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SIAM
Society of Indian Automobile Manufacturers



Perspectives on Importance of Automotive Industry

Foreword

The Indian Automotive industry, at ~US\$ 80 billion turnover and with a rapid growth rate of ~15% for the last five years, has been a significant pillar of the India growth story. While the current economic conditions have challenged the short term growth scenario of the sector, the long term prospects are expected to remain robust owing to strong fundamental demand and supply factors. In this regard it is essential to recognize the various contributions of the Automotive industry and the role it could play in reviving the overall Indian economy.

The economic contribution of the sector is significant. The industry contributes ~22% of India's manufacturing GDP and ~7% of India's overall GDP. To the state exchequer it provides ~18% of the excise duties. Further, the industry has attracted FDI investments to the tune of ~US\$ 7 billion over the last decade and has helped establish a significant presence in international markets with a year on year increase of ~18% in exports over the last 5 years.

The sector has also contributed to social development and benefited local communities. It is one of the leading employers in the country and has helped create nearly 19 million jobs through direct and indirect employment. The creation of automotive hubs across the country has led to development of ecosystems around the industry with the rise of urban settlements and strengthening of civic amenities of education and healthcare.

The Automotive industry has also been instrumental in the growth of R&D in the country through localization and indigenization of technology over the past few decades. Several players have undertaken acquisitions and forged alliances with multinational firms to gain technical know-how and fast-track their progress on the technology roadmap.

We capture in this report some of these contributions and assess the potential of the sector through global benchmarks. More importantly, we present a call for action for industry, as well as for the policy makers, to ensure that a vibrant automotive sector continues to remain the growth engine for India in the years ahead.

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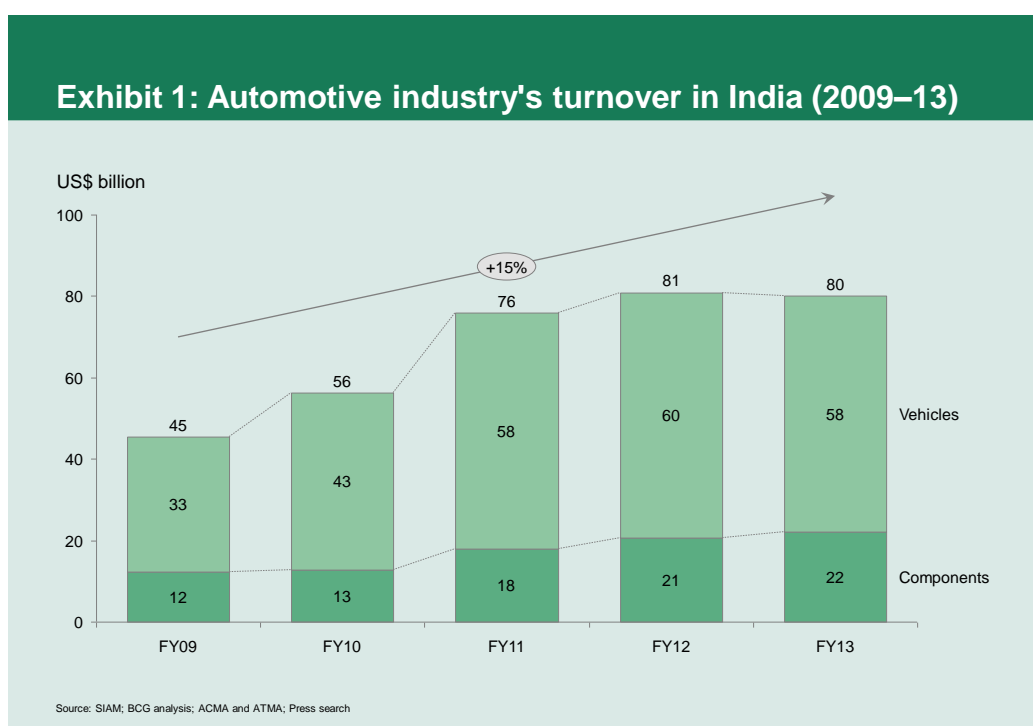
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1. Automotive industry – Starting position

