

An assessment of the automobile dealership industry in India

January 2024



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1 An overview of global macroeconomic conditions

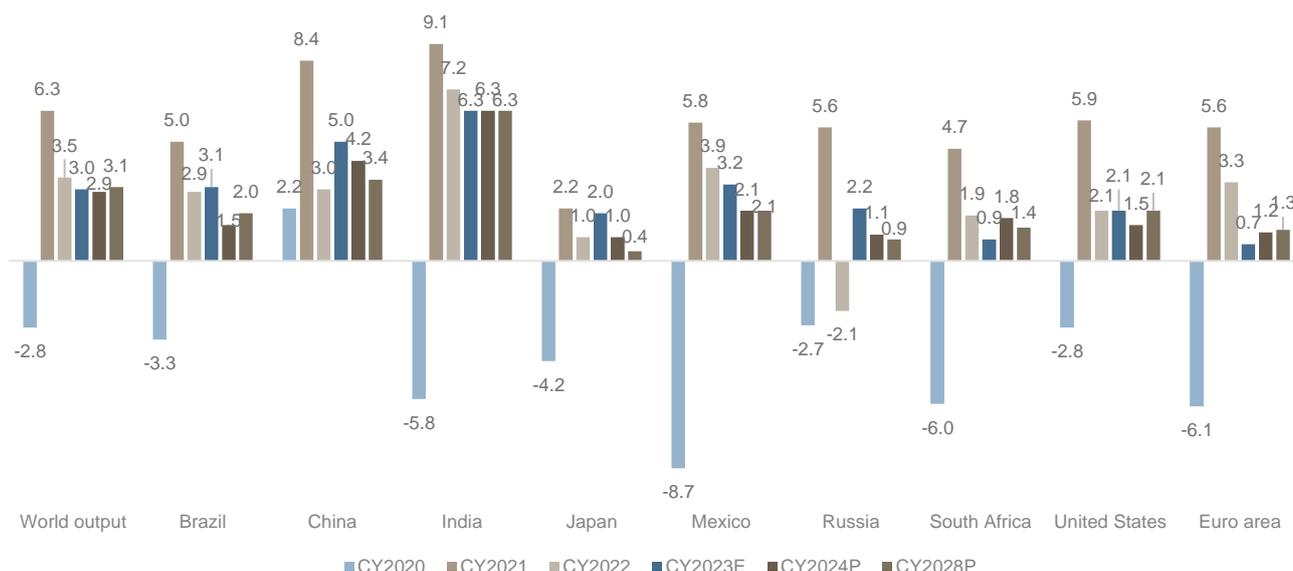
Review and outlook of economic and inflation trends in key countries

The global economy continues to recover slowly from the challenges heaped by the Covid-19 pandemic, Russia’s invasion of Ukraine, and considerable tightening of global monetary conditions to address elevated inflation. However, a return to pre-pandemic growth trajectory seems increasingly challenging, particularly in the case of emerging and developing economies. The convergence of several forces is holding back a steady recovery. Some of these are long-term fallouts of the pandemic, the war in Ukraine, and increasing geoeconomic fragmentation. Others are cyclical, including the effects of monetary policy tightening to cool inflation, withdrawal of fiscal support amid high debt levels, and extreme weather events.

As per the International Monetary Fund (IMF):

- The global economy is projected to decelerate from 3.5% in 2022 to 3.0% in 2023, and further to 2.9% in 2024
- In the case of advanced economies as well, growth is forecast to slow down from 2.6% in 2022 to 1.5% in 2023, and 1.4% in 2024, as stronger US momentum is more than offset by weaker growth in the euro area
- The growth rate of emerging and developing economies is projected to post a modest slowdown as well, from 4.1% in 2022 to 4.0% in 2023 and in 2024, with the downward revision of 0.1% point in 2024 reflecting a property sector crisis in China. Over the medium term, too, emerging and developing economies are forecast to grow at the slowest pace in decades, expanding just 3.1%. Thereby, these countries transitioning to higher living standards is still some way off

GDP growth of key economies



* Euro area comprises 19 member countries of the EU

Source: International Monetary Fund (IMF; World Economic Outlook – October 2023 update), CRISIL MI&A Consulting

S&P Global expects the global economy to expand 3.3% this year, marking a 20 basis points (bps) increase from its previous forecast. S&P Global raised its gross domestic product (GDP) growth forecast for China by 60 bps to 5.4%, the United States (US) by 10 bps to 2.4% and the United Kingdom (UK) by 20 bps to 0.5%. Meanwhile, it cut its forecast for Japan by 10 bps to 1.7% and kept the forecast for the eurozone unchanged at 0.6%.

US growth revised upwards

The US Federal Reserve (Fed), Bank of England, European Central Bank (ECB) and Bank of Japan (BoJ) held interest rates steady at their latest policy meetings. These central banks, excluding BoJ, have raised rates by 400-525 bps in the current cycle to curb high inflation. Inflation remains above targets but has eased from the highs of 2022.

US GDP growth accelerated sharply in the third quarter of this year, at an annualised rate of 5.2%, higher than 2.1% the previous quarter and revised upwards from the advance estimate of 4.9%. This marks the fastest pace of acceleration since the fourth quarter of 2021. The upward revision was mainly due to a revision in non-residential investment, which rose 1.3% compared with initial estimates of a mild contraction, and an upward revision in state government spending. Consumer spending growth was revised downwards slightly to 3.6% but was still robust. S&P Global raised its GDP growth forecast for this year and the next by 10 bps each to 2.4% and 1.5%, respectively.

The economy added 199,000 non-farm payroll jobs in November, compared with 150,000 in the previous month. Employment improved in manufacturing, which was affected by strikes in the previous month. However, the economy added fewer jobs than the average gain of 240,000 in the previous 12 months.

Inflation inched down to a five-month low of 3.1% in November from 3.2% in October, as energy prices fell 5.4% compared with 4.5% in the previous month. Inflation also eased in food (2.0% vs 3.3%) and shelter (6.5% vs 6.7%). Core inflation remained steady at 4%.

The US Fed held rates in December for the third consecutive time. The Fed funds rate stands at a 22-year high of 5.25-5.5%. The US Fed had a dovish stance, indicating the possibility of cumulative 75 bps of rate cuts next year. Its dot-plot now projects the policy rate at 4.6% by the end of next year, compared with the previous estimate of 5.1%.

ECB maintains interest rates

GDP growth in the eurozone slowed to -0.1% on-quarter (seasonally adjusted) in the third quarter from a downwardly revised 0.1% in the previous quarter. S&P Global expects the eurozone economy to grow 0.6% this year and 0.8% in the next.

Inflation in the eurozone moderated to 2.4% in November, the lowest print in over 2 years, from 2.9% in the previous month, according to Eurostat's flash estimate. Energy inflation eased to -11.5% from -11.2%. Inflation also eased in food (6.9% vs 7.4%), non-energy industrial goods (2.9% vs 3.5%) and services (4% vs 4.6%). Core inflation, excluding energy, food, alcohol and tobacco, eased to 3.6% from 4.2%.

The ECB maintained interest rates for the second consecutive meeting in December. The main refinancing operations rate stands at 4.5%. The central bank expects inflation to return to its target of 2% in 2025. It cut its inflation forecast for 2023 by 20 bps to 5.4% and for 2024 by 50 bps to 2.7%.

UK trade deficit widens

UK GDP fell 0.3% on-month in October after expanding 0.2% in the previous month. Output contracted in all the three major sectors — services (-0.2%), production (-0.8%) and construction (-0.5%). The fall in services output was driven by the information and communication sub-sector (-1.7%). Output in consumer-facing services fell 0.1%, remaining below pre-pandemic levels. S&P Global projects the UK economy to grow 0.5% this year.

The Bank of England kept the policy rate unchanged at 5.25% for the third straight meeting in December. Three members of the Monetary Policy Committee (MPC) voted for a rate hike of 25 bps, while six members voted to keep the rate unchanged. The central bank expects inflation to return to 2% by the end of 2025 but believes that upside risks remain. The inflation print for October was 4.6%, well above the MPC's target.

The UK's trade deficit increased to £4.5 billion in October from £1.57 billion in the previous month, as imports grew 4.6%, while exports grew a milder 0.6%.

Manufacturing activity contracts in Japan

In the third quarter, Japan's GDP contracted more sharply than previously estimated. GDP growth for the quarter was revised downwards to -2.9% (annualised), from -2.1% in preliminary estimates. Growth for the second quarter was also revised downwards to 3.6% (annualised) from 4.5%. S&P Global forecasts Japan's economy to grow 1.7% this year.

The au Jibun Bank Japan Manufacturing Purchasing Managers' Index (PMI) decreased to 47.7 in November from 48.3 previous month, remaining below the neutral level of 50 for the seventh consecutive month. This was the sharpest contraction in manufacturing activity since February. On the other hand, the services PMI rose to 52 from 50.8.

Inflation rose to 3.3% in October from 3% in the previous month, led by hardening inflation in fuel and light (-10% vs -14.3%). Food inflation remained high at 8.6%, though it eased from the previous month. Core inflation inched up to 2.9% from 2.8%.

The BoJ kept its policy rate unchanged at -0.1% in December. It also maintained its yield curve control policy, which will allow the yield on the 10-year Japanese government bond to rise above 1%. Inflation in Japan has been above the central bank's target for over a year.

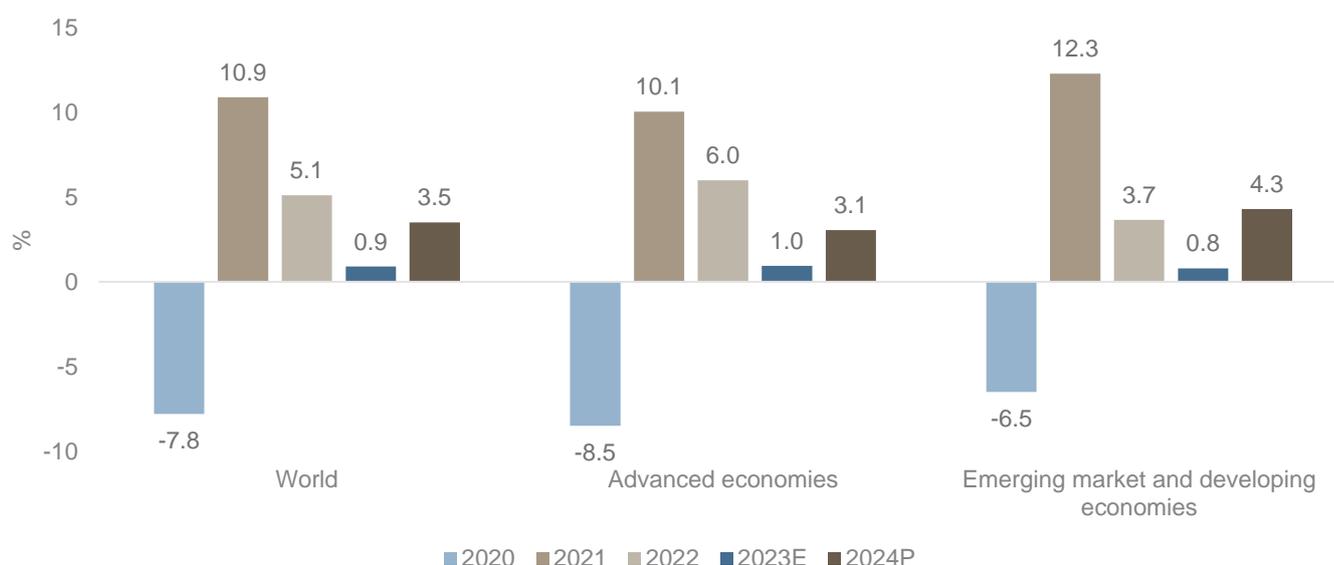
Inflation in China remains negative

The National Bureau of Statistics (NBS) Manufacturing PMI inched down to 49.4 in November from 49.5 in the previous month. The NBS Non-manufacturing PMI declined for the second straight month (50.2 vs 50.6) but remained above the threshold level of 50.

China slipped further into deflation in November with the inflation rate declining to -0.5%, from -0.2% in the previous month. Food prices fell 4.2% on-year, compared with a 4% fall in the previous month. Non-food inflation also decelerated to 0.4% from 0.7%. Core inflation, which excludes food and energy, was unchanged at 0.6%.

China's trade surplus widened slightly to \$68.39 billion in November from \$66.49 billion in the same month last year, as imports declined (-0.6%) while exports rose (+0.5%).

IMF world trade growth projection



Advanced economies – US, Japan, euro area; emerging market and developing economies – China, India, Russia, Brazil, Mexico, South Africa

Note: Average annual % change of export and import trade in goods and services has been considered

Source: IMF (World Economic Outlook – October 2023 update), CRISIL MI&A

2 An overview of Indian economic conditions

Review of real GDP growth over fiscals 2018-2023 and outlook for fiscals 2023-2028

The Indian economy logged 4.1% CAGR between fiscals 2018 and 2023. This was a sharp deceleration from a robust 6.6% CAGR between fiscals 2017 and 2019, which was driven by rising consumer aspiration, rapid urbanisation, the government's focus on infrastructure investment and growth of the domestic manufacturing sector. Economic growth was supported by benign crude oil prices, soft interest rates and low current account deficit. The Indian government also undertook key reforms and initiatives, such as implementation of the Goods and Services Tax (GST) and Insolvency and Bankruptcy Code, Make in India and financial inclusion initiatives, and gradual opening of sectors such as retail, e-commerce, defence, railways, and insurance for foreign direct investments (FDIs).

A large part of the lower print between fiscals 2018 and 2023 was because of the economy contracting 5.8% in fiscal 2021 owing to the fallout of Covid-19. The pandemic's impact was more pronounced on contact-sensitive services and social distancing norms-affected services such as entertainment, travel, and tourism, with many industries in the manufacturing sector also facing issues with shortage of raw materials/components as lockdown in various parts of the world upended supply chains.

Over the period, India's economic growth was led by services, followed by the industrial sector. In parts, though, growth was impacted by demonetisation, the non-banking financial company (NBFC) crisis, slower global economic growth and the pandemic.

As lockdowns were gradually lifted, economic activity revived in the second half of fiscal 2021. After a steep contraction in the first half, owing to rising number of Covid-19 cases, GDP moved into positive territory towards the end of fiscal 2021. Subsequently, in fiscal 2022, India's real GDP grew 9.1% from the low base of fiscal 2021.

According to National Statistical Office estimates released on August 31, 2023, GDP growth rose sharply to 7.8% on-year in the first quarter (April-June) of fiscal 2024 compared with 6.1% in the first quarter fiscal 2023. However, this was slightly below the Reserve Bank of India's (RBI) projection of 8% for the quarter. Industrial activity in the country is expected to slow in the coming months. S&P Global's Purchasing Manager Index (PMI) for domestic manufacturing moderated to 57.5 in September 2023, but railway freight and auto sales recorded higher growth.

The industrial sector extended its recovery in the second quarter, while the services sector remained buoyant. Investment maintained momentum, supported by government spending. Rising capacity utilisation augurs well for private sector investment as well. However, slowing global growth has been dragged by weaker goods exports. However, the Monetary Policy Committee (MPC) maintained its real GDP growth projection at 6.5% for fiscal 2024.

