**EXECUTIVE SUMMARY**

<table>
<thead>
<tr>
<th>Robust growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Over the last decade, automotive components industry registered a CAGR of 10.06 per cent, reaching US$ 56.52 billion in FY19, with export growing at a CAGR of 8.34 per cent during FY14-FY19 to reach US$ 15.17 billion in FY19.</td>
</tr>
<tr>
<td>• Indian tyre industry expects a 7-9 per cent growth during FY19-23.</td>
</tr>
<tr>
<td>▪ The capital expenditure by domestic automotive component manufactures’ is expected to be around Rs 24,000 crore (US$ 33.26 billion) in FY19 and FY20.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rising indigenisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ The growth of global original equipment manufacturers’ (OEM) sourcing from India &amp; the increased indigenisation of global OEMs is turning the country into a preferable designing and manufacturing base.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Increasing turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ The Indian auto components industry is expected to register a turnover of US$ 100 billion by 2020 backed by strong export (ranging between US$ 80-100 billion) by 2026.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contribution to GDP and employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ The auto components industry accounted for 2.3 per cent of India’s Gross Domestic Product (GDP), and contributed 25 per cent to its manufacturing GDP and employment to 50 lakh people in 2018-19.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Growing automobile industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ India is expected to become the 4th largest automobiles producer globally by 2020 after China, US &amp; Japan. The auto components industry is also expected to become 3rd largest in the world by 2025.</td>
</tr>
<tr>
<td>▪ Domestic automobile production increased to 30.92 million vehicles in FY19.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electric vehicles push</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ The auto components industry is expected to follow OEMs in adoption of electric vehicle technologies. The global move towards electric vehicles will generate new opportunities for automotive suppliers. The mass conversion to electric vehicles may generate a US$ 300 billion domestic market for electric vehicle (EV) batteries in India by 2030*.</td>
</tr>
<tr>
<td>▪ As per Union Budget 2019-20, the Government moved GST council to lower the GST rate on EV from 12 per cent to 5 per cent. Also, to make EVs affordable to consumers, the Government will provide additional income tax deduction of Rs 1.5 lakh (US$ 2,115) on the interest paid on loans taken to purchase them.</td>
</tr>
</tbody>
</table>

*As per NITI Aayog

**Note:** OEM: Original Equipment Manufacturer, EV – Electric Vehicles

**Source:** ACMA, Make in India, News Articles, ICRA, Crisil
ADVANTAGE INDIA
Growing working population & expanding middle class are expected to remain the key demand drivers.

India is the fourth largest automobile market globally.

Reduction in excise duties in motor vehicles sector will spur the demand for auto components.

India is emerging as global hub for auto component sourcing.

Relative to competitors, India is geographically closer to key automotive markets like the Middle East & Europe.

A cost-effective manufacturing base keeps costs lower by 10-25 per cent relative to operations in Europe & Latin America.

Presence of a large pool of skilled & semi-skilled workforce amidst a strong educational system.

Third largest steel producer globally, hence a cost advantage.

In September 2015, Automotive Mission Plan 2016-26 was unveiled to target a four-fold growth for the sector.

Strong support for R&D & product development by establishing NATRIIP centres.

100 per cent FDI allowed under automatic route for auto components sector.

In January 2019, the Government of India lowered the customs duty on import of parts and components of EVs to 10-15 per cent.

Notes: NATRIIP - National Automotive Testing and R&D Infrastructure Project, FY - Indian Financial Year (April to March), R&D – Research and Development
MARKET OVERVIEW
PRODUCT SEGMENTS

Auto Components

- Engine parts
  - Pistons & piston rings
  - Engine valves & parts
    - Fuel-injection systems & carburetors
    - Cooling systems & parts
    - Power train components
  - Clutches
- Drive transmission & steering parts
  - Gears
  - Steering systems
- Body and chassis
  - Wheels
- Suspension & braking parts
  - Brake & brake assemblies
  - Brake linings
  - Shock absorbers
  - Leaf springs
- Equipment
  - Headlights
  - Halogen bulbs
  - Wiper motors
  - Dashboard instruments
  - Other panel instruments
- Electrical parts
  - Starter motors
  - Spark plugs
  - Electric ignition systems
  - Flywheel magnetos
  - Other equipment
- Others
  - Sheet metal parts
  - Hydraulic pneumatic instruments
  - Fan belts
  - Pressure die castings