1.1. Overview of Automotive industry in India

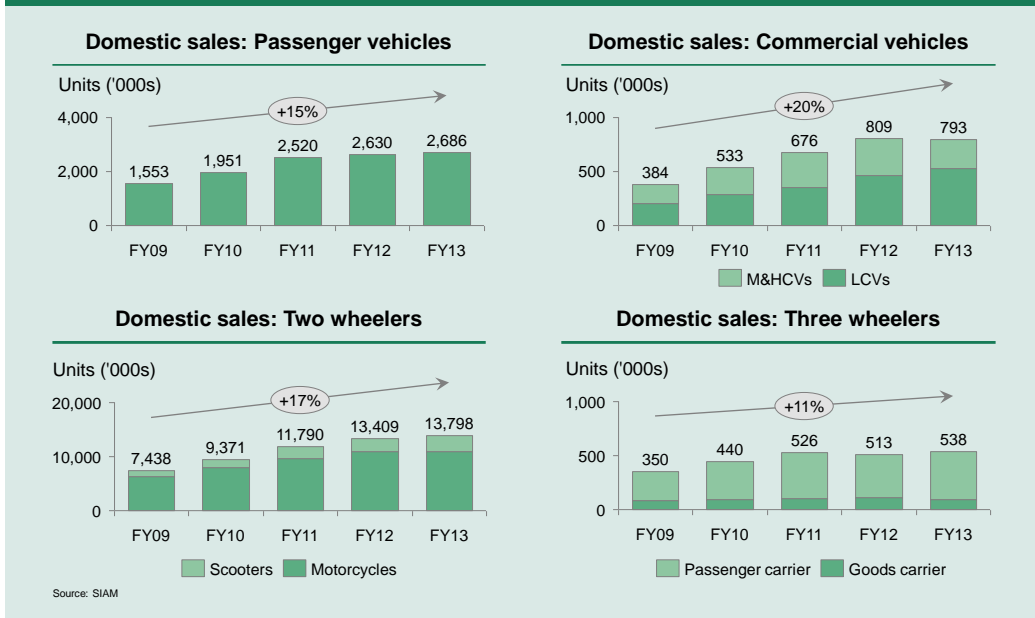
Over the past five years the Automotive industry in India has evolved significantly and witnessed high growth. The turnover of the overall industry is ~US\$ 80 billion, covering both vehicles and components, and has exhibited an annual growth of ~15% during this period.

India has emerged as the second largest base for two wheelers and buses globally. India has also become the third largest heavy truck manufacturer and the sixth largest passenger car manufacturer in the world. On the global map, India has developed as the hub for small car development and established itself as a best cost country sourcing location for automotive components and engineering services.



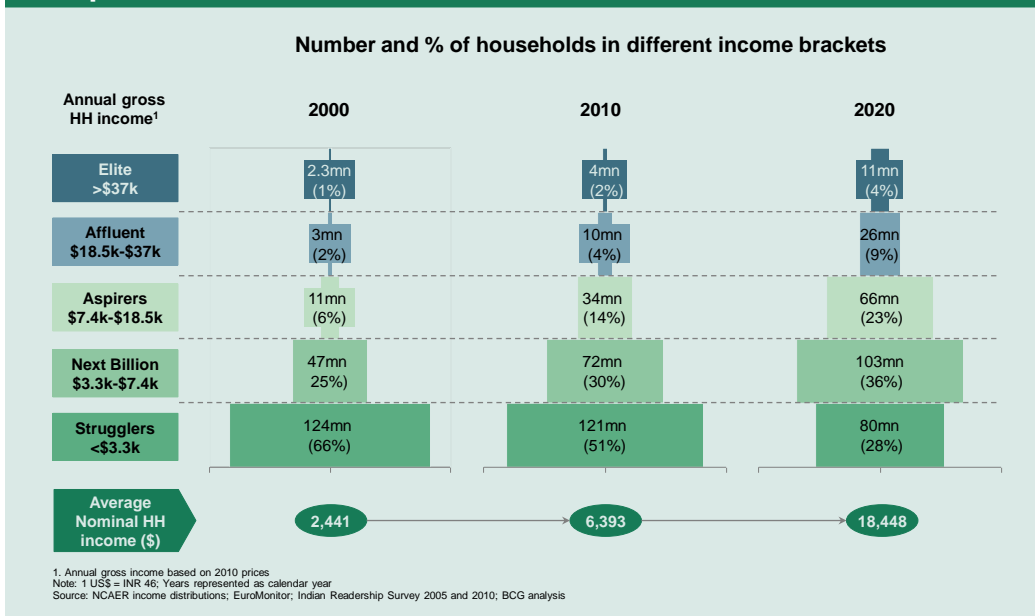
Domestic sales across all vehicle segments have exhibited double digit growth in India. The commercial vehicle segment witnessed a growth rate of ~20% p.a., while the passenger vehicle and two wheeler segments have seen a growth rates upward of ~15% p.a. The three wheeler segment grew at ~10% p.a. in this time period.

Exhibit 2: All vehicle segments have grown steadily in the last 5 years



While the current economic scenario has challenged the short term growth story of the Automotive industry, we believe that this only a temporary deviation in the overall roadmap. The long term prospects are expected to remain robust given strong fundamental drivers such as favourable consumer demographics, increasing spends and continuing need for mobility across the country.

