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CRISIL Ratings ViewCube on the automobiles and auto-components sector

ViewCube is a compilation of sector views expressed during CRISIL Ratings' webinars. These include CRISIL

Ratings' own views, those of stakeholders, and those emanating from a poll done during the webinar.

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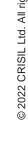
Abhishek Pal

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Key messages

PVs and CVs to lead automobile volume growth in fiscal 2023, with TWs showing moderate recovery; tractor demand to remain modest

- Strong growth seen in passenger and commercial vehicles (PVs and CVs; ~12% and ~18% on-year) on pent-up and replacement demand
- Moderate growth in two-wheelers (TWs; ~6% on-year) with scooters outpacing motorcycles; electric TW penetration to shave off ICE volumes
- Marginal growth in tractors (~1% on-year) on account of significant price hikes, a high base, and a moderate increase in rural income

Better OEM growth to rub off on the automotive component sector's revenue growth (12-17%) this fiscal

- Strong OEM demand (65% of revenue) of 18-20% to drive overall growth this fiscal, supported by PVs and CVs
- Replacement demand (15% of revenue) to grow 7-9% and exports (20% of revenue) to rise 8-10% this fiscal

Credit quality of OEMs to remain stable; operating margins seen recovering from record lows of last fiscal, supported by price hikes

- Volume recovery, price hikes to aid in 100 bps OEM margin expansion from record lows of last fiscal, even as commodity price inflation persists
- Capex to be driven by EV and PLI schemes (PVs and TWs); robust liquidity and strong balance sheets to keep OEMs' credit profiles 'stable'

Credit quality of component suppliers to be 'stable' this fiscal; gradual operating margin recovery to support accruals

- Operating margin to recover gradually to 12-13% over the next two fiscals, supported by better operating leverage and export margin
- Capex to be driven by OEM requirements and PLI scheme; debt metrics, nonetheless, to remain adequate, resulting in 'Stable' credit outlook

Note: PV – Passenger vehicle; UV – Utility vehicle; TW – Two-wheeler; CV – Commercial vehicle; OEM – Original equipment manufacturer, ICE – Internal Combustion Equipment, Bps – basis points, PLI – Production Linked Incentive, EV – Electric Vehicle

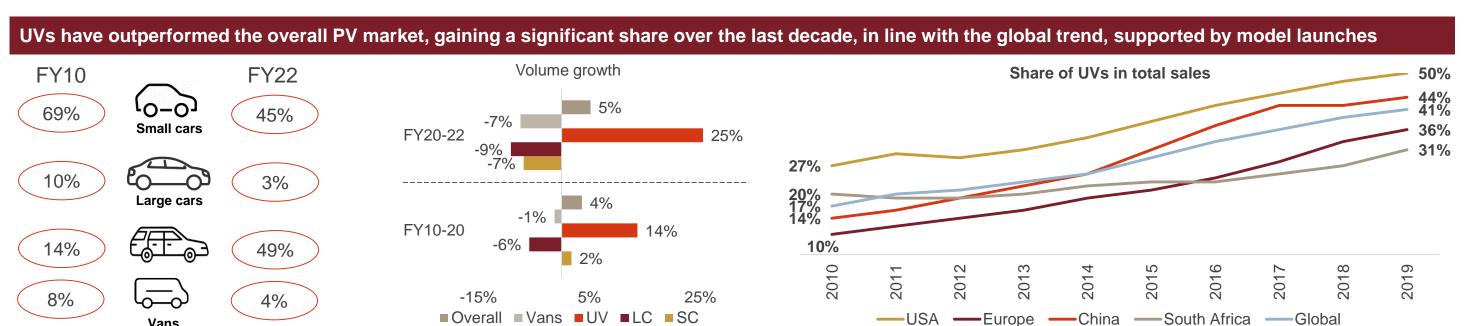


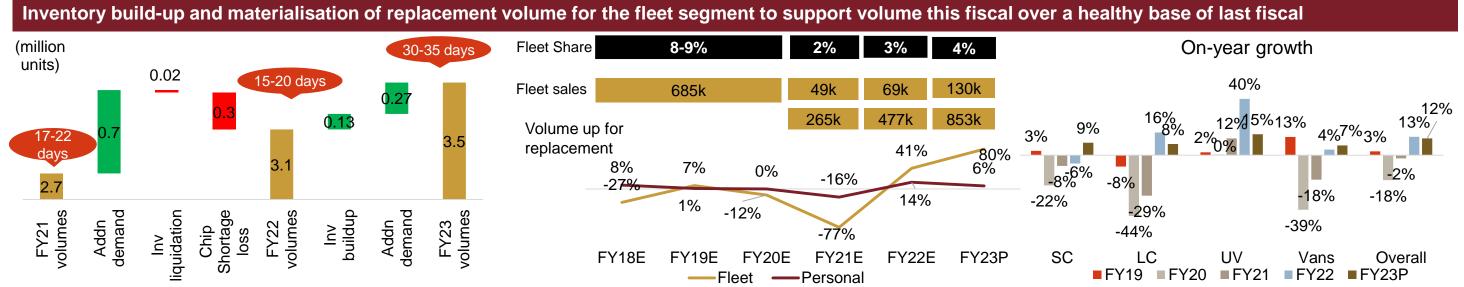
Automobile OEMs: Demand dynamics



PVs: India is no longer just a small-car market (1/2)

Competitively priced new launches drive UVs





Note: E - Estimated, P - Projected, SC - Small car, LC - Large car Source: SIAM, IEA, CRISIL Research

Vans



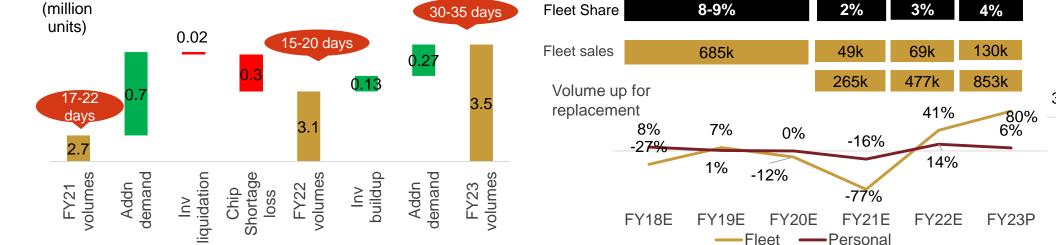
PVs: India no longer just a small-car market (2/2)

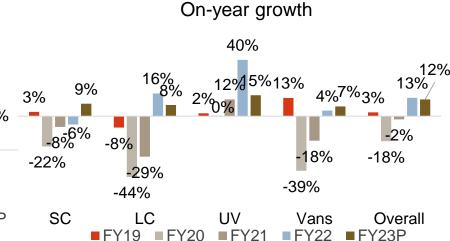
Competitively priced new launches drive UVs

UVs have outperformed the overall PV market, gaining a significant share over the last decade, in line with the global trend, supported by model launches



Inventory build-up and materialisation of replacement volume for the fleet segment to support volume this fiscal over a healthy base of last fiscal