Source: ACMA
ROBUST GROWTH

- Revenue rose at a CAGR of 13.11 per cent from US$ 39 billion in FY16 to US$ 56.52 billion in FY19.
- In FY19, revenue grew 14.5 per cent over FY18.
- Domestic OEM supplies contributed almost 56 per cent to the industry turnover followed by exports and domestic aftermarket at nearly 26 per cent and 18 per cent, respectively.
- Export of automobile components from India in FY19 stood at US$ 15.17 billion. As per Automobile Component Manufacturers Association (ACMA) forecast, automobile component exports from India is expected to reach US$ 80 billion by 2026. Indian auto components industry aims to achieve US$ 200 billion in revenues by 2026.
- Turnover of automotive components industry stood at Rs 1.79 lakh crore (US$ 25.61 billion) in FY20 (till September 2019).

Source: ACMA
India’s export of auto components increased at a CAGR of 11.8 per cent during FY16-FY19 as the value increased from US$ 10.83 billion in FY16 to US$ 15.17 billion in FY19.

Europe accounted for 33 per cent volume share of Indian auto component export during FY19, followed by North America and Asia at 29 and 26 per cent, respectively.

In FY20 (till September 2019), export of auto components grew by 2.7 per cent to Rs 51,397 crore (US$ 7.35 billion).

Source: ACMA
India’s auto components aftermarket contributed 17.82 per cent to the total industry turnover in FY19.

Aftermarket turnover increased at a CAGR of 14.10 per cent from US$ 6.8 billion in FY16 to US$ 10.10 billion in FY19 and is expected to reach US$ 32 billion by 2026.

Ford will invest US$ 1 billion in Indian operations over the next 5-7 years.

The ‘Drive Transmission and Steering’ product category accounted for 21 per cent of the aftermarket share followed by ‘Engine Components’ and ‘Electricals’ at 18 per cent each.

Note: Exchange Rates as per page 31
Source: ACMA
Production of two wheelers, passenger vehicles, commercial vehicles and three wheelers reached 21.03 million, 3.43 million, 0.75 million, and 1.13 million, respectively, in FY20.

Passenger vehicles had the highest share of total auto component supplies to OEMs in FY19, followed by two wheelers and light commercial vehicles (LCV).

*Source: ACMA*
### MAJOR PLAYERS BY SEGMENT

#### Engine & engine parts
- Pistons – Goetze, Shriram Pistons & Rings, India Pistons, Anand I-Power Ltd.
- Engine Valves – Rane Engine Valves, Shriram Pistons & Rings, SSV Valves
- Carburetors – Ucal Fuel Systems & Spaco Carburetors & Escorts Auto Components
- Diesel-based fuel-injection systems – Mico, Delphi-TVS Diesel System & Tata Cummins

#### Transmission & steering parts
- Steering Systems – Sona Koyo Steering Systems, Rane NSK Steering Systems & Rane TRW Systems
- Gears – Bharat Gears, Gajra Bevel Gears, ZF Steering Gear (India) Ltd, Eicher, Graziano Trasmissioni & SIAP Gears India
- Clutch – Clutch Auto, Ceekay Daikin, Amalgamations Repco, Luk Clutches
- Driveshafts – GKN Driveshafts, Spicer India Private Ltd., Delphi & Sona Koyo Steering Systems

#### Suspension & braking parts
- Brake Systems – Brakes India, Kalyani Brakes, Mando India Ltd. & Automotive Axles
- Brake Lining – Rane Brake Lining, Sundaram Brake Lining, Hindustan Composites & Allied Nippon
- Leaf Springs – Jamna Auto & Jai Parabolic
- Shock Absorbers – Gabriel India, Delphi, Mando India Ltd. & Munjal Showa

#### Electrical
- Lucas TVS, Denso, Delco Remy Electricals & Nippon Electricals are key players in this segment

#### Equipment
- Headlights – Lumax, Autolite & Phoenix Lamps
- Dashboard – Premiere Instruments & Controls
- Sheet metal parts – Jay Bharat Maruti, Omax Auto and JBM Tools

---

**Note:** OEM means Original Equipment Manufacturer  
**Source:** Media sources
RECENT TRENDS AND STRATEGIES
**Global components sourcing hub**

- Major global OEMs have made India a component sourcing hub for their global operations.
- Several global Tier-I suppliers have also announced plans to increase procurement from their Indian subsidiaries.
- India is also emerging as a sourcing hub for engine components with OEMs increasingly setting up engine manufacturing units in the country.
- For companies like Ford, Fiat, Suzuki and General Motors (GM), India has established itself as a global hub for small engines.
- Varroc Lighting Systems (VLS) is supplying the complete exterior lighting solutions for Tesla Model S sedan and the Tesla Model X crossover.

