
Impact of GST Implementation on Share Prices - A Study on Automobile Industry

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1. Abstract

The introduction of Goods and Service Tax (GST) is one of the most significant taxation reform in India. The idea of GST was criticised and appreciated by various stakeholders in many ways. The tax rate implemented reduced the cost of certain product and increased the cost of others. The study aims to understand the impact of the new taxation system (GST) in the Automobile sector with respect to its share prices. Three different companies - Ashok Leyland dealing with heavy and light commercial vehicles , TVS Motors dealing in two-wheeler vehicles and Maruthi Suzuki dealing with four-wheeler sector are considered. Their Share prices are analysed with that of the NSE Auto Index. The overall study showed that the Automobile sector's share prices have benefitted. Thus the manufacturers and the shareholders have both benefitted due the implementation of GST.

2. Introduction

The Goods and Service tax was implemented in India from 1 July 2017. It is one of the major tax reforms in India since independence. Based on the principle of one nation, one tax, one market it replaced the tradition taxes like Central Excise Duty , Additional Excise Duty (Goods of Special Importance) ,Additional Duties of Excise, Service Tax ,SAD, CVD, Cesses and surcharges in so far as they relate to supply of goods and services and few more levied by the Central Government and State VAT, Central Sales Tax collected by state , Entertainment Tax (not levied by the local bodies) , Octroi and Entry Tax (all forms) ,Purchase Tax ,Luxury Tax ,Taxes on lottery, betting and gambling ,State cesses and surcharges in so far as they relate to supply of goods and services and Taxes on advertisements levied by the state government. The current tax rates in GST are 0%, 5%, 12% ,18% and 28%.

NIFTY Auto Index

The Nifty Auto Index is a index that reflects the trends and behaviour of the Automobile sector Various manufacturers of four wheeler cars, two wheelers, auto's, heavy vehicles, tyres etc are considered . The Index consists of 15 stocks that are listed on the NSE.

GST and Automobile Industry

The Indian automobile industry mainly consists of small cars which come in the price range of 5 to 8 lakh rupees below 1200cc. The tax rate pre GST (VAT + Excise + NCCD + auto cess) was 28% and post tax rate would be 29% (GST + cess (1%)). The tax rate for Mid-size cars (1200cc and 1500cc) pre GST was 39% and Post GST is 31% for petrol cars and 34% for diesel cars. The tax rate for luxury cars (over 1500cc) pre GST was 42% and Post GST is 43%. The tax rate for SVU cars (over 1500cc, over 170mm ground clearance) pre GST was 45% and Post GST is 43%. One of the main points that should be considered is that GST will subsume various taxes like excise, VAT, sales tax, road tax, motor vehicle tax, registration duty on car and bikes.

3. Literature Review

Many of the studies conducted on GST was qualitative in nature. The most recent implementation of GST was in Malaysia . Most of the studies showed that the middle income group individuals were worried about their purchasing power in Malaysia and the people were not well informed about the GST and its effects in Malaysia. The study suggests that the government should promote GST and its benefits to its citizens. (Palil & Ibrahim, 2011) This was one of the best example India could consider before implementing GST in India. Malaysian citizens are less aware of the GST due to the Lack of information or knowledge regarding the GST. The Government should take measures to increase the awareness regarding the GST and also should take more effort in education the citizens and providing information and bring in a positive attitude among the citizens regarding GST. (K.Saira, M.A.Zariyawati, & L.Yoke-May, 2010) Consumers are apprehensive about purchase of any Goods post GST implementation for at least 90 days. And the goods purchased are going to be higher prior the implementation of GST. (Hong, Teh, Soh, & Ong2, 2015) The study of USA,UK and Australia showed there is a high tax burden in small businesses. The study also suggested that the government needs to implement GST in a way that it reduces the burden of GST on small businesses also it tells that the overall benefit to the economy is higher as compared to economic benefits that arises due to its implementation. (Pope, 2011). The expectation is that the compliance cost is to be high in the initial 3 years. The compliance cost of external service of GST is 70.4%, the tax planning cost is 10.4% and tax planning is 9.6%. (Palil, Ramli, Mustapha, & Hassan, 2013). Studies also tell that the implementation of a well structured GST system is one of the best advances of India in the indirect taxation system. The success of GST in the 140 countries proves the same and GST is becoming highly popular in the Asia regions. (DR.R.Vasanthgopal, 2011) If the GST system in India is structured well then it can be the most transparent and simple. (Mohd.Azam & Nagma, 2012) Inclusion of taxes for certain goods does not increase the revenue neutral rate. (RAO & CHAKRABORTY, 2010)

