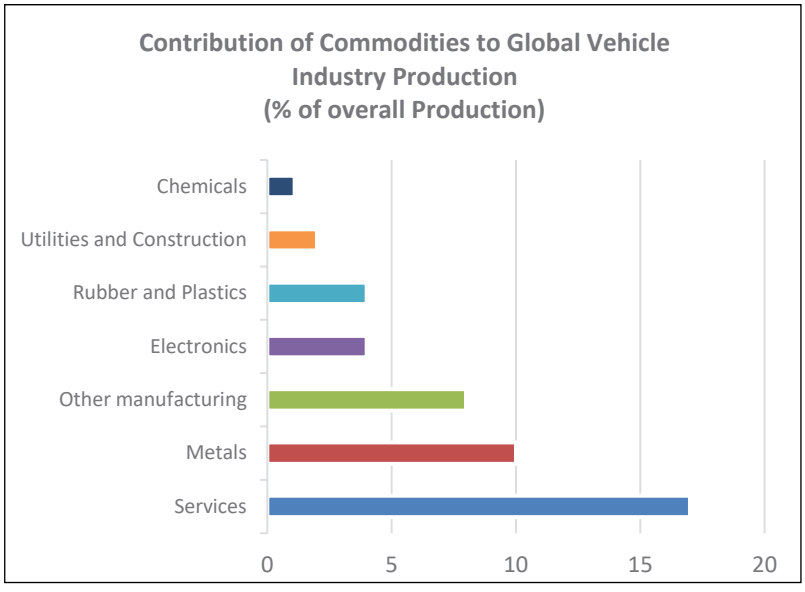
Global Automobile Industry and the Future Outlook

CA. Nishant Maheshwari
The author is member of the Institute. He can be reached at nishant_maheshwari_10@hotmail.com and eboard@icai.in

It is hard to escape the influence of the automobile industry in the global economy. The impact of the auto market goes deep, with long supply chains and large consumption of raw materials like steel, iron, aluminium, plastic, glass, carpeting, textiles, computer chips, rubber and much more. In factuality, the automobile industry is home to millions of jobs. The automobile industry is a major consumer of commodities. To know more about the global automobile industry, read on...

According to statistics, about half of the world consumption of oil, rubber, about 1/4 of the glass output, and 1/6 of the steel output is accounted for by the automobile industry. In the economy of developed countries, growth in the automotive industry by 1% causes a GDP growth of 1.5%. The indirect impact of the automotive industry on GDP is strengthened through related industries, provided by orders from the automotive industry. The chart stated under (based on IMF Data) reflects the contribution of automobile industry to the various sectors



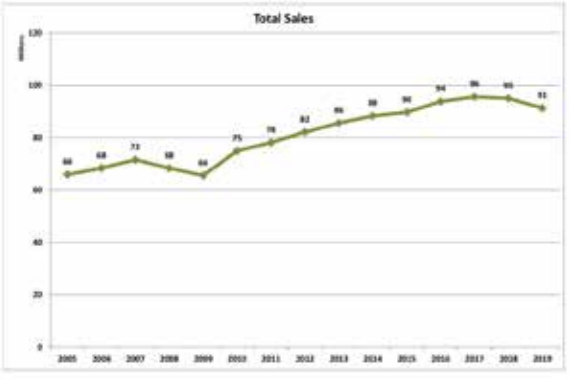
Before starting with the causes of the slowdown in Automobile Sector, let us emphasise on the contribution of Automobile sector to GDP and Employment globally:

S. No	Country	Contribution to GDP	Remarks on Employment
1	USA	3-3.5% to Overall GDP (As per Centre for Automotive Research)	The industry directly employs over 0.87 Million People and Indirectly employs 7.2 Million People
2.	India	7.5% to Overall GDP & 49% of manufacturing GDP.	The Indian Automobile sector employs 37 million people directly and indirectly.
3.	China	5% of Overall GDP	The total number of civilian passenger vehicles owned in China increased from 17.35 million to 123.27 million from 2004 to 2014
4.	Germany	5% of Overall GDP.	The industry directly employs over 0.81 Million People and Indirectly employs 1.8 Million People.
5.	Japan	5.6% of Overall GDP with	The industry directly employs over 0.803 Million People and Indirectly employs 5.5 Million People.
6.	South Korea	4% of Overall GDP	The industry directly employs over 0.32 Million People and Indirectly employs 1.83 Million People.

