**EXECUTIVE SUMMARY (1/3)**

<table>
<thead>
<tr>
<th>Category</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Third-largest automobile industry by 2016E</strong></td>
<td>2.40%</td>
<td>8.00%</td>
</tr>
<tr>
<td><strong>World’s second-largest two wheeler manufacturer</strong></td>
<td>18.5 million</td>
<td>34 million</td>
</tr>
<tr>
<td><strong>Passenger vehicle sales to nearly triple by 2020E</strong></td>
<td>3.2 million</td>
<td>10 million</td>
</tr>
</tbody>
</table>

By 2020, India’s share in the global passenger vehicle market to touch 8 per cent from 2.40 per cent in 2015

Two wheeler production to rise from 18.5 million in FY15 to 34 million by FY20E

Passenger vehicle production to increase from 3.2 million in FY15 to 10 million in FY20


For updated information, please visit www.ibef.org

JANUARY 2016
EXECUTIVE SUMMARY (2/3)

Domestic Sales of Passenger vehicles will grow from 2.6 million in 2015 to 9.4 to 13.4 million in 2026.

Domestic Sales of Commercial vehicles will grow from 0.6 million in 2015 to 2.0 to 3.9 million in 2026.

Domestic Sales of Three wheelers will grow from 0.4 million in 2010 to 0.5 million in 2015.

Domestic Sales of Passenger vehicles in India is expected to increase at a CAGR of 12.39% during 2015-26.

Domestic Sales of Commercial vehicles in India is expected to increase at a CAGR of 11.57% during 2015-26.

Domestic Sales of Three wheelers in India increased at a CAGR of 3.9% during 2010-15.

Domestic Sales of Two wheelers is the most growing segment. The total domestic sales of two wheelers will grow from 16.0 million in 2015 to 50.60 to 55.5 million in 2026.

Automobile exports will grow at a CAGR of 2.77% during 2015-26.

Passenger Vehicles, Commercial Vehicles, Three Wheelers and Two Wheelers grew by 6.44 percent, 4.20 percent, 8.92 percent and 11.97 percent CAGR during 2010-15.

Domestic Sales of Two wheelers in India is expected to increase at a CAGR of 11.03% during 2015-26.
Growing demand

- Strong growth in demand due to rising income, middle class, and a young population is likely to propel India among the world’s top five auto manufacturers by 2015
- Growth in export demand is set to accelerate
- Government takes initiatives to set up manufacturing plants through Make in India

Innovation opportunities

- Tata Nano and the upcoming Pixel have opened up the potentially large ultra-low-cost car segment
- Innovation is likely to intensify among engine technology and alternative fuels

Rising investments

- India has significant cost advantages; auto firms save 10-25 per cent on operations vis-à-vis Europe and Latin America
- A large pool of skilled manpower and a growing technology base would induce greater investments

Policy support

- The government aims to develop India as a global manufacturing as well as R&D hub
- There has been a wide array of policy support in the form of sops, taxes and FDI encouragement
- The Automotive Mission Plan 2016-26 (AMP 2026) targets a fourfold growth in the automotive industry.

FY15
Market size: USD74 billion

FY26E
Market size: USD260 to 300 billion

Notes: R&D – Research and Development; FDI – Foreign Direct Investment; FY – Indian Financial Year (April – March); FY26E – Estimated figure for Financial Year 2026
AUTOMOBILES

MARKET OVERVIEW AND TRENDS

JANUARY 2016
EVOLUTION OF THE INDIAN AUTOMOTIVES SECTOR

Source: Tata Motors, Society of Indian Automobile Manufacturers (SIAM), TechSci Research
Notes: JV – Joint Venture, GST: Goods and Service Tax

Before 1982
- Closed market
- Five players
- Long waiting periods and outdated models
- Seller’s market

0.4 million units (1982)

1983–92
- Joint Venture (JV): Indian government and Suzuki formed Maruti Udyog; commenced production in 1983
- Component manufacturers entered the market via JV
- Buyer’s market

0.6 million units (1992)

1993–2007
- Sector de-licensed in 1993
- Major Original Equipment Manufacturers (OEMs) started assembly operations in India
- Imports permitted from April 2001
- Introduction of value-added tax in 2005

11 million units (2007)

2008 onwards
- More than 35 market players
- Indian companies gaining acceptance on a global scale
- Setting up of National Automotive Board to act as facilitator between the government and industry
- Government has proposed GST to support lower raw material cost
- Launch of Automotive Mission Plan 2016-26 in 2015

21.5 million units (FY14)

23.4 million units (FY15)