Domestic demand may remain supportive of growth. The latest RBI survey shows consumer confidence reaching a four-month high in September. Manufacturing remains highly optimistic of demand conditions, while banks expect further improvement in loan demand in the second half of this fiscal.

However, monsoon remains a risk to rural demand. Rain was uneven in fiscal 2024 and ended 6% below the long period average (LPA). Rabi output also faces risks from low reservoir levels. Further, the RBI's rate hikes are expected to slow down GDP growth after peaking 7.8% in the first quarter of fiscal 2024.

India's real GDP continued in strong expansionary mode, growing 7.6% in the second quarter (July-September) of fiscal 2024, vs 7.8% in the first quarter (April-June) of fiscal 2024. It was 6.2% for the same period of fiscal 2023. With this, growth has trended above the pre-pandemic five-year average quarterly growth of 6.7%.

Growth surpassed forecasts in the second quarter, driven by strong government spending and a sharp rise in manufacturing and construction growth. Globally, too, growth beat expectations in major economies such as the US and China, contributing to better export earnings for India.

However, private consumption was tepid, possibly reflecting hit to agriculture and rural demand. However, we expect growth to slow in the second half of fiscal 2024, driven by the impact of tightening financial conditions on global growth and exports, weak rains and reservoir levels on domestic agriculture and transmission of the RBI's rate hikes to bank lending rates.

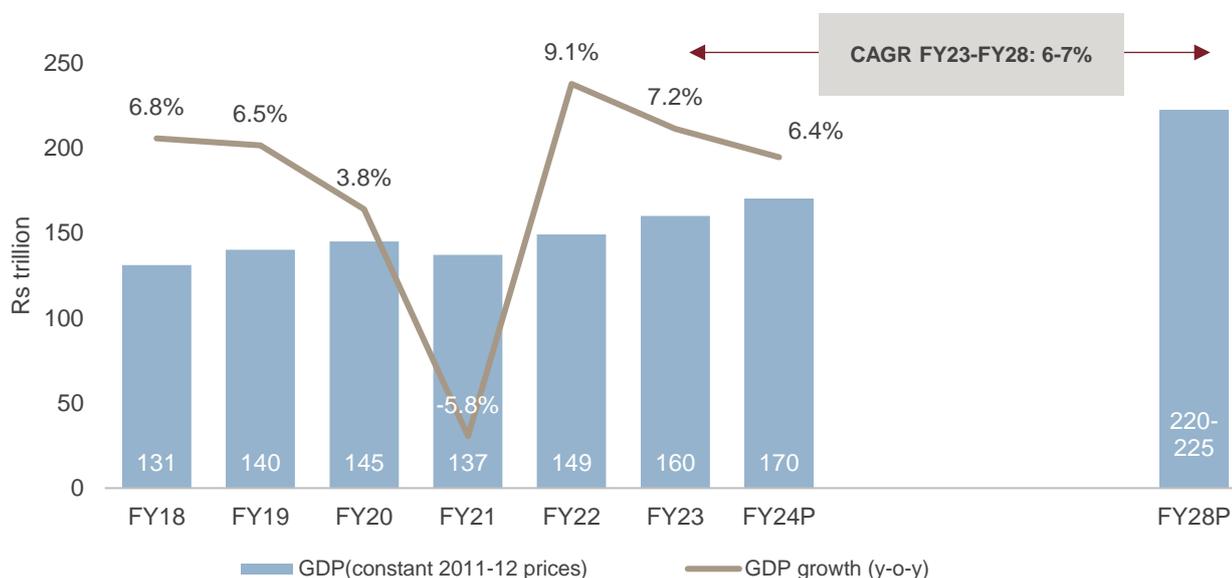
Nominal GDP grew 9.1% in the second quarter of fiscal 2024 compared with 8% in the first quarter.

Within domestic demand, growth was strongest for government consumption expenditure (12.4%), followed by fixed investment (11.0%). Exports took a positive turn (4.3%). However, private consumption saw the slowest growth (3.1%) in the second quarter of fiscal 2023.

Government capital expenditure (capex) is expected to remain a key support to the investment cycle this year. Private investment is also showing signs of pick-up, with rising capacity utilisation in manufacturing.

Owing to these factors, CRISIL MI&A estimates GDP growth to slow to 6.4% in this fiscal from 7.2% in the last.

India's GDP growth trend and outlook



Note: E - estimated and P - projected

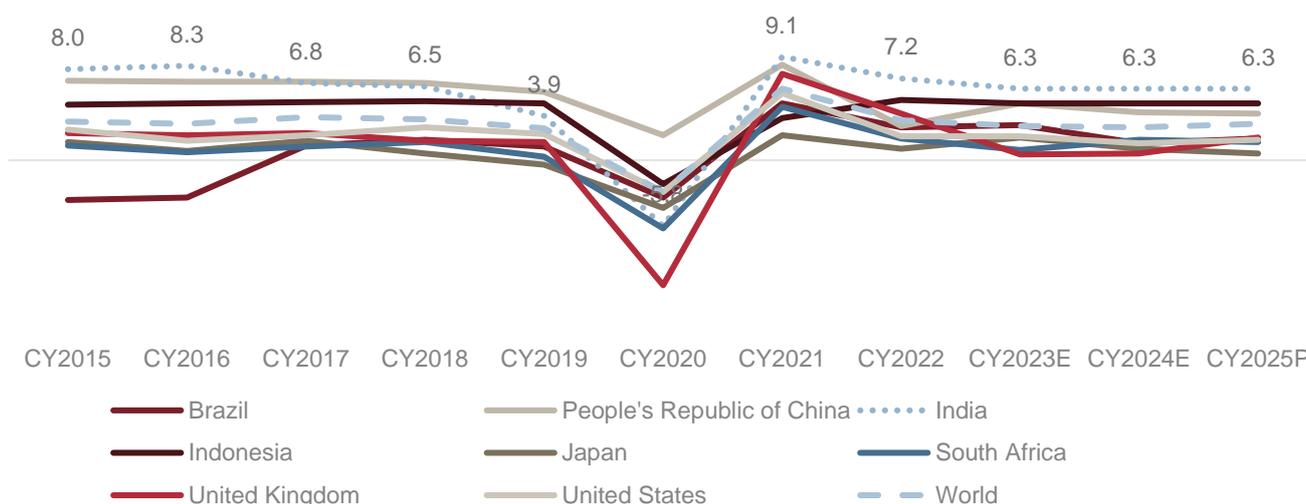
Source: National Statistical Office (NSO), IMF, CRISIL MI&A estimates

On the supply side, gross value added (GVA) grew 7.4% in the second quarter of fiscal 2024 compared with 7.8% in the first quarter of fiscal 2024. Growth was the strongest for industry (13.2%), followed by services (5.8%), and agriculture and allied (1.2%) in the second quarter of fiscal 2024.

India to remain a growth outperformer globally

Despite slowdown in the near term, India’s growth is expected to outperform over the medium run. CRISIL MI&A expects GDP to grow at 6-7% CAGR between fiscals 2023 and 2028, compared with 3-3.2% world economy growth estimated by the IMF.

India is one of the fastest growing emerging economies (GDP growth, % on-year)



E: estimated; P: projected

Note: GDP growth based on constant prices

Source: IMF (World Economic Outlook – October 2023 update), CRISIL MI&A

Drivers for India's economic growth

- Strong domestic demand is expected to drive India's growth premium over peers in the medium term
- Investment prospects are optimistic, given the government's capex push, progress of Production-Linked Incentive (PLI) scheme, healthier corporate balance sheets, and a well-capitalised banking sector with low non-performing assets (NPAs)
- India is also likely to benefit from its diversification of the supply chain for incoming FDI flows, as global supply chains get reconfigured with focus shifting from efficiency towards resilience and friend shoring
- Private consumption (~57% of GDP) will play a supportive role in raising GDP growth in the medium term

Services sector is the key growth driver

In fiscal 2020, the services sector accounted for 55.3% of India's GDP compared with 52.4% in fiscal 2015. However, its share dipped to 53.6% in fiscal 2021 owing to the pandemic. Fiscal 2022 saw marginal improvement in the share of the services sector with gradual normalisation of market operations.

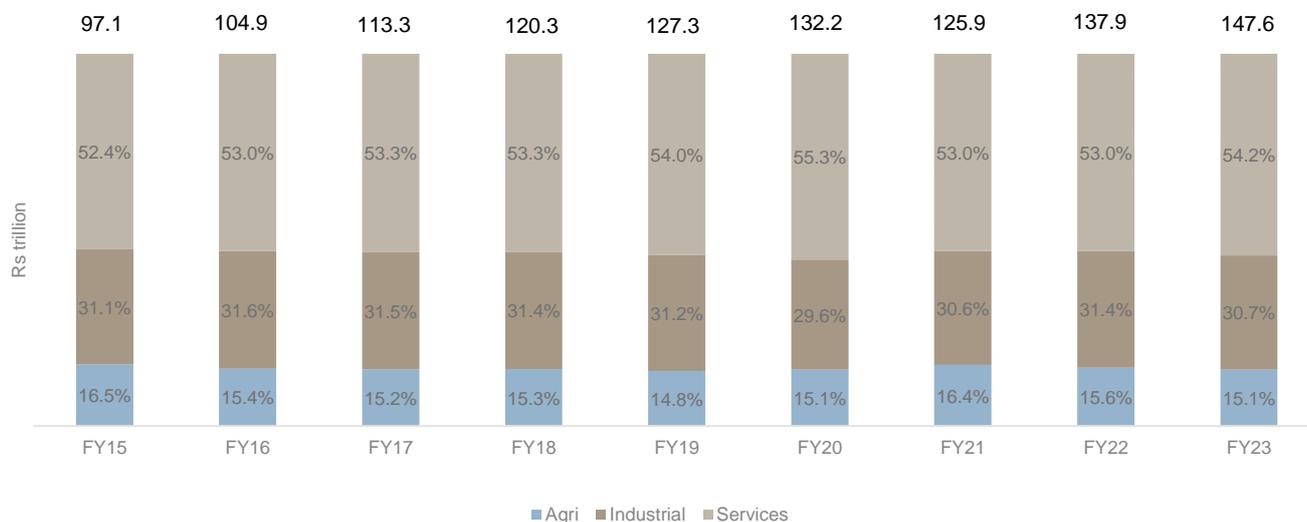
The industrial sector, which is the second-largest contributor, maintained its share in GDP, logging 7.1% CAGR between fiscals 2015 and 2019. Industrial contribution declined in fiscal 2020, with slowdown in economic development. Before overall economic activity slowed down in fiscal 2020, India's industrial sector output growth was supported by the Make in India initiative, rising domestic consumption and GST implementation. The initiatives improved India's position on the World Bank's Ease of Doing Business index to 63 in fiscal 2019 from 142 in fiscal 2014.

The pandemic and subsequent lockdown exacerbated the economic slowdown in fiscal 2021. The services segment was the worst affected and declined 7.8% on-year, followed by industrial, which declined 3.3% on-year. Agriculture was the only sector that grew 3.3% on-year and restricted the fall in GDP.

In fiscal 2021, the agriculture sector's share in Gross Value Added (GVA) at constant prices expanded, while the share of the services and industrial sectors contracted.

Agriculture GVA continued to grow at a steady 4.0% in fiscal 2023. Faster GDP growth in fiscal 2023 saw the share of agriculture increase in the fiscal. The share of industrial sector in GDP grew 4% in fiscal 2023, strongly by utility services with a respectable 8%, higher than all other industrial sectors. Mining grew 5%, while manufacturing and construction added marginal growth momentum from a high base of fiscal 2022. The high base of fiscal 2022 led to moderate growth of the industrial sector in fiscal 2023. The services sector grew 9% in fiscal 2023. THTC saw strong on-year growth of 14% in fiscal 2023.

Share of sector in GVA at constant prices



Source: RBI; CRISIL MI&A

On a quarterly basis, the GVA grew 7.4% in the second quarter of this fiscal 24 compared with 7.8% in the first quarter. Growth was the strongest for industry (13.2%), followed by services (5.8%) and agriculture and allied (1.2%) in the second quarter.

Within industry, growth improved across segments, with strongest growth in manufacturing (13.9%) and construction (13.3%). Within services, growth was highest for public administration, defence and other services (7.6%), followed by financial, real estate and professional services (6.0%), and trade, hotels, transport and communication (THTC; 4.3%)

Within domestic demand, growth was strongest for government consumption expenditure (12.4%), followed by fixed investment (11.0%). Exports took a positive turn (4.3%). However, private consumption saw the slowest growth (3.1%)

CRISIL MI&A expects the contribution of services to increase and the Agri sector to lose some ground during the year due to higher growth in services.

Manufacturing and construction lead growth in second quarter of fiscal 2024

Among major producing sectors, the highest growth was in manufacturing, at 13.9% on-year in the second quarter of this 2024, a major push from 4.7% in the first.

Resilient domestic demand supported growth, while goods exports were less of a drag relative. Industrial goods (metals, machinery, Infrastructure and construction goods) along with some consumer goods (automobiles and pharmaceuticals) saw the highest growth in the second quarter.

Lower input costs on-year, with non-food wholesale price index (WPI) inflation averaged -3% in the second quarter, also supported manufacturing GVA.

Construction GVA grew to 13.3% in the second quarter of this fiscal compared with 7.9% in the first, supported by government capital expenditure (capex) in infrastructure.

Services growth declined to 5.8% in the second quarter of this fiscal against 10.3% in the first and the high base of the second quarter of fiscal 2023, when it was 9.4%.

Growth in THTC declined to 4.3% in the second quarter versus 9.2% in the first as the sector caught up with pre-pandemic levels.

Financial, real estate and professional services slowed to 6% in the second quarter of fiscal 2024 from 12.2% in the first. Financial services performed well with strong credit demand. However, services exports growth moderated 4.6% on average in the second quarter, compared with 6.0% the first.

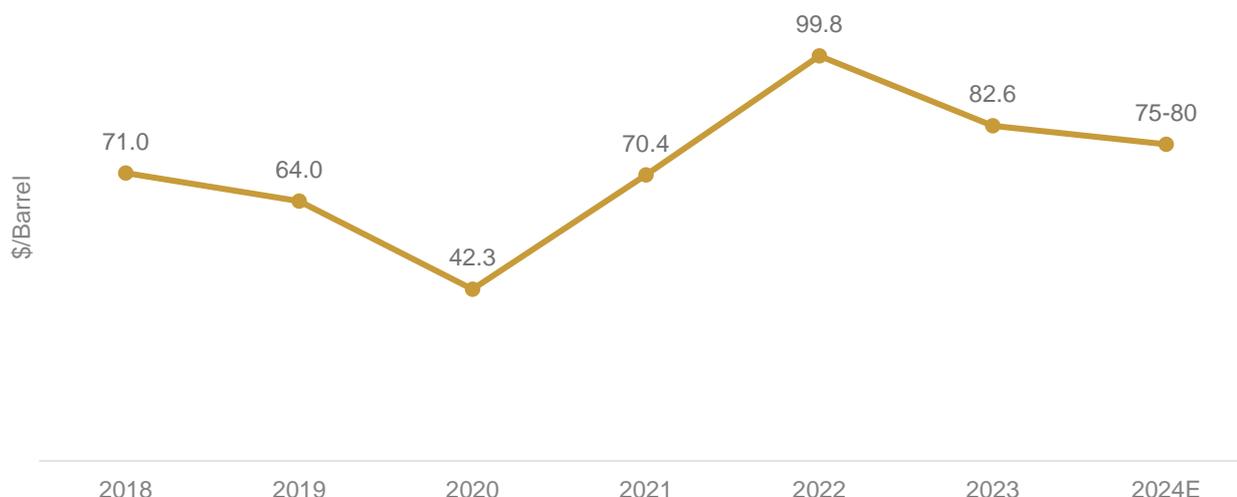
Elevated recessionary fears to impact crude oil prices

Crude oil Prices have continued to be an upward trajectory since end -2021.They became even higher with the Russia-Ukraine conflict, which led to the prices averaging \$100 per barrel(bbl) in 2022.The prices averaged \$106 per barrel in the first half of 2022 owing to the Russia-Ukraine conflict, which resulted in a significant shift in the overall crude oil supply chain. However, increasing recessionary fears stemming from inflation coupled with interest rate hikes globally have cast a significant shadow over consumption and economic growth, pushing prices downward to \$94 per barrel a decline of 11% in the second half of CY2022.