Source: As per International Organisation of Automobile Manufacturers

It is always believed that like MACD indicators (where the early rally or plunge in stock is estimated as a lead indicator), Automobile sector growth or slump has worked as a lead indicator of growth and slump in the economy.

The chart below reflects the real picture of the Automobile sector globally:



Source: As per International Organisation of Automobile Manufacturers

From the above chart, it is visible that the Automobiles sales numbers peaked in the first quarter of 2007 and the second quarter reflected as a lead indicator of the slump in the economy. Similarly, in mid of 2017, sales were at peak. Thanks to China which safeguarded the numbers from 2010 to 2017. From mid of 2017, a sharp downfall is visible in the charts which indicated the slump in economies. However, the market got stretched longer till the end of December 2019.

The production statistics for 2019 with YOY % increase or decrease is as under:

Production Statistics				
Country	Cars	Commercial vehicles	Total	% change
China	21360193	4360472	25720665	-7,5
Germany	4661328	0	4661328	-9
India	3623335	892682	4516017	-12,2
Japan	8328756	1355542	9684298	-0,5
South Korea	3612587	338030	3950617	-1,9
USA	2512780	8367239	10880019	-3.7

Source: As per International Organisation of Automobile Manufacturers

Main Cause of Slump in Sales of Automobiles Globally

(1) Plunging Demand

Trade tensions between the US and China since 2018 shacked confidence of China. Although the Chinese economy was slowing down but the trade tensions accentuated it. Some of the big giants reported poor performance since 2018 on account of poor Chinese demand. Similarly, Ford had also pulled plans to sell a Chinese made Ford Vehicle in the US due to the impact of Trade Tariffs. Further due to Brexit, investment in UK Car industry has fallen massively as British car plants rely heavily on components imported from the EU, while most of the cars produced are exported to the European mainland. Due to no deal, Brexit in previous years resulted in a massive plunge in demand on account of uncertainties in the form of tariffs.

(2) Emission Issues & Taxation Concern

In Europe, air quality and Taxation changes have led to the big slump in diesel sales resulted in a substantial plunge in new car registration in Europe since 2018. Introduction of new CO2 emission standards makes it much more expensive to manufacture a car. From 2021 manufacturers will face big fines in the European Union if their fleet break agreed emissions limit. It is believed that carmakers will have to add on an average 1000 Euro to comply with those standards. This has shaken the confidence of the consumer to buy cars in Europe.

Further, the tax hike in Japan has also resulted in a decline in sales of Auto sales after three years.

(3) Shift of Ownership

The emergence of technologies like Ola, Uber, Meru, etc has radically changed the mindset of users from owning a car to taking car on rent with a reasonable rate. The cost of travel per mile has slashed due to the emergence of such a model which made ownership of car less appealing.

The traditional car companies are fighting to stay relevant as technology giants Waymo dive into this market. These models appeared as a boon to the industry when massive demand was created by these unicorns. But after a certain time, it has resulted into a bane for the automobile industry.

Further, if driverless cars go mainstream over the next few years then many people will opt to share or rent rather than owning a vehicle.

The fear of such model has forced companies like Ford or Volkswagen to investigate ways on electric and autonomous vehicles. Similarly, Honda invested $2.75 Billion in rival General Motors driverless unit with a view to launching a fleet of unmanned taxis.

(4) Headwinds from China

The Chinese Auto sales saw 20 consecutive months on month decline. China's deleveraging program has tightened credit for prospective buyers, and a slowing economy has hurt consumer sentiments. The Central Government subsidies for Electric Vehicles were slashed by 45% to 60% and subsidies for Electric vehicles with a range of less than 250 miles were eliminated altogether. Further for clean Blue-sky policies, the new emission regulations i.e. China 6 standards kicked in from 01.07.2019. This has resulted into an increase in the cost of vehicles resulting in lower sales. As pointed in point no. (1), the trade war was having a significant adverse impact on consumer sentiments and was one of the key reasons for plunging automobile sales.