4. Objective

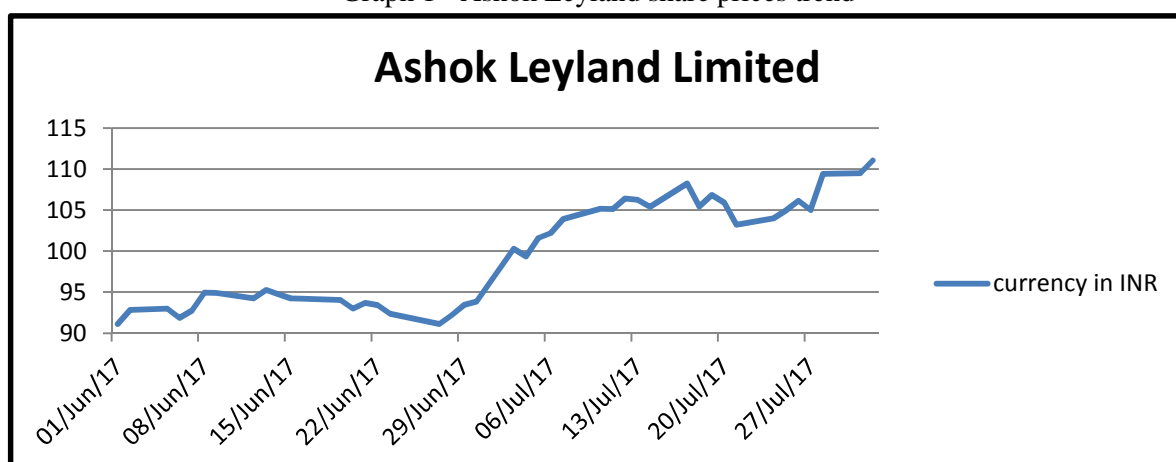
To understand the immediate effect of GST on the share prices of the stocks in automobile industry.

5. Data

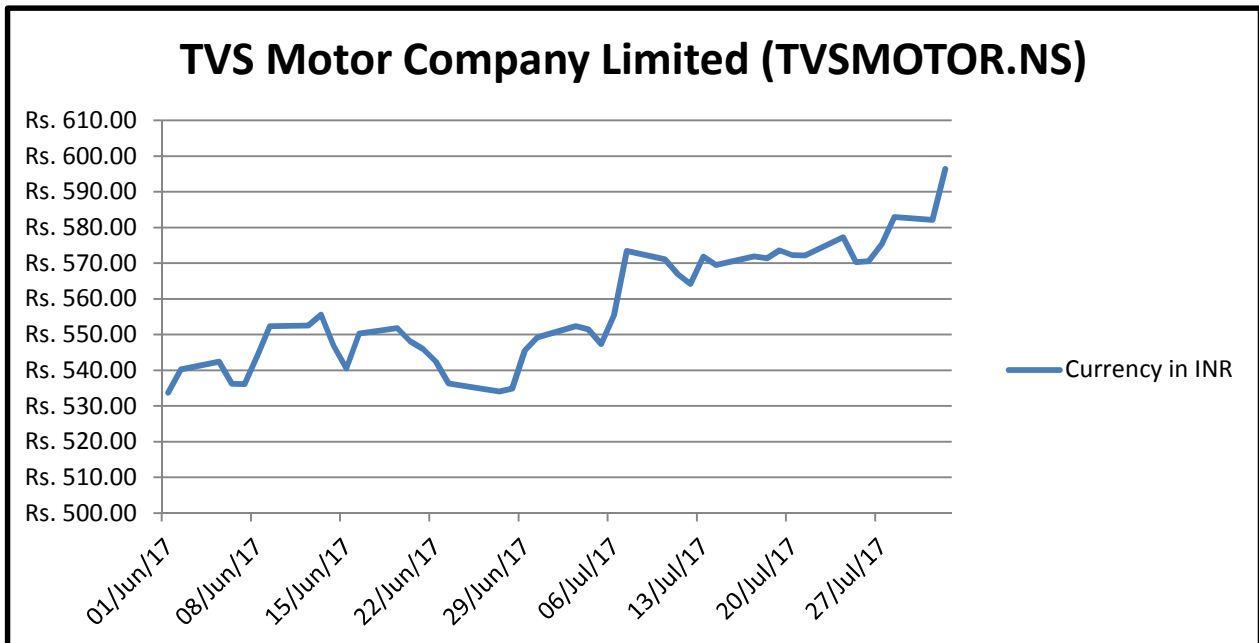
The closing share prices of Ashok Leyland , TVS Motors and Maruti Suzuki India for one month pre-GST and one month Post-GST has been considered for study. The NIFTY Auto Index value are considered for one month pre-GST and one month Post-GST.