Going forward, with further de-escalation of the crisis and and balancing of global crude oil trade, in the first half of CY2023 crude oil prices settled at \$80 per barrel, however with extended production cuts by Saudi Arabia and Russia throughout the year drove prices upwards in the second half of CY2023, settling at \$82.6 per barrel in 2023. Crude oil prices fell significantly during the last quarter amid sluggish global demand, especially from China (\$78 per barrel in December 2023 vs \$94 per barrel in September 2023).

CRISIL MI&A expects prices to remain rangebound around \$75-80 per barrel in 2024.However, any decision by the Organisation of Petroleum-Exporting Countries (OPEC+ to cut production, as well as a further decision on the ban of Russian crude, are key monitorable.

Crude oil price trend



Note: E: Estimated, Price data is for CY: Calendar Year

Source: Industry, CRISIL MI&A Research

Near term review and outlook on inflation

Food drives up headline inflation; core dips below 4%

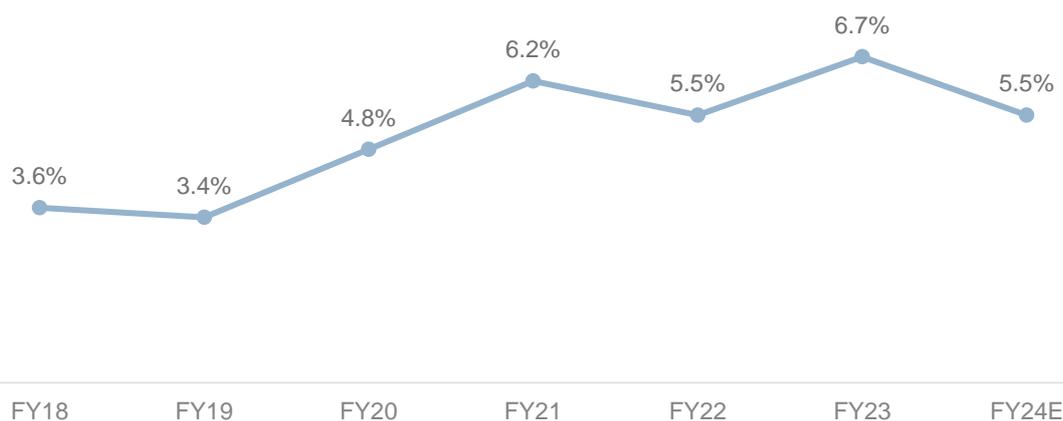
Inflation based on the Consumer Price Index (CPI) edged up to 5.7% in December from 5.6% in November. Food inflation, accentuated by low-base effect rose to 9.5% from 8.7%. The drivers were vegetables and fruits, and pulses and sugar. Inflation in cereals and spices continues to be elevated.

The data for December reveals two interesting facets. One, although food inflation rose to a 4-month high, sequentially and on a seasonally adjusted basis there has been a softening. The good part is, despite being elevated, foodgrain inflation (cereals plus pulses) at 12.1% is marginally lower for the second month in a row. Much of this could be attributed to government measures to ramp up supplies along with the impact of kharif harvest entering the markets.

Two, core inflation not only fell below 4% (printing 3.8%) but dropped to its lowest since January 2020. Falling fuel inflation, supported by government measures to reduce cooking gas prices has helped but so has easing global raw material prices.

In the coming months, some more softening in food inflation could be expected supported by government interventions and kharif harvest supplies. But lower rabi sowing is a worry. Besides, the increased frequency of climate events and their impact on India's agriculture output bears watching.

CPI trendline



Source: Ministry of Statistics and Programme Implementation (MOSPI), CRISIL MI&A Research

Food inflation accelerates partly on account of a low base: Vegetable inflation accelerated to 27.6% in December from 17.7% in November on account of a low-base effect even as vegetable prices cooled on-month. Inflation in TOP (tomato, onion, potato) vegetables saw a smaller increase compared to non-TOP vegetable inflation. The former rose to 28.3% from 24% because of tomatoes (33.5% vs 11.3%) and potatoes (-8.8% vs -15.6%). Inflation in onions eased

to 74.2% from 86.3% in November owing to fresh arrivals in the market and government action. Inflation in non-TOP vegetables surged to 27.2% from 13.6% in November. Inflation accelerated in several vegetables such as garlic, leafy vegetables, brinjal, cauliflower and green chillies

Fuel inflation enter a deeper negative zone: Fuel inflation remained negative for the third straight month in December, declining to -1% from -0.8% in November. LPG prices fell 13% on-year compared with 12.8% on-year in November

Core inflation cools: Core inflation continued to decline, easing to 3.8% in December (vs 4.1%), the lowest since January 2020. Inflation cooled in some essential categories including health (5.1% vs 5.5%) and education (4.8% vs 5%) while it was unchanged in housing (3.6%). Other items that saw deceleration were clothing and footwear (3.6% vs 3.9%), personal care and effects (7.3% vs 7.8%), and transport and communication (2% vs 2.1%). Services inflation softened to 3.7% from 3.9% led by easing of inflation in rent (3.5% vs 3.6%) and school and college fees (5% vs 5.2%)

Outlook

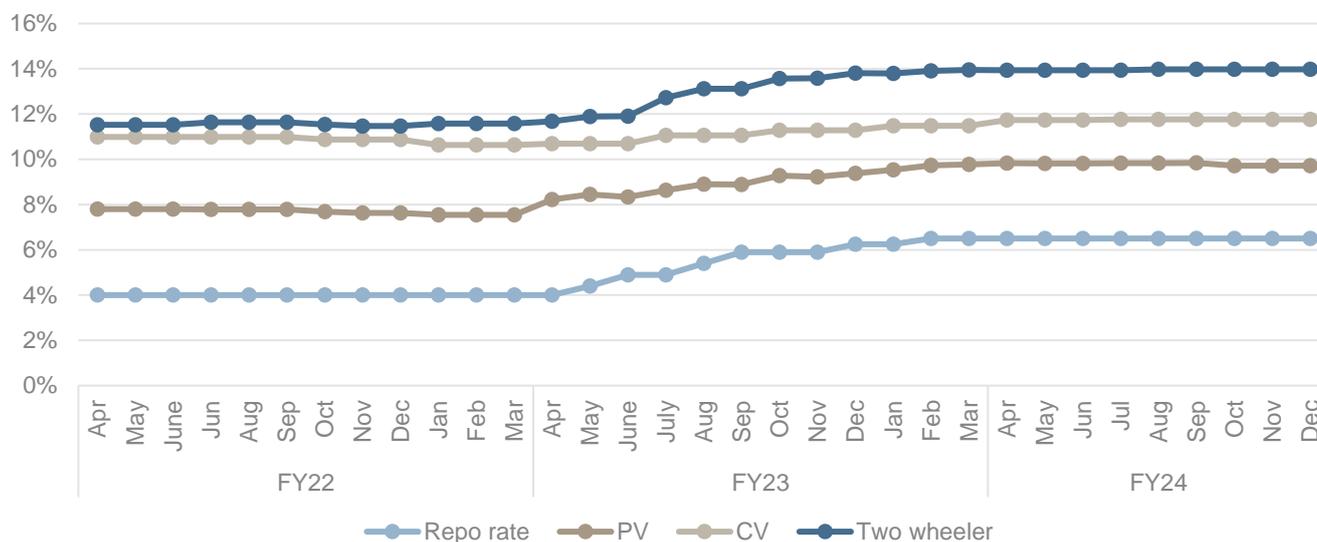
CRISIL expects the Reserve Bank of India (RBI) to hold rates steady at its February meeting. On average, CRISIL expects the CPI inflation this fiscal to average 5.5% and see some further softening in the next. Easing input cost pressures on manufacturers and moderating domestic demand are expected to keep core inflation in check. That said, several risks to our forecast remain. Tight global food supplies, low rabi sowing and climate risks threaten food inflation. Any further escalation in the Middle East conflict could lift oil, commodity and other logistics costs for manufacturers.

Steep hike in auto finance rates

The sharp rise in repo rates has increased the financing rates across auto segments. The PV segment has witnessed nearly 160 bps hike. For the two-wheeler segment, the hike was higher and in tandem with repo rate hike.

Interest rates have reached the pre-pandemic levels and are expected to remain firm in the short term.

Average auto finance rates offered by banks



Source: Industry, CRISIL MI&A

Rising demand for underlying assets to back disbursement growth

After consecutive contractions, auto finance disbursements picked up in fiscal 2022. Most sub-segments witnessed recovery to the pre-pandemic levels in underlying asset sales. Two-wheeler and PV segments gained on account of pent-up demand and increased preference for personal mobility as lockdowns were lifted and people were wary of using public transport. In the CV segment, while sales of medium and heavy commercial vehicles (M&HCV) and buses remain tepid, that of light commercial vehicles (LCV) improved.

On-year growth in auto finance disbursement (%)

Segment	FY20	FY21	FY22	FY23	FY24E
PV	-9%	-4%	24%	36%	9-11%
CV	-36%	-6%	46%	40%	9-11%
Two-wheelers	-2%	-5%	-6%	24%	13-15%

Source: Industry, CRISIL MI&A

Last fiscal, auto industry sales witnessed healthy growth, boosting auto finance disbursements. Disbursements for the PV segment witnessed sharp growth backed by record rise in PV sales. Moreover, increased traction for premium UVs coupled with price hike undertaken to compensate for increase in commodity prices provided an additional boost to disbursement.

Recovery in two-wheeler sales after consecutive contractions supported disbursement growth in fiscal 2023. Price hikes during the year provided the additional kicker. Healthy growth in underlying asset sale pushed the disbursement growth for CVs.

This fiscal, CRISIL MI&A expects disbursement growth to continue, albeit at a tapered pace from the high base of fiscal 2023. Tapering is expected amid an expected deceleration in the underlying asset growth across segments. Expected price hikes and premiumisation are expected to provide an additional push to disbursements.

On ground positivity despite uneven monsoon in fiscal 2024

With 86% of land holdings small and marginal, small farmers dominate the Indian agricultural landscape. These farmers rely on monsoon for irrigation; hence, its timely arrival and adequacy are needed for a good crop. As per the India Meteorological Department (IMD), deviation was 6% in fiscal 2023.

Monsoon has been favourable over the past few years with deviation in the acceptable range. Fiscal 2024 witnessed an uneven spread of rainfall during the initial months.

Rabi output was favourable last fiscal, supporting farmer income during the early months of fiscal 2024. In the current fiscal, kharif sowing was initially delayed owing to delay in monsoon. However, sowing has picked up in recent months. Moreover, higher minimum support price (MSP) this fiscal and good price in the mandis have maintained on-ground positivity.

Trend in monsoon deviation



Source: IMD, CRISIL MI&A

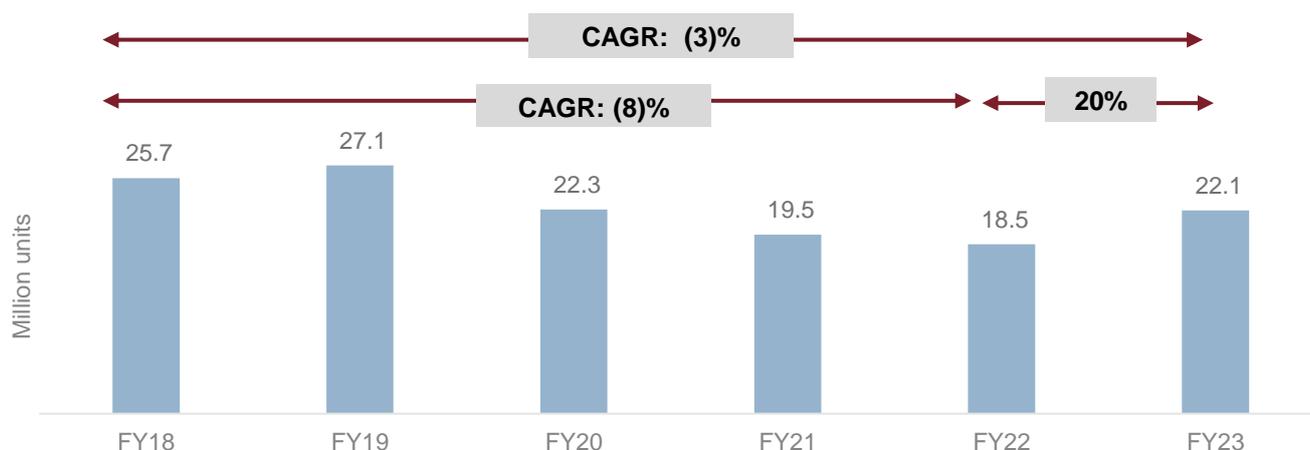
3 The domestic auto industry

The auto industry, a key contributor to the Indian economy, has grown by leaps and bounds over the years. In fact, its contribution to India's GDP increased from 2.8% in fiscal 1993 to ~7.1% currently. The industry employs over 19 million people directly and indirectly, according to the Ministry of Information and Broadcasting report, 2023.

India is one of the largest auto markets in the world, with annual domestic sales of over 20 million vehicles. Domestic sales reached a high of 27 million in fiscal 2019, backed by favourable macroeconomic growth, rising consumption, favourable rural demand, as well as healthy demand from end-use sectors. However, domestic sales fell 17.7% in fiscal 2020 amid slowdown in GDP growth as well as inventory correction for Bharat Stage-VI (BS-VI) upgradation. The Covid-19 pandemic also hit the automotive industry hard, and sales dropped 12% on an already low base of fiscal 2020 to 19.5 million in fiscal 2021.

Resurgence of Covid cases in a much severe form hit the domestic market in fiscal 2022, exerting pressure on auto sales. Fiscal 2023 witnessed normalisation in market operations, reopening of schools/colleges/offices, improvement in macroeconomic scenario, easing out of supply issues, which helped the industry clock ~20% growth on a low base of 3 years of consecutive contractions.

