

AUTO COMPONENTS



September 2021

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Executive summary

1. Robust growth

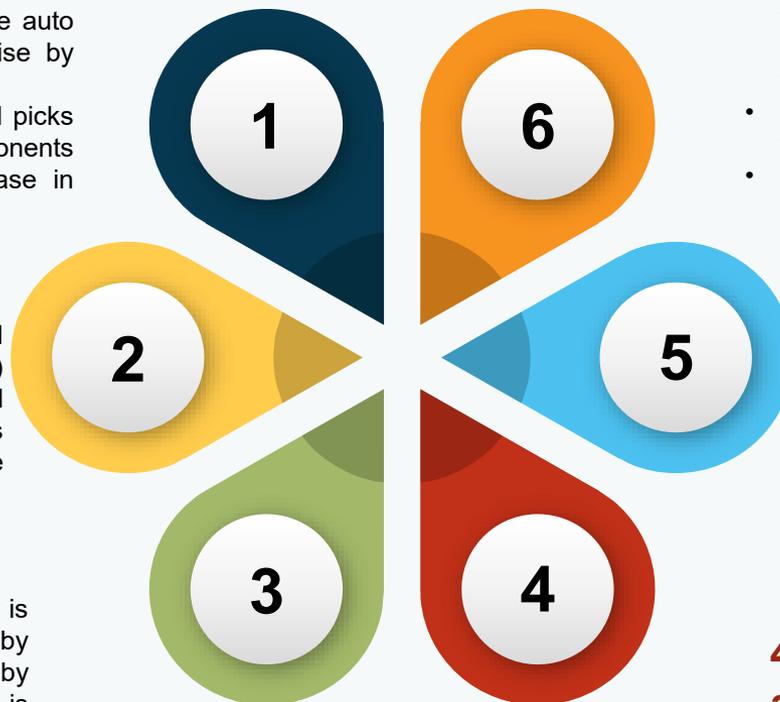
- Due to a shift in supply chains, India can possibly increase its share in the global auto component trade to 4-5% by 2026.
- Due to high development prospects in all segments of the vehicle industry, the auto component sector is expected to rise by double digits in FY22.
- As the domestic and export demand picks up, the Indian automotive components sector could record a ~23% increase in revenue in the next fiscal year.

2. Rising indigenisation

- The growth of global original equipment manufacturers' (OEM) sourcing from India & the increased indigenisation of global OEMs is turning the country into a preferable designing and manufacturing base.

3. Increasing turnover

- The Indian auto components industry is expected to grow to US\$ 200 billion by FY26. This growth will be backed by strong export demand which is expected to rise at an annual rate of 23.9% to reach US\$ 80 billion by 2026.
- The automobile component industry's turnover was Rs 3.40 lakh crore (US\$ 45.9 billion) in FY21, down 3% from the previous year.



6. Electric vehicles push

- 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*.
- By 2025, 4 million EVs could be sold each year and 10 million by 2030.
- By 2026, India will need 4 lakh charging stations.

5. Growing automobile industry

- In 2020, India was the sixth-largest automobile producer worldwide, after China, the US, Japan, Germany and South Korea. The auto components industry is expected to become the third-largest in the world by 2025.

4. Contribution to GDP and employment

- The auto components industry accounted for 2.3% of India's Gross Domestic Product (GDP) and contributed 25% to its manufacturing GDP and employment to 50 lakh people in 2018-19.

*Note: OEM: Original Equipment Manufacturer, EV – Electric Vehicles, *As per NITI Aayog*



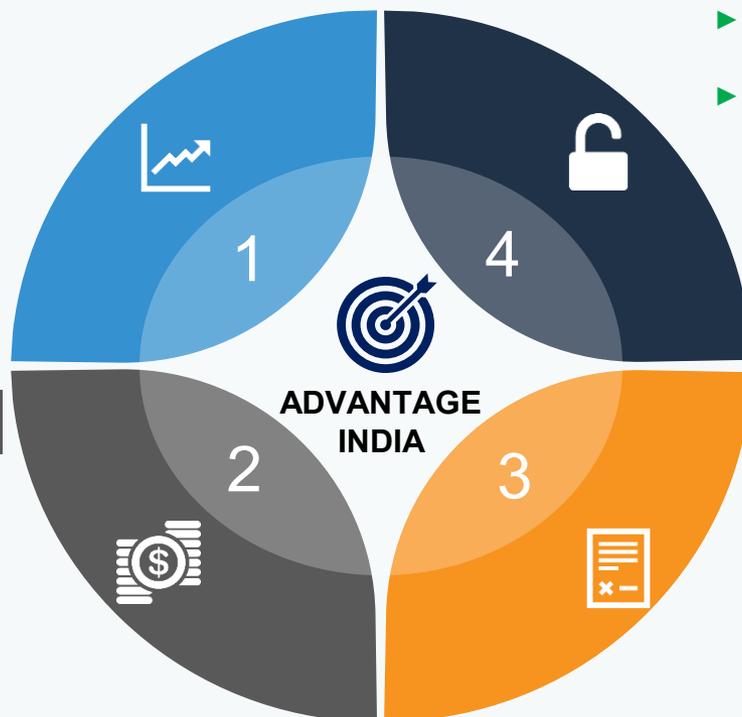
Advantage India

1 Robust demand

- ▶ Growing working population and expanding middle class are expected to remain the key demand drivers. India is the fifth-largest automobile market globally.
- ▶ By 2025, 4 million of EVs could be sold each year and 10 million by 2030. The market is expected to reach US\$ 206 billion.
- ▶ With plans to reduce auto components' import dependence, domestic players are expected to witness demand surge.

2 Competitive advantages

- ▶ A cost-effective manufacturing base keeps costs lower by 10-25% relative to operations in Europe and Latin America.
- ▶ Presence of a large pool of skilled & semi-skilled workforce amidst a strong educational system.
- ▶ Second-largest steel producer globally, hence a cost advantage.