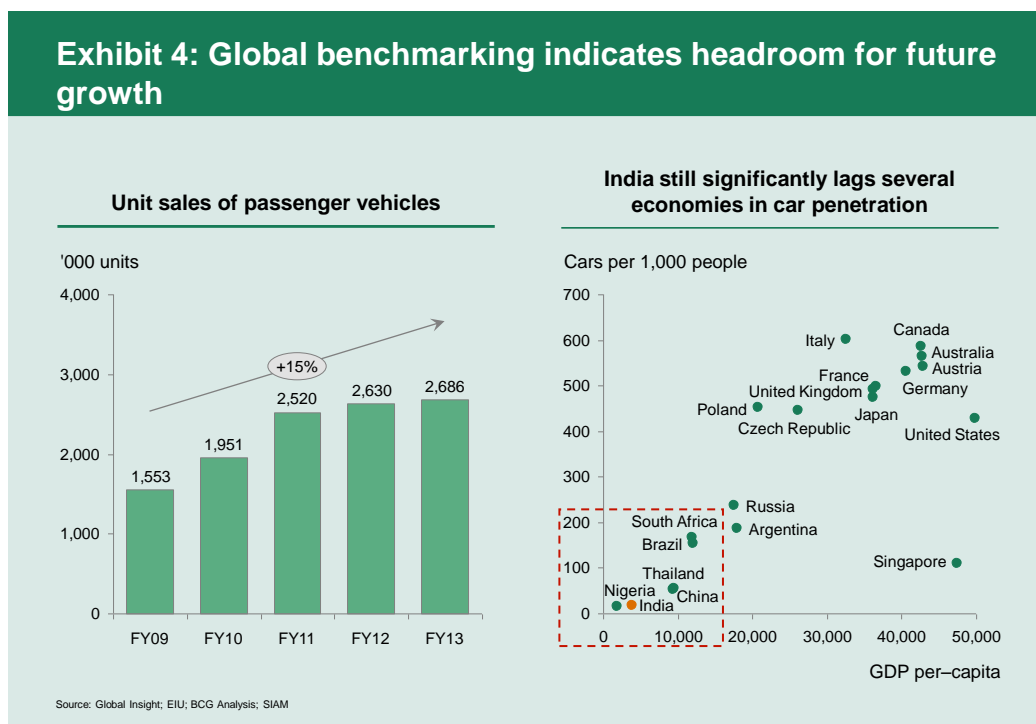
Exhibit 3: Significant increase in average income levels expected in the current decade



Further, the industry has matured significantly over this time period. This has exhibited in the form of reduced ownership period for cars and more frequent model refreshes creating a strong impetus to demand.

Supply side variables such as investments in road infrastructure by the Government through public funds, rise of PPP models and capacity expansions announced by multiple OEMs, who have plans to enter India or expand existing capacities, will further stimulate demand.

Global benchmarks also indicate significant headroom for future growth. India currently has ~13 cars per 1,000 people while the global average for developed countries is ~400–500 cars per 1,000 people¹.



However, to ensure that the growth trajectory of the Automotive industry is revived and the above mentioned potential of the industry is realised all the stakeholders including the government and the industry need to act in consort.

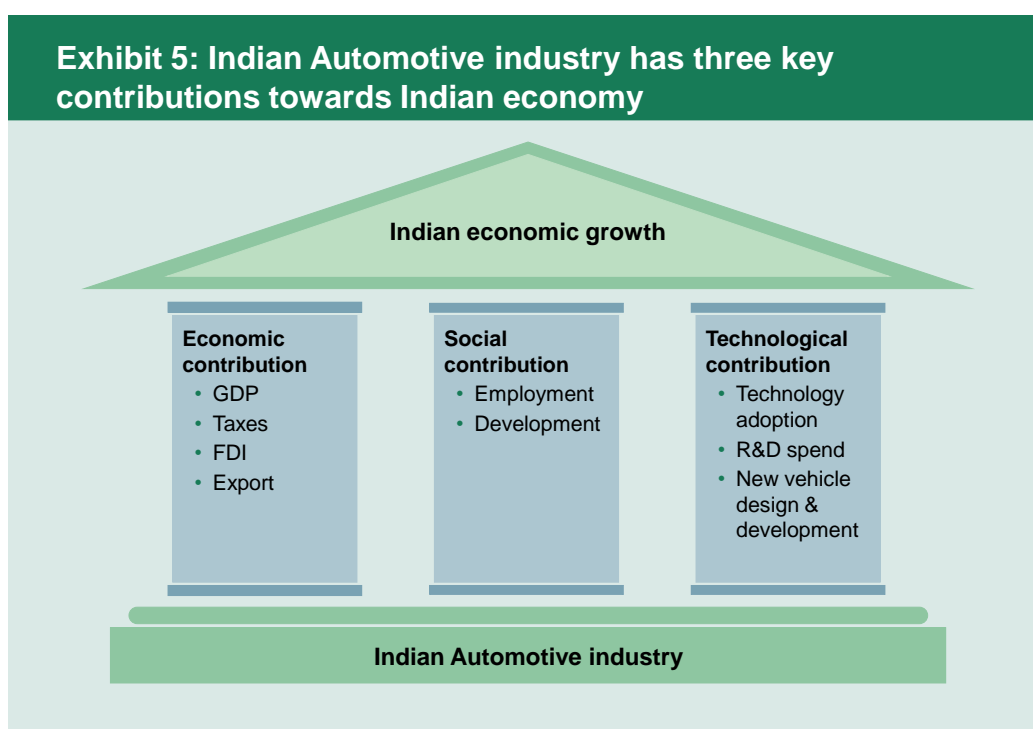
Given this context, it is critical at this juncture to review the contribution and the impact of the Automotive industry on the Indian economy; to step back and take stock of the challenges faced by the industry and to align on an action agenda to refuel the growth engine.