Domestic sales trend



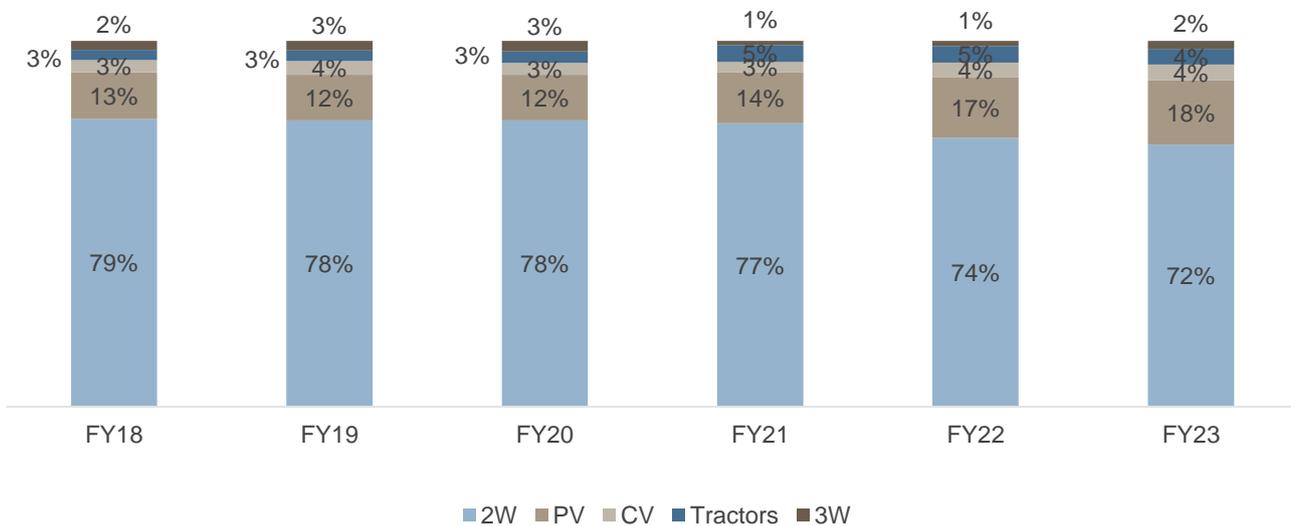
Note: Includes sales of PVs, CVs, two-wheelers, three-wheelers, and tractors

Source: SIAM, TMA, CRISIL MI&A

The domestic auto industry is dominated by the two-wheeler segment (more than 70% of the industry). Two-wheeler sales were on a growth trajectory until fiscal 2019, led by a robust rural economy supported by a good monsoon. Demand started slowing after fiscal 2019, because of falling private consumption along with a hike in prices. It slowed in fiscal 2020, due to tapering in economic growth as well as inventory adjustment owing to the BS-VI migration. The pandemic and the attendant nationwide and local lockdowns to contain it led to a steeper fall in domestic sales in fiscals 2021 and 2022 and, thus, contracting the share of two-wheelers in the overall auto sales. From this low base, the industry clocked healthy growth in fiscal 2023, led by pent-up demand, improved macroeconomic scenario, revival of scooter demand with reopening of colleges and offices, as well as improvement in vehicle supply. Other segments such as PVs, CVs, and three-wheelers recorded a much faster revival last fiscal, exerting further pressure on the share of two-wheelers.

PVs, the second largest contributor to domestic sales, witnessed growth till fiscal 2019, driven by expansion in the addressable market, increase in disposable income, development of infrastructure, and stable cost of vehicle ownership even as crude oil prices remained subdued. Lower private consumption, inventory adjustment on the back of new emission norms, and the liquidity crisis caused a significant drop in sales in fiscal 2020. The fall was exacerbated by the onset of the pandemic, resulting in a steep decline in demand in fiscal 2021. On this low base, some improvement was witnessed in fiscal 2022, with improved macroeconomic scenario as well as pent-up demand, increasing the share of PVs during the year. In fiscal 2023, domestic sales of PVs grew 27% on-year (vs 13% in fiscal 2022) due to healthy pent-up demand following a slump in sales volume for two years owing to the pandemic-led supply chain disruptions. The orderbooks of auto original equipment manufacturers (OEMs) were supported by a plethora of launches in the growing UV category, which witnessed high traction. In turn, the share of PVs expanded further last fiscal.

Domestic sales split by segments



Source: SIAM, TMA, CRISIL MI&A

Three-wheeler sales were also on a growth path until fiscal 2019, driven by increasing demand for replacements and last-mile connectivity in metros and major cities, rising penetration in rural areas, and easy availability of organised funding. However, post fiscal 2019, the NBFC liquidity crisis and increasing replacement of goods three-wheelers with small CVs caused a slowdown in demand. Subsequently, onset of the pandemic had a major effect on sales in fiscal 2021. However, sales rebounded slightly in fiscal 2022 with gradual reopening of the economy in the second half of the year following subsiding of Covid-19 infections. Pent-up demand, normalisation of mobility, and reopening of schools/colleges and offices helped the three-wheeler segment clock healthy growth in fiscal 2023, thereby also increasing its share in overall vehicular sales.

In the case of CVs, growth was driven by a pick-up in domestic rural industrial activity and the government’s focus on infrastructure investment post fiscal 2015. But sluggish economic growth after fiscal 2019 and the pandemic affected the industry over the next two years. The economic slowdown in fiscal 2020 and the pandemic-led lockdown and restrictions in fiscal 2021 led to a double-digit declines of 27% on-year and 23% on-year, respectively. In fiscal 2022, though, demand rebounded over a lower base, with the pandemic ebbing with increasing number of people being vaccinated, thereby supporting private consumption and freight demand. In fiscal 2023, the CV industry exhibited a noteworthy growth of 34%, thereby reaching 96% of unit sales registered in

fiscal 2019. This resurgence can be attributed to pent-up replacement demand that had been hampered during the preceding 2-3 years due to economic stagnation and fallout of the pandemic.

Domestic tractor demand fell 6.4% on-year in fiscal 2022 after increasing 27% on-year in fiscal 2021. Rising tractor prices amid price hikes by OEMs, high inventory at dealerships, low demand from the commercial segment, negative farmer sentiment because of rising cultivation cost, low fertiliser availability, and increase in other expenditure (such as marriages and other social occasions) hampered demand. But in fiscal 2023, tractor sales once again grew 12% on-year to an all-time high of ~945,000 units. Healthy crop prices, adequate reservoir levels owing to an above-normal monsoon, and higher MSP announcement and rabi acreage, all led to positive farmer sentiment in the fiscal. Healthy festive demand because of various schemes and discounts supported retail growth momentum. But much faster growth by other segments contracted the share of tractors during the fiscal.

4 Review and outlook on Indian PV domestic industry

Review of Indian PV domestic industry (fiscals 2018 to 2023)

Until liberalisation, there were only three major car manufacturers in India – Hindustan Motors, Premier and Maruti Udyog. However, post liberalisation, Maruti and Suzuki's partnership was the country's first Indian-foreign joint venture. Also, major international corporations such as Hyundai and Honda entered the country following gradual implementation of economic reforms. From 2000 to 2010, almost every major car company had established manufacturing facilities in the country.

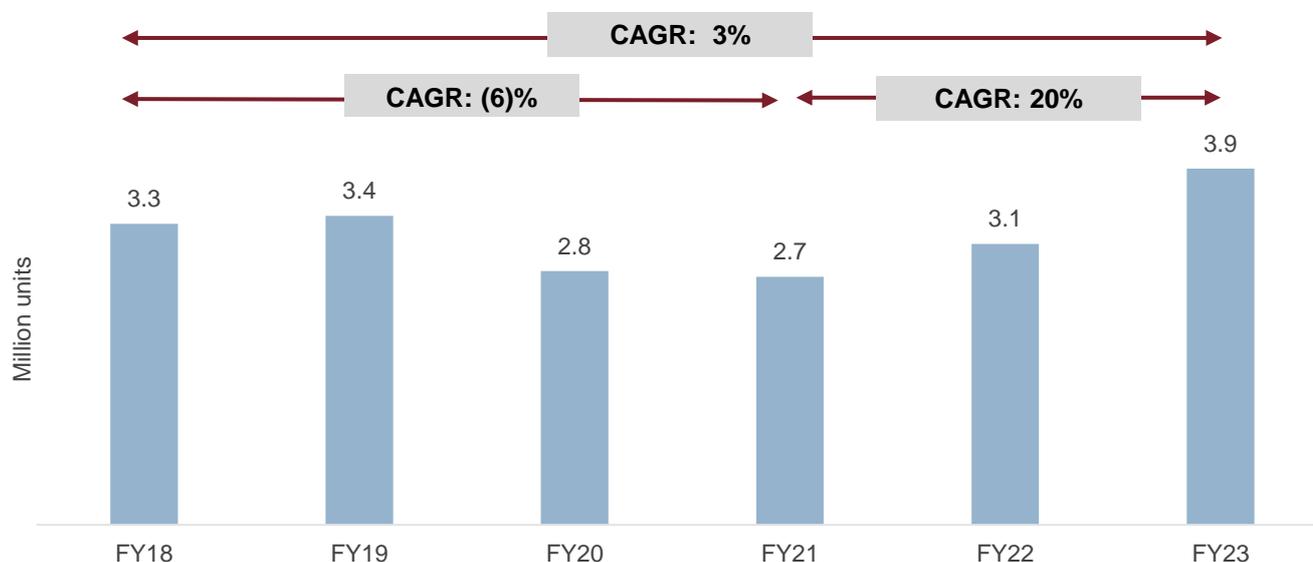
Between fiscals 2018 and 2023, India's domestic PV sales rose at 3% CAGR. The growth was despite sales contracting at 6% CAGR during fiscals 2018 to 2021. From the low base of fiscal 2021, industry sales bounced back at a healthy pace to reach a historic high of 3.9 million vehicle sales in fiscal 2023.

The previous high was in fiscal 2019, led by continued improvement in GDP, increase in disposable incomes and new model launches, stable cost of vehicle ownership, as well as rising traction for UVs. In fiscal 2020, though, a contraction of the economy put pressure on vehicle sales. Moreover, the NBFC liquidity crisis as well as cut in BS-IV vehicle production amid mandatory implementation of BS-VI norms from fiscal 2021 exerted added pressure during the year. The industry also lost nearly half a month's sale at year-end owing to outbreak of the pandemic and subsequent nationwide lockdown.

In fiscal 2021, domestic sales were affected by the first wave of the pandemic. A nation-wide lockdown, reduced mobility, and supply chain constraints leading to production cuts weighed on annual sales. Despite some improvement in sales with the reopening of the economy and increased demand for personal mobility during the second half of the year, sales contracted ~2.2% on-year on an already low base of fiscal 2020.

Fiscal 2022 began with a much severe second wave of Covid-19. State-imposed lockdowns, economic uncertainty, struggling vehicle supply and extended waiting periods impacted sales, especially in the first half the year. There was some improvement in the economic scenario and, in turn, market sentiment with the reopening of markets in the second half of the fiscal. Pent-up vehicle demand, increased need of personal mobility and improved supply scenario provided thrust to PV sales during the second half. After a two-year consecutive drop, PV sales rose 13% on a very low base of fiscal 2021.

Review of domestic PV sales



Source: SIAM, CRISIL MI&A

In fiscal 2023, the PV industry grew 27% on-year, almost double the growth of 13% on-year in fiscal 2022, owing to healthy pent-up demand created by two years of slump in sales volume because of the pandemic-induced disrupted supply chain. The orderbooks of auto OEMs were further supported by several new launches in the growing UV category, which saw high traction, along with multiple facelifts of existing models and easing semiconductor supplies. In fact, overall wholesale volume reached an historic high of 3.9 million units in the fiscal.

Split of industry sales by PV segments

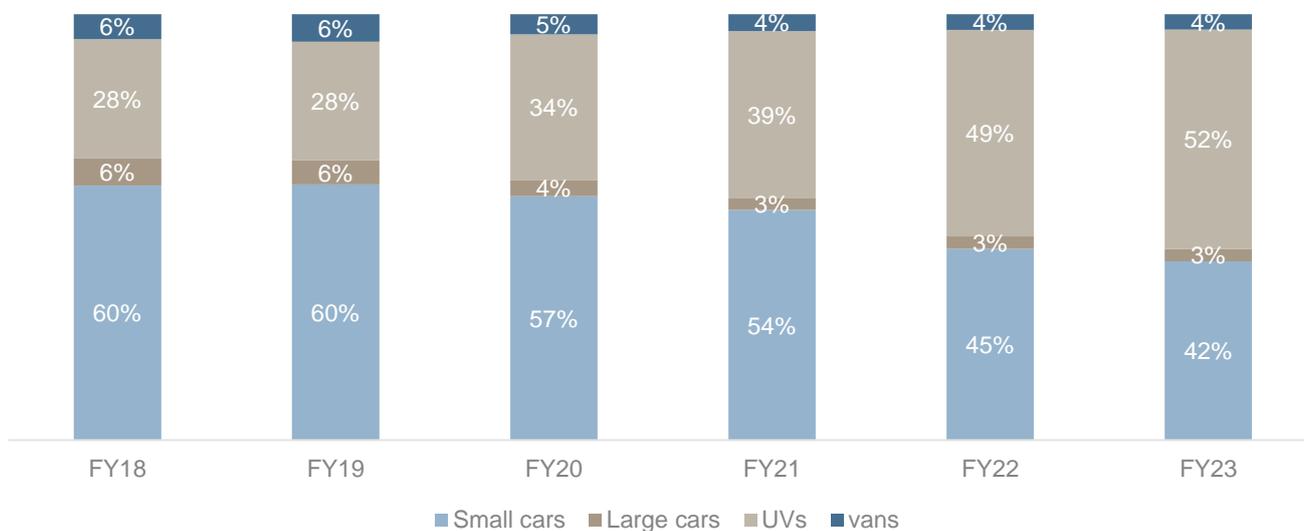
Small cars have been leading PV sales over the years. The significantly high share of small cars in total sales is primarily because of the lower ticket size of small cars, making these affordable to the average Indian customer. Moreover, it is an ideal vehicle for first-time car buyers.

But the price differential between small cars and other premium segments has narrowed over the years. The UV segment, which traditionally appealed to customers valuing larger seating capacity and the ability to drive on rough, rural roads, has also seen a major shift in customer preference with the launch of compact UVs.

Indeed, the launch of compact UVs in fiscal 2017 with prices starting at <Rs 1 million provided a considerable thrust to the overall UV segment. With consumer preference shifting to UVs, along with high number of UV launches in recent years, the share of UVs in overall PV sales increased to 52% in fiscal 2023 from 28% in fiscal 2018. In fact, fiscal 2022 was the first year in the history of the domestic PV industry wherein UV sales crossed car sales in India.

Expansion of the UV segment’s share was led by OEM focus, competitively priced new vehicle launches, entry of global players in India, such as Kia and MG, with their UV portfolios, along with customer shift in preference towards the premium UV segment.