(5) Electric vehicle

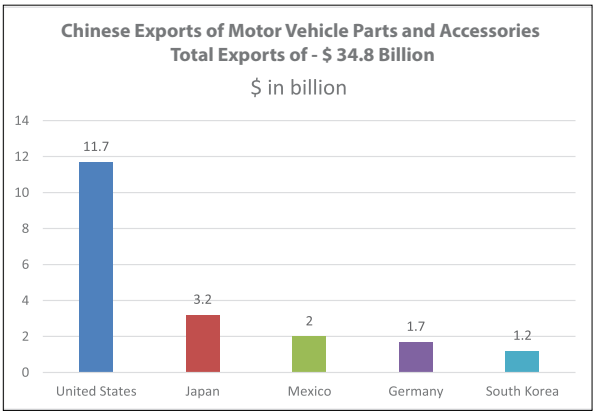
In order to reduce the level of emission, the automobile industry is making a shift from the legacy of the fuel-based vehicle to an electric vehicle. The industry is going to sell more electric vehicle, but there are many obstacles in the way. Global sales of battery based electric cars surged to peak at 1.3 Million units registering massive 73% growth in 2018 but it's just a fraction of overall 86 Millions car sold in 2018. Now, this graph is declining and electric car sales are reducing.

But with the introduction of this electric vehicle concept, the intended buyers are in real dilemma of owning a car. On one side they intend to buy those electric cars but refrain themselves on account of cost. On

other side, they don't see value in buying those fuel-based cars.

(6) COVID 19 impact

As the COVID-19 crisis drags on, the pandemic's economic impact is very much visible on the vulnerable automobile industry. The automotive sector is among the industries, most exposed to the negative impact of the virus. Previously due to prolonged lockdown in china, Chinese production suffered a significant hit which has resulted in production outages to many manufacturers around the world who rely on Chinese parts. And now with an extended lockdown globally (Excluding China), the automobile industry in China is also suffering from lack of global demand. China is among the world's largest suppliers of car parts, exporting motor vehicle parts and accessories worth $34.8 billion in 2018, according to the UN's Comtrade database.



Further with lack of sales from Global market due to lockdown, the major giants like Ford Motors, Tata Motors etc will see a massive downgrade in ratings which will result in expensive borrowing costs. With a lack of cash flows on account of negligible sale will result in a risk of going concern for these companies.

Scenario of the Indian Automobile Industry

The industry is one of India's biggest, considering it employs some 35 million people, directly or indirectly, and contributes more than 7% to the country's GDP.

Before telling the real scenario of the Indian Automobile Industry, we must emphasise on change in cost per KM from 2012 to 2019 from the following data:

Cost of Ownership of Car				
Particulars	**2012**		**2013**	
	Diesel	**Petrol**	**Diesel**	**Petrol**
Car Cost (Swift Dzire)	5,80,000	4,79,000		
Parking Charges in a flat (Assuming Delhi average flat-Purchase Once paid will be forever)	3,00,000	3,00,000		
Repayment though Principal	61,337	50,610	67,494	55,633
Insurance	10,271	8,482	9,757	8,058
Maintenance Cost (Service Cost)	20,000	10,000	22,000	11,000
(Assuming 2 Service in a year and later on Increase in Maintenance Cost)				
Depreciation in value (15% in WDV)	87,000	71,850	73,950	61,073
Fuel Running Cost	19,130	36,316	22,411	40,152
(Assuming 20 KM a day)				
Depreciation of Flat Parking Cost (10% wdv)	30,000	30,000	27,000	27,000
Registration Charges	23,950	29,000	-	-
Interest on Car Loan (9.5% Interest on Loan with Reduction in Interest on account of principal repayment)	52,489	43,350	46,398	38,327
Penalty on violation (Assuming 2 Fines a year)	1,000	1,000	1,000	1,000
	3,05,177	2,80,608	2,70,011	2,42,242
Running Cost per Litre	31	28	27	24