¹ Global Insights; EIU; SIAM; BCG analysis

1.2. Contribution of Automotive industry to India's economy

The Indian Automotive industry plays a critical role in the Indian economy. Its importance and impact on the overall growth scenario can be assessed across three key dimensions:

- Economic contribution through factors such as GDP, exports, FDI, domestic investments, taxes and duties etc
- Social contribution through indicators such as direct and indirect employment and benefits to local communities and clusters around automobile hubs
- Technological contribution through new technologies introduced in the country, localization and indigenization of the same and spends on R&D



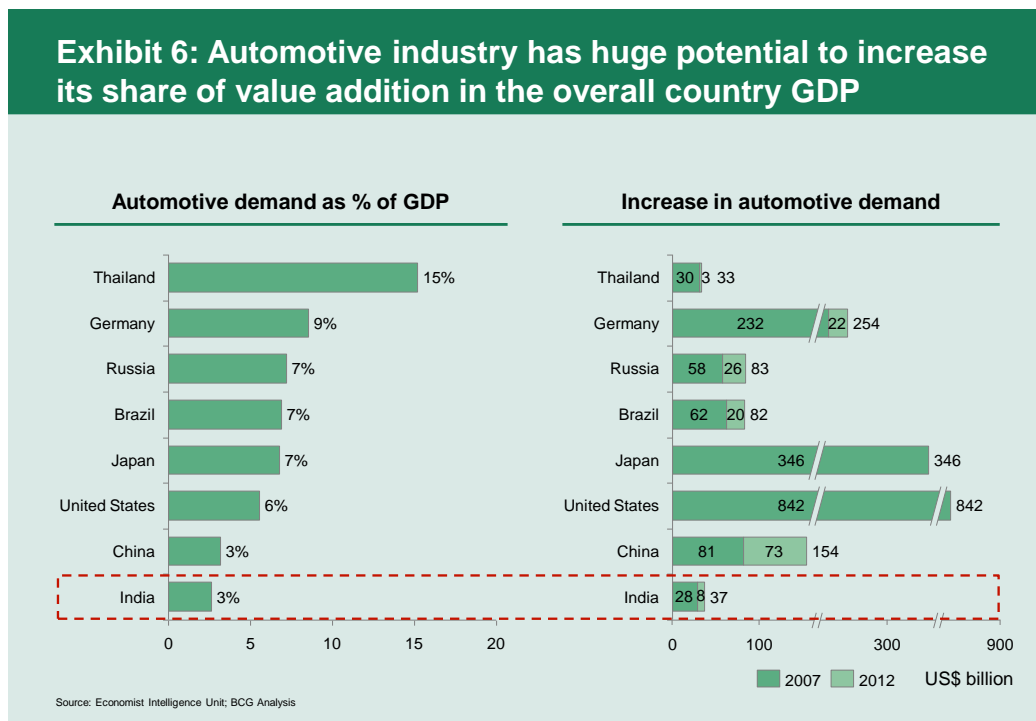
2. Economic contribution

2.1. Driver for India's GDP growth

Automotive sector is one of the key contributors to India's GDP. At ~US\$ 80 billion, the automotive sector accounts for ~22% of India's manufacturing GDP and ~7% of India's overall GDP. Given the current industrial slowdown, over the past 12–18 months, the sector's importance in reviving the manufacturing industry cannot be overstated.

It has also been one of the key drivers for India's GDP growth rate. While the Indian economy has grown at ~8% p.a in the last five years, the Indian automotive sector has grown at ~15% p.a. during the same period.

Currently, India's automotive demand as a percentage of GDP is substantially low compared to several other leading developed and developing countries. This indicates significant opportunity for greater value addition as is evidenced in other countries.

