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WORKING PAPER

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Growth Slowdown in the Automobile Industry in India: Dwindling Middle Class Demand or Changing Consumption Pattern?

Satyaki Roy*

*[**Abstract**: Automobile industry in India recorded high growth in the post-liberalisation period primarily due to the growing middle class demand and the release of the pent up demand for personal vehicles. This growth was also facilitated by relocation of production facilities to the developing countries as the vehicle penetration gradually stagnated in the advanced countries while India is yet to reach the explosive stage in vehicular penetration. However, this paper shows that the growth of value added and investment in automobile industry declined in the second decade of this millennium and the slowdown was primarily triggered by the financial crisis which the sector could hardly overcome rather the decline intensified due to the pandemic. Based on firm level analyses the sector shows a negative balance of payment throughout the past two decades and the export growth declined since the end of the first decade while dependence on imports increased both in terms of rising ratio of imported inputs to indigenous inputs and also on the basis of rising gap between expenditure on imported technology and in-house research and development. Interestingly the wide gap between the growth of sales in personal vehicles and that of per capita income is coming to a close which might be indicating a slowing down of middle class income growth or a change in behavior in the consumption of transport services.]*

Keywords: industry, automobile, technology import, transport services

Introduction

Automobile industry in India has been one of the most prominent success stories of post-1991 liberalized regime. In spite of the fact that Hindustan Motors and Premier Automobile Limited existed before Independence and continued to dominate India's motor vehicles market until the 1950s, immediately after Independence foreign automakers who existed in India were discouraged and high import duty regimes restricted imports of cars and components as well. The primary concern of this protective regime was not to encourage imports of cars and related components because such imports would largely cater to the consumption demand of the rich and at the initial stage of nation building this was not considered to be a priority particularly keeping in mind balance of payment problems that unrestricted imports might give rise to. In this view allocation of foreign exchange for

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imports related to passenger car segment was heavily restricted. Liberalizing auto sector started before 1991 and in fact using the joint venture mode, the first wave of Foreign Direct Investment entered automotive sector since the early 1980s. A couple of joint ventures with Japanese companies such as Suzuki in passenger car segment and with Toyota, Mitsubishi, Mazda, Nissan in commercial vehicles segment came up during this period. This was followed by a second wave of foreign investment after the New Auto Policy of 1993 abolished licenses and drastically reduced the weighted average of tariffs and allowed joint ventures with 51% of foreign equity shares in auto industry. This was further relaxed subsequently in 2000 when 100% FDI in automobiles through automatic route was allowed (Roy 2012; Singh, 2019, Miglani, 2019).

The growth of India's automobile industry particularly in the post-liberalisation period was driven by both internal and external factors. Global restructuring of auto industry which involved a process of relocating auto manufacturing closer to emerging markets and regions with huge repositories of skilled and unskilled low cost labour drove industries towards the developing South, when automobile demand seemed to have stagnated in Western Europe and American markets (Roy, 2012). On the other hand, in high growth economies such as India where per capita income shows a faster rise, the pent up demand for consumer durables of the middle class grew faster than the average Indian. Aspirations for private vehicles held back during the *dirigisme* got released during the liberalized regime resulting in a fast growing market for passenger vehicles. But at the same time with increased growth in the economy, infrastructure grew, particularly of roads that led to a shift of both passenger and goods traffic in favour of roads as against railways. This also contributed to the demand for commercial vehicles as well. Till the mid-1980s the commercial vehicle segment accounted for the second largest share in automobile sector which changed later in favour of passenger vehicles and gradually acquired the largest share in the automobile sector. The share of automobile sector in India's GDP increased from 2.77% in 1992-93 to 4.14% in 2008-09 and 7.1% in 2016-17 (Singh, 2019). India emerged to be the sixth largest automobile producer of the world, the largest tractor manufacturer and second largest two-wheeler as well as bus manufacturer of the world (GOI, 2016). Moreover, vehicular penetration although increases with rising per capita income but it is not a linear relation, rather shows an 'S' shaped trend of slow growth in vehicular penetration in the initial stage of rising per capita income followed by a stage of explosive growth and then stagnates beyond a certain level (Dargey *et. al*., 2007). Vehicular penetration in India is still very low, yet far behind to reach the explosive stage of demand which indicates further possibilities of high growth in automobile market.

After one and half decades of very high growth in automobile sector in India since 1995 to 2010 India's auto industry seem to have entered into a phase (2011-2018) in which the growth rate in all auto segments namely passenger vehicles, commercial vehicles, three wheelers, two-wheelers show a drastic decline. At the aggregate level the compound growth rate of motor vehicles has almost halved during the recent decade. In fact, the decline might have set in with the lagged impact of the global financial crisis but it could not recover anymore.

It is important to note that the share of FDI inflow in this sector didn't fall during this period. The share of automobile sector in cumulative FDI inflow for the period 2000-16 was 5.3% which dipped slightly for the period 2000-2021 to 4.9% basically because of a steep fall in share to 2.3% in 2020, may be because of the pandemic, which however recovered once again to 5.5% in 2021. The share of passenger car segment in total inflow to automobile sector in 2021 amounts to 31.7% (RBI, GOI).

This paper has a limited focus on the past two decades of India's automobile industry looking into specifically the trends identifiable in passenger vehicles, commercial vehicles and auto-component segment. In the next section the broad trends of performance in these segments are discussed followed by the section focusing on trade and import intensity of production. The fourth section indicates the trends in research and development in automobile sector and finally the paper indicates some tentative macro level observations that perhaps explain the declining growth rate in India's automobile sector.

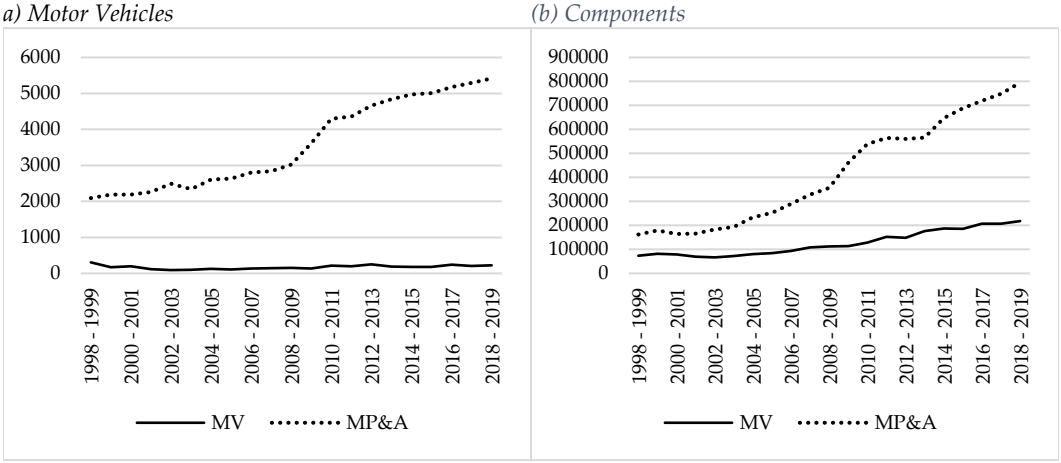
Data and Methodology

The Annual Survey of Industries provide data on automobile sector at the four-digit level comprising of industry codes 2910 (motor vehicles), 2920 (bodies, coachwork of motor vehicles), 2930 (parts and accessories for motor vehicles) and 3091 (motor cycles) as per NIC 2008. We also get Wholesale Price Index (WPI) for motor vehicles and that of parts and accessories with the base year 1993-94, 2004-05 and 2011-12. From these data a continuous series of WPI for both motor vehicles and parts and accessories are being constructed with the base year 2011-12. The gross value added and gross fixed capital formation figures for the two broad sectors are deflated by the continuous series of the respective wholesale price index series. Identifying the broad trends from ASI data we look into greater details of performance indicators for the automobile firms using Prowess IQ database. In total 857 companies are identified for the automobile sector comprising of passenger vehicles, commercial vehicles, diversified automobile and auto ancillaries. The relevant industry codes included in this sample are 2910 (29101, 29102, 29109); 2920 (29201, 29209) and 2930 (29301, 29302, 29303, 29304).