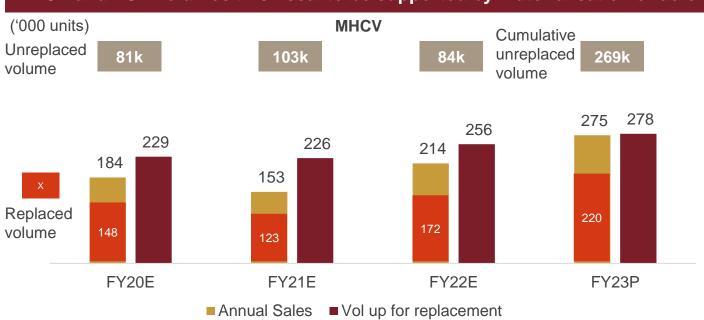
Note: E – Estimated, P – Projected, SC – Small car, LC – Large car

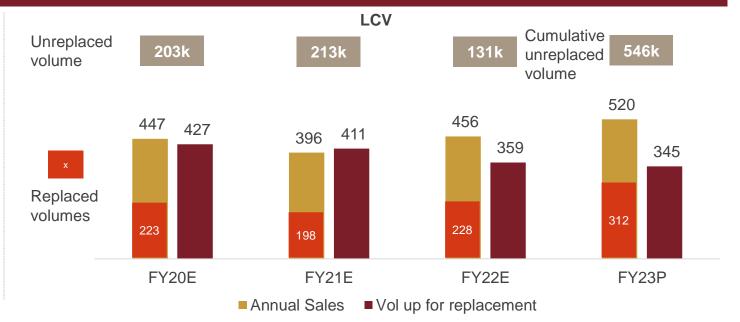
Source: SIAM, IEA, CRISIL Research



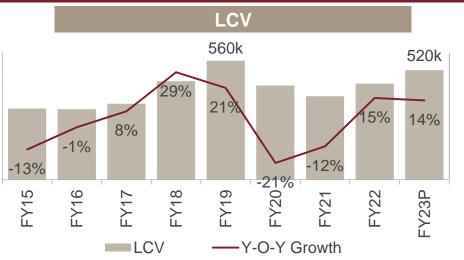
CVs: Recovery in transporter utilisation to bolster replacement demand and support volume growth this fiscal

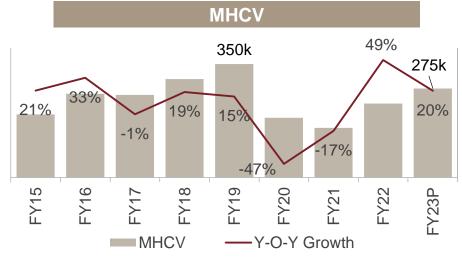
MHCV and LCV volumes this fiscal to be supported by materialisation of deferred replacement demand (not replaced amid the pandemic)

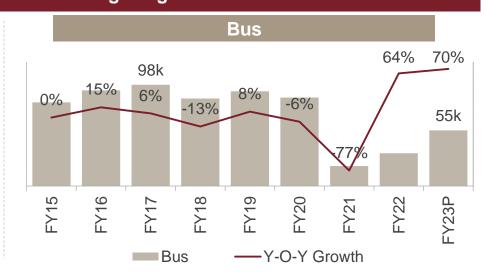




Volumes for LCVs, MHCVs and buses this fiscal to remain lower than all-time high levels as profitability is still in mid-single digit





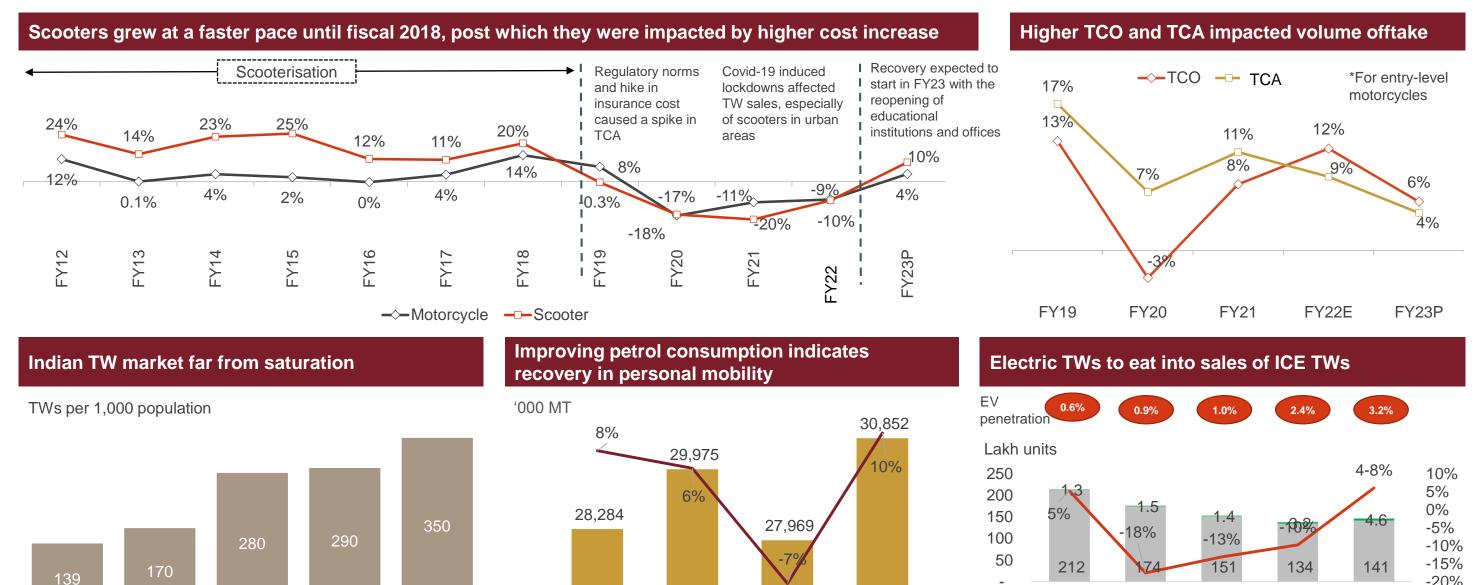


Note: E – Estimated, P – Projected, MHCV – Medium and Heavy Commercial Vehicles, LCV – Light Commercial Vehicles

Source: SIAM, CRISIL Research



TWs: Far from saturation; current blip caused by TCO, TCA hikes



FY19

Petrol Consumption

FY20

FY21

FY22

—y-o-y growth (RHS)

Note: E – Estimated, P – Projected, TCO – total cost of ownership, TCA – total cost of acquisition Source: SIAM, CRISIL Research

Indonesia

Thailand

Vietnam



-20%

FY19

ICE TW

FY20

Electric TW

FY21

FY22

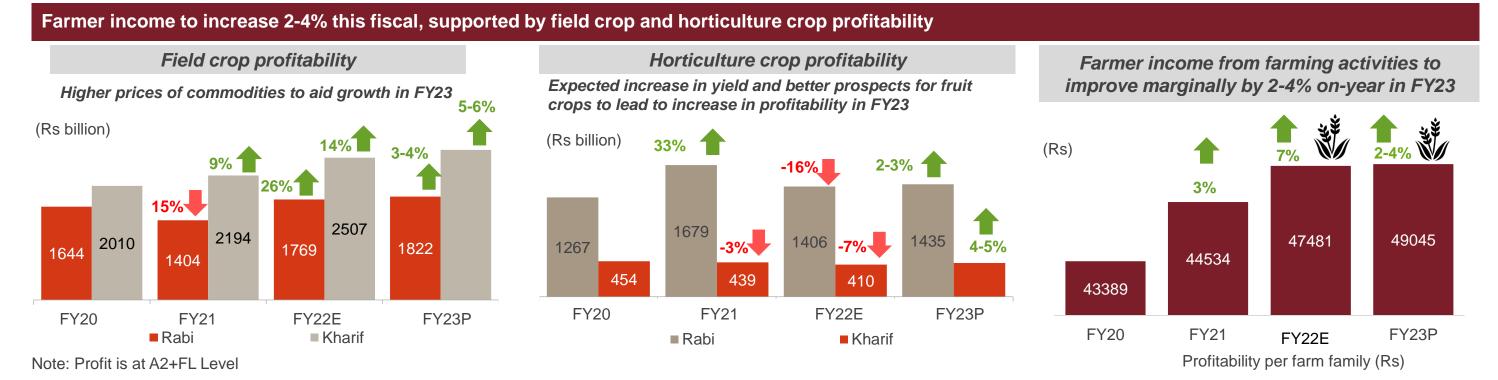
FY23P

-y-o-y growth % (ICE+EV)

