
Year	2014	2015	2016	2017	2018	2019	2020	TV
Projected Earnings	11,458	12,640	14,041	15,632	17,376	18,189	18,990	
PV	10,609	10,836	11,146	11,490	11,826	11,462	11,081	1,28,247
Post Tax Interest rate	8%							
Valuation (Rs. Crores)	2,06,697							
No. of Shares o/s (Crores)	324.34							
Valuation per share	637							

We have used a simple discounted cash flow approach to arrive at a valuation for Tata Motors. In arriving at the above valuation, we have assumed a discount rate of 8% and Nil terminal growth rate.

Based on this, the fair value of Tata Motors is Rs. 637 per share.

**Market Perception**

Market Perception helps us understand how the Market views the stock in relation to our own perceptions. It gives us an indicator of the trading range for the stock.



The average range of Tata Motors’ PE Ratio is between 10 and 20. According to our valuation, the PE ratio is 18. Since the PE ratio of our valuation is close to the higher end of the company’s traded PE, it implies that the market tends to undervalue the company’s stock. We need to keep this bias in mind while transacting in the stock.

## Summary and Recommendation

It is difficult to categorize Tata Motors as a whole into any of our traditional buckets of growth, stalwart, cyclical, turnaround, etc. Tata Motors' Indian business can be classified as a 'Stalwart', as it enjoys a high market share with adequate margins. While there is some cyclical in the revenues earned by the CV business, we do not classify it as a commodity/cyclical stock, because the company has some degree of control over its profit margins and we do not expect it to be solely at the mercy of market forces. The company's JLR operations can be classified as a growth business, because of the high growth it is witnessing in emerging markets and our belief that there is substantial room for such growth to continue in future. There were some elements of a turnaround in the JLR business a few years ago, when the brands were acquired by the Tata group. However, the positive results of such a turnaround have already been fully realized by now.

**Based on our analysis above, we recommend a trading range between Rs. 350 and Rs. 700 for the Tata Motors stock.**

However, we maintain a caveat that there is a possibility of marked improvement in Jaguar Sales or a turnaround in Tata Motors' Indian operations sooner than anticipated. In such a situation, the upper limit of Rs. 700 might be too low to exit the stock. Hence, this is something we need to continuously monitor.

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