4 Export opportunities

- ▶ India is emerging as a global hub for auto component sourcing and the industry exports over 25% of its production annually.
- ▶ Auto component exports are expected to grow at 23.9% annually to reach US\$ 80 billion by 2026.
- ▶ India has a competitive advantage in auto components categories such as shafts, bearings and fasteners due to large number of players. This factor is likely to result into higher exports in coming years.

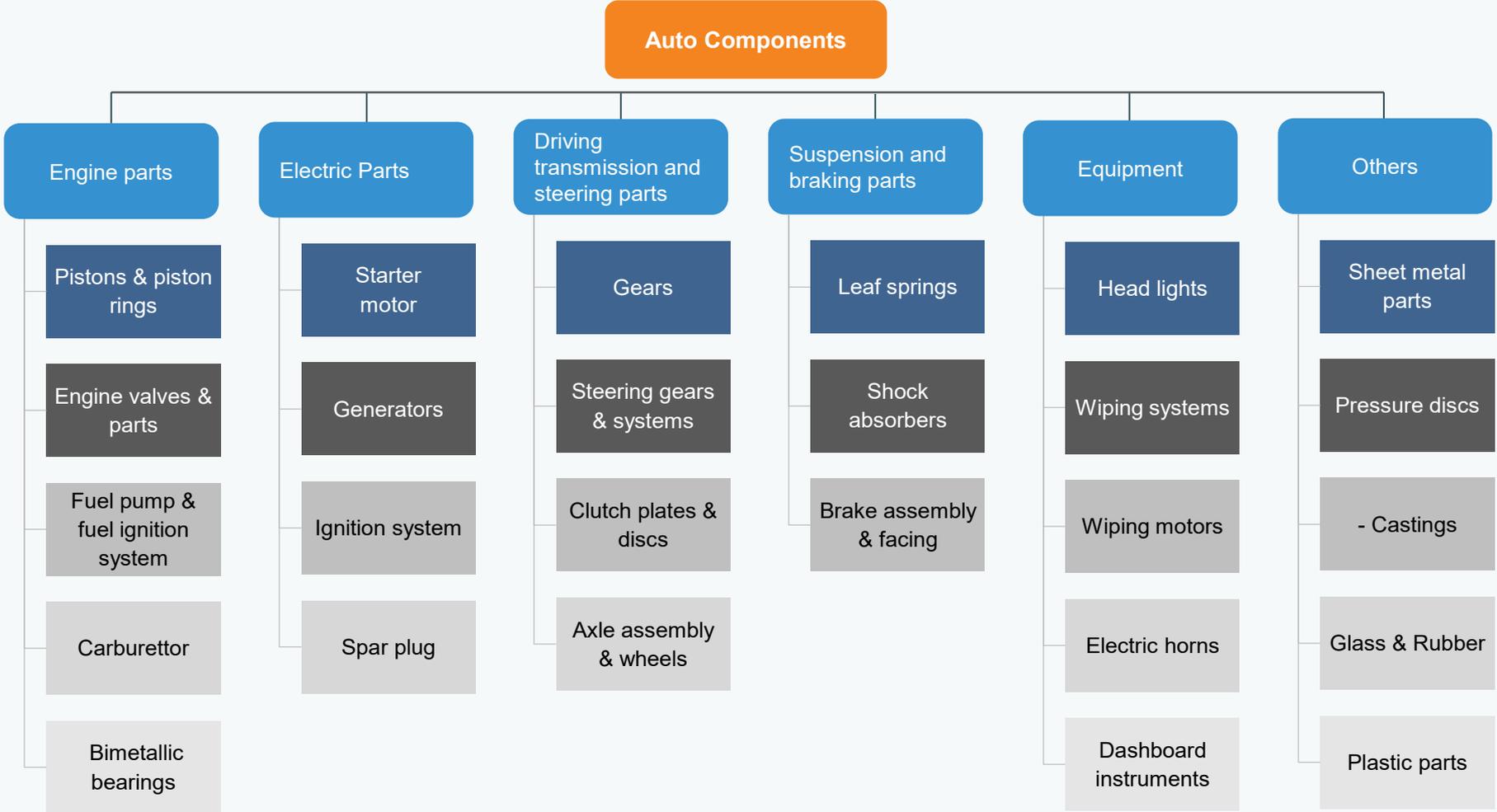
3 Policy support

- ▶ Strong support for R&D and product development by establishing NATRiP centres.
- ▶ A dedicated policy FAME II was launched to incentivize electric vehicle consumption and support manufacturing.
- ▶ 100% FDI allowed under automatic route for auto components sector.
- ▶ The Indian government has outlined US\$ 7.8 billion for the automobile and auto components sector in production-linked incentive (PLI) schemes under the Department of Heavy Industries.
- ▶ In September 2021, the Indian government issued notification regarding a PLI scheme for automobile and auto components worth Rs. 25,938 crore (US\$ 3.49 billion). This scheme is expected to bring investments of >Rs. 42,500 (US\$ 5.74 billion) by 2026.

Notes: NATRiP - National Automotive Testing and R&D Infrastructure Project, FY - Indian Financial Year (April to March), R&D - Research and Development