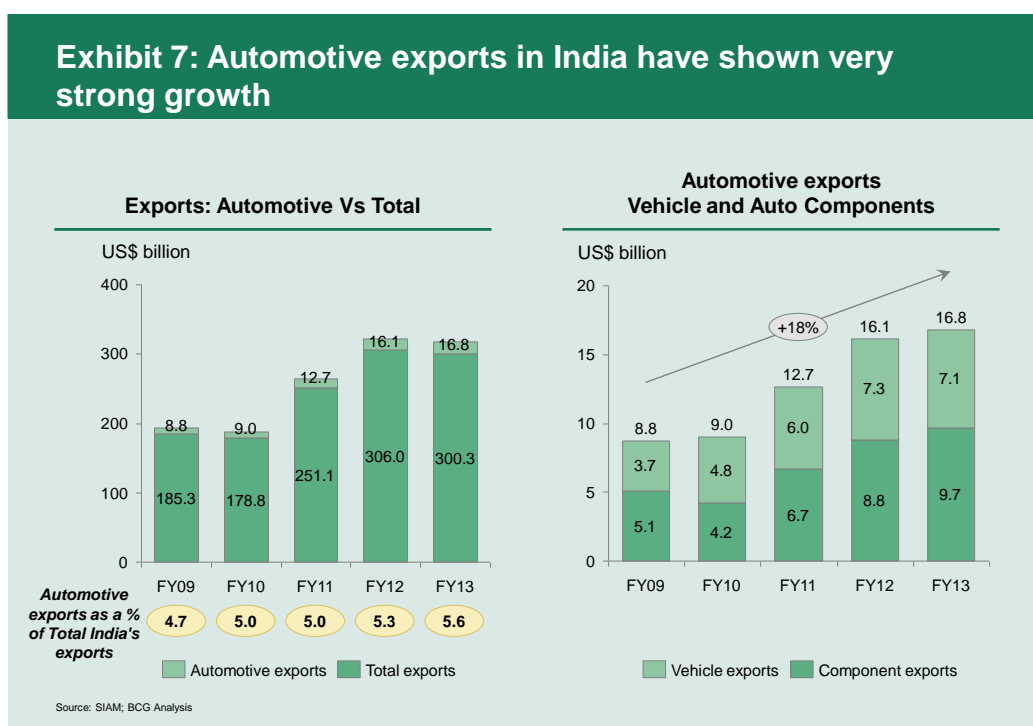


2.2. Contributor to the state exchequer and FDI

The Automotive industry contributes ~18%² to India's excise duty collection. The sector also attracts huge foreign investment. The Automotive industry is the 4th largest industry in terms of FDI inflow into India. The FDI inflow for the last decade has been ~US\$ 7 billion³ and represents ~4% of the overall FDI inflow into the country. Given the potential of India, most auto majors have announced plans to grow and strengthen their India manufacturing and engineering bases, implying further potential flow of FDI.

2.3. Contributor to India's BoP through exports

India is emerging as a major export hub for the global automotive industry. During FY13, automotive exports from India amounted to ~US\$ 17 billion, ~ 5.5% of India's overall export⁴. Exports have increased by ~18% p.a. in the last 5 years, representing an increasing share of the exports base for the country. Both vehicle and component exports grew at a similar growth rate of ~18% p.a with the growth consistent across vehicle segments.



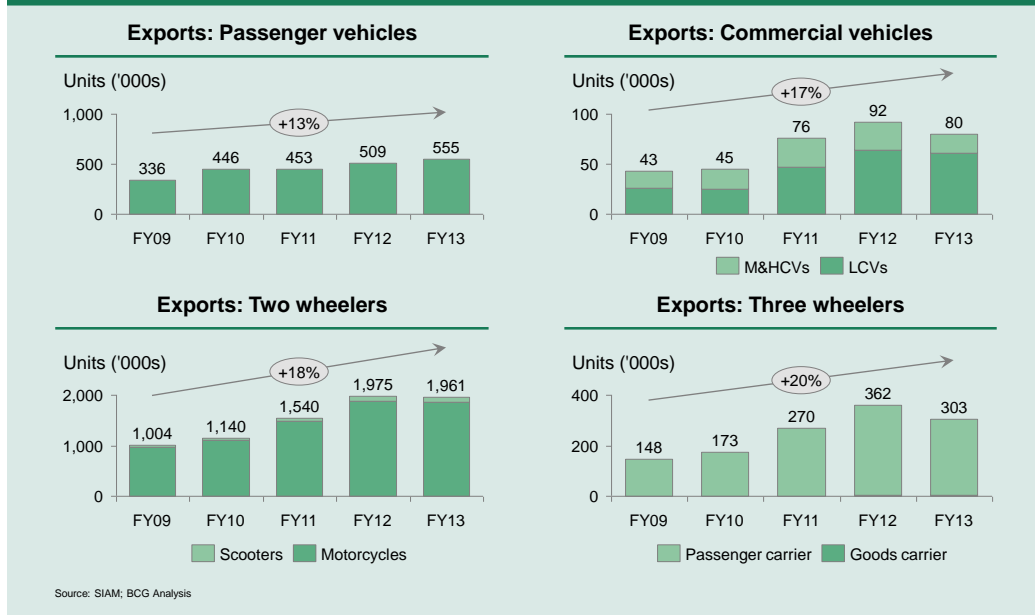
Most global OEMs have also set up purchase organizations in India. Currently more than 40 IPOs of OEMs and automotive component players exists in India.

² SIAM

³ DIPP; Ministry of Commerce; GoI

⁴ SIAM; OICA

Exhibit 8: All vehicle segments have shown robust growth in exports in the last 5 years



Currently, only 14% of total passenger cars and commercial vehicles produced in India are exported. This is substantially lower than Japan and Germany, where exports account for ~30–50%⁵ of automotive sales respectively. The global opportunities represent a significant potential for growth of the Automotive industry in India. These range from small car exports to Europe; addressing vehicle markets in other emerging markets such as Africa, Latin America, South East Asia; to establishing presence in developed markets and becoming a primary source of automotive components to the Western OEMs.