Trends in Growth in Output and Employment

Using ASI data we see the trends in the number of factories both for the motor vehicles and components. Figure 1a shows that the number of factories increased both for motor vehicles segment and components. The number of factories involved in components are much larger for obvious reasons. The number of factories in motor vehicles segment show a sharp decline from 1998-1999 to 2002-03 and then there had been a consistent rise in the number of factories. In the component sector the number of factories increased faster since 2008-09. In terms of number of employees, the growth had been much faster in the components sector compared to motor vehicles segment but both of them show a consistent rise.

Figure 1: Number of Factories and Number of Employees in (a) Motor Vehicles and (b) Component Sector

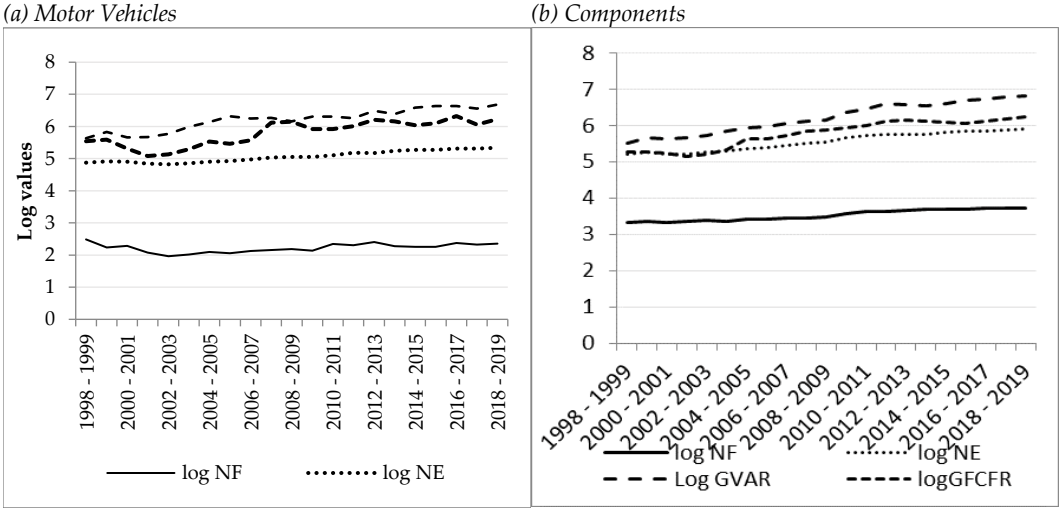


Source: ASI various years

Notes: MV: motor vehicles; MP&A: Motor vehicles parts and accessories

Figure 2 (a &b) shows the log of number of factories, employees, Gross Value Added and Gross Fixed Capital in constant 2011-12 prices for both motor vehicles and components for the period 1998-99 to 2018-19. The trends suggest that all these parameters show rising values for both motor vehicles and component sector. The values of gross value added show a consistent rise in both the segments but the figures of gross fixed capital formation show greater fluctuations since 2012-13.

Figure 2: Log values of number of factories, employees, Gross Value Added and Gross Fixed Capital



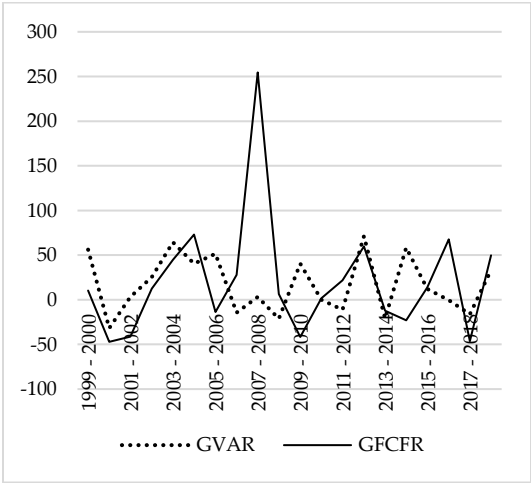
Source: Author' calculation from ASI various years

Notes: NF: Number of Factories; NE: Number of Employees; GVAR: Gross Value Added; GFCFR: Gross Fixed Capital Formation

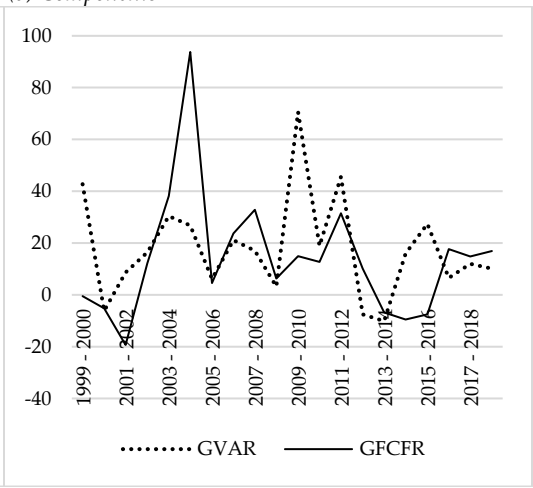
Considering the growth rates of gross value added and gross fixed capital formation in the motor vehicles and components segment for the reference period we find that there is significant variation in growth rates in both the segment. But the average annual growth rate of GVA in motor vehicles segment for the period 1999-00 to 2010-11 was 18.1% and the average annual growth rate for the subsequent period 2011-12 to 2017-18 was 15.8%. In the same segment the average growth of gross fixed capital formation fell from 23.9% in the first half to 16.45% in the latter part of the reference period. In the components segment the decline had been even sharper may be indicating a decline in demand in after sales market as well. The average growth rate of GVA fell from 21.3% to 12.3% and that of GFCF declined from 17.8% to 8.4 % in the two time periods chosen.

Figure 3: Growth of GVA and GFCF for (a) Motor vehicles and (b) Components: 1999/00-2017/18

(a) Motor Vehicles



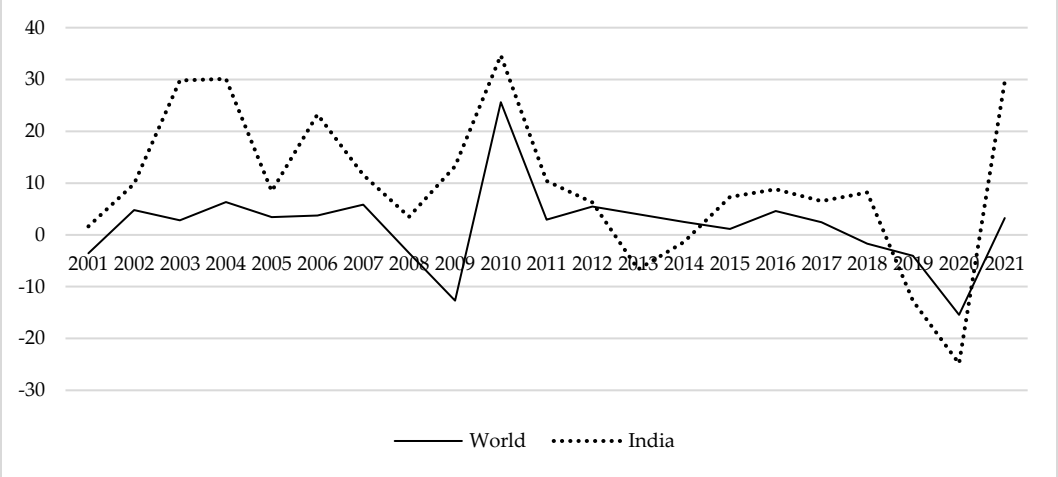
(b) Components



Source: Author' calculation from ASI various years
Notes: Same as Figure 2

The decline in the gross value added in both motor vehicles and components and a much sharper decline in investment since 2010-11 might be attributed to the impact of global financial crisis which impacted the real sectors of the developing economies at a time lag. This is evident from the trends of growth of production of automobiles in the world and that of India (Figure 4). Being at the lower stage of car penetration India on an average had much higher growth of automobile production compared to the world average but the growth rate peaked in 2010 and then shows a decline since 2011 fell sharply recording negative growth in the year 203 and 2014 and recovered slightly in 2015. However, the growth in subsequent years even before the impact of the pandemic was much less than the average growth India recorded before the financial crisis.