Trend in segmental share



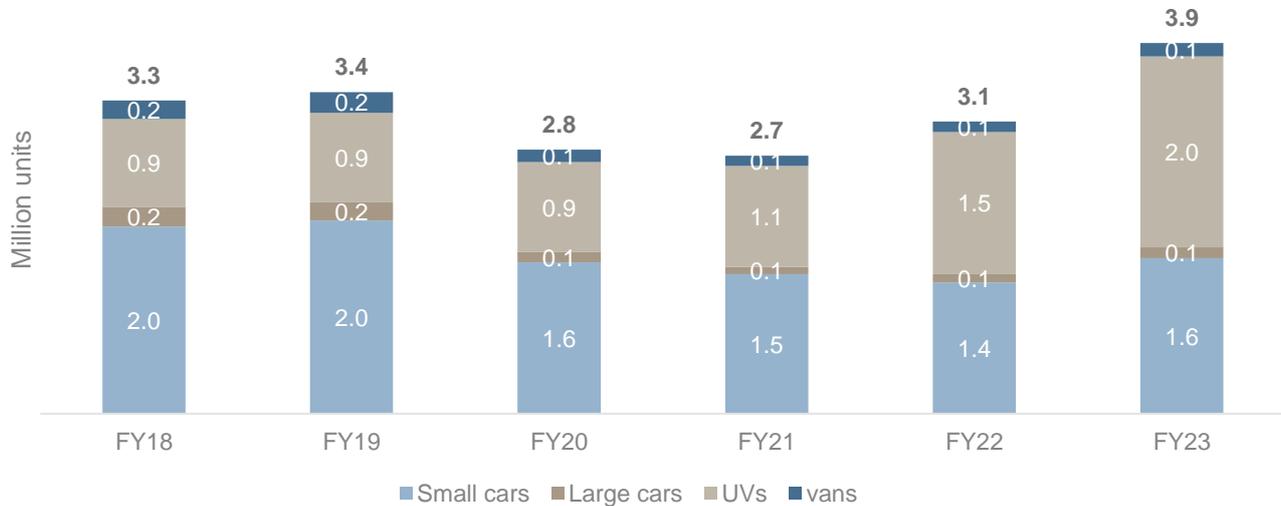
Source: SIAM, CRISIL MI&A

On the other hand, over a high base, the share of small cars has been contracting in recent years. From 60% in fiscal 2018, the share of small cars in overall sales contracted to 42% in fiscal 2023. Lack of new model launches, hike in vehicle prices, increase in operating cost amid fuel price hikes, and impact of an unfavorable macroeconomic environment on the bottom of the pyramid customer base restricted growth of the small cars segment. However, premium hatchbacks/ small cars such as Baleno, i20 and Altroz have performed relatively better.

There has also been a shift in demand from large cars primarily towards UVs in recent years, halving its contribution over fiscals 2018 to 2023. Lack of model launches as well as shift in consumer preference towards UVs restricted the growth of this segment.

Vans typically contributed 6-8% share of industry sales. The discontinuation of Omni from fiscal 2020 with the implementation of BS-VI impacted the share of the segment.

PV sales by vehicle segments



Source: SIAM, CRISIL MI&A

Premiumisation within the industry

Traditionally, Indian vehicle buyers have been cost conscious, with mileage and vehicle cost the two main pillars of decision-making.

Now, amid rising disposable incomes, higher global exposure, and growing awareness as well as expanding share of younger buyers, other parameters, such as driving experience, safety, features, brand, and aesthetics, are gaining importance in the overall decision-making process. In fact, a vehicle is being seen as an extension of customer’s personality, especially by young buyers.

With this, there has been a perceptible shift in the customer buying behaviour, where customers are prioritising experience over costs and are willing to pay a premium as well as even accept a longer waiting time for the desired facets in their next vehicle.

Premiumisation is resulting in intersegmental as well as intra segmental shifts. Within the segments, customer preference for premium vehicles has been on the rise; e.g., premium hatchbacks such as Baleno and Altroz are seeing faster growth compared with basic hatchbacks, such as Alto and WagonR.

The intersegmental shift is more prominent in the UV space, which is seeing accelerated growth. The UV segment has grown at 17% CAGR in the past five years while non-premium/ mass segments such as small cars have contracted at 4% CAGR. Customers are even preferring UVs like Nexon, Brezza, Venue, Fronx over premium hatchbacks like Baleno, Altroz and i20.

Premiumisation is also evident from OEM actions in form of launches, where most of the new launches in recent years have been in the UV segment. To be sure, even within the UV segment, the focus has been on the larger UVs, consisting of vehicles such as Grand Vitara, Creta, Seltos, etc.

Segment	FY18-FY23 CAGR	FY23 on-year growth
Small cars	(4)%	19%
Large cars	(12)%	27%
UVs	17%	35%
Vans	(6)%	23%
Total	3%	27%

Source: SIAM, CRISIL MI&A

Competitive landscape

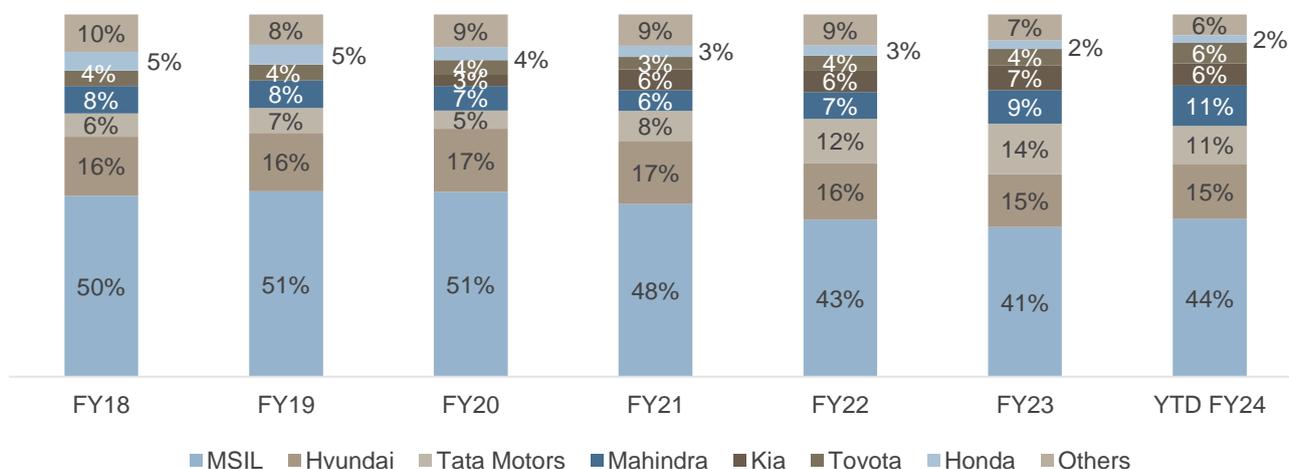
Few players dominate the Indian PV landscape with Maruti/ MSIL leading the overall landscape. Hyundai is a distant second, closely followed by Tata Motors and Mahindra. These 4 players together contribute ~80% of the market.

However, in the last 5 years, the competition has intensified amidst competitively priced feature-rich vehicle launches by all players as well as recent entrants such as Kia and MG grabbing sizeable shares.

Share of Maruti has contracted from a high base of 50% in fiscal 2018 to 41% in fiscal 2023 due to the shift in customer preference from cars towards UVs and Maruti's focus on the cars segment. However, with the success of their recent launches like Grand Vitara, XL6, Fronx and continued traction for Ertiga & Brezza helped Maruti regain some lost ground during April-Nov FY24. The latest launch Invicto is providing an added kicker to the demand for Maruti.

Hyundai has managed to remain rangebound in the 15-17% bracket with primary support from continued traction from its UV portfolio of Creta & Venue. Tata Motors has successfully expanded its presence riding on the success of its UV models of Nexon & Punch. The increase in traction for EVs (where Tata Motors dominates) has also provided an additional support to Tata Motors sales.

PV domestic market share across OEMs



Note: Others include MG, Renault/Nissan, Skoda, PCA etc ,YTD : Apr-Nov

Source: SIAM- Society of Indian Automobile Manufacturers, CRISIL MI&A

The portfolio expansion in the form of XUV300, XUV700, Scorpio N has aided Mahindra's share in recent years. Recent entrant Kia has tasted early success in the Indian market in the form of Seltos & Sonet which has helped the company grab a sizeable 7% share in the market in fiscal 2023. Toyota has maintained its 4-5% market share with continued demand for its flagship Innova.

Honda has been facing intense competition in the domestic market and its share has contracted from 5% in fiscal 2018 to 2% in fiscal 2023. Honda and Maruti contributed 43% to the annual sales during fiscal 2023.

Top 10 PV models sold in fiscal 2023

Player	Model	Share in FY23 sales
MSIL	Wagon R	5.5%
MSIL	Baleno	5.2%
MSIL	Alto	4.6%
MSIL	Swift	4.5%
Tata Motors	Nexon	4.4%
MSIL	Dzire	3.9%
Hyundai	Creta	3.9%
MSIL	Brezza	3.7%
Tata Motors	Punch	3.4%
MSIL	Eeco	3.4%

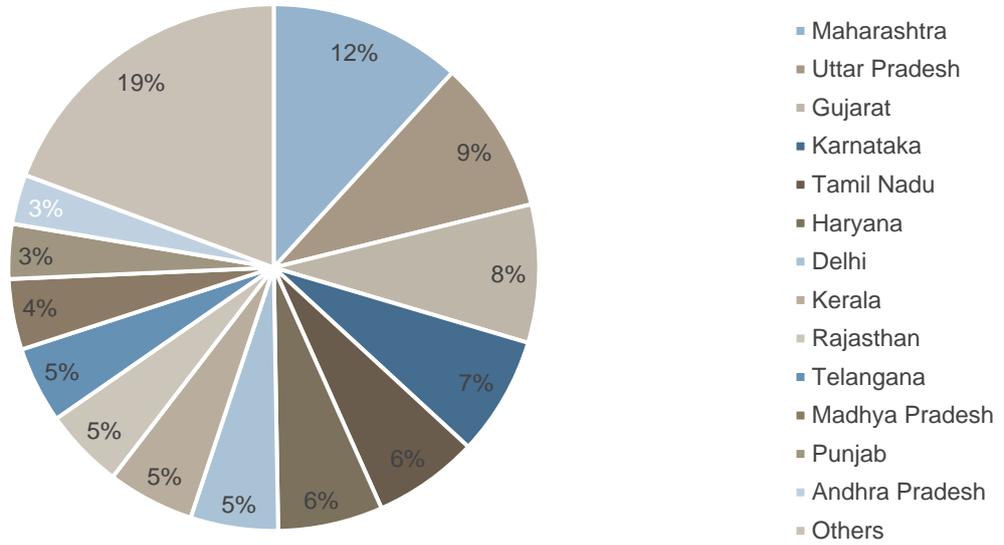
Source: SIAM, CRISIL MI&A

State-wise split of domestic market

India's PV sales are concentrated in few major states. The top 5 states of Maharashtra, Uttar Pradesh, Gujarat, Karnataka, and Tamil Nadu cumulatively contribute more than 40% of national sales. While top 10 states make up for more than 70%.

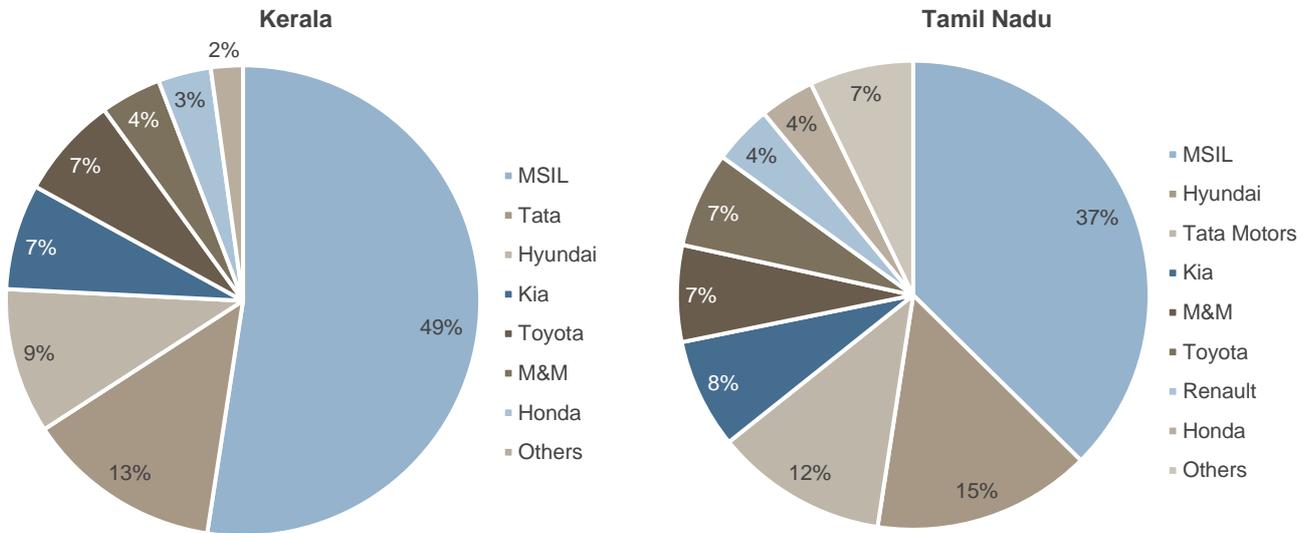
In fiscal 2023, top 5 states contributed 43% to the overall domestic sales. In line with the overall domestic market, MSIL dominated sales in all these states.

State wise contribution to national sales Fiscal 2023

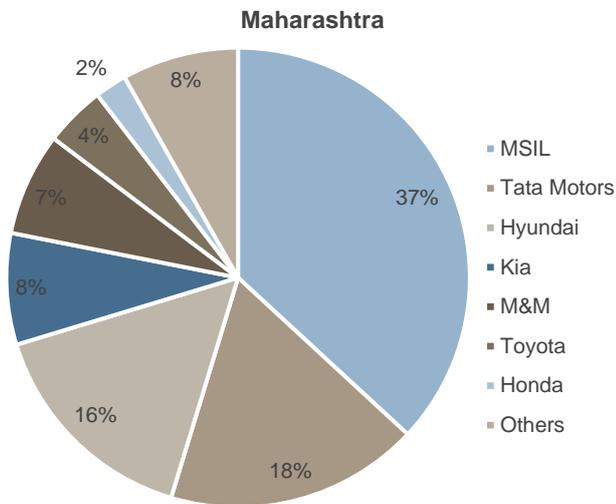


Source: SIAM, CRISIL MI&A

Sales volume mix Fiscal 2023



Source: SIAM, CRISIL MI&A



Source: SIAM, CRISIL MI&A

Kerala, Tamil Nadu and Maharashtra feature in the top 10 contributing states of the country and contributed 23% to the national sales in fiscal 2023. MSIL accounted for about 49%, 37% and 37% of sales in Kerala, Tamil Nadu and Maharashtra respectively.