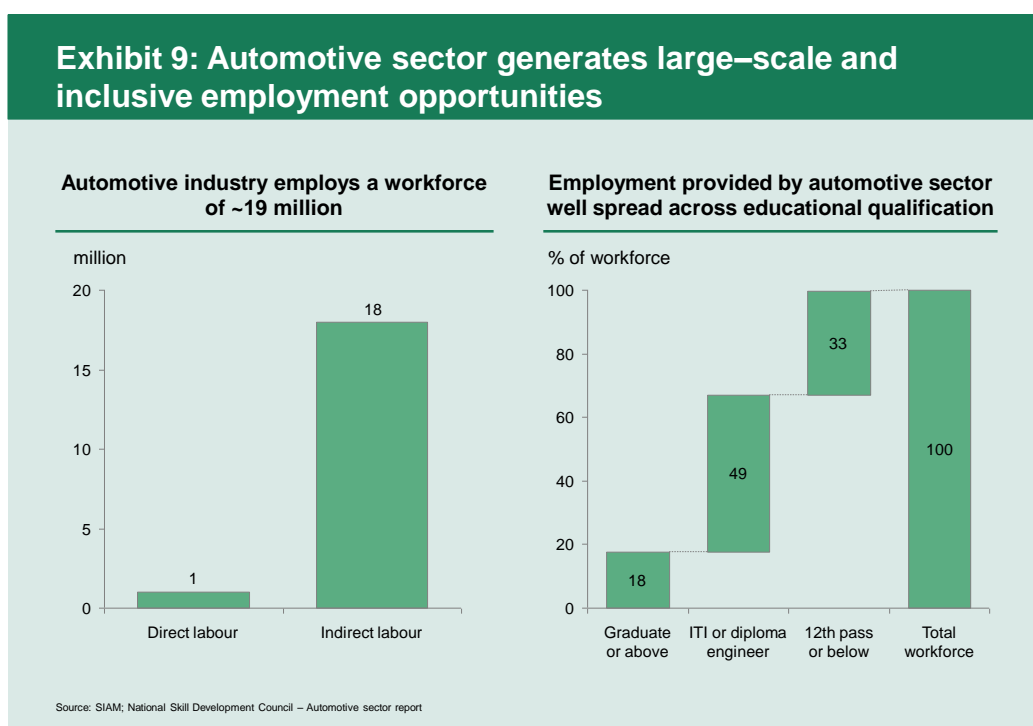
⁵ OICA

3. Social contribution

3.1. Creator of direct and indirect employment opportunities

The Automotive industry has generated jobs not only through direct employment at OEMs and automotive component companies, but also through indirect employment in allied activities. The Automotive industry directly employs ~1 million people. In addition it also provides employment to approximately another 18 million people through associated industries such as vehicle finance, motor insurance, repair and service stations, drivers etc. Thus the Automotive industry represents ~ 4% of India’s total labour force.

Further the nature of employment generated by the Automotive Industry is inclusive in effect, as a significant share of employment is for workers with limited educational qualification. Nearly 80% of workers indirectly employed through the automotive sector do not have a graduate degree.



3.2. Facilitator for development of urban hubs

The manufacturing footprint of the Automotive industry in India has led to the development of multiple automotive hubs. Over the past decade hubs have developed in Gurgaon, Pune, Chennai and now Gujarat. When an automotive hub is developed, an entire ecosystem grows around it. Automotive component suppliers establish their base near OEM manufacturing locations and logistics centers get developed in the vicinity. This results in creation of new

jobs and brings about socio-economic development to the region. Further to facilitate this ecosystem, residential settlements evolve and civic amenities like education and healthcare are strengthened. Thus social infrastructure gets created, fast forwarding the process of urbanisation and development. These clusters also create positive feedback loops and further enhance the efficiency and growth prospects of the core industries established.

The Michigan Case Study – economic and social impact of the Automotive industry

The Automotive industry has been at the centre of Michigan's growth ever since the first Ford Model T rolled off the assembly plant from Ford's Piquette Avenue Plant in Detroit in 1908. Over the years, the Automotive industry has had significant influence over the economic fortunes and social fabric of the state of Michigan.

Automotive plants attracted workers in thousands to Michigan in the early part of the 20th century. Detroit region's population jumped over 5.5 times between 1900 and 1950⁶. In 1978, the Automotive industry employed more than 250,000 who worked in the Detroit region. Other cities like Flint, Lansing also prospered due to the automotive boom. Automotive plants provided workers with 20% to 50% higher wages than prevailing manufacturing wages and fuelled the rising American middle class⁷.

In 2006, Automotive industry contributed to 10% of Michigan's Gross State Product and 6% of its employment, not including the larger benefits in linked industries such as transportation, logistics, finance, metal manufacturing etc⁸.

The financial crisis of the last decade hit the Automotive industry hard and in turn Michigan as well. However, the Automotive industry has also been pivotal in the economy's revival. Auto industry contributed 18% of the 2.2% rate of growth of the US GDP between 2009 and 2012 (Q2)⁹. Michigan, which produces nearly 22% of vehicles manufactured in US, has been pivotal in this growth¹⁰.

The US economic recovery has been enabled by the Automotive industry. Working in GM's factory in Orion, Michigan, a 30 year old worker says she feels much happier than she did working at a nursing home for a paltry US\$ 9 per hour. Her job at GM's factory pays her US\$ 16.78, significantly lower than the pre-crisis automotive wage levels. However as she puts it – *"It's just an opportunity for me, It's a better life for my kids"*.