**Improving product-development capabilities**

- Increased investments in setting-up R&D operations & laboratories to conduct activities such as analysis, simulation & engineering animations.
- The growth of global OEM sourcing from India & increased indigenisation of global OEMs is turning the country into a preferred designing & manufacturing base.
- Faurecia, a global automotive equipment leader, has partnered with Indian Institute of Science (IISc) to develop new technologies and solutions in three areas – online air quality monitoring, data analysis and algorithms for driver behaviour and artificial intelligence for industrial design.

**Inorganic route to expansion**

- In June 2019, Tata AutoComp Systems Limited entered into an equal joint venture (JV) with SECO Seojin of South Korea to design, develop and manufacture clutch systems in India.
- In August 2019, Reliance Industries Ltd and Bharat Petroleum announced a new JV to sell auto fuels and ATF in the country.
- In October 2019, Minda Industries acquired Germany-based automotive lamps firm Delvis Gmbh along with two of its subsidiaries for Rs 164 crore (US$ 23.47 million).
- In January 2020, Tata AutoComp Systems entered a JV with Beijing-based Prestolite Electric to enter the EVs components market.

**Note:** OEM means Original Equipment Manufacturer

**Source:** Media sources
### STRATEGIES ADOPTED

<table>
<thead>
<tr>
<th>New strategies</th>
<th>Diversification</th>
<th>Capacity</th>
<th>R&amp;D facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Both Indian &amp; global manufacturers are investing in new capacities &amp; newer programmes to get long term advantage.</td>
<td>- Many Indian firms specialising in only one product market or segment are looking to diversify in segments like two wheelers, passenger cars or commercial vehicles.</td>
<td>- India’s projected production is around 8.7 million passenger vehicles per year by 2020, with most of them being compact cars.</td>
<td>- According to a study, engineering and R&amp;D market in India is estimated to grow at a CAGR of 14 per cent to reach US$ 40 billion by 2020.</td>
</tr>
<tr>
<td>- As markets in North, West &amp; South of India are getting saturated, component manufacturers are eyeing untapped markets in the Northeast region of the country.</td>
<td>- They are stepping up their product development capabilities in order to have the best chance of capturing growth opportunity.</td>
<td>- Many MNC’s like Ford, Hyundai and Toyota are launching new vehicle models due to their earlier success in the Indian market.</td>
<td>- Looking at the opportunity, many global suppliers like Bosch Chassis Systems, Tenneco and Faurecia have established their R&amp;D facilities in India to adopt global designs &amp; develop new products.</td>
</tr>
<tr>
<td>- Varroc Engineering, India’s second largest auto components producer, is aiming to attract business from sales of EV components like electronics, motors and battery management systems.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Samvardhana Motherson International Limited (SAMIL) announced its JV with Hamakyorex Co. to exploit the expected increase in automotive market.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Make in India, Media Sources
GROWTH DRIVERS
GROWTH DRIVERS

**Demand-side drivers**

- Robust growth in domestic automotive industry
- Increase in investment in road infrastructure
- Growth in working population & middle class income will drive the market

**Supply-side drivers**

- Competitive advantage facilitating emergence of outsourcing hub
- Technological shift and focus on R&D

**Policy support**

- Establishing special auto parks & virtual SEZs for auto components
- Lower excise duty on specific parts of hybrid vehicles
- Policies such as Automotive Mission Plan 2016-26, Faster Adoption & Manufacturing of Electric Hybrid Vehicles (FAME, April 2015) and NMEM 2020 are likely to infuse growth in the auto component sector of the country
- The Government announced National Mission on Transformative Mobility and Battery Storage based on phased manufacturing program (PMP) till 2024
- To install electric vehicle supply equipment (EVSE) infrastructure for EVs, various public sector firms, ministries and railways have come together to create infrastructure and manufacturing components