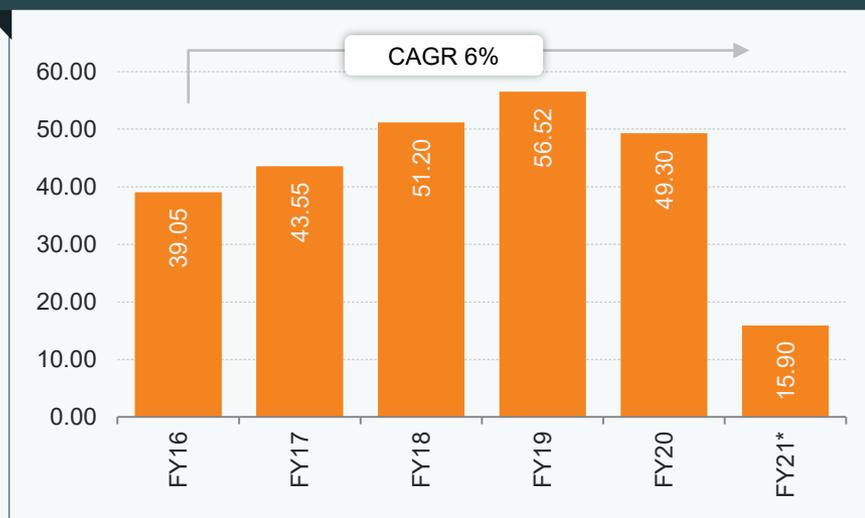
Product segments



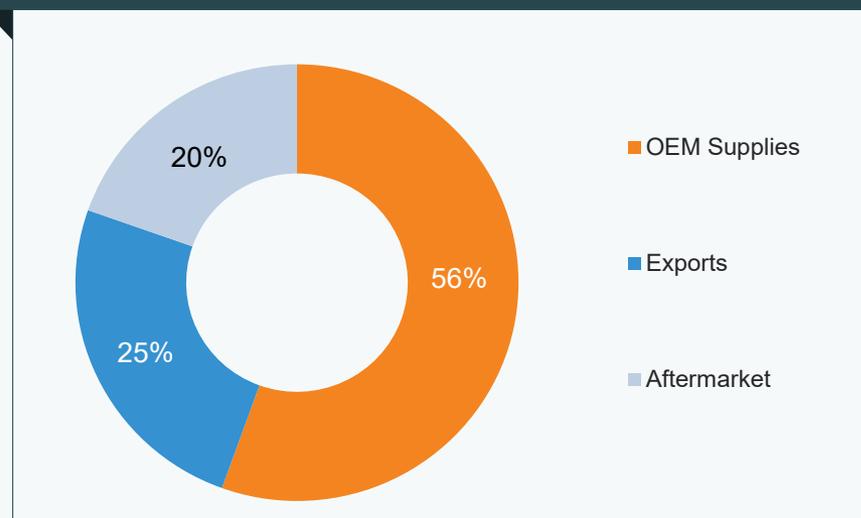
Source: ACMA

Robust growth

Aggregate Turnover (US\$ billion)



Share in Turnover of the Auto Components Industry (FY21*)



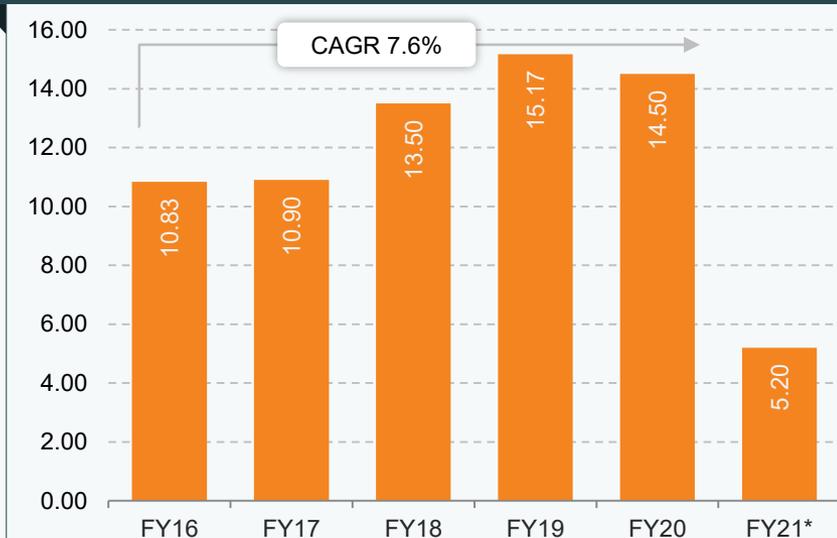
- Turnover of the automotive components industry stood at Rs.1.19 lakh crore (US\$ 15.9 billion) from April to September 2020, registering a decline of 34% over the first-half of the previous year.
- Domestic OEM supplies contributed ~56% to the industry turnover, followed by exports and domestic aftermarket at ~25% and 20%, respectively, in FY21*.
- Export of automobile components from India in FY21 stood at Rs. 39,003 crore (US\$ 5.2 billion). As per the Automobile Component Manufacturers Association (ACMA) forecast, automobile component exports from India is expected to reach US\$ 80 billion by 2026.
- Strong international demand and resurgence in the local original equipment and aftermarket segments are predicted to help the Indian auto component industry grow by 20-23% in FY22.

Note: * - April 2020-September 2020, CAGR until FY20

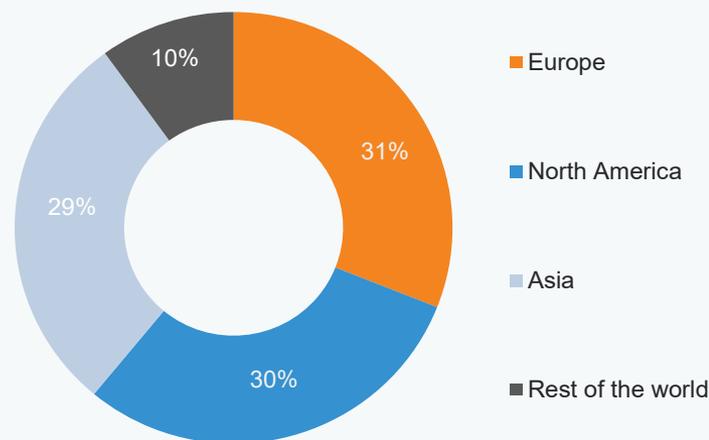
Source: ACMA

Export growth

Value of Auto Component Export (US\$ billion)



Share of Export by Geography (FY21*)



- India's export of auto components increased at a CAGR of 7.6% during FY16-FY20 as the value increased from US\$ 10.83 billion in FY16 to US\$ 14.5 billion in FY20.
- Exports of auto components declined by 23.6% to Rs.39,003 crore (US\$ 5.2 billion) in H1 2020-21, from Rs. 51,028 crore (USD 7.4 billion) in H1 2019-20.
- Auto components exports are expected to grow at 23.9% annually to reach US\$ 80 billion by 2026.
- Europe accounted for 31% volume share of the total auto component export during FY21*, followed by North America (30%) and Asia (29%) of the total auto component export during FY21*
- In FY20, export of auto components dropped by -4.6% to Rs. 102,623 crore (US\$ 14.5 billion) from Rs. 106,048 (US\$ 15.2 billion) in FY19.