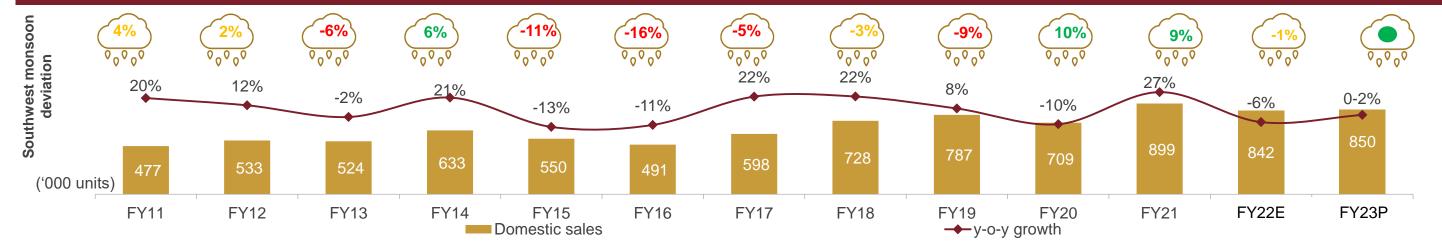
India

Malaysia

Tractor: Domestic demand to grow moderately this fiscal on high base



Domestic tractor sales estimated to have dropped 6-8% on-year last fiscal, but still above the level of 8 lakh units – achieved for the first time in fiscal 2021



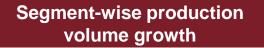
Note: E – Estimated, P – Projected. Colour coding indicates: <-4% red – below normal monsoon, -4% to 4% amber – normal monsoon, >4% green – above normal monsoon Source: Tractors Manufacturers Association (TMA), CRISIL Research



Automotive components: Demand dynamics



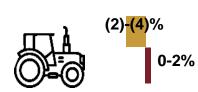
Increase in vehicle production and higher realisation to drive revenue of auto-component segment this fiscal

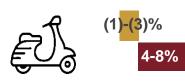


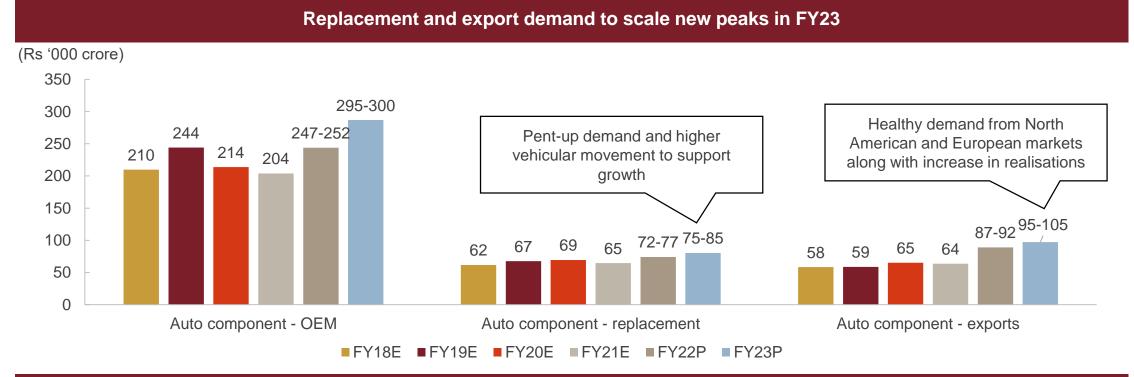


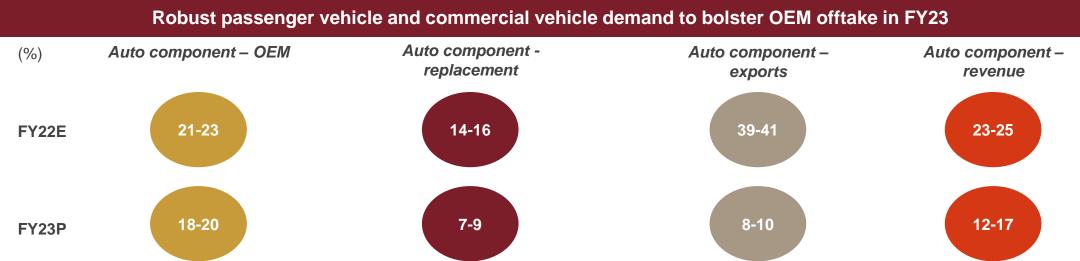












E: Estimated, P: Projected Source: SIAM, Automotive Component Manufacturers Association of India (ACMA), CRISIL Research



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EV component market to grow exponentially over the next 5 fiscals

2W and 3W to account for 70% of EV component market by FY27 presenting significant opportunity to relevant auto-component players

Battery pack EV drivetrain Battery management System **Favourable** Power electronics Battery thermal management EV wiring harness Impact while transition to EVs Suspension system Steering system Interiors Braking system Neutral · Lighting system Body/ chassis Seating Other electricals Starter and alternator Fuel injector Engine control unit Radiator Gearbox Clutch Unfavourable Pistons Cylinder block Spark plug Crankshaft Exhaust system

EV components market size - FY22 and FY27 % of ICE auto 9-11% ~1% component market Rs 42.7 bn Rs 725.0 bn 100% EV battery system to continue to account 2.4 50.8 90% 5.8 for 60-65% of overall EV component market 97.4 80% ■ Vehicle Integration 6.3 97.4 Control Module 70% EV drivetrain components are expected to ■ Power Electronics 60% see high level of localisation in next 3-5 50% ■ EV Drivetrain years, with investments from OEMs and 28.1 479.3 tier-1 suppliers 30% ■ EV Battery 20% 10% FY22E FY27P Opportunity for EV component Risk for ICE component EV component market size - FY27 manufacturers - FY27 manufacturers - FY27 ALK) Rs 461 bn High High Medium Rs 201 bn Medium Rs 29 bn High Low Rs 8 bn Low Low Rs 26 bn Low Low

Note: List not exhaustive E: Estimated, P: Projected Source: ACMA, CRISIL Research