AUTOMOBILES

JANUARY 2016

For updated information, please visit www.ibef.org
AUTOMOBILES

THE AUTOMOTIVES MARKET IS SPLIT INTO FOUR SEGMENTS

- Two-wheelers
  - Mopeds
  - Scooters
  - Motorcycles
  - Electric two-wheelers

- Passenger vehicles
  - Passenger cars
  - Utility vehicles
  - Multi-purpose vehicles

- Commercial vehicles
  - Light commercial vehicles
  - Medium and heavy commercial vehicles

- Three-wheelers
  - Passenger carriers
  - Goods carriers
The gross turnover of automobile manufacturers in India expanded at a CAGR of 11.72 per cent over FY07-15

* The domestic Two Wheelers segment accounted for 81% of the total domestic market share* for the year 2014-15

Gross Turnover over the past few years
(USD billion)

Source: SIAM, TechSci Research
Note: * Does not include three wheelers
Production of automobiles increased at a CAGR of 10.5 per cent over FY05-15.

Two wheeler vehicle was the fastest growing segment, representing a CAGR of 10.86 per cent, followed by passenger vehicle segment with CAGR of 10.31 per cent between FY05-15.

**Total production of automobiles in India (million units)**

Source: SIAM, TechSci Research

Note: CAGR – Compound Annual Growth Rate
Two wheelers dominate production volumes; in FY15, the segment accounted for about 79.17 per cent of the total automotive production in the country.

India is world’s sixth largest vehicles manufacturer globally. Further, India is the Asia’s second largest two wheeler manufacturer and fifth largest producer of commercial vehicles, fourth largest manufacturer of passenger car and the largest manufacturer of tractors.

**Market share by volume (FY15)**

- **Two Wheelers:** 79.17%
- **Passenger Vehicles:** 13.78%
- **Three Wheelers:** 4.06%
- **Commercial Vehicles:** 2.98%

*Source: SIAM, TechSci Research*
MARKET BREAK-UP OF INDIVIDUAL SEGMENTS BY PRODUCTION VOLUME … (1/2)

Share in production of passenger vehicles (FY15)

- Passenger Cars: 74.12%
- Utility Vehicles (Uvs): 20.72%
- Vans: 5.14%

Share in production of commercial vehicles (FY15)

- Total M&HCVs: 63.43%
- Total LCVs: 36.57%

Source: SIAM, TechSci Research
Notes: LCV – Light Commercial Vehicle; MCV – Medium Commercial Vehicle; HCV – Heavy Commercial Vehicle; M&HCVs – Medium and Heavy Commercial Vehicles
AUTOMOBILES

MARKET BREAK-UP OF INDIVIDUAL SEGMENTS BY PRODUCTION VOLUME … (2/2)

Share in production of three-wheelers (FY14)
- Goods Carrier: 80%
- Passanger Carrier: 20%

Share in production of two-wheelers (FY15)
- Mopeds: 4.14%
- Scooter: 25.36%
- Motor Cycle: 70.50%

Source: SIAM, TechSci Research
Automobile export volumes increased at a CAGR of 17.79 per cent over FY05–15

Two-wheeler segment reported the fastest growth (20.1 per cent) followed by three-wheelers (14.8 per cent) over FY05–15

Exports of automobiles from India (million units)

<table>
<thead>
<tr>
<th></th>
<th>Passenger Vehicle</th>
<th>Commercial Vehicle</th>
<th>Three Wheelers</th>
<th>Two Wheelers</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY05</td>
<td>0.2</td>
<td>0.1</td>
<td>0.4</td>
<td>0.2</td>
</tr>
<tr>
<td>FY06</td>
<td>0.2</td>
<td>0.1</td>
<td>0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>FY07</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>FY08</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
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<tr>
<td>FY09</td>
<td>0.3</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>FY10</td>
<td>0.4</td>
<td>0.2</td>
<td>0.1</td>
<td>0.4</td>
</tr>
<tr>
<td>FY11</td>
<td>0.4</td>
<td>0.3</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>FY12</td>
<td>0.5</td>
<td>0.4</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>FY13</td>
<td>0.6</td>
<td>0.4</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>FY14</td>
<td>0.6</td>
<td>0.4</td>
<td>0.1</td>
<td>0.6</td>
</tr>
<tr>
<td>FY15</td>
<td>2.5</td>
<td>0.4</td>
<td>0.1</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Source: SIAM, TechSci Research
Two wheelers accounted for the largest share in exports (by volume) at 68.77 per cent in FY15.

Passenger vehicles comprised a sizeable 17.42 per cent of overall exports.

Exports of three wheeler vehicles registered around 11.42 per cent share in exports in FY15.