Note: * - April 2020-December 2020, CAGR until FY20

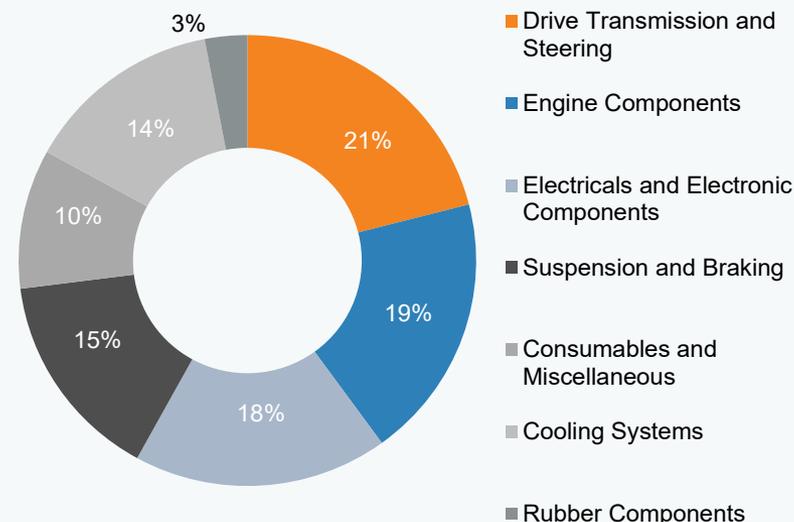
Source: ACMA

Aftermarket growth

Value of Aftermarket Turnover (US\$ billion)



Product-wise Share in Aftermarket Turnover (FY19)



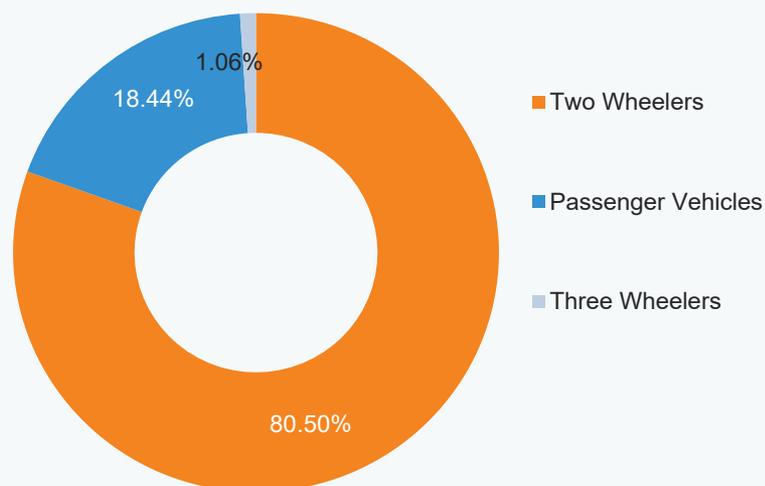
- India's auto components aftermarket contributed 20% (amounting to US\$ Rs. 31,116 crore (US\$ 4.1 billion) to the industry turnover in FY21*
- Aftermarket turnover increased at a CAGR of 9.57% from US\$ 6.8 billion in FY16 to US\$ 9.8 billion in FY20 and is expected to reach US\$ 32 billion by 2026.
- The 'Drive Transmission and Steering' product category accounted for 21% of the aftermarket share followed by 'Engine Components', and 'Electricals and Electronic Components' with 19% and 18%, respectively.
- To support local auto parts suppliers, the auto component sector has tied up with Tesla to manufacture electric vehicles in August 2021.

Note: * - April 2020-September 2020, CAGR until FY20

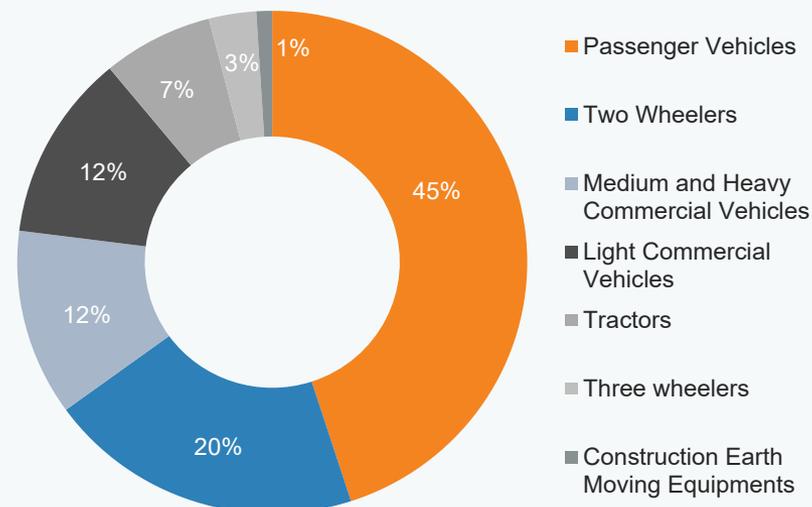
Source: ACMA

Shares in production and supply

**Domestic Market Share by Segment (April 2021- August 2021)
(No. of units)**



Auto Component Supply to OEMs (FY20)



- Domestic sales of passenger vehicles, three-wheelers and two-wheelers, reached 23,222, 23,210, and 1,331,436 respectively, in August 2021.
- Passenger vehicles had the highest share of total auto component supplies to OEMs in FY20, distantly followed by two-wheelers and light commercial vehicles (LCV).
- In August 2021, the total output of passenger vehicles, three-wheelers, two-wheelers and quadricycles was 1,984,676 units.