Cost of Ownership of Car				
Particulars	**2014**		**2015**	
	Diesel	**Petrol**	**Diesel**	**Petrol**
Car Cost (Swift Dzire)				
Parking Charges in a flat (Assuming Delhi average flat-Purchase Once paid will be forever)				
Repayment though Principal	74,193	61,154	81,557	67,224
Insurance	9,269	7,655	8,806	7,272
Maintenance Cost (Service Cost)	24,200	12,100	26,620	13,310
(Assuming 2 Service in a year and later on Increase in Maintenance Cost)				
Depreciation in value (15% in WDV)	62,858	51,912	53,429	44,125
Fuel Running Cost	27,837	37,696	23,839	38,478
(Assuming 20 KM a day)				
Depreciation of Flat Parking Cost (10% wdv)	24,300	24,300	21,870	21,870
Registration Charges	-	-	-	-
Interest on Car Loan (9.5% Interest on Loan with Reduction in Interest on account of principal repayment)	39,699	32,806	32,335	26,736
Penalty on violation (Assuming 2 Fines a year)	1,000	1,000	1,000	1,000
	2,63,356	2,28,623	2,49,456	2,20,015
Running Cost per Litre	26	23	25	22

Cost of Ownership of Car				
Particulars	**2016**		**2017**	
	Diesel	**Petrol**	**Diesel**	**Petrol**
Car Cost (Swift Dzire)				
Parking Charges in a flat (Assuming Delhi average flat-Purchase Once paid will be forever)				
Repayment though Principal	89,651	73,896	98,548	81,230
Insurance	8,365	6,909	7,947	6,563
Maintenance Cost (Service Cost)	29,282	14,641	32,210	16,105
(Assuming 2 Service in a year and later on Increase in Maintenance Cost)				
Depreciation in value (15% in WDV)	45,415	38,602	38,602	32,812
Fuel Running Cost	29,276	39,237	33,569	46,631
(Assuming 20 KM a day)				
Depreciation of Flat Parking Cost (10% wdv)	19,683	19,683	17,715	17,715
Registration Charges	-	-	-	-
Interest on Car Loan (9.5% Interest on Loan with Reduction in Interest on account of principal repayment)	24,241	20,064	15,344	12,730
Penalty on violation (Assuming 2 Fines a year)	1,000	1,000	1,000	1,000
	2,46,913	2,14,032	2,44,935	2,14,786
Running Cost per Litre	25	21	24	21

Cost of Ownership of Car				
Particulars	**2018**		**2019**	
	Diesel	**Petrol**	**Diesel**	**Petrol**
Car Cost (Swift Dzire)				
Parking Charges in a flat (Assuming Delhi average flat-Purchase Once paid will be forever)				
Repayment though Principal	1,07,220	89,253	-	-
Insurance	7,550	6,235	7,172	5,923
Maintenance Cost (Service Cost)	35,431	17,716	38,974	19,487
(Assuming 2 Service in a year and later on Increase in Maintenance Cost)				
Depreciation in value (15% in WDV)	32,812	27,890	27,890	23,707
Fuel Running Cost	39,970	56,098	39,634	51,669
(Assuming 20 KM a day)				
Depreciation of Flat Parking Cost (10% wdv)	15,943	15,943	14,349	14,349
Registration Charges	-	-	-	-
Interest on Car Loan (9.5% Interest on Loan with Reduction in Interest on account of principal repayment)	5,563	-	-	-
Penalty on violation (Assuming 2 Fines a year)	1,000	1,000	4,000	4,000
	2,45,489	2,14,135	1,32,020	1,19,135
Running Cost per Litre	25	21	13	12

Assumption:

(a) Total Distance Travelled is 1000KM

(b) Registration Charges is 5% of Cost for Diesel and 4% of cost for Petrol Car

(c) Insurance (1.97% of 20% depreciated Value & 12.36% Service Tax/18% GST)

(d) Car Average (Decreases with years): In Second year the decrease in average is 3% and in subsequent years the average decrease is 5% on reducing value basis.

(e) The rate of Diesel and Petrol is taken on average basis considering the stability of rate.

From the above data, if we own petrol or diesel vehicle in India on a loan basis, the cost of ownership per km for 8 years is ₹ 24 per Km for Diesel car and ₹ 22 per Km for Petrol car which is relative in terms of number of KM you drive your car.