⁶ Combined Statistical Area (CSA)

⁷ Bloomberg

⁸ Automotive Cluster in Michigan (USA)(2009) – Michael E. Porter et al

⁹ Bloomberg

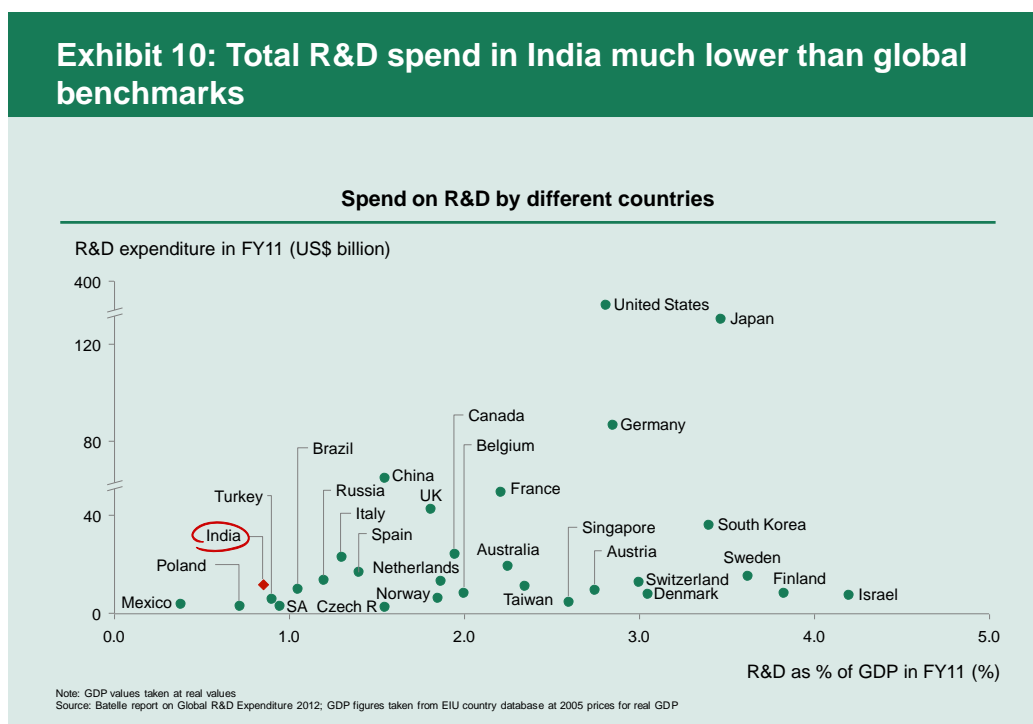
¹⁰ "Michigan is Auto"(Detroit Regional Chamber) (2013)

4. Technological contribution

4.1. Contributor to R&D spend

The total R&D spend in India is much lower (~ 0.9% of GDP) than several countries across the world. However, automotive R&D spend at ~2.6% of its revenues, is much higher than several other industries in India.

The above spend on R&D by Automotive Industry in India, is still lower than that seen in developed countries. US and European automotive companies invest ~4% of their revenues in R&D¹¹. As R&D requires significant upfront investments and entails risk, government further support in R&D will be beneficial for the industry. In an effort to boost Automotive R&D in the country, the Indian government has set up several centres of excellence under the aegis of National Automotive Testing and R&D Infrastructure Project (NATRiP) in collaboration with the state governments and the automotive sector¹².



¹¹ ACEA

¹² Batelle report on Global R&D Expenditure 2012; GDP figures taken from EIU country database at 2005 prices for real GDP

4.2. Driver for technology adoption

Given the nature of the Automotive industry, domestic supplies form a significant share of its manufacturing. As a result substantial technology for the industry, over the past decades, has been absorbed and indigenized. Further the imperative for localization of manufacturing is significant, given severity of competition necessitating need to save on import duties and cost of transportation. Automotive companies have formed joint ventures and signed technical agreements in order to obtain knowledge of modern manufacturing processes, product design and development.

Several acquisitions have also occurred in the automotive space in recent years as another method to acquire technology and product portfolios. Over the last five years 25% of the deals done by value in the industrial goods space have taken place in the automotive sector¹³.

4.3. Facilitator for new vehicle design and development

India has developed as a small car manufacturing hub for the rest of the world. Leading players in this segment use the local manufacturing base in India to export to their home markets. The existence of a well established supply chain for small car manufacturing also enables significant design and product innovation to take place in India.

Most global OEMs have established engineering centers in India and the concept of frugal engineering has now become mainstream in several companies. Several companies are now manufacturing products specifically designed for customers in the Indian market and then using these products as base models for other similar emerging markets.

¹³ Capital IQ

5. Ten point agenda for Government and Industry

The growth of the Automotive industry is critical to ensure revival of the industrial sector of the Indian economy.

We have created a ten point agenda for the government and the industry to work together to reignite this growth engine.