Source: ACMA

Major players by segment

Engine & engine parts	Transmission & steering parts	Suspension & braking parts	Electrical	Equipment
<ul style="list-style-type: none"> ▪ Pistons - Goetze, Shriram Pistons & Rings, India Pistons, Anand I-Power Ltd. ▪ Engine Valves - Rane Engine Valves, Shriram Pistons and Rings, SSV Valves ▪ Carburetors - UCAL Fuel Systems and Spaco Carburetors & Escorts Auto Components ▪ Diesel-based fuel-injection systems - MICO, Delphi-TVS Diesel System and Tata Cummins 	<ul style="list-style-type: none"> ▪ Steering Systems - Sona Koyo Steering Systems, Rane NSK Steering Systems and Rane TRW Systems ▪ Gears - Bharat Gears, Gajra Bevel Gears, ZF Steering Gear (India) Ltd, Eicher, Graziano Trasmissioni and SIAP Gears India ▪ Clutch - Clutch Auto, Ceekay Daikin, Amalgamations Repco, LuK Clutches ▪ Driveshafts - Gkn Driveshafts, Spicer India Private Ltd., Delphi and Sona Koyo Steering Systems 	<ul style="list-style-type: none"> ▪ Brake Systems - Brakes India, Kalyani Brakes, Mando India Ltd. & Automotive Axles and GNA Axles Limited ▪ Brake Lining - Rane Brake Lining, Sundaram Brake Lining, Hindustan Composites and Allied Nippon ▪ Leaf Springs - Jamna Auto & Jai Parabolic ▪ Shock Absorbers - Gabriel India, Delphi, Mando India Ltd. and Munjal Showa, Rane Holdings Limited 	<ul style="list-style-type: none"> ▪ Lucas TVS, DENSO, Delco Remy Electricals, Varroc Group and Nippon Electricals are key players in this segment 	<ul style="list-style-type: none"> ▪ Headlights - Lumax, Autolite and Phoenix Lamps ▪ Dashboard - Premiere Instruments & Controls ▪ Sheet metal parts - Jay Bharat Maruti, Omax Auto and JBM Tools ▪ Sensors - Pricol Limited

Note: OEM means Original Equipment Manufacturer
Source: Media sources

Recent Trends and Strategies



Key players in the chemical sector...(1/3)

Indian Companies

1

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.
- On August 05, 2020, Steel Strips Wheels Ltd (SSWL) bagged orders worth US\$ 1 million for over 1.19 lakh wheels for the US caravan trailer market.

2

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.
- In June 2021, Toyota Kirloskar partnered with ACMA to provide 131 training modules focusing on automobile and electrified vehicle technologies, environmental management systems and trade.

Note: OEM means Original Equipment Manufacturer ACT - ACMA Centre for Technology

Source: Media sources

Key players in the chemical sector...(2/3)

Indian Companies

3

Route to expansion

- As of March 2021, there were 1,800 charging stations and this is expected to reach 4 lakh by 2026.
- To meet India's electric vehicle (EV) ambition, a cumulative investment of US\$ 180 billion will be required for vehicle production and charging infrastructure by 2030.
- In January 2021, MG Motor and Tata Power installed its first 60 kW superfast public EV charging station in Coimbatore, Tamil Nadu.
- In November 2020, Arjas Steel, an Andhra Pradesh-based alloy steel manufacturer, acquired Modern Steel's heat treatment business and the auto component business for a total consideration of Rs. 86 crore (US\$ 12.2 million)
- In May 2020, JK Tyre and Industries set up a new entity, Western Tires INC, to expand its business in the United States.

4

New strategies

- Both Indian & global manufacturers are investing in new capacities & newer programmes to get long term advantage.
- As markets in North, West & South of India are getting saturated, component manufacturers are eyeing untapped markets in the Northeast region of the country.
- Varroc Engineering, India's second-largest auto components producer, is aiming to attract business from sales of EV components like electronics, motors and battery systems.
- In January 2021, Suzuki Motor Corp. and Hyundai Motor Co. announced plans to explore ways to make India a key global hub for sourcing components and facilitate sharp rise in vehicle exports from the country.

Note: OEM means Original Equipment Manufacturer ACT - ACMA Centre for Technology

Source: Media sources

Key players in the chemical sector...(3/3)

Indian Companies

5

Diversification

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. They are stepping up their product development capabilities in order to have the best chance of capturing growth opportunity.

6

Capacity

- In September 2020, off-highway tyre-maker Alliance Tire Group (ATG), owned by the Japanese major Yokohama Group, announced plans to set up its third plant in the country in Visakhapatnam, with an investment of US\$ 165 million (Rs. 1,240 crore). The proposed plant will add over 20,000 tonnes per annum (55 tonnes per day rubber weight) capacity to the 2.3-lakh-tonne annual production from two India plants and will be commissioned by the first quarter of 2023.
- In December 2020, Continental planned to expand its local presence in India by increasing their production capacity at the Modipuram plant.
- In December 2020, Power PSU JV EESL announced plan to install ~500 electric vehicle charging stations in the country in FY21.

7

IPO Listing

- Auto component manufacturing companies are entering the equity market to raise capital.
- In March 2021, auto component makers, Craftsman Automation and Rolex Rings Ltd. listed their IPOs in the stock exchange.

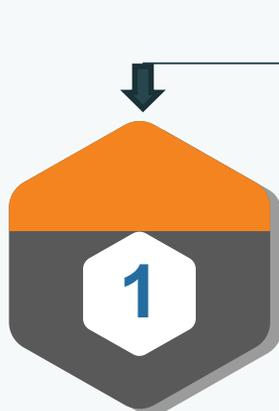
Note: IPO – Initial Public Offering

Source: Make in India, Media Sources



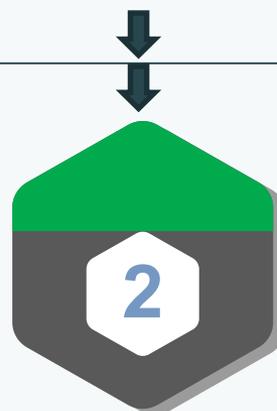
Growth drivers

GROWTH DRIVERS



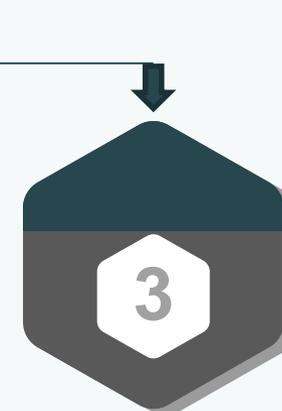
DEMAND-SIDE DRIVERS

- Robust growth in domestic automotive industry
- Increase in investment in road infrastructure
- Growth in working population & middle-class income will drive the market
- With the Self-Reliant India mission, the auto industry is looking to half its Rs. 1 trillion (~US\$ 13.6 billion) worth of auto component imports over the next 4-5 years. This will provide significant opportunities for existing and new auto components players to scale up