OEM wise state level sales

Fiscal 2023 sales	Kerala	Tamil Nadu	Maharashtra	Uttar Pradesh	Gujarat	Karnataka
Maruti Suzuki	101,845	93,676	168,541	158,906	139,839	96,970
Hyundai	19,400	37,441	71,283	50,134	51,052	39,335
Tata Motors	26,002	29,577	80,983	51,462	50,384	42,879
Kia	14,109	18,897	35,759	21,978	24,878	26,217
Mahindra & Mahindra	8,087	16,653	33,003	43,045	25,078	23,906
Toyota Kirloskar Motor	13,580	16,483	19,423	11,900	10,268	20,989
Honda Cars	7,013	9,401	10,229	9,017	8,136	4,553
Renault India	4,248	10,211	10,012	7,027	4,340	9,413
Others	12,054	17,825	27,168	11,856	15,706	19,467
Total	206,338	250,164	456,401	365,325	329,681	283,729

Source: SIAM, CRISIL MI&A

Luxury vehicles

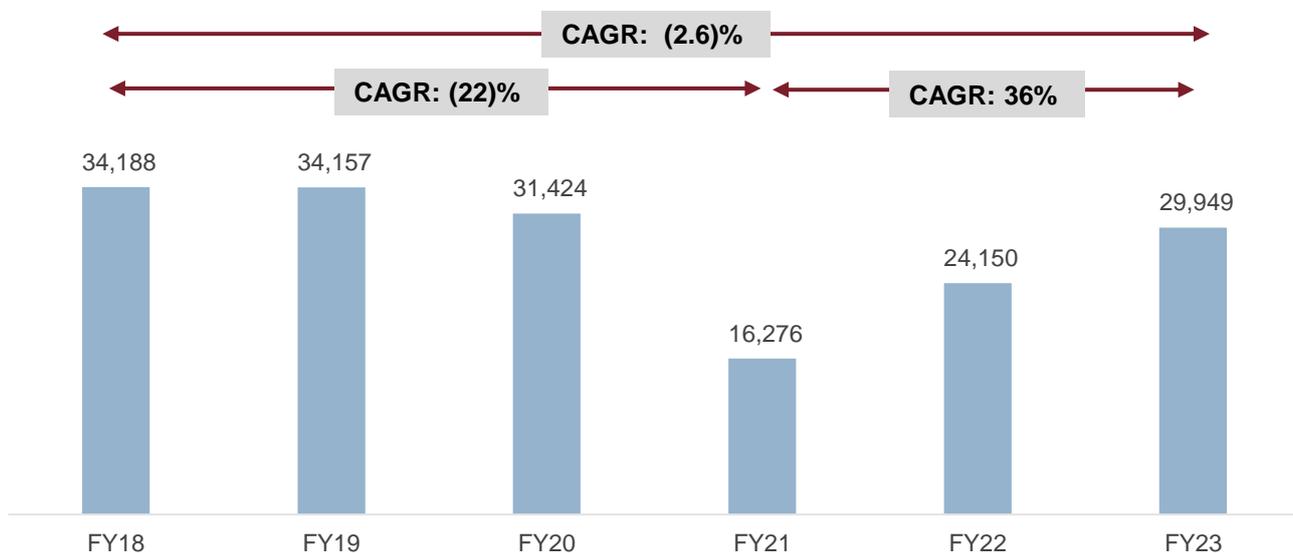
This niche segment, which consists of high-priced ultra-premium vehicles, forms an additional ~1% of the market. The segment consists of brands of Mercedes Benz, Audi, BMW, Volvo and JLR. The ultra-luxury brands like Ferrari, Rolls Royce, Lamborghini form an insignificant part of the overall Indian market.

Luxury vehicle segment was on a growing trend and reached a high of 34k unit retails during fiscal 2018 & fiscal 2019 supported by favourable economic growth, increased disposable incomes and portfolio expansion by the luxury OEMs. This growth momentum was halted during fiscal 2020 amidst the slowdown in GDP growth as well as emergence of pandemic, washing out nearly half month's retails during the year end (March 2020).

Furthermore, country wide lockdowns, disruption in vehicle supply and only gradual improvement in mobility had a severe impact on Luxury vehicle segment retails during fiscal 2021. Vehicle retail nearly halved during the year and reached 16k levels.

After the steep contraction during the pandemic, luxury vehicle sales witnessed a sharp rebound (off the lower base of fiscal 2021) during fiscal 2022 and fiscal 2023, clocking a 36% CAGR growth during the two-year period. This sharp growth was led by the improvement in mobility, reopening of economy, ironing out of supply issues, improvement in macroeconomic situation as well as bevy of model launches by the OEMs.

Luxury segment retail sales volumes



Note: Sales of Telangana & Lakshadweep are not covered under VAHAN data and are not captured in the above analysis
 Source: VAHAN, Industry, CRISIL MI&A

Competitive landscape

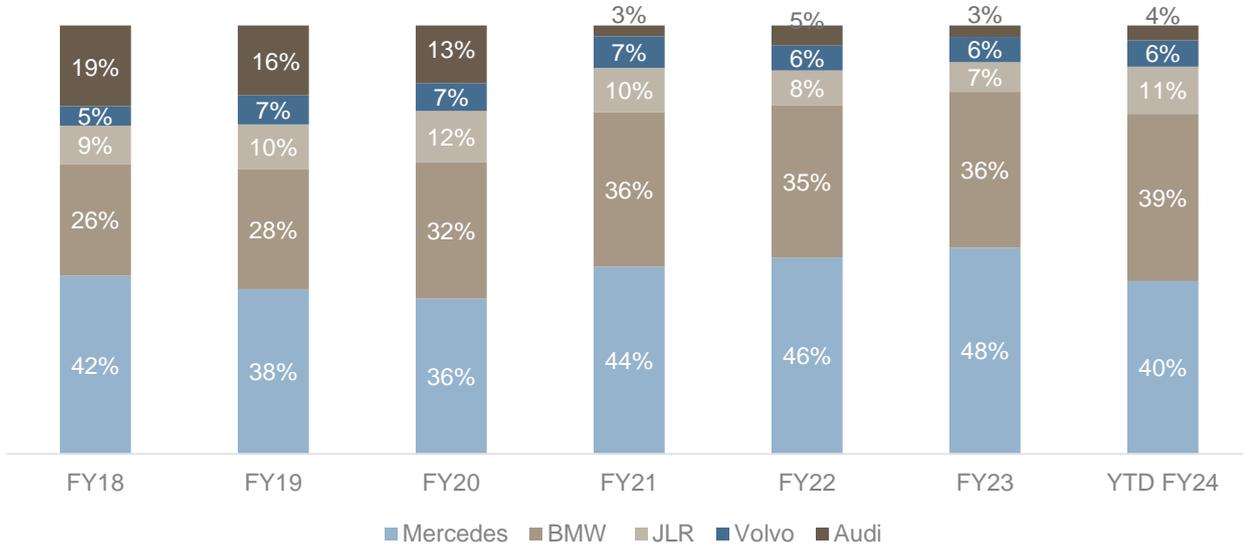
The luxury car segment is dominated by European brands Mercedes, BMW, Jaguar Land Rove (JLR), Volvo and Audi, with Mercedes being the market leader.

Given its vintage in India, Mercedes Benz dominates the luxury cars market with 40-45% share, followed by BMW with around 35% share. Audi comes a distant third with a relatively limited share of JLR and Volvo.

Over the past five years, Mercedes has maintained its share in the 40-45% range, except in fiscal 2020. However, from fiscal 2020, it regained its share and reached nearly 46% of the market in fiscal 2022, supported by a string of launches. BMW has been gradually gaining ground in the luxury market and reached its peak of 36% in fiscal 2022. On the other hand, Audi has been losing its share over the years—its contribution has dropped to 5% in fiscal 2023 from 19% in fiscal 2018.

JLR has maintained its share in the 8-10% bracket during fiscal 2018 to 2023.

Player-wise contribution in retail sales



Note: YTD: Apr-Dec

Source: VAHAN, CRISIL MI&A

Retail sales of luxury car makers in fiscal 2023

Player	Retail sales
Mercedes Benz India	14,425
BMW India	10,895
Jaguar Land Rover India	2,067
Volvo Auto India	1,753
Audi AG	809

Note: Sales of Telangana and Lakshadweep are not covered under VAHAN data and are not captured in the above analysis.

Source: VAHAN, CRISIL MI&A

Key regulations / developments affecting PV industry

Demonetisation

Demonetisation had little impact on PV sales as dealers resorted to alternate sources for accepting payment, such as cheques, cards, and e-wallets for purchasing vehicles. However, owing to overall negative economic sentiment, the industry posted flat growth in November and December 2016.

Implementation of GST

Economic disruption caused by implementation of GST impacted the industry in the short run. However, the impact on the PV segment was limited as GST rates of major car segments is comparable with the previous tax regime. However, higher cess impacted prices of luxury cars.

BS-IV to BS-VI transition

BS emission standards are issued by the government to regulate the output of air pollutants from motor vehicles. In January 2016, the government decided to skip BS-V and instead implement BS-VI norms. It fixed the deadline of April 1, 2020, for the introduction of BS-VI emission norms.

BS-VI regulations demand major reduction in PM and NOx levels

Type of Vehicle	Unit	BS IV	BS VI	Change
Diesel				
HC	gm/km	0.3	0.17	-43%
NOx	gm/km	0.25	0.08	-68%
PM	gm/km	0.025	0.0045	-82%
Petrol				
NOx	gm/km	0.08	0.06	-25%
PM	gm/km	-	0.0045	Newly added

Prices of BS-VI-compliant PVs increased 2-4% as devices and systems were added to reduce emission levels. The price hike was higher for diesel vehicles as they require additional exhaust parts.

Addition of devices and sub-systems in BS-VI-compliant vehicles

Pollutant	Devices / Subsystems to be included to reduce the Pollutants
NOx- Nitrous oxide	<ul style="list-style-type: none"> ▪Exhaust Gas Recirculation ▪Selective Catalytic Reduction ▪3 way catalyst ▪Lean NOx Trap
HC- Hydrocarbons	<ul style="list-style-type: none"> ▪Secondary Air Injection ▪3 way catalyst ▪Diesel Oxidation Catalyst ▪Purge Control Valve ▪Canister
PM- Particulate matter	<ul style="list-style-type: none"> ▪Diesel Particulate Filter ▪Gasoline Particulate Filter

The second stage of BS-VI was implemented from April 1, 2023, after which vehicles have been required to meet actual driving emission requirements rather than just laboratory tests. To make this possible, automobiles must come equipped with OBD2 (On-board Diagnostics). Price hikes of 1-2% were undertaken by all OEMs for the implementation of OBD2 norms in the first quarter of fiscal 2024.

Safety norms

As per the Bharat New Vehicle Safety Assessment Programme, introduced from October 2017, new cars sold in India need to go through mandatory crash testing, and need to comply with voluntary star ratings based on the results.

The car testing protocols are:

- Frontal offset testing (64 kmph proposed)
- Side impact testing
- Pedestrian protection testing
- Rear impact testing

While full frontal crash test is already implemented for new car models and LMV of GVW <1,500 kg, the test was implemented for all car models from October 1, 2019. As per the rules, a car has to go through tests pertaining to full frontal crash test, 40% overall offset frontal crash test, and test of moving deformable barrier crash perpendicular into a stationary vehicle. A test pertaining to pedestrian impact on the hood of a vehicle was implemented from October 1, 2018, for new car models. Points are awarded to a car based on safety features, such as ABS, seat-belt reminders, child lock, and electronic stability control (ESC). *Note: the government is considering making ESC and autonomous emergency braking (AEB) mandatory on all models from fiscal 2023.*

Other safety systems include a mandatory air bag for the driver. The government has proposed mandatory airbags for front passengers in all cars. For new models, the front passenger airbag was made mandatory from April 1, 2021, while for models currently sold in the market, it was made mandatory from June 1, 2021.

Some other safety measures are:

- Seat-belt reminders
- Alert systems for speeds beyond 80 kmph
- Reverse parking alerts
- Manual override over central locking system for emergencies

Corporate Average Fuel Efficiency (CAFE) norms

CAFE, or Corporate Average Fuel Economy, aims to reduce vehicle fuel consumption (or improve fuel efficiency) through lowering carbon dioxide (CO₂) emissions, hence reducing reliance on oil and regulating pollution.

CAFE norms came into force in India from April 1, 2017, and apply to petrol, diesel, LPG and CNG fuelled vehicles. In Phase 1 (2017-2022), CAFE norms require average corporate CO₂ emissions to be less than 130 gm/km by 2022 and below 113 gm/km thereafter. In other words, the vehicles need to be 10% more fuel-efficient by 2022. CAFE II norms came into effect from April 1, 2023.

This is expected to incentivise the shift towards greener technologies such as hybrids and EVs.

ESC / AEB

The Indian PV industry has seen a host of safety and regulatory changes in the past 3-5 years. Implementation of CAFE norms will further aid in cleaner fuel emission. The government is considering making ESC and AEB mandatory on all models by 2023.

When a driver attempts an 'extreme manoeuvre' (e.g., one initiated to avoid a crash or due to misjudgement of the severity of a curve), he/she may lose control if the vehicle responds differently as it nears the limits of road traction than it does during ordinary driving. To counter such situations in which loss of control may be imminent, ESC uses automatic braking of individual wheels to adjust the vehicle's heading if it diverts from the direction the driver is steering in.

AEB is a driver assistance system that relies on a network of radar sensors mounted behind the vehicle's front grille or windshield to gauge the surroundings and monitor basic driving conditions, such as speed, acceleration and proximity to obstacles. If the risk of an accident is detected, the system prompts the driver to brake by providing audible and visual warnings. If the driver fails to react in time, AEB can even brake autonomously to prevent an accident altogether or at least reduce the impact of a collision.

Impact of regulatory changes on domestic passenger vehicle sales

Norm	Description	Applicable from	Implication
6 Airbag	Six airbags will be mandatory for the M1 category of vehicles that can carry up to 8 people	October 1, 2022	Increase in vehicle manufacturing cost and Prices
BSVI- stage 2	vehicles will need to meet the actual driving emission norms and not be limited to only tests in laboratories	April 1, 2023	Increased fuel Efficiency Increased R&D cost Timing controlled Fuel injection On board Diagnostic 2(OBD): Sensor implantation to monitor acceleration crankshaft positioning , temperature and emission
Bharat NCAP	Automobiles in India will be accorded star ratings based on their performance in crash tests factoring in the existing Indian regulations and driving conditions for M1 category	April 1, 2023	Increased use of high strength material in platforms, Electronic stability control (ESC) implementation
CAFE II	Reduce average corporate Carbon dioxide emission limit to 113g/kg	April 1, 2022	Increased fuel efficiency, reduced CO2 emission, Increased R&D cost

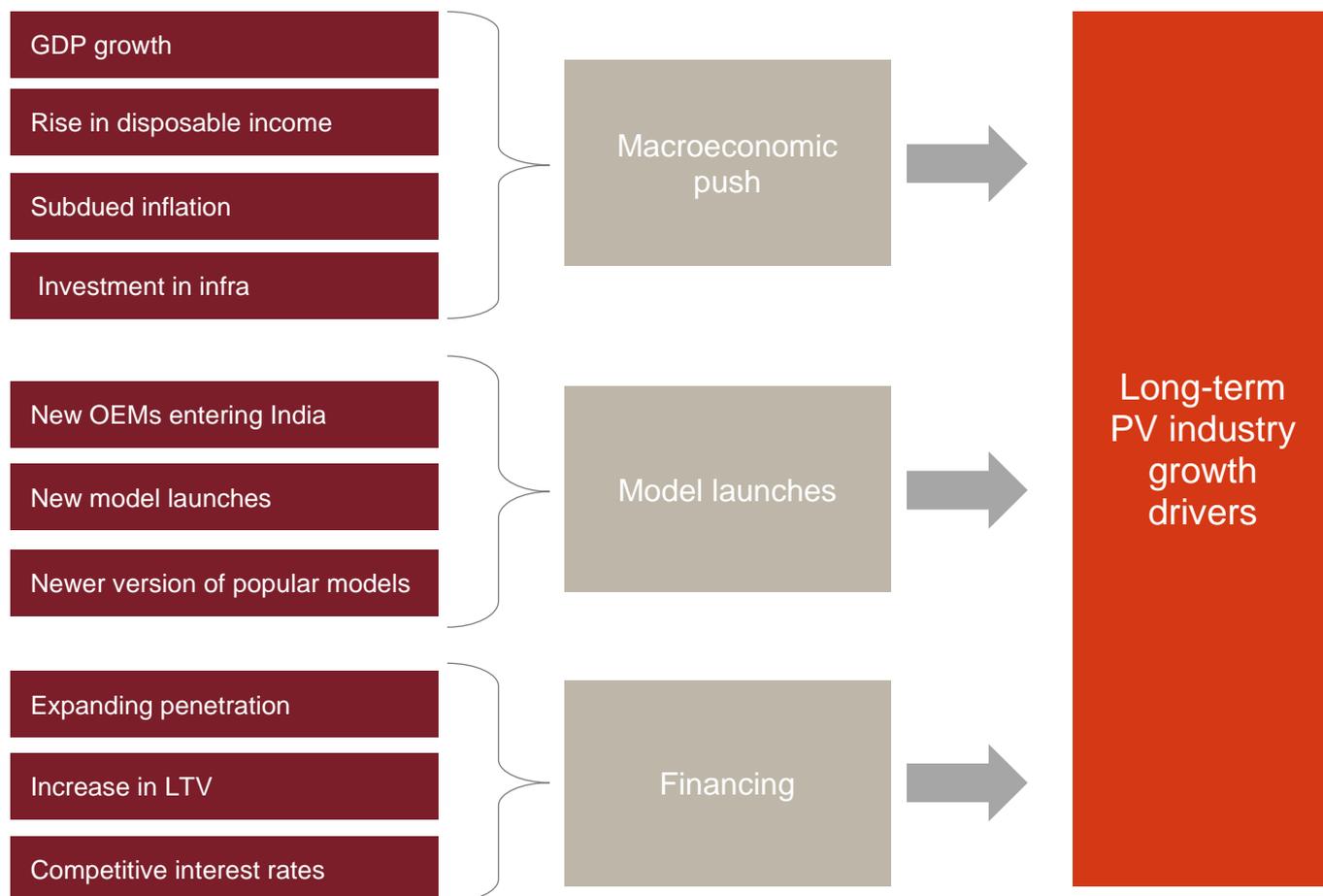
Note: The proposal to make airbags mandatory has been postponed from the initial date.