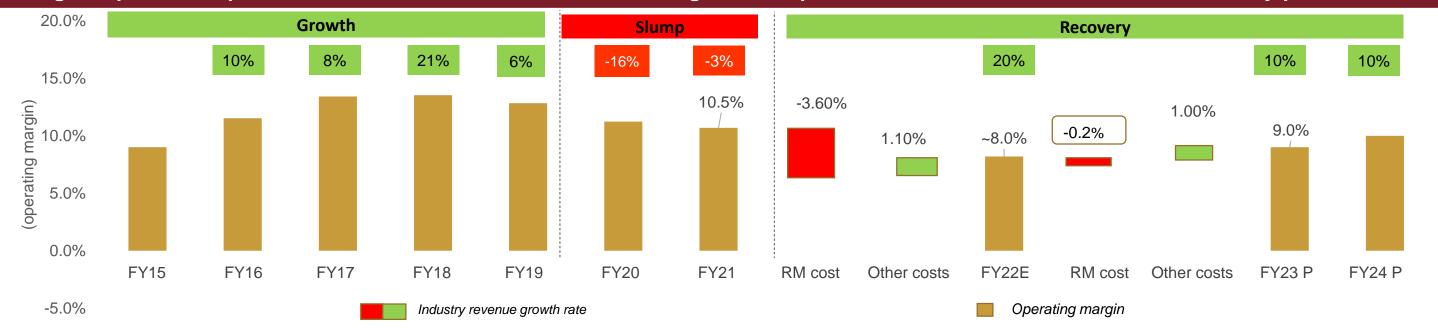
Automobile OEMs: profitability and credit outlook



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Operating margin at multi-year low last fiscal; to rise 100 bps this fiscal

Margin impacted despite rise in volume and realisation in some segments as price hikes not commensurate with commodity price inflation

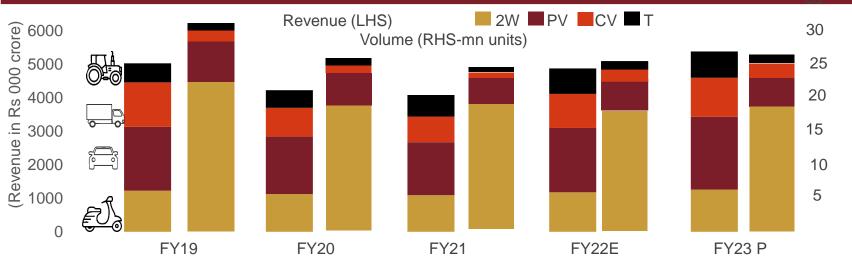


Variable cost >85% of cost structure



Source: CRISIL Ratings, Annual financials of listed OEMs E: Estimated; P: Projected

Volume still trailing FY19 peak, but revenue growth remains strong

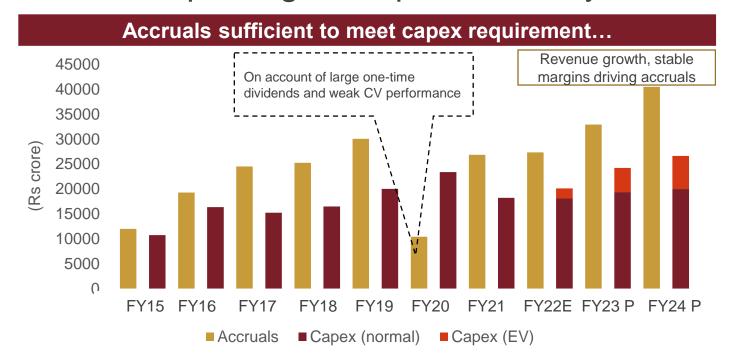


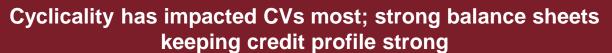


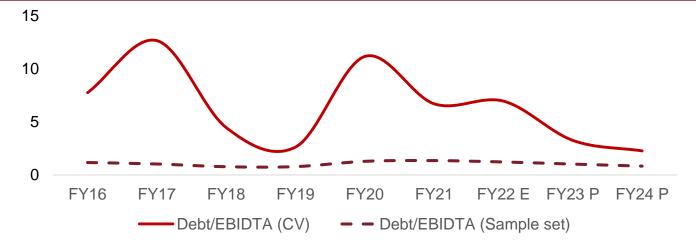
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Debt metrics and credit profiles of OEMs remain healthy

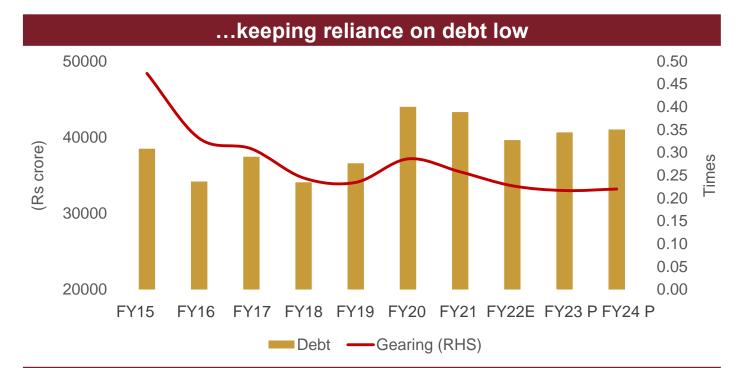
This is despite higher capex driven by EVs and PLI



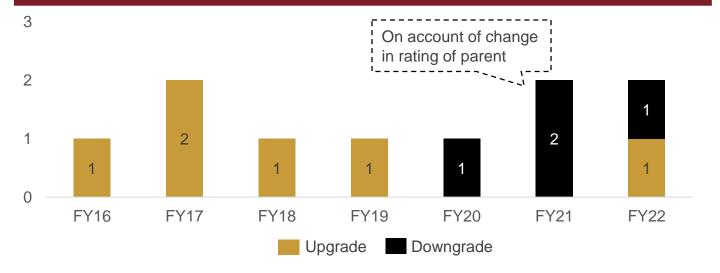




Source: CRISIL Ratings E: Estimated ; P: Projected



Minimal rating actions despite cyclical nature of industry





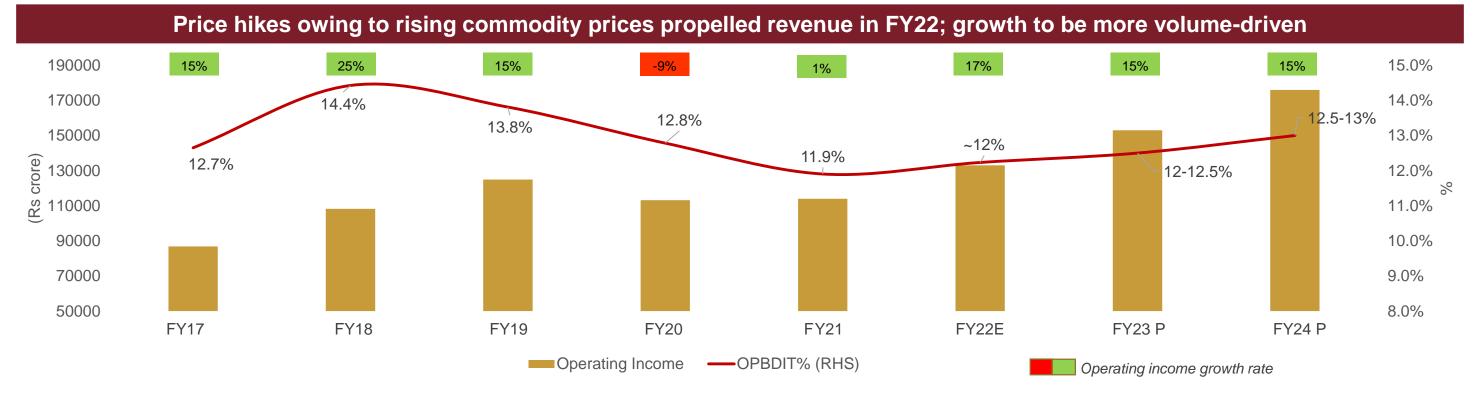
Auto components: profitability and credit outlook