The Indian Automobile Industry saw its golden era with a huge spurt in demand before 2019. The major factor which contributed to the industry is demand from Tier 2 and Tier 3 cities along with the financial sector giving Auto Loans. Further thanks to the ambitious infrastructure spending which Central Government undertook on account of reduced crude prices and hiked taxes. This helped them to float huge infrastructure tender year on year basis. The debt of NHAI inflated from 44,567 crores in 2016 to 1,78,867 crore in 2019. The major portion of this debt is attributed to land acquisition. This , in turn, resulted in sweet

The Indian Automobile Industry saw its golden era with a huge spurt in demand before 2019. The major factor which contributed to the industry is demand from Tier 2 and Tier 3 cities along with the financial sector giving Auto Loans.

fruits to automobile industries too. Small chunk of the amount received from compulsory land acquisition resulted in buying of premium cars or small segment cars depending on the amount of premium received in Tier 2 and Tier 3 Cities. Further enhanced portion of compensation further helped automobile industries to get demand from Tier 2 and Tier 3 Cities. Then comes the demand from ride-hailing industries like Ola Uber, Swiggy, Zomato, Food Panda etc which increased its presence on PAN India unprecedentedly. Like Uber buying 2,00,000 cars from Maruti with a whopping investment of 2600 crore. The model is debt-based but the same helped the industry with the huge spurt in demand. However, post capex of these ride-hailing industry or delivery distribution companies and spurt in crude cost (which resulted in decline floating of Infrastructure project) resulted in a decline in demand from Tier 2 and Tier 3 cities. The Tier 1 cities demand was already declining for many years and post Ola and Uber the dilemma of people completely shifted from owning a car to taking car on rent.

Further with the introduction of BSVI emission norms, the industry is forced to do capex of multibillion to comply with the norms.

Now, what changed the mindset of owning a car in India?

As discussed about the ride-hailing technology along with BS VI emission norms and EV vehicles have confused the intended buyers to refrain from owning a car. The cost impact on the industry will be huge considering the capex done for BSVI. This increase cost burden will ultimately be passed on to the customers which will make the vehicles more expensive. If the customer opts for BSIV then the fear of judicial pronouncement with respect to life of the vehicle can give setback to intended users. Whatever Government announce measure to liquidate BSIV vehicles, it will not help to boost the confidence of intended buyers.

Therefore, we see the automotive industry declined for the 17th month in a row in March (Leaving Festive season which is not comparable.

By some estimates, more than 100,000 workers, many of them contractual, have lost their jobs so far. Now post corona, fears are rising that forced lower production resulting in more job cuts in the upcoming month.

> Then comes the demand from ride-hailing industries like Ola, Uber, Swiggy, Zomato, Food Panda, etc which increased its presence on PAN India unprecedentedly.

Future Outlook

Before the Corona crisis, the global automobiles saw a sharp slump in sales. In fact, there were many instances where production halts were visible in September or October for a few days. E.g. Ashok Leyland halting its production

Since the sector was heading for major slowdown since last years, so after Corona crisis the situation will further deteriorate. Even during corona crisis, we have seen companies like Hero Moto to defer the payments to vendors or giving OEMs (Original Equipment Manufacturers) to get payment from Banks on Letter of Credit (LC) basis. If debt ridden OEM opts for such option then the margins will further shrink resulting insolvency position. Further dealers of automobile will vanish if such crisis continues for a longer period as the working capital of these dealers will cause a huge dent in their margins. The ratings of debt-ridden OEMs globally will get revised to lower resulting in expensive cost of funding. Same will be applicable to main auto companies. In recent times we have seen downgrading of ratings of Tata Motors or Ford Motors. This scenario is very precarious and can result in the collapse of big giants.

At last, we can conclude that the current scenario is not at all favourable for the industry considering the domino effect of disruption in supply chain and the automobile industry needs some magic stick to get back on track. If the demand is not revived in coming months (which is likely scenario) then we can see accumulation of inventory with these companies and dealers with no real buyer. This will be an avalanche for the industries connected directly or indirectly with the automobile sector. ■

The Institute of Chartered Accountants of India

Precautionary Measures Taken To Prevent Covid-19

Protect Yourself And Those Around You

Wash your hands regularly with soap and water

Make use of alcohol-based hand rub

Avoid touching your face

Maintain Social distance of at least '6 feet' between you and others

See a doctor if you feel unwell

While visiting a doctor wear a mask/cloth to cover your mouth and nose

Stop shaking hands

Take special care of the elderly

Don't share personal items

Clean and disinfect surfaces on regular basis

Wash fresh groceries and maintain a good hygiene

Stay home and avoid unnecessary travel

Download Aarogya Setu app