SUPPLY-SIDE DRIVERS

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



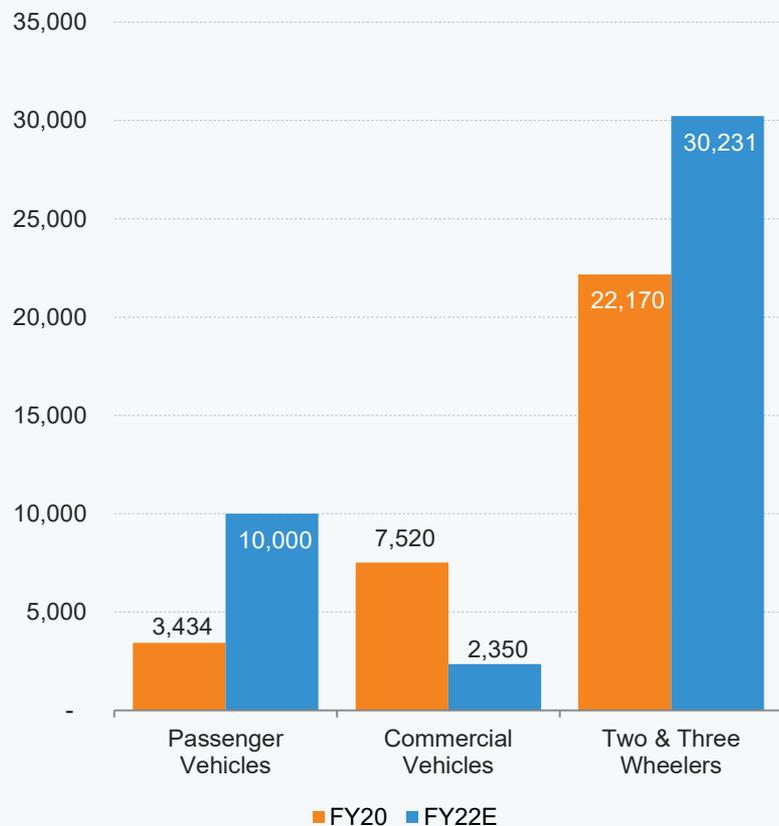
POLICY SUPPORT

- 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) until 2024
- The Union Budget 2021 raised the custom duty on certain auto components to boost local production.

Note: NMEM - National Mission For Electric Mobility

Growth in the automobiles sector

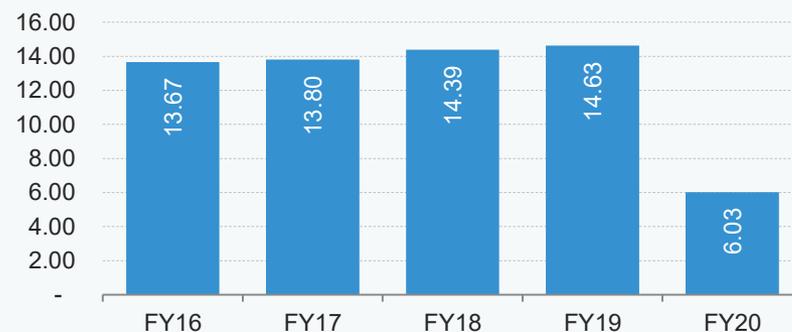
Vehicle Production in India (thousand units)



Vehicle Production (in number of units in million)



Vehicles, Vehicle Parts and Transport Equipment Loan Outstanding* (US\$ billion)



Note: (E) - Estimate; #Loan outstanding at the end of financial year, * from April to December 2020

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&M's 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.
- Toyota Kirloskar Motors announced investments of over Rs. 2,000 crores in India directed towards electric components and technologies

Source: Respective Company Websites, News Articles

Favourable policy measures aiding growth

1 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.

2 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.

3 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).

6 Union Budget 2020-21

- The Government has reaffirmed its commitment towards EVs and its mission for 30% electric mobility by 2030.

5 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.

4 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.