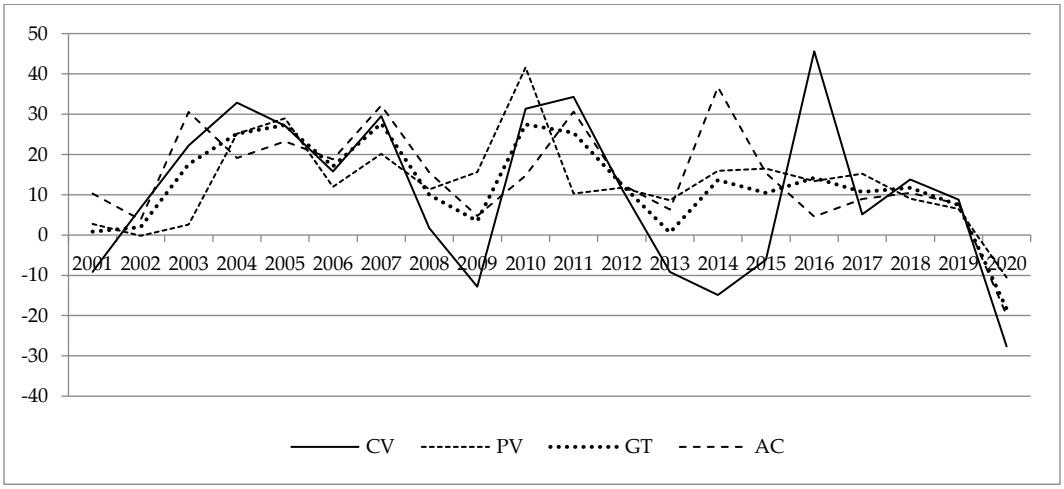
Figure 4: Growth of Production of Automobiles in India and the World



Source: International Organisation of Motor Vehicle Manufacturers (OICA)

We then look into CMIE Prowess database providing firm level data of various segments of the automobile sector Figure 5 reports the growth of sales for commercial vehicles, passenger vehicles, components and accessories and for the sector as a whole.

Figure 5: Growth of Sales in Various Automobile Segments During the Period 2001-2020



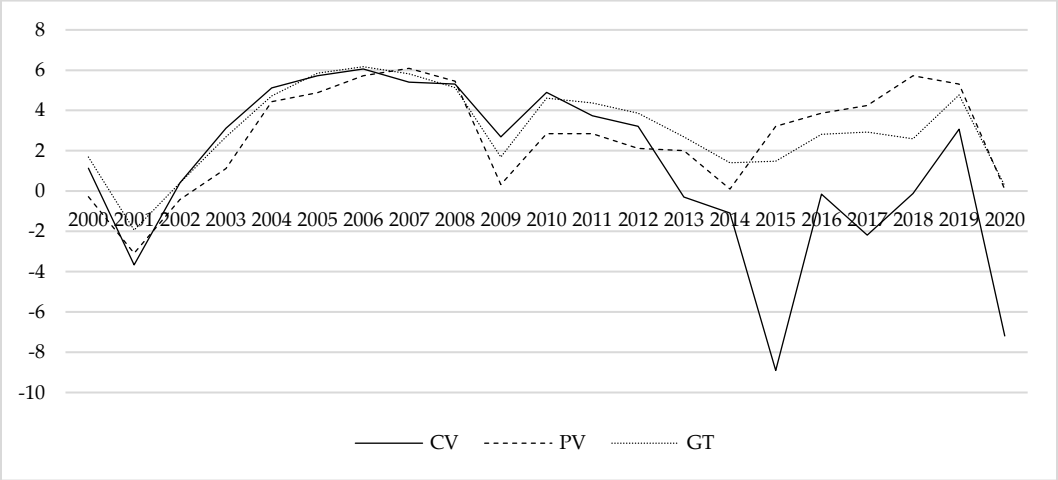
Source: Author's calculation from CMIE Prowess IQ

Notes: CV: Commercial Vehicle, PV: Personal Vehicle, GT: Total; AC: Accessories and Components

The sales figures and their growth trends show similar trends in all the segments of automobile industry as identified from ASI data. The average growth rate of sales for commercial vehicles for the period 2001 to 2010 was 14.5% which fell to an average rate of 10.2% during the period 2011-16 and the average growth of sales for the entire period of 2011-2020 has been 6.1%. In case of passenger vehicles, the average sales growth reported for the three time periods are respectively 15.9%, 12.7% and 9.7%. Apparently the impact

had been relatively less for the components industry recording an average sales growth of 17.3% for the period 2001-10, 17.7% in 2011-16 and 11.3% for the period 2011-20. It is evident from the trends in sales that sales growth in automobile sector as a whole declined from an average growth rate 15.8% during the period 2001-10 and which is almost halved to 8.8% in the following decade. We separate the effects of the pandemic that largely hit all sectors of the economy and negative growth is recorded by all the segments of the automobile sector for the year 2020. But more importantly the decline started before the pandemic and recorded an average growth of sales of 12.8% for the entire period 2011-16.

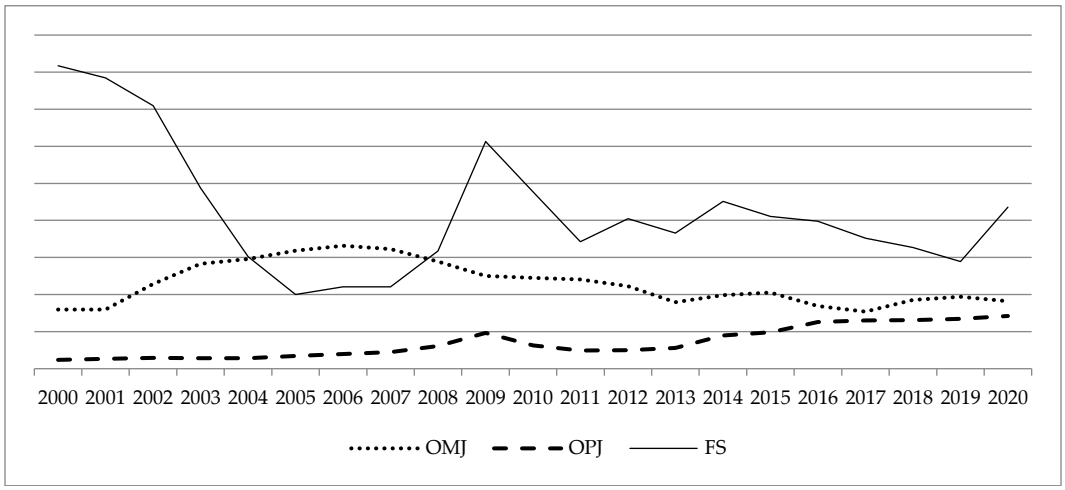
Figure 6: Profit after Tax as percentage of Sales in different segments of Automobile Industry: 2001-2020



Source: same as Figure:5; Notes; Same as Figure 5

Figure 6 shows profit after tax as percentage of sales for the commercial vehicle, passenger vehicle segment and for the entire automobile sector. As is evident from the trends that profit after tax for the commercial vehicle segment more or less collapsed since 2008 and assumed negative value since 2013, much before the pandemic. The passenger vehicle segment suffered a similar contraction for the year 2008 and 2009 but recovered and then recorded a steep fall only in 2018. For the sector as a whole profit after tax as percentage of sales remained positive and this is primarily because the recovery of the passenger vehicles segment outweighed the downturn in the commercial vehicles segment. It is interesting to note that the average profit after tax as percentage of sales in the commercial vehicles segment was much higher than the average of the passenger vehicles segment in the first decade of 2000s and in the second decade the average profit after tax as percentage of sales fell sharply while for the passenger vehicles segment and the automobile sector as a whole the decline in the subsequent period was relatively less which is reflected by the fact that it remained positive for the entire period.