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Revenue growth expected to moderate, though on a higher base

Operating margin to expand slightly



OPBDIT: Operating profit before depreciation interest and tax; E:Estimated P: Projected Source: CRISIL Ratings

- Well-diversified OEM base ensured that players were not affected by slowdown in any single segment in fiscal 2022, e.g. two-wheeler
- Strong exports also offset sluggishness in domestic demand in the fiscal; China +1 sourcing strategy aiding Indian players



Source: 30 large listed auto component companies

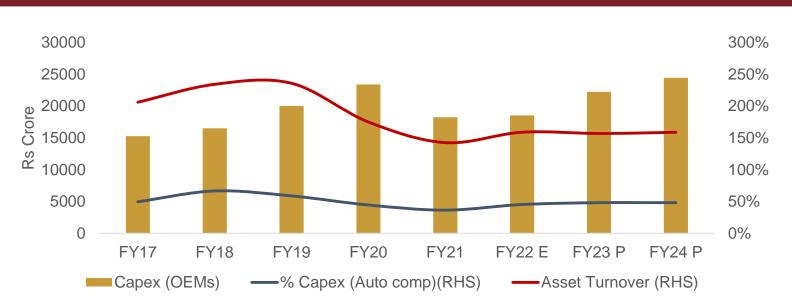
E: Estimated; P: Projected



Capex of OEMs to drive spend by component suppliers

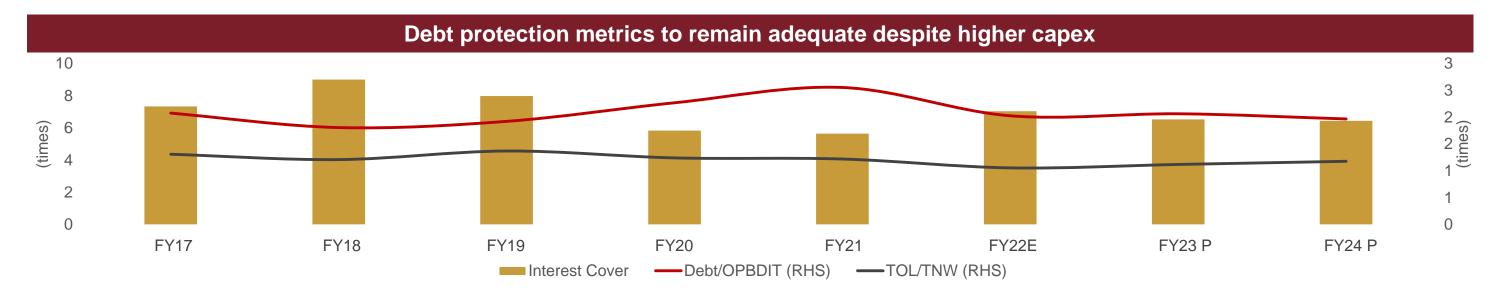
Better operating leverage and accrual to ensure stable debt metrics

Capex of auto comp picked up marginally in fiscal 2022, to improve further



Majority of the capex is demand linked; capacity built up over 2017 to 2019 continues to serve current requirement

- Future capex to be driven largely by PLI and EV requirements
- Players to incur capex for reducing dependence on imports



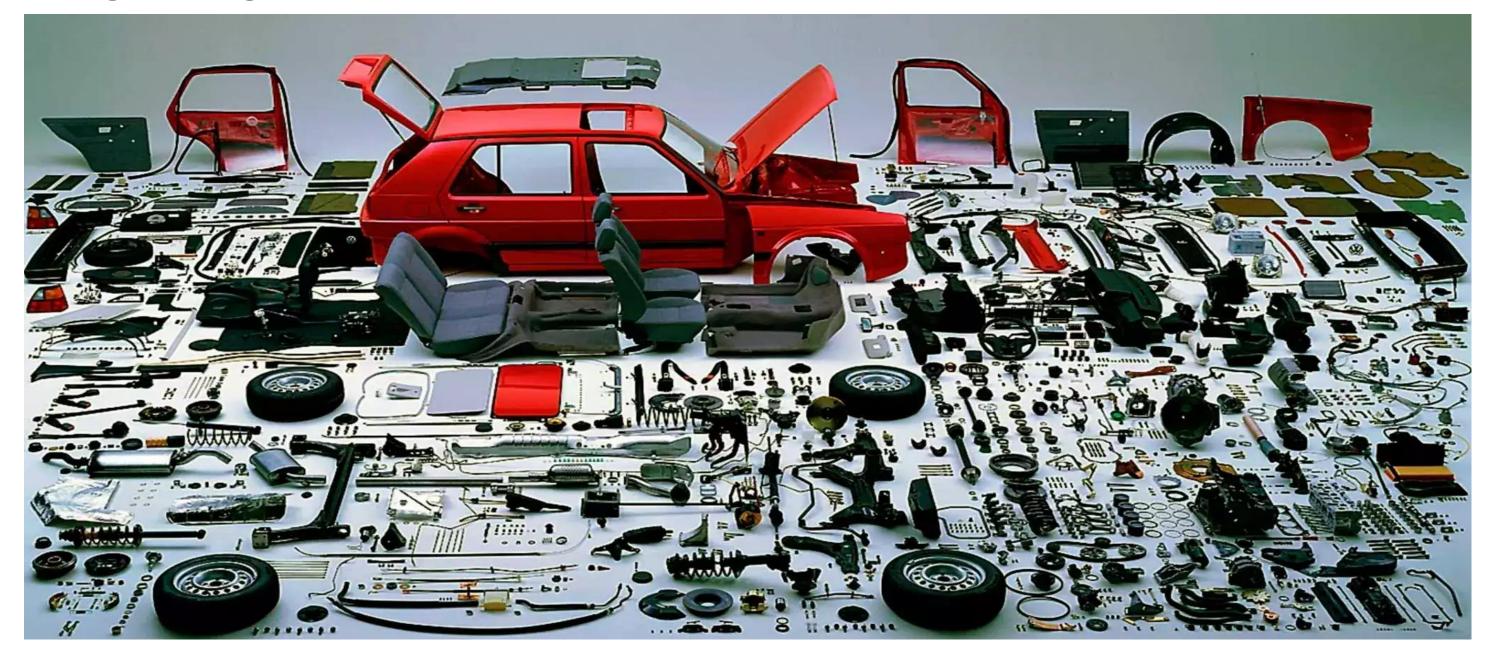
TOL/TNW: Total outside liabilities/total net worth; E:Estimated; P: Projected Source: CRISIL Ratings

% capex (auto comp): Capex undertaken by auto comp players as a % of capex by OEMs



Section 2

Their view





Excerpts from a panel discussion held during the webinar (1/4)

Eminent panelists



Shrikant Badve
Managing Director,
Badve Group of Industries



Ganesh Mani
Director - Manufacturing Operations,
Hyundai Motor India Ltd



Vikas Chandra Sinha
Senior Vice President – Strategy,
Mahindra CIE Automotive Ltd