Source: SIAM, TechSci Research
* Auto sales across categories domestically rose by 7.22 per cent in FY15

* Passenger vehicles grew by 3.90 per cent in FY15
  * Passenger car segment increased by 4.99 per cent in 2015
  * SUVs increased by 30 per cent

* Commercial vehicles declined by 2.83 per cent in FY15
  * LCVs declined by 11.57 per cent in FY15
  * MCVs and HCVs increased by 16.02 per cent in FY15

* Three wheelers grew by 10.80 per cent in FY15

* Two-wheelers registered a growth of 8.09 per cent during FY15

Source: SIAM, TechSci Research, News articles
Notes: E – Estimate, UV – Utility Vehicle
### National Electric Mobility Mission Plan (NEMMP) 2020

#### AUTOMOBILES

- **Passenger vehicles** to increase at a **CAGR of 25.6 per cent** during FY15–20

- **Commercial vehicles** expected to register a **CAGR of 30.9 per cent** during FY15–20

- **Two and Three wheelers** projected to expand at a **CAGR of 12.6 per cent** during FY15–20

### Jan 2016

<table>
<thead>
<tr>
<th>Year</th>
<th>FY15</th>
<th>FY16</th>
<th>FY20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Vehicles</td>
<td>3.2 million</td>
<td>5.1 million</td>
<td>10 million</td>
</tr>
<tr>
<td>CAGR</td>
<td>25.6%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>FY15</th>
<th>FY16</th>
<th>FY20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Vehicles</td>
<td>0.7 million</td>
<td>1.4 million</td>
<td>2.7 million</td>
</tr>
<tr>
<td>CAGR</td>
<td>30.9%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>FY15</th>
<th>FY16</th>
<th>FY20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two and Three Wheelers</td>
<td>19.4 million</td>
<td>21 million</td>
<td>35.1 million</td>
</tr>
<tr>
<td>CAGR</td>
<td>12.6%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** SIAM, NEMMP 2020, TechSci Research  
**Note:** Denomination - Million Units  
For updated information, please visit [www.ibef.org](http://www.ibef.org)
LUXURY CARS GAINING TRACTION IN INDIA

Scenario
The Indian luxury car market expanded at a CAGR of 37.12 per cent during FY07-15, with 50,000 units in 2015 (about 1 per cent of the passenger vehicle market in India). The market is dominated by players such as BMW, Mercedes, Audi, Jaguar. Audi sold 11,292 units in 2014-15, while the biggest luxury car seller Mercedes-Benz sold around 11,213 cars in FY15.

Key drivers
India has the world’s 12th-largest HNI population, with a growth of 20.8 per cent (highest among the top 12 countries)
With expansion in the education and realty sectors, and increasing wealth of IT professionals, more consumers aspire to own luxury cars
Affluent class of the country is driving the demand of the luxury cars

Notable trends
The Indian luxury car market is estimated to expand at a CAGR of 25 per cent during 2012–20 and reach 150,000 units by 2020 (accounting for 4 per cent of the estimated 6.8-million-unit domestic car market)
The luxury SUV segment is growing at about 50 per cent, while luxury sedans are increasing 25–30 per cent
Audi to launch Q7 SUV and new sports car TT later in the year.
Merceds Benz is planning to launch 15 new models in India in 2015. The company have increased its production capacity in Pune to 20,000 units.

Note: HNI - High Networth Individuals
The automotives industry is concentrated with leader of each segment commanding a share of over 40 per cent except three wheelers.

<table>
<thead>
<tr>
<th>Market leader</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Passenger vehicles</strong></td>
<td></td>
</tr>
<tr>
<td>Maruti Suzuki</td>
<td>42%</td>
</tr>
<tr>
<td><strong>MCVs &amp; HCVs</strong></td>
<td></td>
</tr>
<tr>
<td>Tata Motors</td>
<td>54.9%</td>
</tr>
<tr>
<td><strong>LCVs</strong></td>
<td></td>
</tr>
<tr>
<td>Tata Motors</td>
<td>53.7%</td>
</tr>
<tr>
<td><strong>Three wheelers</strong></td>
<td></td>
</tr>
<tr>
<td>Bajaj</td>
<td>39.0%</td>
</tr>
<tr>
<td><strong>Motorcycles</strong></td>
<td></td>
</tr>
<tr>
<td>Hero</td>
<td>41.4%</td>
</tr>
<tr>
<td><strong>Scooters</strong></td>
<td></td>
</tr>
<tr>
<td>Honda</td>
<td>54.8%</td>
</tr>
</tbody>
</table>