*Note: NMEM – National Mission For Electric Mobility*

*Source: TechSci Research*
**GROWTH IN THE AUTOMOBILES SECTOR**

**Vehicle production in India (thousand units)**

<table>
<thead>
<tr>
<th></th>
<th>FY20</th>
<th>FY22E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Vehicles</td>
<td>3,434</td>
<td>10,000</td>
</tr>
<tr>
<td>Commercial Vehicles</td>
<td>7,520</td>
<td>2,350</td>
</tr>
<tr>
<td>Two &amp; Three Wheelers</td>
<td>22,170</td>
<td>30,231</td>
</tr>
</tbody>
</table>

**Vehicle Production (in number of units)**

<table>
<thead>
<tr>
<th></th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>FY20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Production</td>
<td>24,016,068</td>
<td>25,329,383</td>
<td>29,733,902</td>
<td>30,915,420</td>
<td>26,362,282</td>
</tr>
</tbody>
</table>

**Vehicles, vehicle parts and transport equipment loan outstanding** (US$ billion) (up to Jun 2019)

<table>
<thead>
<tr>
<th></th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>FY20</th>
</tr>
</thead>
</table>

**Note:**
- (E) – Estimate
- #Loan outstanding at the end of financial year

**Source:**
ACMA, Reserve Bank of India, SIAM
INDIA IS POISED TO EMERGE AS AN OUTSOURCING HUB

- **Hyundai** plans to source gasoline and diesel engines from its India manufacturing operations for domestic and global operations.
  - The company is also planning to invest US$ 300 million for a new engine plant and metal pressing shop in India, and it also has plans to open a second manufacturing plant in Rajasthan.

- **Ford** has expanded its retail distribution network of genuine parts in Gujarat, Daman & Diu and Silvassa.
  - Ford is likely to invest US$ 1 billion in Indian operation over the next 5-7 years.
  - In March 2019, Ford Motors signed five memorandum of understandings (MoUs) with Mahindra and Mahindra (M&M) to jointly develop new SUVs and small EVs. The partnership will leverage Ford’s global reach and expertise with M&Ms presence in the Indian market.

- The company has an export base for certain key engine components in India.
  - As of June 2019, the company planned to invest Rs 630 crore (US$ 89.37 million) in setting up a new production line in Gujarat. This additional 600,000 capacity would push up company’s total capacity to 7 million units by 2020.

- **Toyota Kirloskar Motor** disclosed its fully integrated cloud-based telematics service for the Indian market by the name, Toyota Connect.
  - Toyota India in JV with Kirloskar initiated production of diesel engines at Jigani Industrial Area.

*Source: Respective Company Websites, News Articles*
### FAVOURABLE POLICY MEASURES AIDING GROWTH

| National Electric Mobility Mission Plan (NEMMP) 2020 | - The vision of this scheme is for faster adoption of EVs and their manufacturing in the country.  
- It aims at achieving sales of 6-7 million units of hybrid and EVs by 2020. |
| --- | --- |
| NATRIP | - Set up at a total cost of US$ 388.5 million to enable the industry to adopt & implement global performance standards.  
- Focus on providing low-cost manufacturing & product development solutions. |
| Dept. of Heavy Industries & Public Enterprises | - Created a US$ 200 million fund to modernise the auto components industry by providing interest subsidy on loans & investments in new plants & equipment.  
- Provided export benefits to intermediate suppliers of auto components against Duty-Free Replenishment Certificate (DFRC). |
| Automotive Mission Plan 2016-26 (AMP 2026) | - AMP 2026 targets a four-fold growth in the automobile sector in India, which includes manufacturers’ of automobiles, auto components & tractors over the next 10 years. It is expected to generate an additional employment of 65 million. |
| FAME Scheme | - Aimed at incentivising all vehicle segments – two wheelers, three wheelers, four wheelers, LCVs and buses. It covers hybrid & electric technologies like Mild Hybrid, Strong Hybrid, Plug in Hybrid & Battery Electric Vehicles.  
- In February 2019, the Government of India approved FAME-II scheme with a fund requirement of Rs 10,000 crore (US$ 1.39 billion) for FY20-22.  
- Department of Heavy Industries has sanctioned 2,636 charging stations in 62 cities across 24 States/UTs under FAME-II. |
| Union Budget 2020–21 | - The Government has reaffirmed its commitment towards EVs and its mission for 30 per cent electric mobility by 2030. |

**Note:** NATRIP - National Automotive Testing and R&D Infrastructure Project  
**Source:** SIAM, Make in India
INVESTMENTS HAVE BEEN RISING AT A FAST PACE