Figure 7: Outsourced Manufacturing Jobs, Professional Services and Financial Services as share of Total Expenses in Automobile Industry 2000-2020



Source: same as Figure 5; Notes: Same as Figure 5

Figure 7 suggests that the share of outsourced manufacturing jobs in automobile sector out of total expense as a whole increased until 2007 and then shows a consistent decline. On the other hand, the share of outsourced professional services as part of total expenses show a secular rise and the trend continued for the entire period. This may indicate that auto industry as a whole might be outsourcing more services than manufacturing activities or the value of outsourced manufacturing activities declined faster than the value of services outsourced. NoFigure in this regard is the fact of decline in the share of final services in total expense in the automobile industry which although increased during the period 2008-14 followed by a decline once again. It is interesting to note that total expenditure on outsourced jobs that is manufacturing and professional services taken together with respect to compensation to employees increased till 2007 and then the ratio declined. This might indicate a decline of outsourcing activities or might be reflecting a sharper decline in the cost of outsourced jobs vis-à-vis the compensation of employees internal to the companies.

Trends in Foreign Trade of Automobile Firms

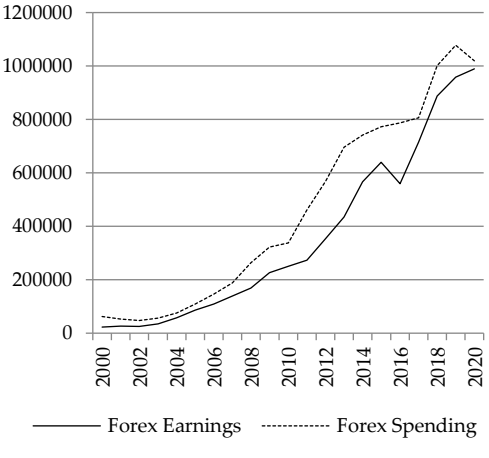
The global restructuring of automobile industry that embarked upon transnationalisation of production structures opened up opportunities for developing countries such as India taking advantage of relocation of production towards the global South. The relocation from the North to developing countries was largely driven by the rise in per capita income in these countries resulting in expanding markets and at the same time access to vast pool of low cost skilled labour available in these regions. This became even more attractive in the backdrop of slowing down of demand for passenger vehicles in Europe and North America due to high vehicular penetration already achieved in these countries. Liberalising markets together with technological growth created opportunities for modularization of production and

global value chains. Multinational corporations shifted their manufacturing base to countries with expanding market also in view of creating broad-based platforms of production for supplying to similarly placed markets in the region.

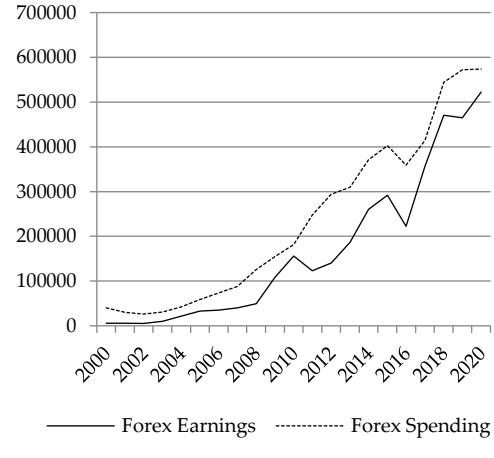
Automobile industry in India had undergone various phases of policy changes that gradually relaxed control over foreign investment. Access to embodied technologies such as capital goods and imported machinery and disembodied technologies procured from the global shelf against payment of royalty or license fees were thought to be contributing to augmenting competitive capabilities in India's automotive industry. By the beginning of the century, hundred% FDI was allowed in the automobile industry through the automatic route and tariff rates were reduced easing out imports. It is perhaps one of the leading sectors in India where domestic producers continue to account for the larger share of the domestic market in different segments of motor vehicles and its exports were expected to grow by attaining competitive capabilities having access to global technologies which were supposed to be assimilated and developed over the years. Figure 8 shows the foreign exchange earnings and spending in automobile sector as a whole and particularly in the passenger car segment. In both the cases Foreign exchange spending continued to be higher than the foreign exchange earnings in this sector. Foreign exchange earnings and spending do not reflect only trade in manufactured goods but includes financial transactions including payments of dividends, interests and transactions related to royalties, license and technical fees. The deficit in both the figures increased until 2013 and then there has been a decline.

Figure 8: Forex Earnings and Spending

(a) Total Automobile



(b) Passenger Vehicles Segment



Source: same as Figure:5

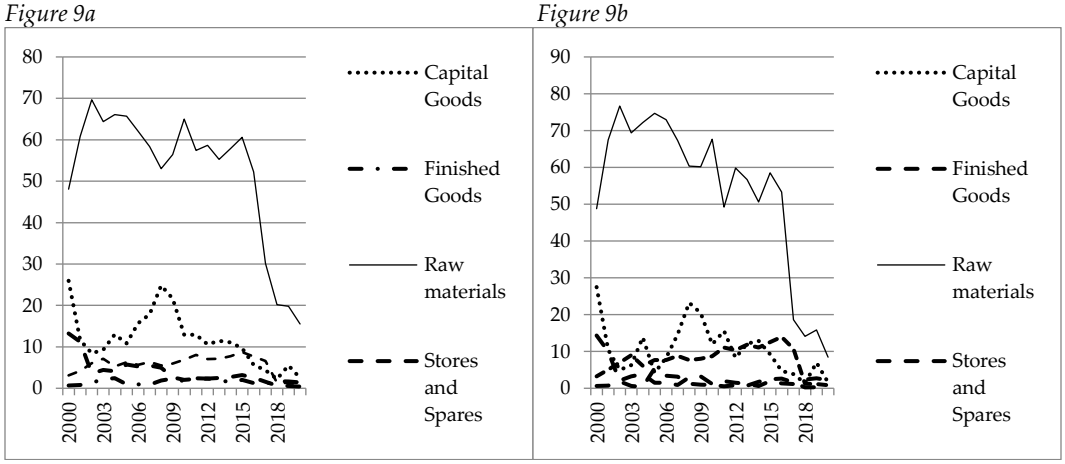
The deficit in the passenger car segment on an average constituted 81% of the deficit during the period 2000-13 and later when the deficit of the whole sector tends to decline in that phase 2013-2020 the average share of the passenger car segment in the total foreign

exchange deficit was on average 85%. It is also important to note that the deficit increased in between and then declined generally. In the case of automobile sector as a whole the balance of payment deficit more or less came to a close but for the passenger car segment the gap between foreign exchange earnings and spending increased even during the period of collapse during the pandemic.

Figure 9 shows the share of various imported inputs in total foreign exchange spending for the automobile sector as a whole and also for the passenger vehicles segment. We divide the period into two parts 2000-13 and 2014-2020 as in the previous we found that imports increased till 2013 and then showed a decline. In terms of imports related to production of automobiles the large share is being accounted by raw materials which accounted 60% of the total forex spending for the entire automobile sector, followed by capital goods accounting 14.8%, spares and parts 4.98%, finished goods 1.6% and the expenditure of royalties, license and technical fees amounts to 6.03% of the total forex spending during the period 2000-13. In the case of passenger car segment the average share of raw materials imports in total forex spending was 60% during this period and for spending on royalties and technical fees the share has been slightly higher than the sector average, 8%. During the period 2013-20 the average share of all these imports declined sharply. For the sector as a whole the share of raw materials imports in total forex spending declined to 36.6% and the capital goods import share declined to 5.9%. Spending on spares and parts fell from 4.98% to 1.67% and the share of spending on royalty and technical fees declined to 4.9%. For the passenger vehicles segment the share of royalties and technical fees declined from 8% to 7.35%.