- 1. Stimulate demand through schemes such as fleet modernisation** – At present, India does not have a robust national policy on retirement of vehicles or end-of-life of vehicles. As a result, vehicle users in India tend to continue the usage well beyond the expected life of the product. Such vehicles have high emission content, low fuel efficiencies and also have lower safety standards. The government with the OEMs can promote an incentive scheme to drive vehicle owners to replace older vehicles with new generation products. In addition fleet modernization of government departments can also be included in this program. This would not only help revive new demand but also lead to ~15% reduction in carbon monoxide emissions. Further fuel savings so caused will also benefit the exchequer by reducing petroleum imports.
- 2. Promote exports and provide funding support** – To increase the share of Indian Automotive sector in global exports, the government needs to support the exporters financially and at the same time carry out soft promotions overseas, especially in emerging markets in Africa and Latin America. The government can explore extending export line of credit at attractive conditions and supporting brand development of India based products.
- 3. Develop infrastructure to drive demand and reduce supply chain costs** – The government has announced infrastructure plans of ~US\$ 400 billion to foster growth and development. Automotive demand in several segments has a strong co-relation to road development and increasing mobility and connectivity. India has one of the highest logistics cost as percentage to GDP in comparison to other countries. Singular focus on high quality execution and removing regulatory hurdles for infrastructure projects would both drive demand for automobiles as well as improve supply chain and logistics costs for automobile companies.
- 4. Improve availability of rural finance** – Availability of attractive finance is one of the key drivers of automotive demand. With demand share increasing in rural markets, the government and the automotive sector needs to explore innovative ways of making automotive finance available and cheaper than the informal sector. Some potential methods include working closely with micro-finance institutions, establishing tie-ups with institutions such as the Post Office etc.

- 5. Adopt innovative business models for Tier 3/4 cities** – There is a significant number of Tier 3/4 cities emerging which have a small but sizeable middle class population and median income levels at par with leading cities in India. The consumers in these cities have a clear aspiration for mobility, however are not homogenous in terms of needs, preferences and behaviour. The industry must evolve its sales and distribution models to reach these customers and create a profitable model which can operate at lower scale than Metros and Tier 1 cities.
- 6. Evolve new product development models** – Competition in the Indian market has increased significantly over the last decade across segments. To drive demand and increase market shares there has been a significant increase in new model launches, which in the short term co-relate well with sales spikes for the automobile companies. In this scenario, it becomes critical for the OEMs to evolve newer product development approaches which have lower timelines and platform strategies which commonalize parts and reduce costs. An effective multi-generation product plan is critical to enable companies to balance return on investments with market needs.
- 7. Drive productivity improvement** – India's labour productivity has not kept pace with increasing costs. As a result there is an increasing threat of dilution of the India advantage on structural costs. There is a clear need for developing vocational training models in collaboration with educational institutions to drive skill development as well as productivity increases. Further, power in India for industrial units is expensive and the quality and reliability is also uncertain. Several of the auto hubs are facing acute power shortage. Resolving coal availability and utility pricing issues on the production side and driving distribution reforms on supply side are critical steps to ensuring that India remains competitive on power costs.
- 8. Develop clusters for cost competitiveness** – Clusters help the economy by ensuring development of the overall ecosystem. The Government working with industry can help setup these automotive clusters and drive cost competitiveness through shared facilities, local supply chains and common development and testing centers.
- 9. Incentivize investment in technology and innovation** – Government can explore methods to incentivize industry to invest in research and development of new products. Methods include incentives on commercialization of IP, cash deferral schemes for SMEs and greater co-ordination with educational institutes on specific subjects to develop an ecosystem of research and innovation.
- 10. Reform national fuel policy** – The Automotive industry's investment plans are heavily dependent on the fuel policy devised by the government. A long term fuel policy roadmap covering various aspects of fuel emission, subsidies, availability etc would provide clarity to the industry and reduce risk to capital. Further, the roadmap can include benefits provided by the Government on incentives for the development of fuel efficient vehicles and electric and hybrid vehicles.

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Society of Indian Automobile Manufacturers, SIAM, a not-for-profit organization, is the apex national industry body representing all major vehicle and vehicle engine manufacturers in India. Members include manufacturers of Passenger vehicles, Commercial vehicles, Three wheelers, Two wheelers and Engines.

SIAM aims to promote sustainable development of the Indian automobile industry and enable India to become a global automotive hub. It endeavors to improve industry's competitiveness, create an environment to promote mobility, internationalize the industry and promote India as a global hub for Research & Development.

SIAM provides a window to the automobile industry in India. The Society works closely with all stakeholders in the formulation of the policies, regulations and rules related to the Indian automobile industry. It is a link between the industry and other bodies including the government. It works with various international bodies like OICA, IMMA, UNECE, etc and counterpart associations like VDA, SMMT, JAMA, TAIA, AFM, ANFIA, etc.

SIAM works towards holistic development of the industry with its activities spanning over three broad areas – Economic & International Trade Policy, Technical Policy and activities related to Environment & Safety Awareness. Environment protection and safety are the key driving principles. Dissemination of information is an integral part of the Society's activities. It publishes monthly industry statistics, other reports and organizes various informative seminars/workshops.

Auto Expo, a biennial auto exhibition, is one of the major activities of the society. It is planning other regional and segment shows across the country and abroad.

SIAM aspires to be a catalyst in the sustainable development of the automobile industry in India.

Note to the Reader

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