P A Padmanabhan Group CFO, Rane Group



Perspectives on growth

PV segment

- Higher commodity prices are not expected to materially impact demand, as the increase in prices is not fully passed on to the consumers as well as the modest lending rates
- However, the interest cost might go up 50-75 bps in the second half of fiscal 2022, which, along with higher commodity prices, might have an impact on demand
- UV preference over small cars have been a global phenomenon. In India, SUVs are preferred for large space, customer perception of safety and ground clearance
- While the overall industry volumes are expected to double in the next 5-7 years, the requirement for all vehicle segments will also increase. However, SUVs are expected to grow faster than the other segments of cars



Excerpts from a panel discussion held during the webinar (2/4)

CV segment

- Commercial-vehicle volumes have been on a decline since fiscal 2020; hence, growth in CV volumes will be sustained due to low base; however, the possibility of CV volumes reaching fiscal 2019 levels in the next 1-2 years is unlikely
- Key macroeconomic factors which are the CV growth drivers such as GDP, gross value added, IIP and gross capital formation point to a favorable trend for CVs. The government has committed to invest heavily in infrastructure, which, along with a moderate interest rate regime will contribute to growth in the CV segment
- Replacement demand for CVs remains strong, as most of the transport players
 are operating with an ageing fleet. Truck demand is a derivate of GDP growth,
 hence more cyclical. However, the near-term outlook remains positive. The
 commodity inflation and a sharp rise in interest rates will remain key
 monitorables

TW market

 The TW market was consistently growing; however, over the past two years, growth was impacted by an increase in vehicle costs and the postponement of vehicle buying due to caution and confusion regarding EVs. Demand is expected to be healthy going forward.



Semiconductor shortage

- A myriad of factors has impacted semiconductor availability, and just when it was
 easing out, the shutdown of Shanghai port and the Russia-Ukraine crisis have
 exacerbated the shortage, as both Russia and Ukraine manufacture a significant
 chunk of critical materials required for semiconductor production
- Short-term visibility on semiconductor availability remains uncertain, but the second half of fiscal 2023 is expected to be better as Covid-19 eases
- OEMs have stocked up other raw materials so that when the semiconductor shortage eases, production can increase to meet demand
- With adoption of EVs and autonomous cars set to increase by 2025, semiconductor demand will increase further. However, chip requirements are not expected to be an issue over the medium-to-long term

Perspective on EV adoption PV segment

- Most 4W OEMs have announced investments in EV and the government has also targeted 30% EV penetration by 2030. There has also been support by the government through PLI schemes and policies
- Despite this, EV penetration over the next 3-4 years is expected to be around 4-5%, as the cost of EV cars will be higher by 30-45% compared with ICE cars.
 EVs will likely coexist with CNGs, petrol and diesel vehicles
- Mass production will bring down the cost of EV cars due to economies of scale, leading to mass adoption

An S&P Global Company

Excerpts from a panel discussion held during the webinar (3/4)

TW segment

- Electric two-wheelers have been on the wrong side of news; however, it is not expected to majorly hinder the growth in 2W EVs
- Government support is available for EVs and the government has also mandated EV players to improve the testing level. There has been some loss in momentum, due to negative coverage. However, the OEMs will catch up with growth

Perspective on Indian auto-components sector

- Export growth expected to sustain as Indian auto-component players have become world-class due to their engineering capabilities
- China+1 strategy has boosted export demand and Indian auto-component players are poised to capitalise and increase the share of exports. However, challenges remain in terms of increasing logistic costs, input costs and supplychain issues
- Indian auto-component players are not expected to actively seek acquisitions in overseas countries as companies will primarily focus on stabilisation and consolidation after 2-3 years of muted performance

- There will also be investments through the PLI scheme and for EV adoption; hence, stabilisation will be the priority before moving towards acquisition in overseas markets
- While imports have been higher than exports in the auto-components space, the shift towards higher exports will happen gradually. However, it is bound to take time
- There have been a number of investments in new technologies, manufacturing semiconductors and electronic parts, which, combined with the China +1 strategy, will lead to higher exports and lower imports
- With the shift towards EVs and subsequent reliance on software, India will have an edge over other countries, which will also contribute to exports

Profitability outlook – auto components

- Absolute profits of auto-component players are expected to remain stable as most of the increase in prices is passed on to OEMs. Margins could moderate due to higher topline
- Over the past 2-3 years, when the industry was under stress, companies have focused on improving efficiency through automation and engineering solutions, in addition to cost-control measures. Hence, as and when the commodity prices stabilise, auto-component players would be poised to capitalise on the benefits of efficiency improvement





Excerpts from a panel discussion held during the webinar (4/4)

Impact on auto-component players due to EV adoption

 Fewer moving parts will not be a constrain, as the non-moving parts might also involve complex engineering. Indian auto-component players have the capability, but the impact will depend on the level of outsourcing

Battery swapping policy

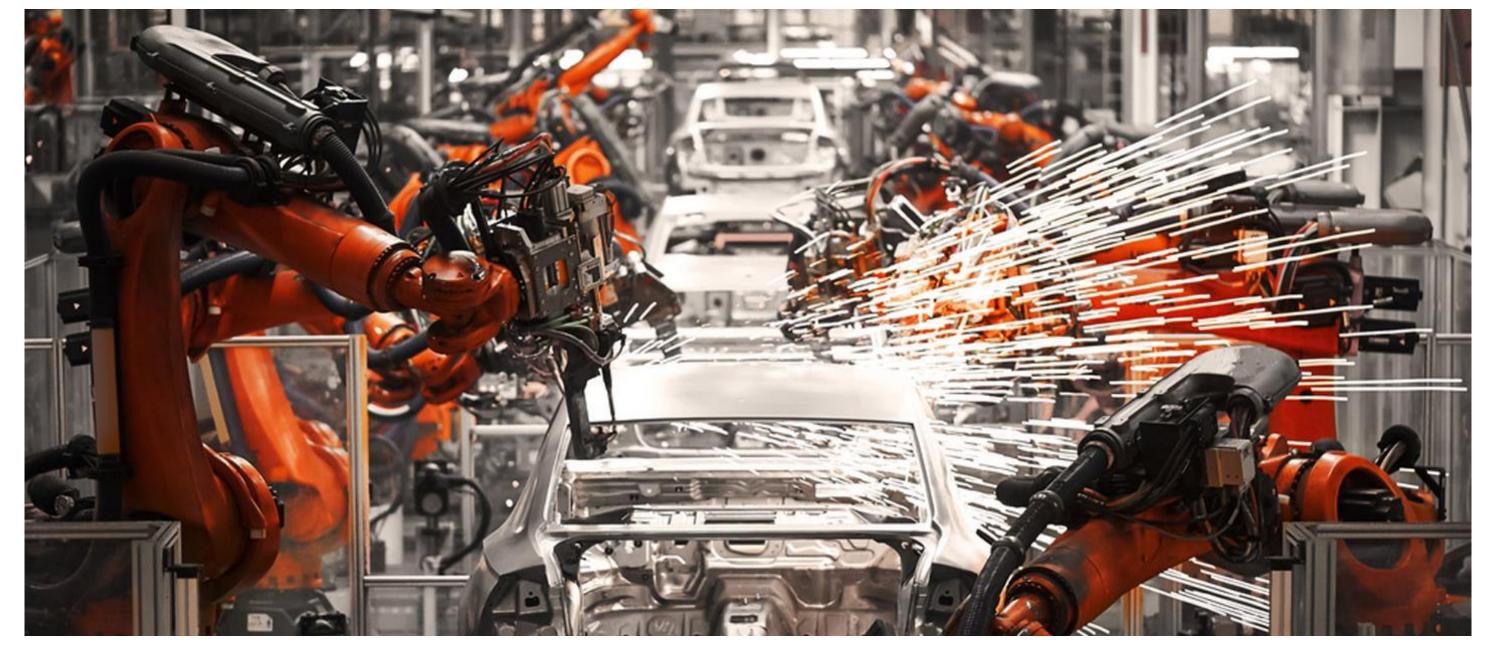
- In the four-wheeler segment, battery-swapping is not a viable option because of the battery size and comfort factor. In the 4W segment, players are focusing on improving the range, offering better pick-up and improving the convenience, which will be difficult in battery-swapping
- In two-wheeler and three-wheeler segments, battery-swapping will be a viable option