Figure 9: Shares of imported inputs in total Forex Spending (a) total automobile (b) passenger car segment

Figure 9a *Figure 9b*

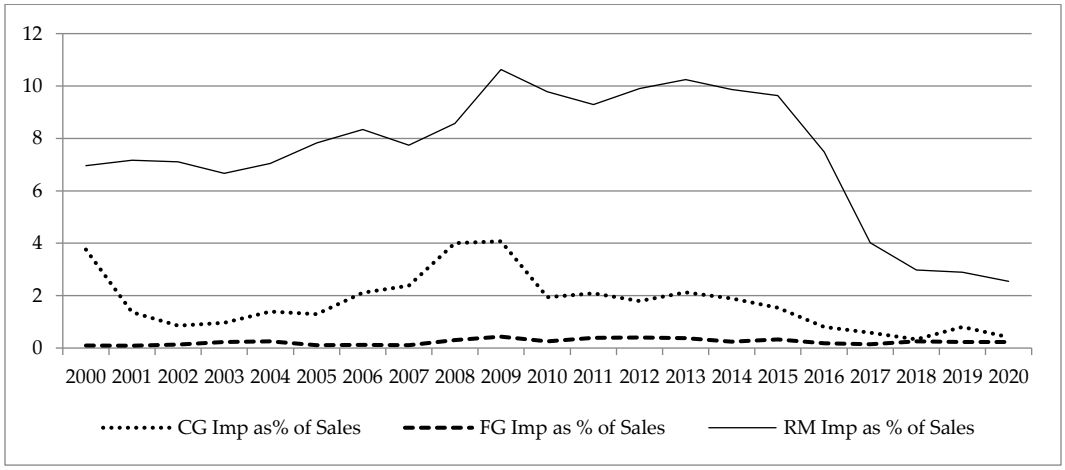


Source: same as Figure 5

The share of various imported inputs also declined over the years as a percentage of sales (Figure 10). The share of capital goods imports as percentage of sales declined from 2.15%

during the period 2000-13 to an average of 0.91% for the period 2014-20. Similarly, the percentage share of imported raw materials to sales declined from 8.37 to 5.63% in the two reference periods.

Figure 10: Share of imported inputs as percentage of sales for the automobile industry over the years



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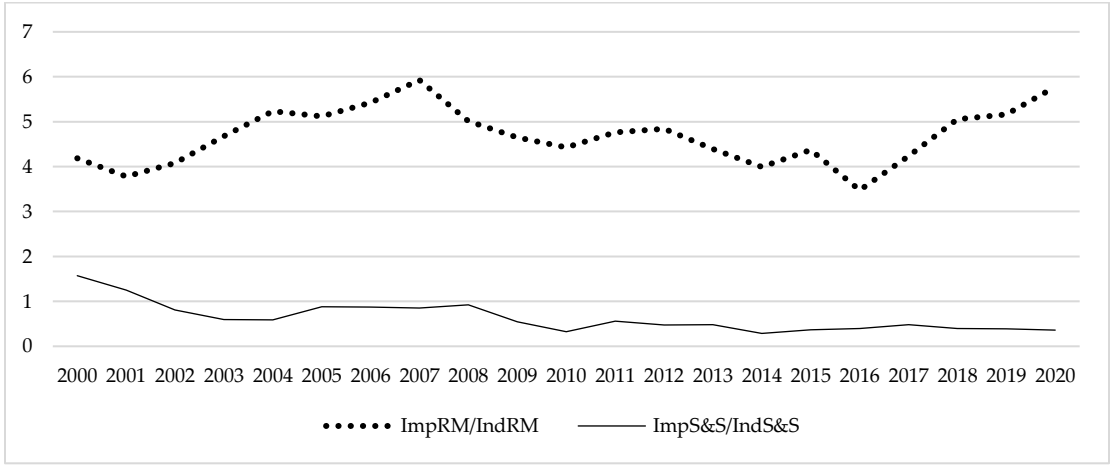
The expenditure on imported finished goods as percentage of sales remained more or less same during the two periods. This might be because of very small share this segment accounts for in total sales and also because imports of completely built or knocked down vehicles might not have been affected due to the crisis.

Figure 11: Ratio of Imported Raw materials and stores and spares consumed to indigenous raw material and stores and spares consumed



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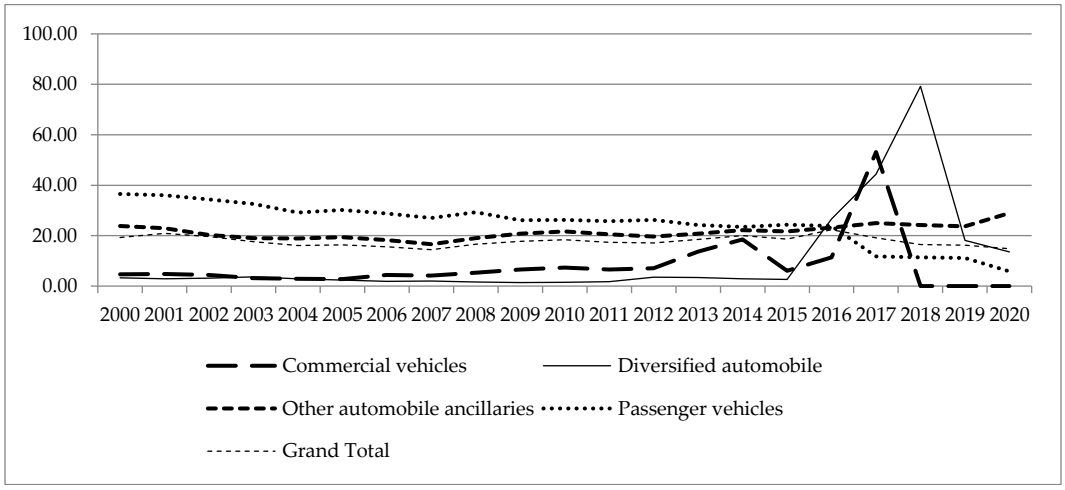
The steep falls in the share of spending on imported inputs in total foreign exchange spending however do not reflect greater indigenization of production. For the past two

decades the average value of imported raw material consumed had been 4.7 times the value of indigenous raw material consumed and during the period 2000-2013 this ratio was 4.75 which marginally declined to 4.6 during the period 2014-2020. After the pandemic this ratio in 2020 reached 5.8. For stores and spares the ratio between imported parts and indigenous parts was 0.76% during 2000-13 which came down to 0.38% in 2014-2020. Therefore, there has been a decline in the share of imported inputs in total foreign exchange spending and that might be because of the slowing down of growth or because of increasing shift of resources to financial transactions.

Figure 12: Share of Imported raw materials consumed out of total raw material consumed by segments



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It is interesting to note that the share of imported raw materials in total raw materials consumed had been very high in passenger vehicles segment compared to other segments of automobile. For the entire reference period the share of imported raw materials for passenger vehicles was roughly 24.9% and that for commercial vehicles was 9.26%. In fact, for commercial vehicle segment the share was 5.6% for the period 2000-13 which increased later significantly to 22.25% for the period 2014-2020. In the case of passenger vehicles, the share of imported raw materials was on an average as high as 29.5% and in the later period it declined to 15.97%. For the diversified automobiles segment there has been a steep rise of the share of imported raw materials from 2.53% during 2000-13 to 26.8% in 2014-2020. For the entire automobile sector, the share of imported raw materials in total raw materials consumed remained more or less same although a marginal rise from 17.5% to 18.2% in the two reference periods have been recorded.