Source: CRISIL MI&A

Typical growth drivers for domestic PV sales

Primary demand drivers for the PV industry include improved affordability, lower cost of ownership, financing availability and new model launches.

The domestic PV market's key growth drivers



Macroeconomic scenario

Growth in real GDP, and in turn, increased disposable income, have a direct bearing on the affordability of PV buyers. Between fiscals 2018 and 2023, India's GDP grew at a modest CAGR of 4%. During this period, the domestic PV industry expanded at a CAGR of 3.4%.

Slowdown in GDP growth during fiscal 2020 and the contraction in fiscal 2021 had a negative impact on the PV industry's growth, which witnessed moderation during the same period. Moreover, recovery in GDP growth during fiscals 2022 and 2023 helped the industry register healthy growth numbers.

Between fiscals 2018 and 2023, the estimated GDP growth at 5-6% CAGR is expected to have provided a thrust to the PV segment's sales.

Government's focus on infrastructure

The infrastructure investment in India from fiscals 2013 to 2019 was Rs 57 trillion. Power, roads and bridges, urban, digital infrastructure, and railways together constituted more than 85% share of this. The Centre and states

were the major funding sources for sectors such as power, roads, and bridges, with moderate participation from the private sector. In the case of digital sector investments, though, it was largely driven by the private sector, while investments in the irrigation sector were predominantly made by state governments.

The total capex in infrastructure in India during fiscals 2020 to 2025 is projected at Rs 111 trillion, with the National Infrastructure Pipeline propelling spending.

Model launches

Apart from increasing sales of existing models, sales of new models have supported the overall industry’s growth in the past five years, thereby driving the otherwise stagnating demand. Most recent launches were under the UV segment, which accelerated its growth.

New models launched in fiscal 2019 contributed to just ~3% of domestic sales in that fiscal. However, they gained significant traction in fiscal 2020, leading to ~16% share. Launches in fiscal 2021 such as Sonet, Creta facelift, Aura, Altroz and Magnite contributed a sizeable 17% to sales.

Even during fiscals 2022 and 2023, the new launches provided a sizeable contribution to industry sales. Going forward, the new vehicle pipeline is expected to provide additional thrust to domestic sales.

The share of newly launched models in total PV sales



Note: Numbers above the bars are the vehicles launched in that year. A model is considered a new launch for a year and half after its launch. A new launch winning at least 1% share in a fiscal year is considered a major launch.

Source: SIAM, CRISIL MI&A

Upcoming major launches

Company	Model	Segment
MSIL	Swift facelift	Small car
Citroen	C3 Aircross	UV
Mahindra	Thar 5 door	UV
	Bolero Neo plus	UV
	XUV300 2024	UV
Tata	Curvv	UV
	Harrier EV	UV
Hyundai	Tuscon facelift	UV
	Venue CNG	UV
	Creta facelift	UV
Honda	WR-V	UV
Nissan	Qashqai	UV
Toyota	Taisor	UV
	Crysta facelift	UV
Renault	Arkana	UV
MG	eHS	UV

*: Bookings have begun for the vehicle

Source: Industry, CRISIL MI&A

Upcoming major launches in the luxury cars segment

Company	Model	Segment
Mercedes Benz	CLE Coupe	Large Car
	GLC Coupe 2024	UV
	EQA	UV
BMW	5 series 2024	UV
	M3	Large car
Audi	Q8 2024	UV
	A3 2024 facelift	Large car
JLR	Land Rover Defender	UV
	Range Rover Electric	UV
	Evoque 2024	UV
Volvo	EX90	UV

Source: Industry, CRISIL MI&A

Finance availability

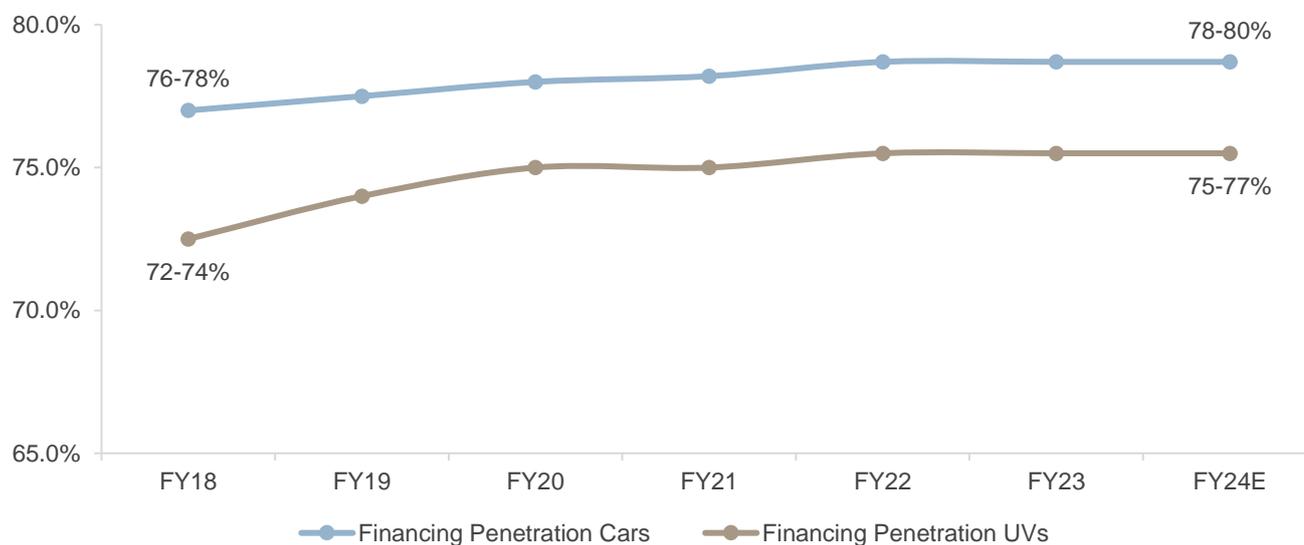
Given the industry's bigger ticket size, finance penetration is higher (~75%) in this industry compared with other automobile segments such as two-wheelers. Thus, the availability of finance plays a key role in the PV industry.

CRISIL estimates finance penetration levels to have reached 77-79% in fiscal 2023 from 74-75% in fiscal 2018.

The financing industry has been witnessing strong growth with new players in the form of NBFCs targeting those markets that banks exited, and captive NBFCs (operated by two-wheeler manufacturers) largely focussing on non-metros. This has helped the financing industry widen its customer base.

Despite the sharp rise in interest rates amidst the repo rate hike, overall disbursement levels were on the rise during fiscal 2023. Financiers remained accommodative of the PV industry and the financing scenario remained favourable for consumers.

PV finance penetration – fiscals 2018-2023



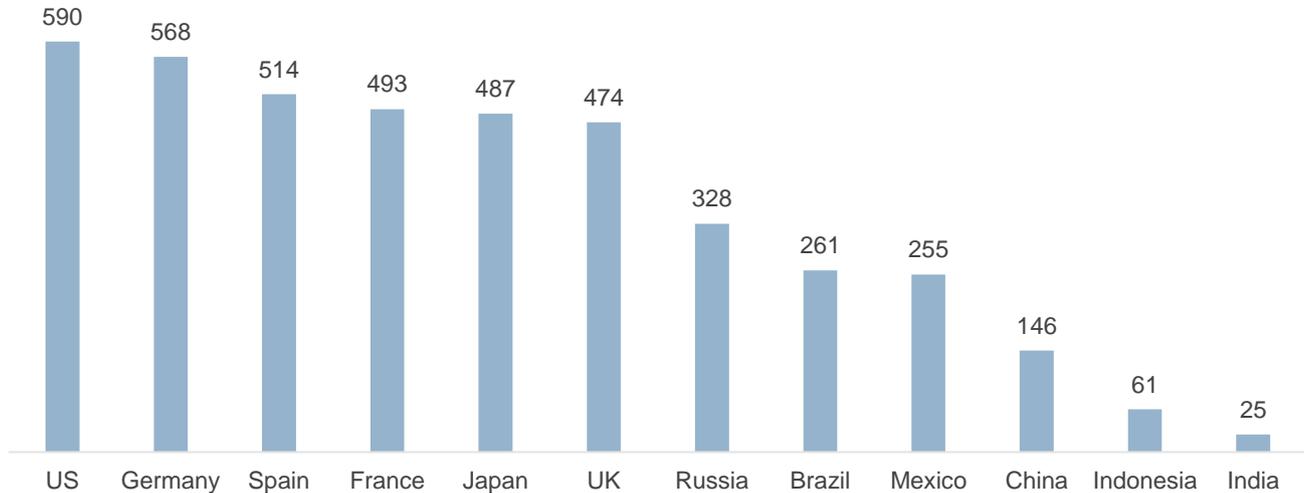
Note: E - estimated

Source: CRISIL MI&A

Lower penetration

The Indian PV market is one of the fastest growing markets in the world and was ranked second in terms of annual sales (after China) as of 2022. However, the market is still highly underpenetrated compared to most developed economies or even developing nations such as China, Brazil and Mexico. This provides significant headroom for growth, especially given the expected improvement in disposable incomes, faster economic growth, younger population and focus of the global OEMs.

Country-wise car penetration



Source: Road Transport Yearbook 2019-20

Outlook on the Indian PV industry (fiscals 2023 - 2028P)

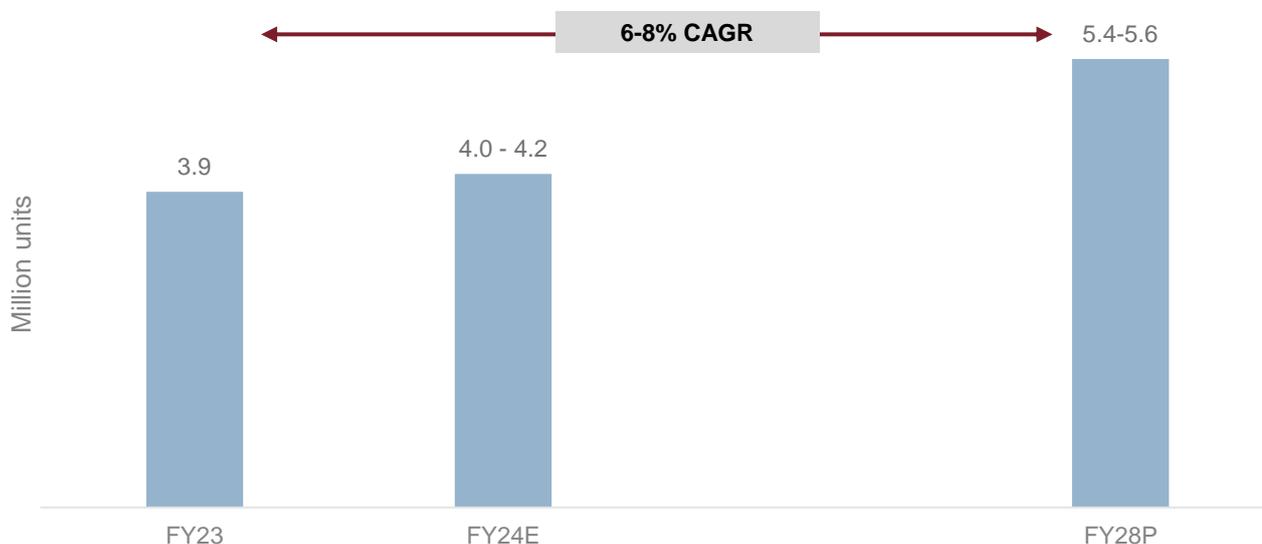
Domestic sales outlook (fiscals 2023-2028)

In the long term, domestic PV sales are expected to increase at 6-8% CAGR over fiscals 2023-2028. Healthy macroeconomic growth, increasing disposable income, a modest increase in the cost of vehicle acquisition, favourable financing scenario, as well as a deeper reach in the rural markets, Tier 3 and Tier 4 cities will support this growth. Moreover, intermittent feature rich competitively priced vehicle launches will provide an additional boost to demand.

Other factors that would aid demand are increasing urbanisation, government support to farm income, reduction of vehicle holding period and electrification. Additionally, there is a sizeable headroom for growth as the automobile industry is yet to fully tap into demand from semi-urban and rural areas. However, increasing congestion in cities and rising popularity of shared mobility services are likely to restrict car sales in the long term.

During fiscal 2024, the industry is expected to continue its growth momentum and clock 5-7% growth over the historic high reached in fiscal 2023. Continued traction for UVs, easing supply constraints, model launches as well as favourable macroeconomic scenario will support this growth.