Section 3

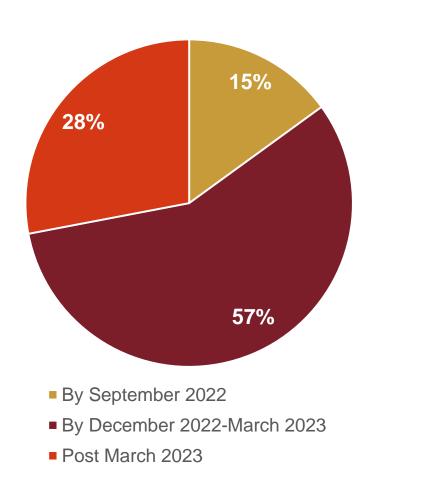
Poll view



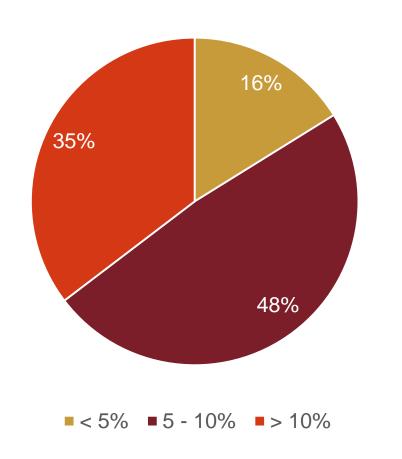


Results of a survey conducted during the webinar (1/2)

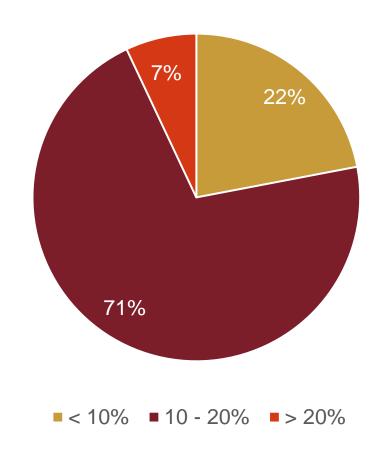
Q1. When do you expect the semiconductor or chip shortage to abate and OEM vehicle backlog to gradually clear?



Q2. What is your estimate for EV penetration in the two-wheeler segment by fiscal 2025?



Q3. What is your expectation of revenue growth for the auto components sector in fiscal 2023?

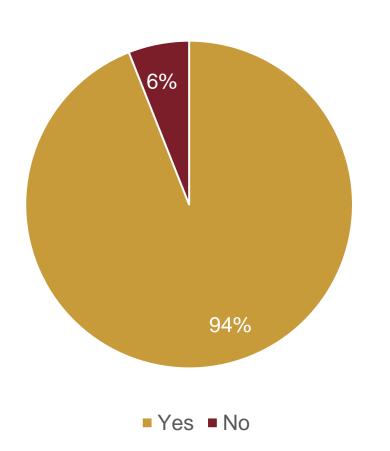


Source: Audience Poll

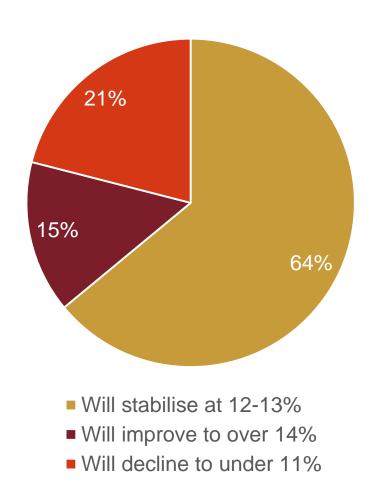


Results of a survey conducted during the webinar (2/2)

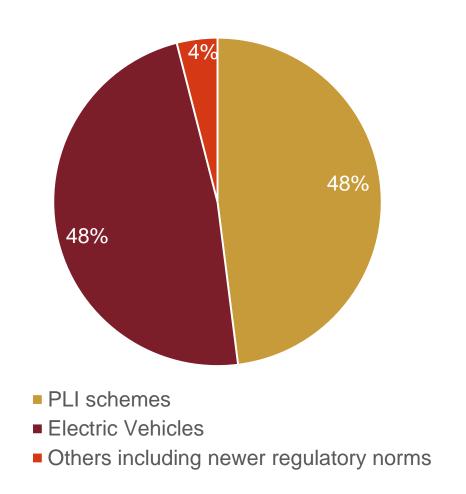
Q4. Will auto-component players see an acceleration in exports over the medium term due to China+1 sourcing strategy of global OEMs?



Q5. What is your expectation of operating margins for the auto-component sector for fiscal 2023?



Q6. Which factor do you think will drive higher capex intensity for OEMs and auto-component manufacturers?



Source: Audience Poll



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Auto and auto-component players rated by CRISIL Ratings





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Automobile companies rated by CRISIL Ratings

Maruti Suzuki India Ltd Hyundai Motor India Ltd Mercedes-Benz India Pvt Ltd Daimler India Commercial Vehicles Pvt Ltd Force Motors Ltd Fiat India Automobiles Pvt Limited Tata Motors Ltd Mahindra & Mahindra Ltd Tractors and Farm Equipment Ltd **Escorts Limited** Hero MotoCorp Ltd Bajaj Auto Ltd Piaggio Vehicles Private Ltd



Auto-component companies rated by CRISIL Ratings (1/5)

A. R. Auto
Accrete Electromech Private Limited
Accurate Products Corporation Private Limited
Adinath Forging Private Limited
Aditya Auto Products and Engineering India Private Limited
Admach Auto Industries India Private Limited
Alicon Castalloy Limited
Allied Nippon Private Limited
ALP Nishikawa Company Private Limited
ALP Overseas Private Limited
Amar Autotech Private Limited
Amar Udyog - Faridabad
Arora Iron and Steel Rolling Mills Private Limited
Ashok Iron Works Private Limited
ASK Automotive Private Limited

ASK Fras-le Friction Private Limited
Atlas Castalloy Limited
Aurangabad Electricals Limited
Auto Ignition Limited
Auto International India Private Limited
Autocop India Private Limited
Automotive Stampings and Assemblies Limited
Autotech Industries India Private Limited
Badve Autocomps Private Limited
Badve Autotech Private Limited
Badve Engineering Limited
Bajaj Sons Limited
Bellsonica Auto Component India Private Limited
Bhagwati Autocast Limited
Bharat Gears Limited