Source: SIAM, Company annual report TechSci Research
Note: Data is for FY14 except * Motorcycle: Data is for FY15
### NOTABLE TRENDS IN THE INDIAN AUTOMOTIVES SECTOR

| **New product launches** | • Large number of products available to consumers across various segments; this has gathered pace with the entry of a number of foreign players  
  • Reduced overall product lifecycle have forced players to employ quick product launches  
  • In 2015, Mercedes launched the whole new Mercedes Benz B-Class Facelift which has new features like LED daytime running headlamps that are integrated into the cluster and new bumpers |
| **Improving product-development capabilities** | • Increasing R&D investments from both the government and the private sector  
  • Private sector innovation has been a key determinant of growth in the sector; two good examples are Tata Nano and Tata Pixel; while the former has been a success in India, the latter is intended for foreign markets |
| **Alternative fuels** | • The CNG distribution network in India is expected to increase due to the new geographical areas allocated through 5th and 6th round of CGD bidding by Petroleum and Natural Gas Regulatory Board(PNGRB)  
  • The CNG station in India increased from 142 stations in 2005 to 1010 station in FY15 in 12 major states. |
| **New financing options** | • Carmakers such as BMW, Audi, Toyota, Skoda, Volkswagen and Mercedes-Benz have started providing customised finance to customers through NBFCs  
  • Major MNC and Indian corporate houses are moving towards taking cars on operating lease instead of buying them |

Source: Ministry of Petroleum & Natural Gas  
Note: NBFCs - Non-Banking Finance Companies
AUTOMOBILES

NOTABLE TRENDS IN THE INDIAN AUTOMOTIVES SECTOR

Investments

The Indian automobile industry attracts foreign direct investment (FDI) worth around USD13.48 billion during the period from April 2000 to June 2015.

51 per cent share of French based Peugeot Motorcycles (PMTC) has been acquired by Mahindra Two Wheelers Limited (MTWL) in January, 2015

DSK Hyosung has announced to set up a plant to introduce more models in the 250cc segment in Maharashtra and also the company is planning to add 10-15 dealerships in the next financial year (FY15-16) mostly in the tier-II cities.

Notable trends

Government of India allows 100 per cent FDI under automatic route while excise duty on commercial vehicles, scooters, motorcycles and small cars was reduced to 8 per cent from 12 per cent to boost the ‘Make in India’ initiative.

Under Union Budget 2015-16, the government has announced to provide credit of USD14100 to farmers to boost the tractor segment.

The government plans to promote eco friendly cards such as hybrid vehicles, electrical vehicles, CNG based vehicle in India.

Source: News Articles
AUTOMOBILES

PORTER FIVE FORCES ANALYSIS

JANUARY 2016
**AUTOMOBILES**

**PORTERS FIVE FORCES ANALYSIS**

<table>
<thead>
<tr>
<th>Competitive Rivalry</th>
<th>Threat of New Entrants</th>
<th>Substitute Products</th>
<th>Bargaining Power of Suppliers</th>
<th>Bargaining Power of Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Competitive rivalry has increased post liberalisation to a great extent</td>
<td>• The threat of new entrants is generally medium because of the brand equity and capital intensive nature of the business</td>
<td>• The threat from substitute products continues to be low, with public transportation being under developed even in cities</td>
<td>• Bargaining power of suppliers is low as most of the auto component manufacturers are specialised in some segments related to only one client</td>
<td>• In a market, like India there is lot of bargaining power available to the customers as there are variety of products available in the same range, by different manufacturers</td>
</tr>
<tr>
<td>• The competition has turned more intense after the entry of foreign players like Volkswagen and Ford in low-priced hatchback segment</td>
<td>• But, considering India, foreign firms (with capital) have done pretty well</td>
<td>• Changing travel patterns and the convenience give it an edge</td>
<td>• Suppliers, in turn depend on them</td>
<td>• It still depends on the markets</td>
</tr>
<tr>
<td>• Foreign firms have aggravated the competition by changing their traditional designs and substituting it to cater Indian needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Threat of New Entrants (Low)**

**Substitute Products (Low)**

**Bargaining Power of Customers (High)**

**Bargaining Power of Suppliers (Low)**

**Competitive Rivalry (High)**

For updated information, please visit www.ibef.org
Every company wants to increase its capacity in order to increase its market share in automobile industry. Moreover, Nissan and Mercedes is planning to increase their capacity in Chennai and Chakan respectively.

- Most of the companies eyeing India as an outsourcing hub.
- Honda is planning to expand its capacity for cars and bikes by investing USD158 million.