- FDI inflow in automotive* sector from April 2000 to December 2019 stood at US$ 23.89 billion.
- With the launch of “Make in India” initiative, the Government is expected to vitalise substantial investment in the auto components sector.
- Higher interest from private equity (PE) and venture capital (VC) investors is expected in India’s EV industry. Investment in EV start-ups stood at US$ 397 million in 2019 (till November 2019).
- Capital expenditure by domestic automotive component manufacturers is expected at around Rs 24,000 crore (US$ 33.26 billion) over the FY19 and FY20.
- In October 2019, Minda Industries acquired Delvis Gmbh, an automotive lamp firm, for approximately Rs 164 crore (US$ 23.47 million).
- Maruti Suzuki India Ltd will start manufacturing batteries in its car manufacturing plant at Hansalpur by 2020.
- In April 2019, Durr, a German automotive painting and sealing company, got into partnership with Patvin to provide automated painting solutions for two or three wheelers and agricultural machinery for the Indian market.
- In February 2020, National Engineering Industries Ltd (NEIL) announced investment of Rs 100 crore (US$ 14.31 million) over the next three years for producing needle roller bearing at its Jaipur facility.
- In February 2020, GP Petroleums Ltd announced plans to invest Rs 100 crore (US$ 14.31 million) in Gujarat.

Note: * - Includes automobiles and auto components
Source: ACMA, DPIIT, News Articles
OPPORTUNITIES
DOMESTIC AND EXPORTS MARKETS HOLD HUGE POTENTIAL

- India’s domestic market is expected to have 71 per cent of the total sales by 2021, accounting for a market size of US$ 115 billion.

- Export will account for 26 per cent of the market by 2021.

**Domestic Market Potential (US$ billion)**

<table>
<thead>
<tr>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>FY21E</th>
</tr>
</thead>
<tbody>
<tr>
<td>43.55</td>
<td>51.20</td>
<td>57.00</td>
<td>115.00</td>
</tr>
</tbody>
</table>

**Export Market Potential (US$ billion)**

<table>
<thead>
<tr>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>FY21E</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.90</td>
<td>13.50</td>
<td>15.16</td>
<td>30.00</td>
</tr>
</tbody>
</table>

**Note:** E – Estimate

**Source:** ACMA
MARKET POTENTIAL BALANCED ACROSS PRODUCT TYPES

Both domestic & export markets are almost similar in terms of potential share by different product types. Engine & Exhaust components along with Body & Structural parts are expected to make up nearly 50 per cent of the potential domestic sales as well as export in 2020.

Transmission and Steering Parts and Electronics and Electrical equipment are likely to be the other key products.

Companies like Exide, Exicom, Amaron, Greenfuel Energy Solutions, Trontek, Coslight India, Napino Auto & Electronics, Amara Raja Batteries, Trinity Energy Systems, and Versatile Auto Components have plans to make lithium-ion batteries to ride the wave of green vehicles.

Note: 2020E – Estimated value for 2020 by ACMA
Source: ACMA, News Sources
## OPPORTUNITIES IN ENGINEERING PRODUCTS

### Engine & Exhaust parts
- New technological changes in this segment include introduction of turbochargers and common rail systems.
- The trend of outsourcing may gain traction in this segment in the short to medium term.

### Transmission & steering parts
- Share of replacement market in sub-segments such as clutches is likely to grow due to rising traffic density.
- The entry of global players is expected to intensify competition in sub-segments such as gears & clutches.

### Suspension & braking parts
- The segment is estimated to witness high replacement demand with players maintaining a diversified customer base in the replacement & OEM segments besides the export market.
- The entry of global players is likely to intensify competition in sub-segments such as shock absorbers.

### Electronics and electricals
- In August 2019, Eaton partnered with Pune-headquartered technology firm, KPIT.
- Tritium will soon be delivering fast charging technology for EVs after the company signed a MoU with Tata AutoComp Systems.

### Others (Metal parts)
- Metal part manufacturers are likely to benefit from rising demand for body & chassis, pressure die castings, sheet metal parts, fan belts, and hydraulic pneumatic instruments, primarily in the two wheelers industry.
- Prominent companies in this business are constantly working towards expanding their customer base.

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**Note:** OEM means Original Equipment Manufacturer  
**Source:** Make in India
Bosch decided to invest Rs 500 – Rs 800 crore (US$ 77.58 – 124.13 million) over the next two years (FY19 and FY20) to expand operations in India and increase R&D to develop products for the global market.