Supreme Nonwoven Industries Private Limited
Swastid Engineering Private Limited
TATA Autocomp GY Batteries Private Limited
TATA AutoComp Hendrickson Suspensions Private Limited
Tata Autocomp Systems Limited
Tata Ficosa Automotive Systems Private Limited
Tata Toyo Radiator Limited
Techno Springs India Private Limited
Texspin Bearings Limited
The Hi-Tech Gears Limited
TM Automotive Seating Systems Private Limited
Trinity Engineers Private Limited
Triton Valves Limited
Turbo Energy Private Limited
TVS Sensing Solutions Private Limited



Auto-component companies rated by CRISIL Ratings (2/5)

Bhavani Industries India LLP
Bhogale Automotive Private Limited
BSL Castings Private Limited
Blue Stampings and Forgings Limited
Brakes India Private Limited
Caparo Engineering India Limited
Champion Plastics India Private Limited
Chamundi Die Cast Private Limited
Cikautxo India Private Limited
Cogeme Precision Parts India Private Limited
Continental Automotive Components (India) Private Limited
Craftsman Automation Limited
Dellorto India Private Limited
Devendra Autocom Private Limited
Dighvijay Plastics And Allied Plastics Products Private Limited

Dyna-K Automotive Stampings Private Limited
Echjay Industries Private Limited
Elan Auto India Limited
Elta Tools & Dies
Elve Corporation
Emkay Forgings Private Limited
Emmbros AutoComp Limited
Endurance Technologies Limited
Filtrum Fibretechnologies Private Limited
Fleetguard Filters Private Limited
Gabriel India Limited
Gargs Engineers Limited
Gautam Technocast
Gestamp Automotive Chennai Private Limited
Ghaziabad Precision Products Private Limited

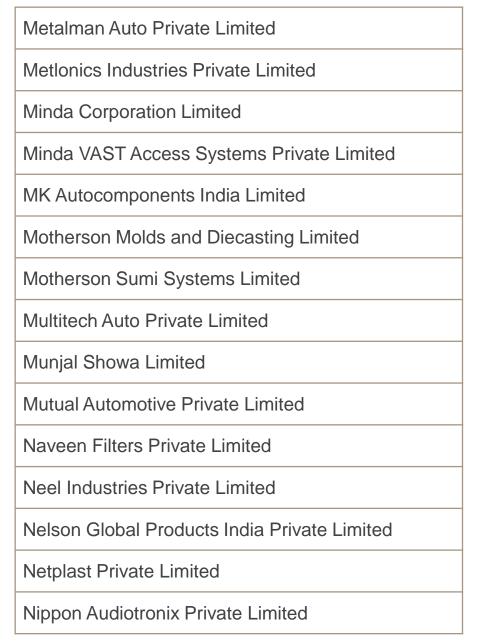
Global Autotech Limited
Goldy Precision Stampings Private Limited
Happy Forgings Limited
Highway Industries Limited
Hindustan Hardy Limited
HMC MM Auto Limited
Hodek Vibration Technologies Private Limited
IM Gears Private Limited
I-MAC India Coach Builders Private Limited
Imperial Auto Industries Limited
India Japan Lighting Private Limited.
Indo Autotech Limited
Integra Automation Private Limited
Jai Gears Private Limited
Jai Parvati Forge Limited



Auto-component companies rated by CRISIL Ratings (3/5)

Jaya Hind Industries Limited
Jaya Hind Montupet Private Limited
JBM Auto Limited
JM Frictech India Private Limited
K R Auto Components Private Limited
Kalyani Forge Limited
Karnataka Turned Components Private Limited
Kiswok Industries Private Limited
KMS Coach Builders Private Limited
Laxmi Agni Components and Forgings Private Limited
Lucas-TVS Limited
Lumax Auto Technologies Limited
Lumax Cornaglia Auto Technologies Private Limited
Lumax FAE Technologies Private Limited
Lumax Gill-Austem Auto Technologies Private Limited

Machino Plastics Limited
Machino Polymers Limited
Madras Engineering Industries Private Limited
Mahavir Die Casters Private Limited
Mahle Anand Thermal Systems Private Limited
Mahle Engine Components India Private Limited
Mal Metalliks Private Limited
Marathwada Auto Compo Private Limited
Maruichi KUMA Steel Tube Private Limited
Masu Brakes Private Limited
Meenakshi Polymers Private Limited
Mega Rubber Technologies Private Limited
Mekins Industries Limited
Menon and Menon Limited
Menon Bearings Limited





Auto-component companies rated by CRISIL Ratings (4/5)

Nirmiti Precision Private Limited
Novares India Automotive Private Limited
NRB Bearings Limited
OMR Bagla Automotive Systems India Limited
Paranjape Autocast Private Limited
Pavna Industries Limited
Piano Presitel
Polyhose India Private Limited
Polyrub Extrusions India Private Limited
Pooja Forge Limited
PPAP Automotive Limited
Pradip Plastic Moulders Private Limited
Punch Ratna Fasteners Private Limited
Rajatdeep Overseas Private Limited
Rajsriya Automotive Industries Private Limited

Rane (Madras) Limited
Rane Engine Valve Limited
Rivoltech Auto Engineering Private Limited
Roop Automotives Limited
S M Auto Engineering Private Limited
S. S. B. Engineers Private Limited
SAMKRG Pistons and Rings Limited
Samvardhana Motherson Auto Component Private Limited
San Engineering and Locomotive Company Limited
Sekisui DLJM Molding Private Limited
Sharada Industries
Sharda Auto Industries Limited
Sharda Motor Industries Limited
Simmonds Marshall Limited
Sintercom India Limited

SNL Bearings Limited
Spark Engineering Private Limited
Sree Sumangala Metals and Industries Private Limited
Sridevi Tool Engineers Private Limited
Standard Radiators Private Limited
Studds Accessories Limited
Suja Shoei Industries Private Limited
Sujan Cooper Standard AVS Private Limited
Sujan Industries
Sunbeam Lightweighting Solutions Private Limited
Sundaram-Clayton Limited
Sundram Fasteners Limited
Sunflag Iron and Steel Co.Limited
Suprajit Engineering Limited
SNL Bearings Limited



Auto-component companies rated by CRISIL Ratings (5/5)

Filtrum Autocomp Private Limited
Gencor Pacific Auto Engineering Private Limited
Globe Steels Private Limited
Guru Nanak Auto Enterprises Limited
Micro Tech Cnc Private Limited
Napino Auto and Electronics Limited-(Consolidated)
Opel Auto Products Private Limited
Polyrub Cooper Standard Fts Private Limited
Pondy Die Casting Private Limited
Radiant Polymers Private Limited
Reliable Autotech Private Limited
Yeshshree Press Comps Private Limited
Shree Amba Industries
Jayashree Polymer Exports Private Limited
Jayashree Polymers Private Limited-(Consolidated)

Kumar Elastomech Private Limited
Mahabal Metals Private Limited
Shri Ram Autotech Private Limited
SM Exhaust Technology Private Limited
Soni Auto and Allied Industries Limited
Swami Ashirwad Engimech Private Limited
Ucal Fuel Systems Ltd -(Consolidated)
Victora Tool Engineers Private Limited-(Consolidated)
Ukay Metal Industries Private Limited
Umasons Auto Compo Private Limited
Universal Precision Screws
VEE GEE Auto Components Private Limited
VeeGee Industrial Enterprises Private Limited
Vega Aviation Products Private Limited
Viney Corporation Limited





Thank you

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