In 2015, new models of cars were launched in India. They are Audi Q7 (New Generation), Audi S5, Maruti Wagon R Stingray, Toyota Land Cruiser 200, Maruti Baleno, Chevrolet Trailblazer, Fiat Punto EVO, Fiat Abarth Avventura, Fiat Abarth Punto and Maruti Ciaz.

- Each and every firm is now focusing on shelling out a chunk of their profits on advertisement
- The idea is to make the customers more brand conscious and increasing brand positioning
- This is giving the firms differential advantage. Success today lies in structuring and restructuring strategies

India boasts a large population of middle class
- Most of the firms including Ford and Volkswagen have adapted themselves to cater to this class by dropping their traditional structure and designs
- This allows them to compete directly with domestic firms making the sector highly competitive
CAPITALISING ON STRONG DEMAND AND PRODUCT INNOVATION

Growing demand
- Rising income, young population
- Greater availability of credit and financing options
- Strong growth in exports, Improved Infrastructure

Policy support
- Goal of establishing India as an auto-manufacturing hub
- R&D focus; GOI has set up a technology modernisation fund
- Policy sops, FDI encouragement

Increasing investments
- Rising investments from domestic and foreign players
- Greater product innovation; market segmentation
- Demand projected to remain strong, making returns attractive

Note: GOI – Government of India
RISING INCOME AND MIDDLE-CLASS POPULATION DRIVING GROWTH IN DOMESTIC DEMAND

Increasing income and middle-class population

- GDP per capita has grown from USD1,430.19 in 2010 to USD1,595.7 in 2014, and is expected to reach USD2,128.78 by 2018(E)

- Apart from the impact of rising incomes, widening of the consumer base will also be aided by expansion of the middle class, increasing urbanisation, and changing lifestyles

- A young population is boosting demand for cars

- Demand for commercial vehicles increased due to the development of roadways and greater market access

Changing income dynamics of India’s population

<table>
<thead>
<tr>
<th>Year</th>
<th>Global (&gt;22065.3)</th>
<th>Strivers (11032.7-22065.3)</th>
<th>Seekers (4413.1-11032.7)</th>
<th>Aspirers (1985.9-4413.1)</th>
<th>Deprived (&lt;1985.9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2%</td>
<td>23%</td>
<td>43%</td>
<td>26%</td>
<td>30%</td>
</tr>
<tr>
<td>2020</td>
<td>1%</td>
<td>6%</td>
<td>40%</td>
<td>25%</td>
<td>26%</td>
</tr>
<tr>
<td>2030</td>
<td>1%</td>
<td>3%</td>
<td>29%</td>
<td>17%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Note: E-Expected

For updated information, please visit www.ibef.org
EASIER ACCESS TO CREDIT A KEY DETERMINANT OF GROWTH IN AUTOMOTIVES

Easy availability of credit

• Greater access to credit eases the purchase of passenger and commercial vehicles

• The Indian car finance market is growing at a CAGR of 13.20 per cent from the year 2010-15 and it is expected to grow to USD30.43 billion by 2020.

• BMW, Audi, Toyota, Skoda, Volkswagen and Mercedes-Benz have started providing customized finance to customers, dealers and suppliers through dedicated Non-Banking Finance Companies (NBFCs)

Indian car finance market size

Source: Kotak Mahindra Prime, TechSci Research
Note: Greater distributional efficiencies, increasing demand (especially from rural areas) due to rising disposable incomes have created new markets for products within the country
mn – million; bn - billion
**AUTOMOBILES**

### INDIA HAS A SIGNIFICANT COMPETITIVE ADVANTAGE VIS-À-VIS PEERS (FY14)

<table>
<thead>
<tr>
<th>Region</th>
<th>Design and engineering skills</th>
<th>Manufacturing skills</th>
<th>Manpower costs</th>
<th>Supplier base</th>
<th>Raw materials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>East Asia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea</td>
<td>Blue</td>
<td>Blue</td>
<td>Brown</td>
<td>Blue</td>
<td>Blue</td>
</tr>
<tr>
<td>China</td>
<td>Blue</td>
<td>Yellow</td>
<td>Blue</td>
<td>Yellow</td>
<td>Yellow</td>
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<tr>
<td>Thailand</td>
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<td>Blue</td>
<td>Brown</td>
<td>Blue</td>
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</tr>
<tr>
<td>Indonesia</td>
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<tr>
<td>Vietnam</td>
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<td>Blue</td>
</tr>
<tr>
<td><strong>Central &amp; Eastern Europe</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Blue</td>
<td>Blue</td>
<td>Brown</td>
<td>Blue</td>
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</tr>
<tr>
<td>Romania</td>
<td>Blue</td>
<td>Yellow</td>
<td>Blue</td>
<td>Yellow</td>
<td>Yellow</td>
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<tr>
<td>Poland</td>
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<td>Slovakia</td>
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<td>Russia</td>
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<tr>
<td>Hungary</td>
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<td>Turkey</td>
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</tr>
<tr>
<td><strong>Latin America</strong></td>
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</tr>
<tr>
<td>Brazil</td>
<td>Blue</td>
<td>Blue</td>
<td>Blue</td>
<td>Blue</td>
<td>Blue</td>
</tr>
<tr>
<td>Mexico</td>
<td>Blue</td>
<td>Blue</td>
<td>Brown</td>
<td>Blue</td>
<td>Brown</td>
</tr>
</tbody>
</table>