6. Graphical Representation

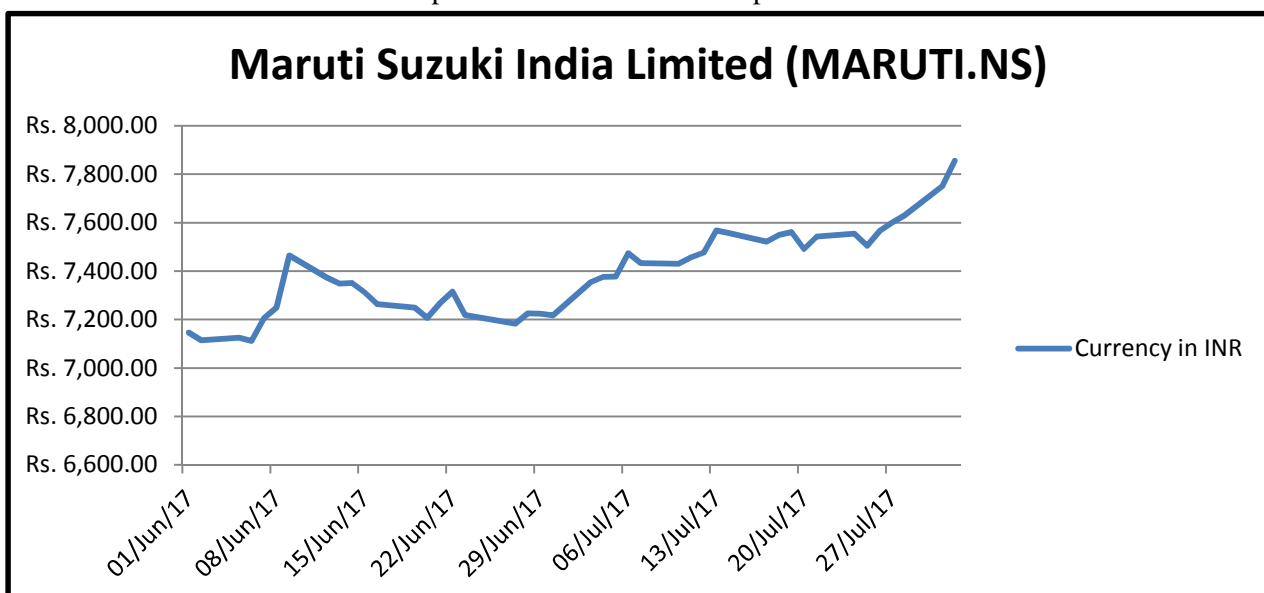
Graph 1 - Ashok Leyland share prices trend



Graph 2 - TVS Motors share prices trend



Graph 3 - Maruti Suzuki share prices trend



7. Correlation Table

7.1 Pre-GST Correlation

Table 1 - Ashok Leyland pre-GST share prices correlation with index prices

	Ashok Leyland Closing Price	Nifty Auto Closing Price
Ashok Leyland Closing Price	1	
Nifty Auto Closing Price	0.407502671	1

Table 2 - TVS Motors pre-GST share prices correlation with index prices

	TVS Motor Closing Price	Nifty Auto Closing Price
TVS Motor Closing Price	1	
Nifty Auto Closing Price	0.351709645	1

Table 3 - Maruti Suzuki pre-GST share prices correlation with index prices

	Maruti Suzuki Closing Price	Nifty Auto Closing Price
Maruti Suzuki Closing Price	1	
Nifty Auto Closing Price	0.273637726	1

7.2 Post-GST Correlation

Table 4 - Ashok Leyland post-GST share prices correlation with index prices

	Ashok Leyland Closing Price	Nifty Auto Closing Price
Ashok Leyland Closing Price	1	
Nifty Auto Closing Price	0.790984926	1

Table 5 - TVS Motors post-GST share prices correlation with index prices

	TVS Motor Closing Price	Nifty Auto Closing Price
TVS Motor Closing Price	1	
Nifty Auto Closing Price	0.793033191	1

Table 6 - Maruti Suzuki post-GST share prices correlation with index prices

	Maruti Suzuki Closing Price	Nifty Auto Closing Price
Maruti Suzuki Closing Price	1	
Nifty Auto Closing Price	0.813186956	1

7.3 Overall (pre and post GST) correlation test

Table 7 - Ashok Leyland pre and post GST share prices correlation with index prices

	Ashok Leyland Closing Price	Nifty Auto Closing Price
Ashok Leyland Closing Price	1	
Nifty Auto Closing Price	0.361125445	1