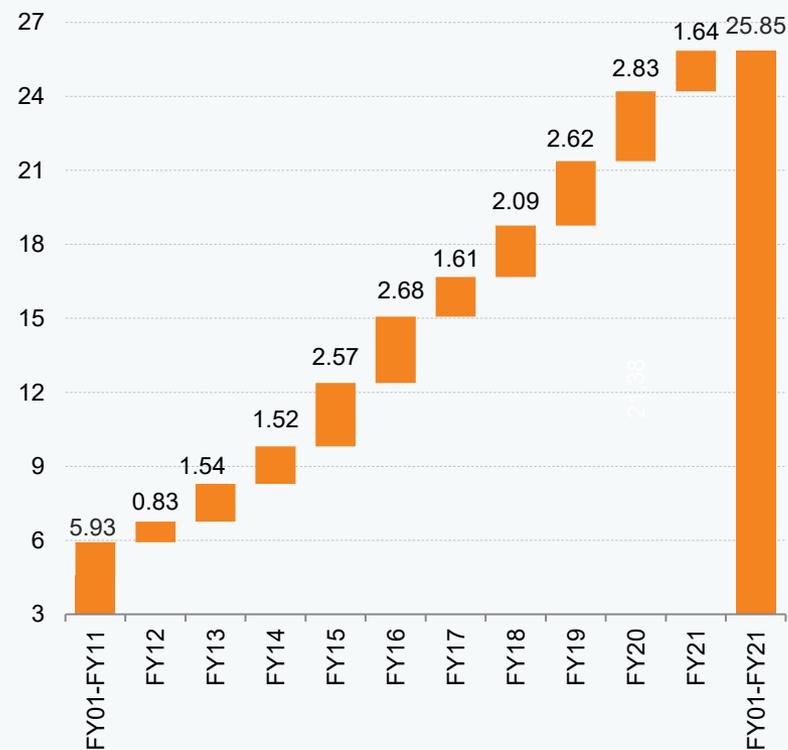


Investments have been rising at a fast pace

- A cumulative investment of ~Rs. 12.5 trillion (US\$ 180 billion) in vehicle production and charging infrastructure would be required until 2030 to meet India's electric vehicle (EV) ambitions. This is likely to boost the demand of auto components from local manufacturers.
- The Indian automobile sector recorded an inflow of huge investments from domestic and foreign manufacturers. FDI inflow in the sector stood at US\$ 30.51 billion between April 2000 and June 2021.
- With the launch of "Make in India" initiative, the Government is expected to vitalise substantial investment in the auto components sector.
- In March 2021, the government announced to offer fresh incentives to companies making electric vehicles (EVs) as part of a broad auto sector scheme. The scheme is expected to attract US\$ 14 billion of investment in the next five years.
- In September 2021, the Indian government issued notification regarding a PLI scheme for automobile and auto components worth Rs. 25,938 crore (US\$ 3.49 billion). This scheme is expected to bring investments of >Rs. 42,500 (US\$ 5.74 billion) by 2026.
- In May 2021, the Government of India approved a PLI scheme for manufacturing advanced chemistry cell battery at an estimated outlay of Rs. 18,100 crore (US\$ 247.3 million).
- In June 2021, the government was planning to notify the PLI scheme for auto components.
- ▶ Of the whole PLI scheme of US\$ 26.55 billion, the automobile and auto components sector has received the greatest budget investment of US\$ 7.68 billion for incentives.
- At the Investment Conclave - 2021 in Chennai, the Tamil Nadu government stated that it got investment commitments totaling Rs. 28,508 crore (US\$ 3.85 billion) from 49 different companies. Electronics, automotive components, industrial parks, information technology and manufacturing are among sectors where these investments are expected to generate ~83,482 jobs in the state.

Source: ACMA, DPIIT, News Articles

FDI in the Automotive Sector (US\$ billion)

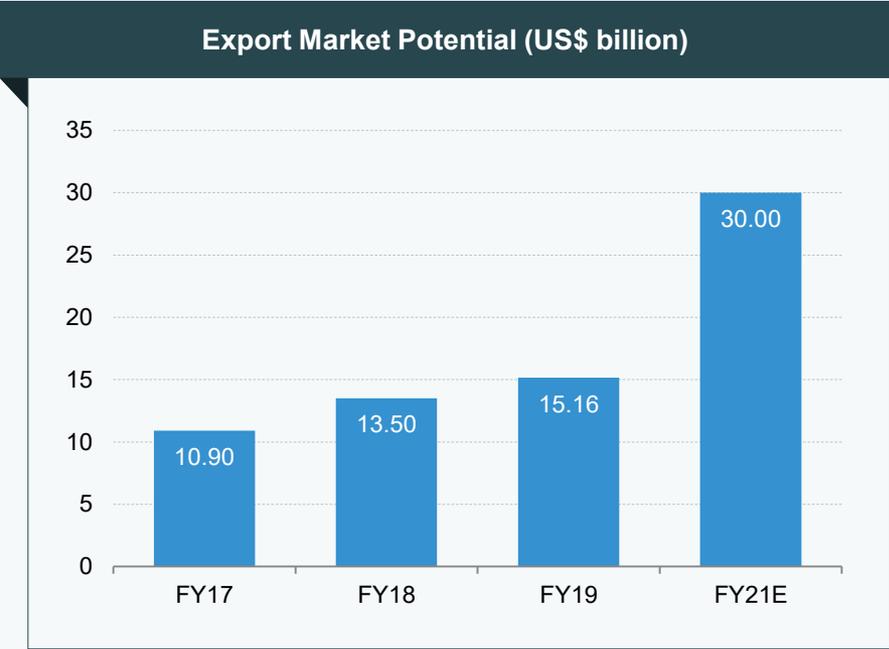
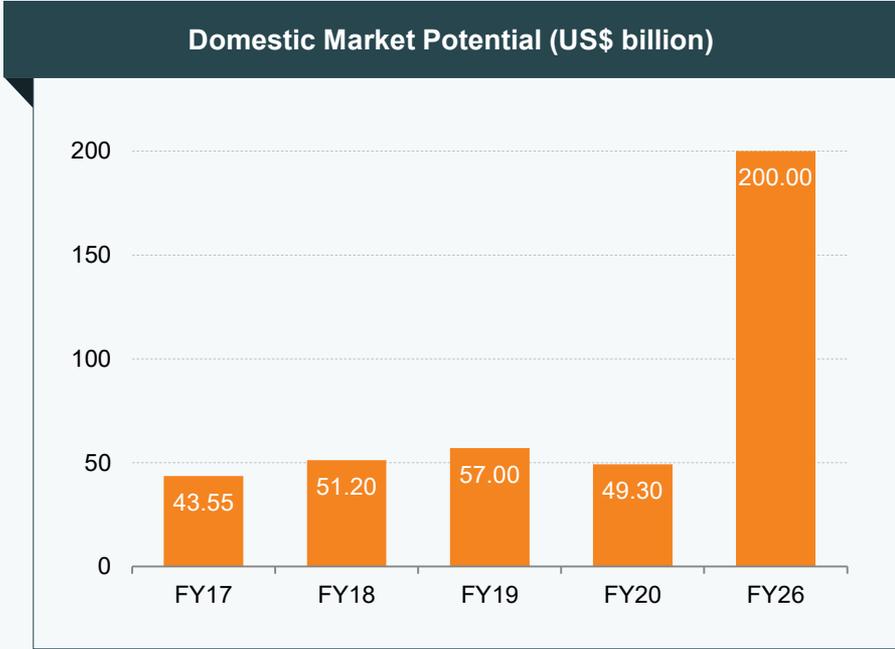