- **Blue** represents less competitive than India.
- **Brown** represents in competition with India.

*Source: ACMA, TechSci Research*
## STRONG POLICY SUPPORT HAS BEEN CRUCIAL IN DEVELOPING THE SECTOR

<table>
<thead>
<tr>
<th>Policy/Plan</th>
<th>Support Details</th>
</tr>
</thead>
</table>
| **Auto Policy 2002**               | • Automatic approval for foreign equity investment up to 100 per cent; no minimum investment criteria  
• Encourage R&D by offering rebates on R&D expenditure                                                                                       |
| **Automotive Mission Plan (AMP) 2006–16** | • AMP’s vision is to make India a preferred destination for designing and manufacturing of automobiles and achieve a market size of USD154 billion by 2016  
• Setting up of a technology modernisation fund focused on SMEs                                                                                   |
| **NATRiPs**                        | • Set up at a total cost of USD388.5 million to enable the industry to be on par with global standards  
• Nine R&D centers of excellence with focus on low-cost manufacturing and product development solutions                                                                 |
| **Dept. of Heavy Industries & Public Enterprises** | • Worked towards reduction of excise duty on small cars and increase budgetary allocation for R&D  
• Weighted increase in R&D expenditure to 200 per cent from 150 per cent (in-house) and 175 per cent from 125 per cent (outsourced)                                                                 |
| **Union Budget FY15-16**           | • Excise duty on chassis for Ambulance reduced from 24 per cent to 12.5 per cent. Basic Customs Duty on Commercial Vehicles increased from 10 per cent to 20 per cent. General excise duty rate increased to 12.5% from 12%, thereby increasing excise duty on small cars, commercial vehicles, two wheelers and three wheelers |
| **The Automotive Mission Plan 2016-26 (AMP 2026)** | • AMP 2026 targets a fourfold growth in the automobiles sector in India which includes the manufacturers of automobiles, auto components and tractor industry over the next ten years |
| **FAME (April, 2015)**             | • Planning to implement Faster Adoption & Manufacturing Of Electric Hybrid Vehicles (FAME) till 2020 which would cover all vehicle segments, all forms of hybrid and pure electric vehicles |


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STRONG POLICY SUPPORT HAS BEEN CRUCIAL IN DEVELOPING THE SECTOR

Following are the recent agreement and framework done by Indian government:-

- Framework Agreement for establishing Free Trade between India and Thailand
- India-Sri Lanka Bilateral Free Trade Area and the Proposal for Comprehensive Economic Partnership Agreement
- Framework Agreement on Comprehensive Economic Co-operation between the Association of South East Asian Nations (ASEAN) and India.
- Agreement on South Asian Trade Free Trade Area (SAFTA)
- India-SACU (Southern African Customs Union) Framework Agreement
- India-GCC (Gulf Cooperation Council) Framework Agreement
- Joint Study Group between India and Republic of Korea, and India and Japan
- India-Singapore Comprehensive Economic Cooperation Agreement (CECA)

## BOOST TO R&D IN THE AUTO COMPONENTS SECTOR - NATRIP CENTRES

<table>
<thead>
<tr>
<th>Business description</th>
<th>Business description</th>
</tr>
</thead>
</table>
| VRDE, Ahmednagar    | • Research, design, development and testing of vehicles  
 |                     | • Centre of excellence for photometry, Electromagnetic Compatibility (EMC) and test tracks  
| Indore — NATRAX     | • Complete testing facilities for all vehicle categories  
 |                     | • Centre of excellence for vehicle dynamics and tyre development  
 |                     | • In October 2014, Powertrain LAB facility has been inaugurated to support R&D  
| ARAI, Pune          | • Services for all vehicle categories  
 |                     | • Centre of excellence for power-train development and material  
| Tamil Nadu          | • Complete homologation services for all vehicle categories  
 |                     | • Centre of excellence for infotronics, EMC and passive safety  
| Rae Bareilly Centre| • Services to agri-tractors, off-road vehicles and a driver training centre  
 |                     | • Centre of excellence for accident data analysis  
| iCAT, Manesar       | • Services to all vehicle categories  
 |                     | • Centre of excellence for component development, Noise Vibration and Harshness (NVH) testing  
 |                     | • Setting up of Vehicle and Engine Test Cells in 2015  
| Silchar Centre, Assam| • Research, design, development and testing of vehicles  
 |                     | • Centre of excellence for photometry, EMC and test tracks  
 |                     | • First batch of driving training project has been completed in August, 2015  