The company is planning to invest over Rs 1,800 crore (US$ 279.29 million) for setting up a new plant in Andhra Pradesh by 2022. The new facility will help the company cater to growing demand for passenger vehicle tyres.

The foundation stone for the plant has been laid and construction of the plant is expected to start in the next 6 months and production is expected to commence within 24 months.

Tata Auto Component Systems is setting up five auto component manufacturing plants in Sanand, Gujarat, at an investment of US$ 62 million. It is also investing US$ 114 million for capacity addition at its Chakan plant in Maharashtra.

HELLA is building its second manufacturing plant in Gujarat with an estimated investment of US$ 5.36 million in the first phase.

NGK Technologies India Pvt Ltd., a subsidiary of NGK Insulators Ltd., has been established to market automotive related & metal components across India.

TVS Group has acquired 90 per cent stake in Universal Components UK Ltd for US$ 19.2 million as part of its expansion plans. Universal Components is a wholesale distributor of commercial vehicle parts. It has also signed a co-operation agreement with BMW Motorrad to develop motorcycles below 500cc segment. The company is looking for new overseas markets.

Lucas TVS, a JV between Lucas UK and TVS, introduced traction motors in 2019, that catered to the growing number of electric rickshaws and electric three-wheeler segments.
KEY INDUSTRY ASSOCIATIONS
<table>
<thead>
<tr>
<th>Automotive Component Manufacturers Association of India (ACMA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6th Floor, The Capital Court,</td>
</tr>
<tr>
<td>Olof Palme Marg, Munirka,</td>
</tr>
<tr>
<td>New Delhi – 110 067, India</td>
</tr>
<tr>
<td>Phone: 91 11 2616 0315, 2617 5873, 2618 4479</td>
</tr>
<tr>
<td>Fax: 91 11 2616 0317</td>
</tr>
<tr>
<td>E-mail: <a href="mailto:acma@acma.in">acma@acma.in</a>; <a href="mailto:acma@vsnl.com">acma@vsnl.com</a></td>
</tr>
</tbody>
</table>
USEFUL INFORMATION
GLOSSARY

- ACMA: Automotive Component Manufacturers Association of India
- CAGR: Compound Annual Growth Rate
- FDI: Foreign Direct Investment
- FY: Indian Financial Year (April to March); So, FY12 implies April 2011 to March 2012
- GOI: Government of India
- INR: Indian Rupee
- OEM: Original Equipment Manufacturers
- NATRiP: National Automotive Testing and R&D Infrastructure Project
- SEZ: Special Economic Zone
- US$: 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 US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004–05</td>
<td>44.95</td>
</tr>
<tr>
<td>2005–06</td>
<td>44.28</td>
</tr>
<tr>
<td>2006–07</td>
<td>45.29</td>
</tr>
<tr>
<td>2007–08</td>
<td>40.24</td>
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<tr>
<td>2008–09</td>
<td>45.91</td>
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<tr>
<td>2009–10</td>
<td>47.42</td>
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<tr>
<td>2010–11</td>
<td>45.58</td>
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<td>2011–12</td>
<td>47.95</td>
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<td>2012–13</td>
<td>54.45</td>
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<tr>
<td>2017–18</td>
<td>64.45</td>
</tr>
<tr>
<td>2018–19</td>
<td>69.89</td>
</tr>
<tr>
<td>2019–20</td>
<td>70.49</td>
</tr>
</tbody>
</table>

### Exchange Rates (Calendar Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR Equivalent of one US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>44.11</td>
</tr>
<tr>
<td>2006</td>
<td>45.33</td>
</tr>
<tr>
<td>2007</td>
<td>41.29</td>
</tr>
<tr>
<td>2008</td>
<td>43.42</td>
</tr>
<tr>
<td>2009</td>
<td>48.35</td>
</tr>
<tr>
<td>2010</td>
<td>45.74</td>
</tr>
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<td>2011</td>
<td>46.67</td>
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<td>2012</td>
<td>53.49</td>
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<td>2013</td>
<td>58.63</td>
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<td>2014</td>
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<tr>
<td>2015</td>
<td>64.15</td>
</tr>
<tr>
<td>2016</td>
<td>67.21</td>
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<tr>
<td>2017</td>
<td>65.12</td>
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<tr>
<td>2018</td>
<td>68.36</td>
</tr>
<tr>
<td>2019</td>
<td>69.89</td>
</tr>
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*Source: Reserve Bank of India, Average for the year*
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