Table 8 - TVS Motors pre and post GST share prices correlation with index prices

	TVS Motor Closing Price	Nifty Auto Closing Price
TVS Motor Closing Price	1	
Nifty Auto Closing Price	0.454673398	1

Table 9 - Maruti Suzuki pre and post GST share prices correlation with index prices

	Maruti Suzuki Closing Price	Nifty Auto Closing Price
Maruti Suzuki Closing Price	1	
Nifty Auto Closing Price	0.433479118	1

8. Beta Analysis Results

8.1 Ashok Leyland Beta values

Pre-GST Beta = 0.0032

Post-GST Beta = 0.1795

8.2 TVS Motors Beta values

Pre-GST Beta = 0.0158

Post-GST Beta = 0.6550

8.3 Maruti Suzuki Beta values

Pre-GST Beta = 0.1636

Post-GST Beta = 0.6537

9. Findings

9.1 Mean value of share prices before and after the GST implementation.

Table 10 - Mean values of the share prices

COMPANY	PRE-GST MEAN	POST-GST MEAN
Ashok Leyland	RS.93.3881	RS.104.967
TVS Motors	RS.543.79	RS.568.74
Maruti Suzuki	RS.7246.63	RS.7513.11

9.2 Correlation values between the share prices and NSE Auto Index before and after GST implementation

Table 11 - Correlation values of the share prices

COMPANY	PRE GST CORRELATION	POST GST CORRELATION
Ashok Leyland	0.4075	0.7909
TVS Motors	0.3517	0.7930
Maruti Suzuki	0.2736	0.8131

9.3 Beta values for the share before and after the GST implementation

Table 12 - Beta values of the share prices

COMPANY	PRE GST BETA	POST GST BETA
Ashok Leyland	0.0032	0.1795
TVS Motors	0.0158	0.6550
Maruti Suzuki	0.1636	0.6537

10. Interpretation

The percentage increase is 12.398% for Ashok Leyland, increase in TVS Motors is 4.588% and increase in Maruti Suzuki is 3.677% for the average share prices.

The correlation before GST for Ashok Leyland is 0.4075 which shows a moderate positive relationship, for TVS Motors is 0.3517 which shows a weak positive relationship and for Maruti Suzuki is 0.2736 which again shown a weak positive relationship. Post GST the correlation for Ashok Leyland , TVS Motors and Maruti Suzuki is 0.7909 , 0.7930 and 0.8131 showing a strong linear relationship.

The volatility of all the 3 companies are low. The findings show that the volatility or the beta for the stocks have increased though they have remained below 1 in all the cases. In Ashok Leyland it was found that the beta has increased from 0.0032 to 0.1795. In TVS Motors it was found that the beta has increased from 0.0158 to 0.6595. In Ashok Leyland it was found that the return has increased from 0.1636 to 0.6537. Overall with the increase in the beta shows that the stocks of the companies are expected to provide more returns Post GST with the increased risk.

11. Analysis

From the findings we find that the average share prices of the automobile companies have increased at an average of 6% to 7%. Showing that the shareholders of these companies have benefitted from the implementation of GST and also because the companies have transferred the benefits of the tax reduction to the customers.

The correlation results prior to GST implementation shows that the share values and the Market index showed a weak positive correlation which means that the change in share prices was not related to the change in market index. But post GST implementation the correlation is strong and positive which shows that both the share prices and the market index are strongly related to each other.

The unsystematic risk or the beta is the unpredictable market risk. The volatility of stocks are relatively low prior GST and post GST the volatility of all the stocks have increased but still remain relatively lower than the market. At the same the beta value if used to calculate the returns then the returns with respect to the risk has also increased significantly.

12. Conclusion

The study has shown that the implementation of GST has a significant and positive immediate effect on the share value of the stocks of the Automobile industry. The share values of the stocks post GST have increased. Showing good signs that the introduction of the new taxation system has benefitted the automobile share holders. The surprising result was that of the increase in the correlation of the automobile share value and the market index of NSE auto. It implied that post the introduction of GST the value of the market index are related to the value of the share prices and vice versa. The relationship is positive which means that the increase/decrease in the value of share prices of the automobile will result in the increase/decrease in the value of the NSE market index and vice versa. The beta analysis shows that the market becomes more risky with the implementation of new taxation system and GST in this case. But at the same time the expected returns from the share have also increased with the risk.

Overall the automobile sector in India has benefitted from the introduction of the GST. The tax rates have reduced and the shares have been traded at a higher rate after the implementation of GST with increased returns. Thus GST for automobile industry is a win-win situation for both the Shareholders and the manufacturers.

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