EMERGENCE OF LARGE AUTOMOTIVE CLUSTERS IN THE COUNTRY

**Source:** ACMA, TechSci Research

**List of companies**

**North**
- Ashok Leyland
- Force Motors
- Piaggio
- Swaraj
- Mazda
- Amtek Auto
- Eicher
- Honda SIEL
- Maruti Suzuki
- Tata Motors
- Bajaj Auto
- Hero Group
- Escorts
- ICML
- JCB
- Yamaha
- Mahindra
- Suzuki Motorcycles

**West**
- Ashok Leyland
- Bajaj Auto
- FIAT
- GM
- M&M
- Eicher
- Skoda
- Bharat Forge
- Tata Motors
- Volkswagen
- Renault-Nissan
- John Deere
- Mercedes Benz
- Tata Hitachi
- Volvo
- Eicher

**East**
- Tata Motors
- Hindustan Motors
- Simpson & Co
- International Auto Forgings
- JMT
- Exide

**South**
- Ashok Leyland
- Ford
- M&M
- Toyota Kirloskar
- Volvo
- Sundaram Fasteners
- Enfield
- Hyundai
- BMW
- Bosch
- TVS Motor Company
- Renault-Nissan
- TAFE
- Daimler
- Caterpillar
- Hindustan Motors

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Source: ACMA, TechSci Research

For updated information, please visit [www.ibef.org](http://www.ibef.org)
FDI inflows in the automotives sector aggregated USD13.5 billion (5 per cent of the total FDI) over April 2000 – June 2015.

FDI trends over the past few years (USD billion)

- FY10: 4.6
- FY11: 5.9
- FY12: 6.7
- FY13: 8.3
- FY14: 9.8
- FY15: 12.4
- FY16*: 13.5

Source: Department of Industrial Policy & Promotion (India), TechSci Research
Note: * indicates FY16 up-to June 2015.
Global car majors have been ramping up investments in India to cater to the growing domestic demand. Also, these manufacturers plan to leverage India’s competitive advantage to set up export-oriented production hubs.

- Planning to double its current investment level of about USD 2.5 billion over the next five years
- Aims to raise its market share from 1.5 per cent in FY13 to 10 per cent by FY19
- To increase the Chennai Plant capacity to 400,000 units a year in a few years time

- On 10th September 2015, Ford has signed a MoU with the Tamil Nadu government for increasing the manufacturing capacity of its plant and for establishing new engineering and technology center at Chennai.
- Long term strategy to export 25 per cent of vehicles and to make India compact car global production base

- Is in the process of expanding its dealer network from 33 in January 2013 to 50 by 2014 end
- Plans to raise the number of car offerings in the sub USD 46,000 category

- Plans to launch up to eight models over the next 5–6 years

- Honda is planning to invest USD 160 million in India to expand its capacity for cars and bike by the end of 2016
- This will include a new diesel engine component production and a forging plant

- Expects to invest another USD 163 million at Bidadi plant near Bengaluru
- Toyota is planning invest USD 165 million on its new engine plants and projects

- Plans to invest USD 552-737 million over the next two to three years to develop new products

- Increased the plant capacity of 20,000 units per year in Chakan Plant, which is the largest for any luxury car manufacturer in India.
- Expansion of MIDC and MoU, and to invest USD 244 mn for capacity expansion in Chakan, Pune
- Mercedes-Benz will introduce 15 products in 2015, including products without any predecessors in India. These 15 new products are Mercedes-Benz India’s biggest product initiative till date.
## OPPORTUNITIES

### India is fast emerging as a global R&D hub

- Strong support from the government; setting up of NATRiP centres
- Private players, such as Hyundai, Suzuki, GM, keen to set up R&D base in India
- Strong education base, large skilled English-speaking manpower
- Comparative advantage in terms of cost
- Firms both National and Foreign are increasing their footprints with over 1,031 centers
- Indian automobile industries invests USD100 billion for R&D sector annually