Opportunities



OPPORTUNITIES

Domestic and exports markets hold huge potential



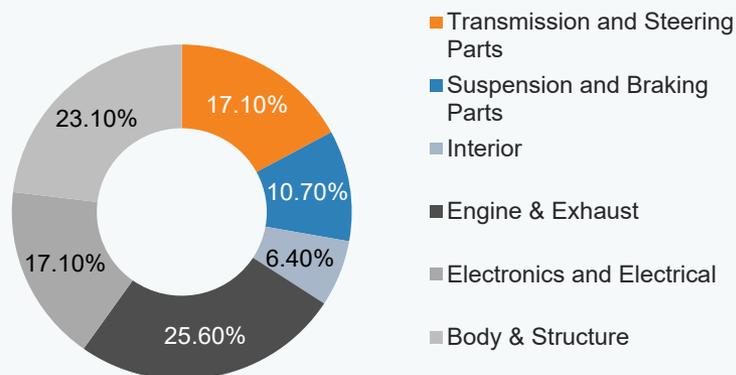
- India's domestic market for auto components was worth US\$ 49.30 billion in FY20 and is expected to reach US\$ 200 billion by FY26

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

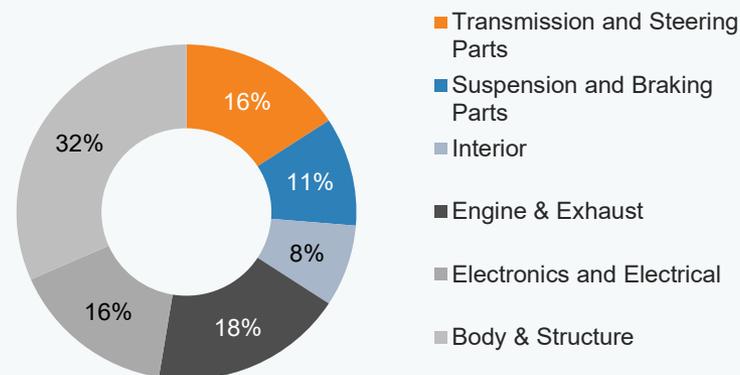
Note: E - Estimate
Source: ACMA

Market potential balanced across product types

Domestic Market Potential by Components (2020E)



Export Market Potential by Components (2020E)



- Both domestic and export markets are almost similar in terms of potential share by different product types. Engine and Exhaust components along with Body & Structural parts are expected to make up nearly 50% 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.
- In February 2021, Vedanta Resources launched its newest—aluminium cylinder head alloy, a crucial raw material for manufacturing cylinder heads and other automotive components. Product
- In July 2021, Steelbird launched a new range of engine oils and lubricants, comprising engine oil, grease and fork oil, for the 2-wheeler segment.

Note: 2020E - Estimated value for 2020 by ACMA

Source: ACMA, News Sources

Opportunities in engineering products

1 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.

2 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.



5 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.

4 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.

3 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.

Note: OEM means Original Equipment Manufacturer

Source: Make in India

Capacity addition plans of key players



- 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.
- It also plans to invest Rs. 20 crore (US\$ 2.84 million) between FY20-25 in its Robert Bosch Center for Data Science and Artificial Intelligence (RBC-DSAI) at the Indian Institute of Technology-Madras (IIT-M).



- Apollo Tyres inaugurated its seventh factory worldwide and fifth in the Indian market in June 2020. The company will invest around Rs. 3,800 crore (US\$ 539.08 million) in phase I of the plant and expect to ramp up the production by 2022.



- In June 2020, Tata AutoComp Systems signed a memorandum of understanding (MoU) with USA-based DC charging infrastructure company, Tellus Power Green, to supply AC and DC fast chargers for the entire range of electric vehicles.



- HELLA is working on expanding its business through digitalisation of light and will digitally cover the entire range of LED headlamps in future.



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



- TVS Group has acquired 90% 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.

Source: Respective Company websites, News articles

Key Industry Contacts



Key Industry Contacts

	Agency	Contact Information
 <p>ACMA Automotive Component Manufacturers Association of India</p>	<p>Automotive Component Manufacturers Association of India (ACMA)</p>	<p>6th Floor, The Capital Court, Olof Palme Marg, Munirka, New Delhi - 110 067, India Phone: 91 11 2616 0315, 2617 5873, 2618 4479 Fax: 91 11 2616 0317 E-mail: acma@acma.in ; acma@vsnl.com Website: www.acma.in</p>
 <p>ARAI Progress through Research</p>	<p>Automotive Research Association of India (ARAI)</p>	<p>Survey No. 102, Vetal Hill, off Paud Road, Kothrud, Pune - 411 038 P. B. No. 832, Pune - 411 004 Tel No. : +91-020-30231111 Fax No. : +91-020-30231104 Email Id : info@araiindia.com Website: www.araiindia.com</p>



Glossary

- ACMA: Automotive Component Manufacturers Association of India
- ARAI: Automotive Research 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
- OEM: Original Equipment Manufacturers
- NATRiP: National Automotive Testing and R&D Infrastructure Project
- Rs.: Indian Rupee
- 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)

Year	Rs. Equivalent of one US\$
2004-05	44.95
2005-06	44.28
2006-07	45.29
2007-08	40.24
2008-09	45.91
2009-10	47.42
2010-11	45.58
2011-12	47.95
2012-13	54.45
2013-14	60.50
2014-15	61.15
2015-16	65.46
2016-17	67.09
2017-18	64.45
2018-19	69.89
2019-20	70.49
2020-21	73.20

Exchange Rates (Calendar Year)

Year	Rs. Equivalent of one US\$
2005	44.11
2006	45.33
2007	41.29
2008	43.42
2009	48.35
2010	45.74
2011	46.67
2012	53.49
2013	58.63
2014	61.03
2015	64.15
2016	67.21
2017	65.12
2018	68.36
2019	69.89
2020	74.18
2021*	73.58

Note: As of September 2021

Source: Reserve Bank of India, Average for the year

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