Figure 13: Exports as Percentage of Sales

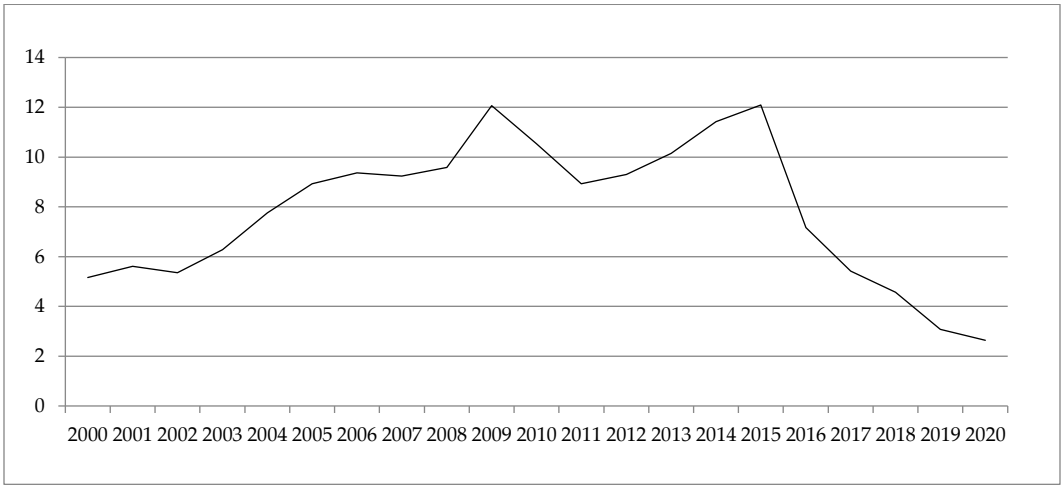

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Figure 12 shows the share of exports as percentage of sales and the average share for the entire period of two decades was 7.8%. One of the major claims of liberalization was opening up of markets will allow procuring of inputs particularly technology of both embodied and disembodied type which increases the capabilities of competitiveness and allow to increase in exports. Exports as percentage of sales in the automobile sector did grow from 5.1% in 2000 to 12.1% in 2009 and then declined but could once again touch 12.1% in 2015 and then it sharply declined to 5.4% in 2017 and further to 2.6% in 2020 (Figure 13). It seems that at least in the short run depending on export route would be difficult particularly after the financial crisis followed by the pandemic and the gloomy global scenario after the Russia-Ukraine war.

Research and Development

Increase in competitiveness for sectors such as automobile largely depends on innovation. Innovation essentially increases marketability of products by enhancing the quality of parts and components, creating new models adding new features and also addressing issues specific to markets. It also contributes to responding to specific needs of particular segments of the market. It involves two kinds of expenditure: one relates to direct expenditure by firms for research and development and the other is expenditure on buying technologies from the international shelf against payments of royalties, license and technical fees. Embodied technologies are also procured in the form of capital goods, spares and components and sometimes raw materials that are specific to particular segments and involves processing. These technologies contribute to the development of products but if it is not supplemented by increasing expenditure on in-house R&D to facilitate assimilation perpetual dependence sets in that does not augment technological capabilities in the longer run.

Figure 14 shows the research and development expenditure of different segments of automobile industry as a percentage of sales. It essentially shows the growing in-house expenditure on research and development as a share of revenue. Considering the entire automobile industry, the average share of R&D as percentage of sales was 0.72%. Comparing different segments, the average share has been highest in the case of commercial vehicles recording 1.7% followed by diversified automobiles in which the expenditure share is 1.64%. In the case of automobile components sector the share of R&D in sales has been 0.43% and the lowest being reported for the passenger car segment where it is as low as 0.26%. In the case of commercial vehicles the share increased sharply since 2010 and in case of diversified automobiles it increased sharply from 2013. In the case of auto components sectors and passenger vehicles the share remained consistently below 0.5% for the entire period.

Figure 14: Research and Development Expenditure as percent of sales

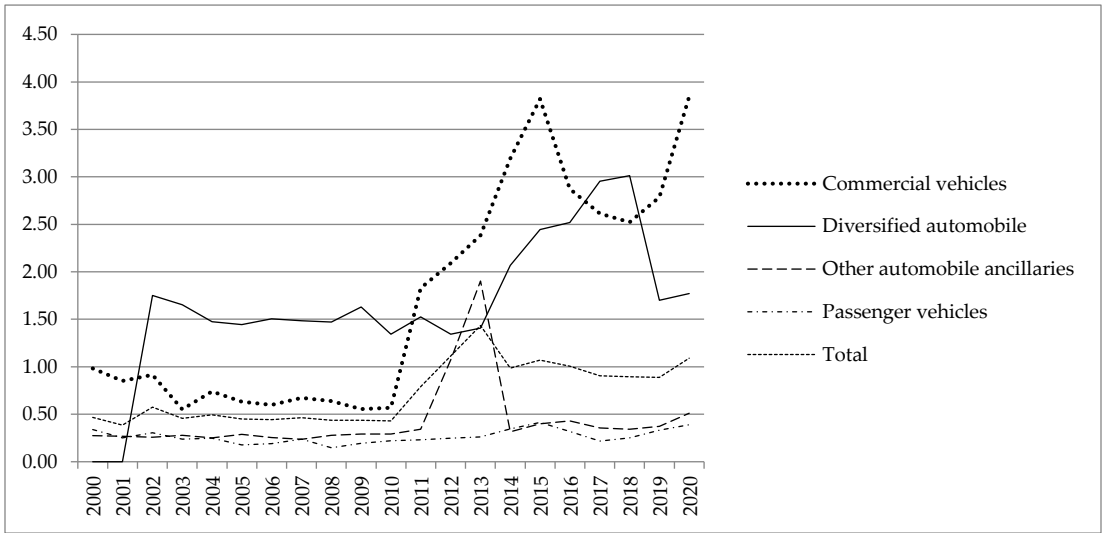

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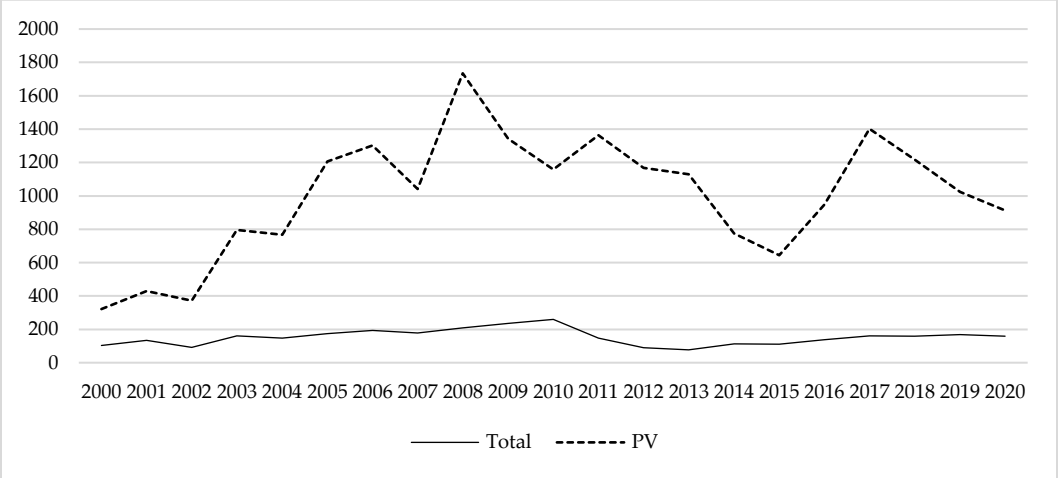
Figure 15 reports the share of expenditure on royalties, technical and license fees as percentage of expenditure on in-house R&D. For the entire period the average share was 1.53% for the entire automobile industry or the payments on royalties, license and technical fees was roughly more than 1.5 times the expenditure on in-house R&D. In the case of passenger vehicles, the average of the ratio is more than 10 times. In other words, the passenger vehicles segment is highly dependent on imported technology and the expenditure on in-house R&D was significantly low which possibly indicates very little intention to build indigenous capabilities to garner the growing market.