### Opportunities for creating sizeable market segments through innovations

- The world’s cheapest car (Tata Nano) has directed focus on the low-income market
- Bajaj Auto, Hero Honda and M&M plan to jointly develop a technology for two-wheelers to run on natural gas
- Electric cars likely to be a sizeable market segment in the coming decade
- Tata Motors to launch MiniCAT, a car running on compressed air, thereby stepping into the next era where cars would not require any fossil fuel and emissions would be almost nil

### Small-car manufacturing hub

- General Motors, Nissan and Toyota announced plans to make India their global hub for small cars
- Passenger vehicle market is expected to touch 10 million units by 2020
- Strong export potential in ultra low-cost cars segment (to developing and emerging markets)

Note: M&M – Mahindra & Mahindra
MARUTI SUZUKI: CONTINUING TO REMAIN MARKET LEADER

- **Continuing market leadership**
- **Product portfolio expansion**
- **Increased productivity**
- **Enhanced R&D capability**
- **Capacity expansion**
- **Roll-out of people’s car (Maruti 800)**

1983: Roll-out of people’s car (Maruti 800)
1994: Production of 1 millionth car
1997: In the process of establishing Suzuki’s largest R&D facility outside Japan
2001: Product portfolio comprising 16 passenger vehicle models
2004: Accounted for 45 per cent share in the Indian car market
2007: To launch six new models by the end of this year
2010: Signed a manufacturing agreement with Suzuki Motor Gujarat Private Limited in October 2015
2011: Roll-out of 10 millionth car
2014-15: Total sales crossed 0.13 million units

Source: Company website, TechSci Research

For updated information, please visit www.ibef.org
TATA MOTORS: LEADING IN TERMS OF INNOVATION AND GLOBAL PRESENCE

Consolidated revenue for 2015 is USD43.76 billion

Introduction of Megapixel, an electric vehicle

JV with Daimler AG

Launch of the first indigenous CV

Disruptive innovation

Production of first indigenously designed LCV

Market expansion

Acquired stake in Hipo Carrocera SA

Product portfolio expansion

Launched Indica, India's first fully indigenous passenger car

Enhancing R&D capability

Acquisition of Jaguar and Landrover

Acquisitions

Launched Tata Nano

Establishment of Tata Engineering & Locomotives

Joint Ventures

Launched Tata Nano

Revenue in 2015

Source: Company website, TechSci Research

AUTOMOBILES

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For updated information, please visit www.ibef.org

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India
Phone: 91 11 24647810–2
Fax: 91 11 24648222
E-mail: siam@siam.in
GLOSSARY ... (1/2)

* **CAGR**: Compound Annual Growth Rate
* **CV**: Commercial Vehicle
* **FDI**: Foreign Direct Investment
* **FY**: Indian Financial Year (April to March)
  * So FY10 implies April 2009 to March 2010
* **GOI**: Government of India
* **HCV**: Heavy Commercial Vehicle
* **INR**: Indian Rupee
* **LCV**: Light Commercial Vehicle
* **OEM**: Original Equipment Manufacturers
* **PV**: Passenger Vehicle
* **SIAM**: Society of Indian Automobile Manufacturers
ULCC: Ultra Low Cost Car

USD: US Dollar

Wherever applicable, numbers have been rounded off to the nearest whole number
## Exchange Rates

### Exchange rates (Fiscal Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR equivalent of one USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004–05</td>
<td>44.81</td>
</tr>
<tr>
<td>2005–06</td>
<td>44.14</td>
</tr>
<tr>
<td>2006–07</td>
<td>45.14</td>
</tr>
<tr>
<td>2007–08</td>
<td>40.27</td>
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<tr>
<td>2008–09</td>
<td>46.14</td>
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<tr>
<td>2009–10</td>
<td>47.42</td>
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<tr>
<td>2010–11</td>
<td>45.62</td>
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<tr>
<td>2011–12</td>
<td>46.88</td>
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<td>2012–13</td>
<td>54.31</td>
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<td>2013–14</td>
<td>60.28</td>
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<tr>
<td>2014-15</td>
<td>61.06</td>
</tr>
<tr>
<td>2015-16(Expected)</td>
<td>61.06</td>
</tr>
</tbody>
</table>

### Exchange rates (Calendar Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR equivalent of one USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>43.98</td>
</tr>
<tr>
<td>2006</td>
<td>45.18</td>
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<td>2007</td>
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<td>2008</td>
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<td>2013</td>
<td>58.44</td>
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<tr>
<td>2014</td>
<td>61.03</td>
</tr>
<tr>
<td>2015(Expected)</td>
<td>63.72</td>
</tr>
</tbody>
</table>

Source: Reserve bank of India, Average for the year

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