Figure 15 Expenditure on Royalty, Technical and License Fee as per cent of R&D for automobile in Industry and Passenger vehicles



Source: same as Figure:5

Over the years the ratio between expenditure on foreign technology and in-house technology increased for the entire automobile industry but it shows a decline for the whole sector since 2010 and for the passenger vehicles segment it declined since 2008.

Figure 16: Technology Intensity (Total expenditure on Royalty Tech Fees plus R&D)/ Sales

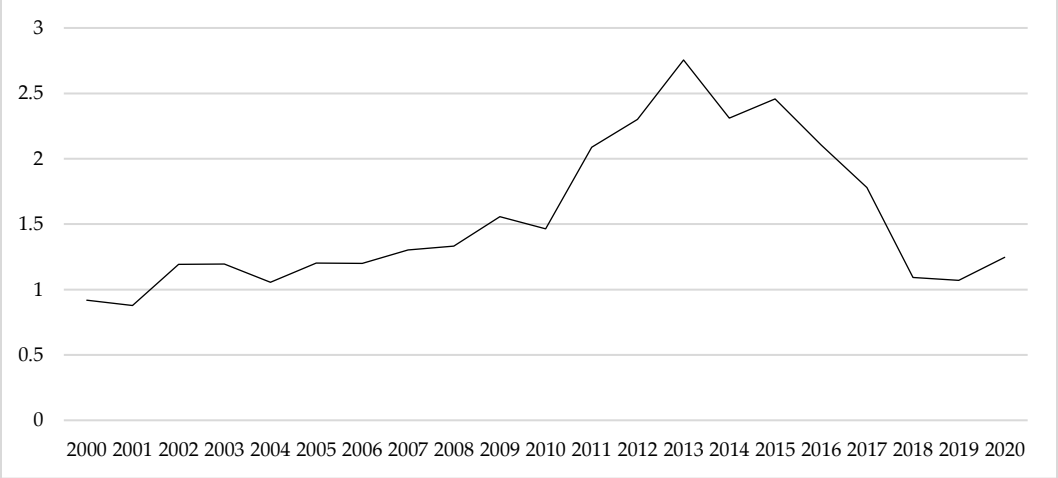


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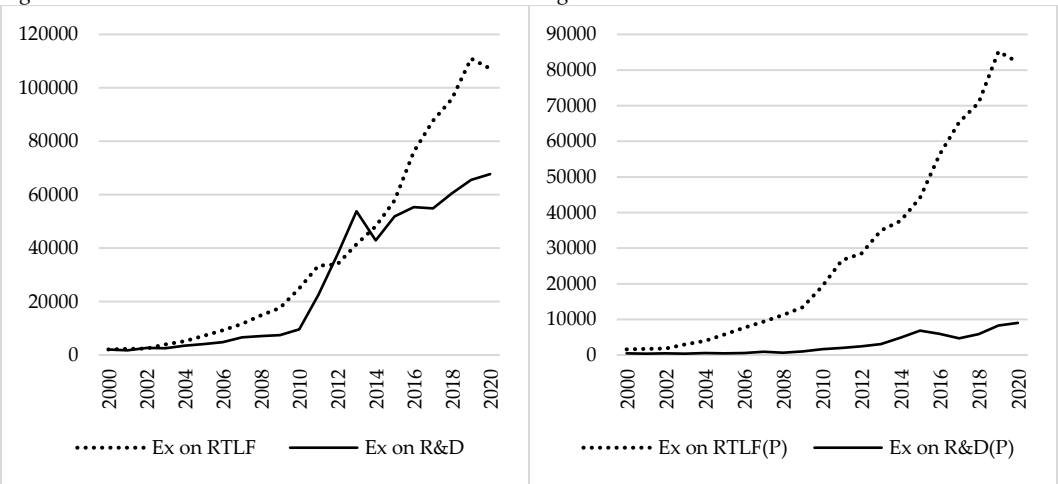
Figure 16 shows a gross measure of technology intensity for the automobile sector expressed as a ratio of total expenditure on royalties, license and technical fees together with in-house expenditure on R&D as percentage of sales. The technology intensity for the total automobile sector increased consistently until 2013 and then suffered a decline. As the trend in Figure 15 clearly suggests that the decline in technology intensity has been caused by relative decline in in-house R&D expenditure while the expenditure on

payments for imported technology continued to rise and the gap increased sharply in case of passenger vehicles segment.

Figure 17: Expenditure on Royalty, License and Technical Fees and on in house R&D (a) automobile sector (b) Passenger Vehicles

Figure 17a *Figure 17b*



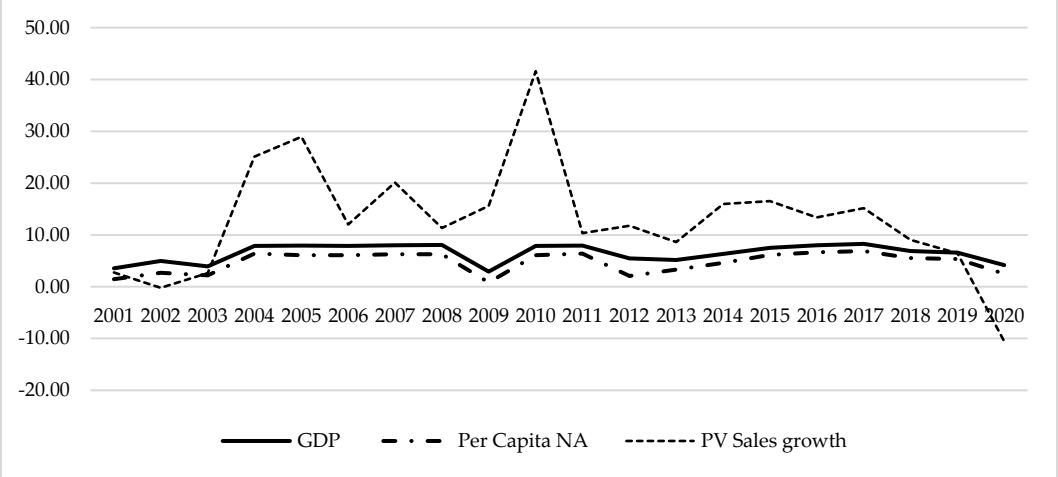
Source: same as Figure:5

Therefore, it is evident from the above discussion that automobile industry in India became heavily dependent on foreign technology without being adequately supplemented by growing expenditure on in-house R&D and it is the passenger vehicles segment which showed lot of dynamism in capturing growing markets increasingly became dependent on technology acquisition rather than assimilation and development.

Shrinking or Sifting Demand?

This is well acknowledged in the literature that the pent up demand of private vehicles during the dirigisme was released during liberalization that resulted in high growth in automobile sector. It is also important that there had been growth in middle class in post liberalization period which explains the growth of demand for private vehicles. The growth of disposable income and the demand for private vehicles increased faster than the growth of average per capita income and GDP in India which explains faster growth in automobile sector. Figure 18 shows that the growth of passenger vehicles sales was much higher than the growth of GDP or that of per capita income for the entire period 2004-2019 but the average growth declined sharply since 2011. From 2001 to 2010 the average growth of passenger vehicles sales was 16% which came down to an average level of 9.7% from during the period 2011-21. It might be because of the tapering down of middle class demand as the growth of people falling within the middle class income bracket didn't increase very fast beyond a point.

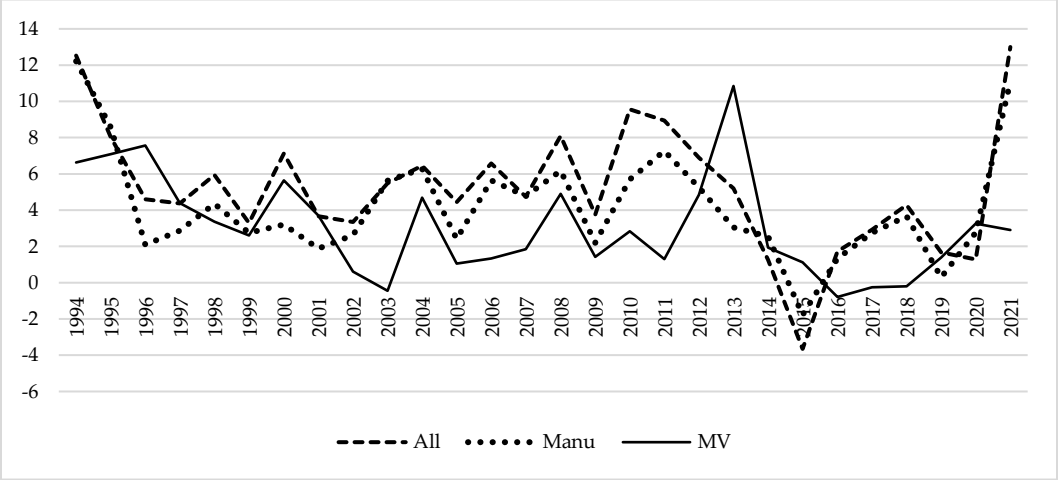
Figure 18: Growth of GDP Per capita Income and Passenger Vehicles Sales Growth



Source: Author's Calculation from Prowess IQ and National Accounts Statistics

It is also interesting to note that the relative prices of motor vehicles actually declined since 1997 and the average inflation rate on wholesale price during the period 1997 to 2021 was only 2.57% which was lower than the average of all commodities and also that of manufacturing goods WPI inflation rate during the same reference period. Hence the decline in growth rate of passenger vehicles sales was not a result of any unusual inflation of vehicle prices rather vehicle prices show a moderate increase compared to all other goods.

Figure: 19: Wholesale price inflation of all commodities, manufacturing goods and motor vehicles base year: 2011-12

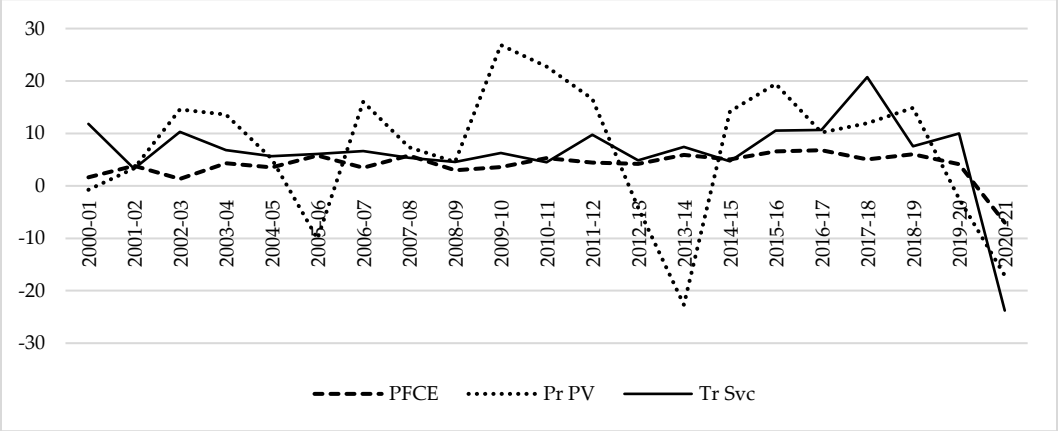


Source: Author's calculation from ASI series (EPWRF) and CMIE Economic Outlook

Figure 19 shows the growth of private final consumption expenditure, consumption of private personal vehicles and transport services. The average private final consumption expenditure grew annually by 3.77% during the period 2000-10, it increased to 5.5% during

the period 2011-2018 and it would be 4.11% annually if we include the period of pandemic that is 2011-21. In the three reference periods the growth of the consumption of private vehicles has been 9.4 (2000-10), 7.5 (2011-18) and 4.08 (2011-21). The growth of consumption of private vehicles declined in the second reference period even if the average private final consumption expenditure increased during this period.

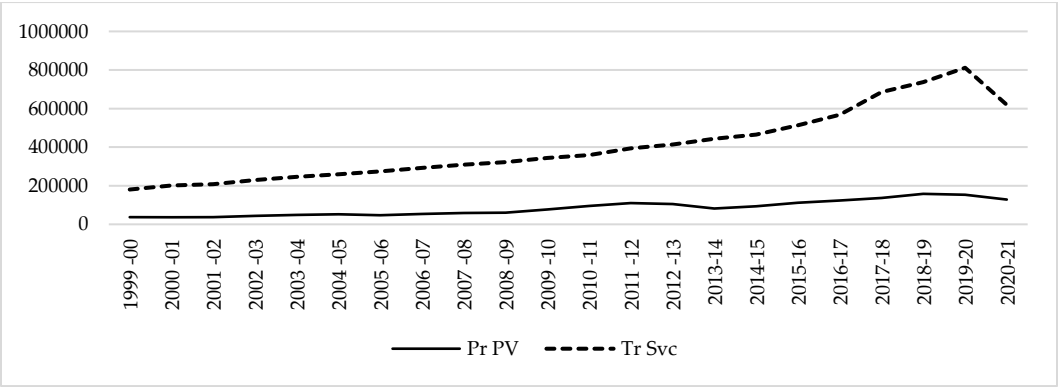
Figure 20: Growth of PFCE, Consumption of Private Personal Vehicles, Transport Services



Source: National Accounts Statistics on Consumption Expenditure, EPWRF

It is also important to note that consumption of transport services growth increased from an annual average rate of 6.48% during the period 2000-10 to 9.53% during the period 2011-18. This is interesting because even if consumption of transport services shows a rise, but growth of consumption of private personal vehicles did show a decline. The rising gap between consumption expenditure on personal vehicles and that on transport services kept increasing over the years (Figure 21).

Figure 21: Consumption expenditure on Private Vehicles and Transport Services at constant 2011-12 prices



Source: National Accounts Statistics on Consumption Expenditure, EPWRF

There can be few plausible hypotheses on this: (a) growth of middle class income has not increased as fast it had increased in the first decade of the current century. The declining

gap between the growth of average per capita income and that of growth of passenger vehicles sales might indicate the same; (b) People are using more public vehicles and gradually shifting from purchasing private vehicles (c) Most passenger vehicle manufacturers are increasing options for high-value segments and SUVs and as the options for mass car segment declines the sales didn't grow as fast as it did in the earlier decades; (d) As people are increasingly moving towards application based taxi services and pre-owned cars, purchase of vehicles growth may suffer a decline.

Conclusion

All these indicate that the first phase of high growth in demand seems to be tapering out. This may not be a temporary phenomenon as the growth of middle class would decline if the inequality in income rises fast as has been identified in case of India also in the *World Inequality Report 2022*. The share of durable consumer goods account for a very small share in average Indian consumption basket. Less than 3% of Indian households have all five items: car or scooter, air conditioner, fridge, television and computer. The share in incremental value added for the middle class in India has been lower than that in China (The Economist, 2018). The global growth slowdown continued since the financial crisis and subsequently due to the pandemic and the Russia-Ukraine war, hence export prospects are not so encouraging. The declining trend of exports in sales may not reverse soon. Fuel price increased significantly as a result of the war hurting domestic automobile sales. It is also important to note that higher options of imported cars and import intensive vehicles do not increase our productive capacities in the longer run if it is not supplemented by increased expenditure on R&D that raises capabilities for assimilation, else would create pressure on balance of payments in the future for obvious reasons.

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