PV domestic sales outlook



Note: E: estimated P: projected
Source: SIAM, CRISIL MI&A

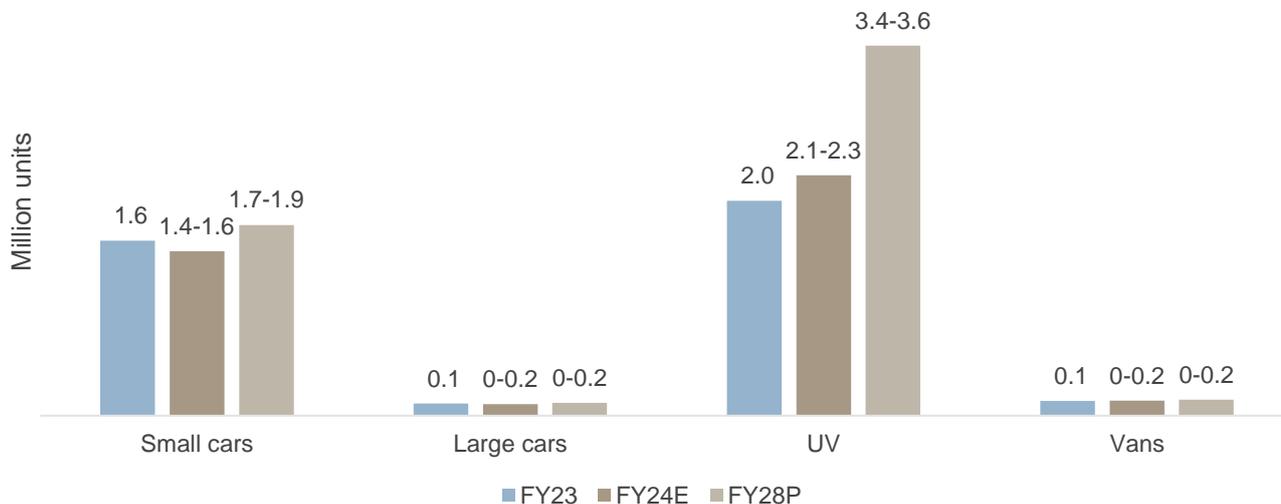
Split by PV segments

CRISIL MI&A projects UVs to drive growth of the PV industry in the long term. Shifting of consumer preference towards UVs, feature-rich and competitively priced launches, and entry of newer players coupled with higher focus of OEMs on the UV segment, are expected to provide the thrust. UV segment volumes are expected to log 10-12% CAGR between fiscals 2023 and 2028.

The second dominant segment of the industry — small cars — is expected to clock a much slower growth of 1-3%. Even this growth is expected to be fuelled by the premium hatchback segment, while the basic hatchback segment is expected to remain rangebound. The large cars segment is expected to witness only subdued growth over the long term, given the limited launches and customer focus on the UV segment.

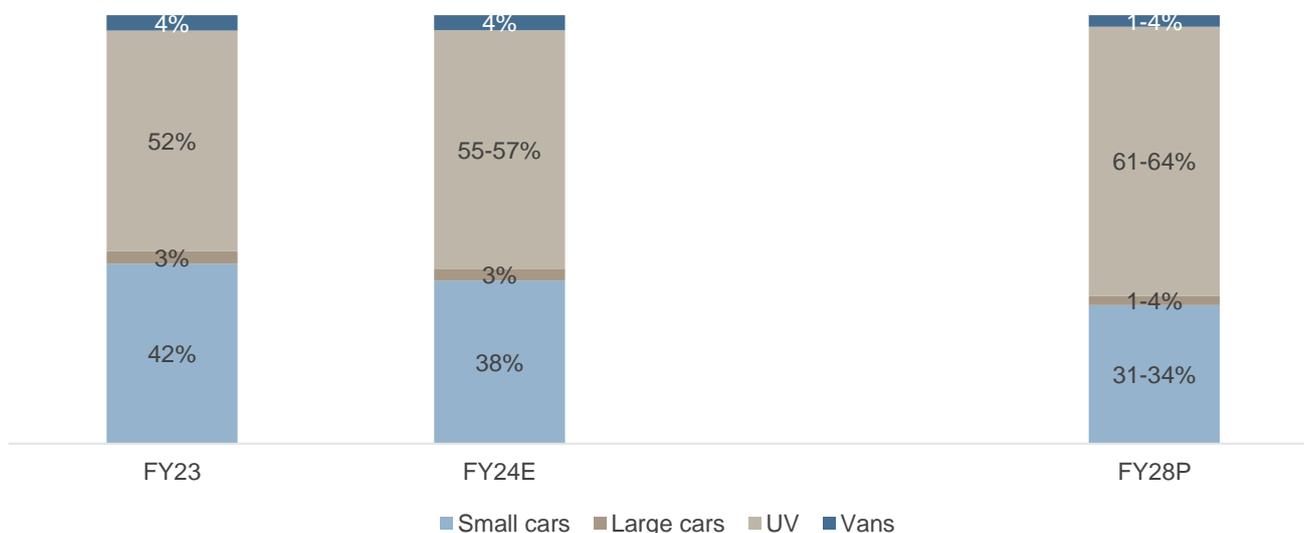
Led by the expected faster growth in the UV segment, share of UVs is expected to rise to 60-65% of the PV industry by fiscal 2028 from ~52% in fiscal 2023.

PV segment-wise domestic sales outlook



Note: E: Estimated, P - Projected
Source: SIAM, CRISIL MI&A

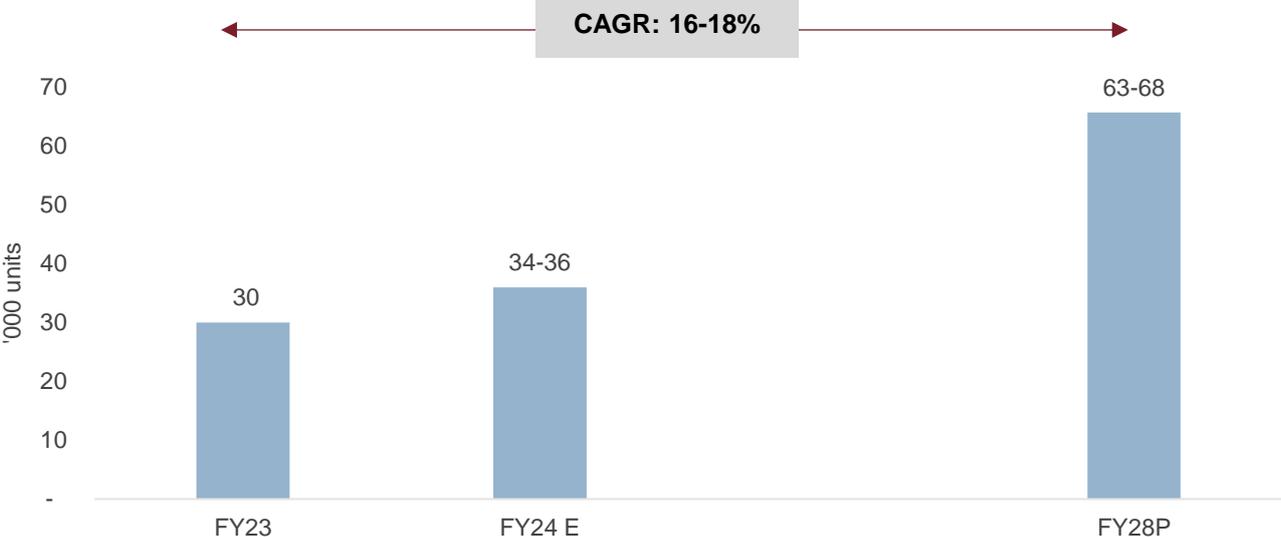
PV domestic sales segment-wise split



Note: E: estimated, P: projected
Source: SIAM, CRISIL MI&A

On a lower base, the luxury segment is poised to grow at a much faster pace. Between fiscals 2023 and 2028, it is expected to log a healthy 16-18% CAGR to reach 63-68,000 units. An improved economic environment, increase in disposable incomes, and intermittent launches by OEMs/players will be key drivers.

PV domestic luxury vehicles sales outlook



Note: Sales of LD and TS are not covered under VAHAN data and hence not included in the chart data
Source: SIAM, CRISIL MI&A

5 Review of and outlook on India's pre-owned PV market

Review of the pre-owned PV market

The pre-owned car market has come a long way in the past four decades. It logged 10% CAGR between fiscals 2018 and 2020, backed by changing buyer demographics and intermittent launches of feature-rich vehicles that have been shortening replacement cycles and aiding supply in the market. The availability of easy financing at competitive rates has also provided a fillip.

Additionally, the emergence of digital platforms in this space and improved internet/smartphone penetration have ensured that buyers are presented with more options. The price rise in new PVs in order to comply with emission norms and some shift from new PVs to pre-owned PVs amid sluggish economic growth provided an added impetus to the pre-owned PV market.

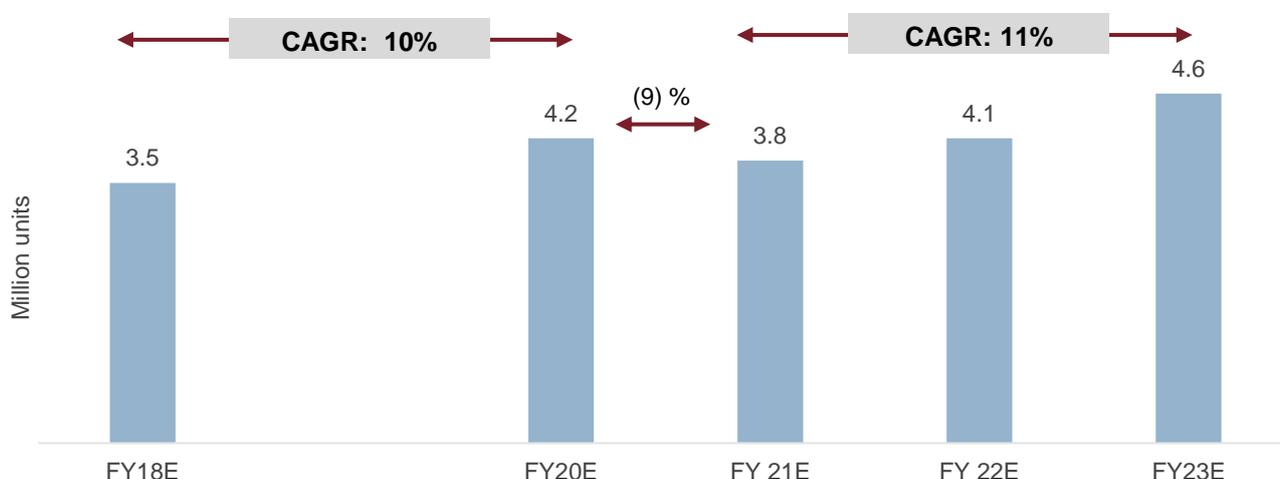
The pandemic provided an additional boost, amid increased requirement for personal mobility to maintain social distancing and customers' reluctance to use shared mobility options.

However, despite the increased need, sales contracted 9% on-year in fiscal 2021 amid supply shortage as sellers postponed selling their vehicles. Extended waiting periods in the new car market also delayed the supply of exchange vehicles to the pre-owned car market. According to CRISIL MI&A estimates, the share of vehicles bought with an exchange option fell from 35-40% in fiscal 2020 to ~30% in fiscal 2021, implying that for every 100 new PVs sold, there were 5-10 fewer vehicles coming in for exchange, while demand for additional vehicles had spiked by the same number. This restricted pre-owned PV industry sales in fiscal 2021.

With the pandemic's first wave subsiding by the fourth quarter of fiscal 2021 and the vaccination drive picking up pace, the Indian economy and overall auto industry seemed geared up for a healthy revival in fiscal 2022 from a low base of fiscals 2020 and 2021. However, the resurgence of a severe second wave derailed this expectation.

In the second half of fiscal 2022, the pre-owned car market picked up with the reopening of the economy, increased inoculations and improved mobility. However, vehicle supply to the used car market remained under pressure as chip shortages impacted the new vehicle market and waiting periods soared.

Sales of pre-owned vehicles



Source: Industry, SIAM, CRISIL MI&A

In fiscal 2023, the market picked up pace backed by normalising conditions, increase in mobility, improved vehicle supply and continued demand for personal mobility. Reopening of schools/colleges and offices increased the need for personal mobility. Moreover, the sharp price hike in new cars, high inflation, elevated fuel prices and increased interest rates provided an additional push to pre-owned car demand.

However, improvement in vehicle supply and reduced waiting periods in the new car market is estimated to have chipped away some demand for pre-owned cars during the year. The industry is estimated to have clocked 13-15% on year growth to reach 4.6-4.8 million vehicles of sales in fiscal 2023.

Business models of pre-owned vehicle market participants

The two main participants in the pre-owned car market are dealers and digital platforms. Dealers (organised and unorganised) are the primary participants and most B2C transactions are executed by them. Organised dealers are defined as large players with a showroom and a workshop. The OEM-backed dealerships (e.g., True Value and H-Promise) are also considered organised dealers. Unorganised dealers are small dealers who cater to local clientele. They dominate the market with 46-50% share.

The second set of participants — digital platforms such as OLX, Cardekho and Cars24 which provide support in vehicle procurement and sales — are recent entrants. Digital platforms are expanding into B2C sales by selling vehicles through their own retail outlets. However, they are still nascent in India.

Organised/unorganised dealers

Unorganised players procure vehicles directly from sellers or digital platforms through auctions or through classifieds. They also procure vehicles from other dealers, especially OEM-backed dealerships. The latter procure vehicles from exchanged vehicles at their sister concerns/new car dealerships. Exchanged vehicles from new car dealerships are routed to pre-owned vehicle dealerships of organised OEM-backed players such as True Value, Mahindra First Choice, etc.

Modus operandi of organised/unorganised dealers

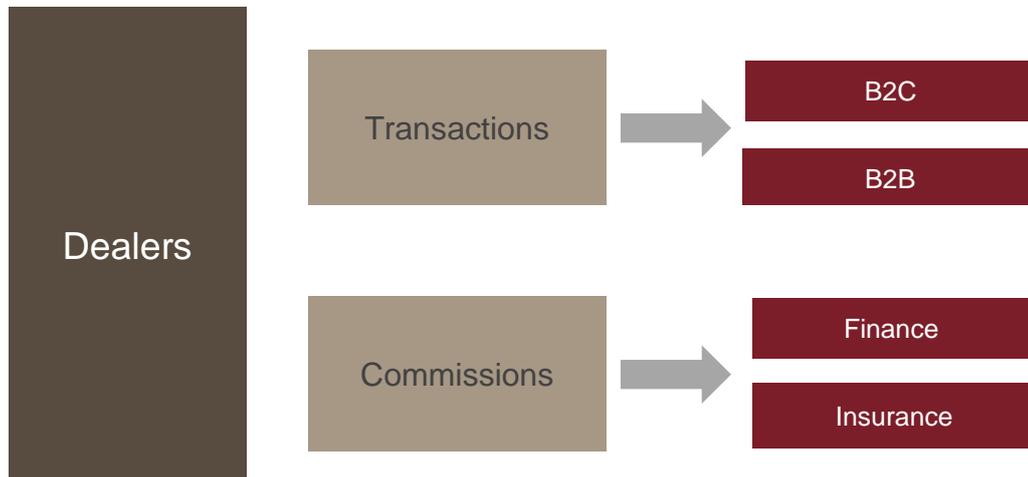


Source: Industry, CRISIL MI&A

Organised and unorganised dealers refurbish these vehicles and put them up for sale in the showroom with a markup. Customers can avail of finance, insurance, warranty at the showroom. Main revenue streams for the

organised players are revenue from selling the cars and commission earned from third parties for finance and insurance. Sales of pre-owned vehicles also provide an additional boost to new car sales of large organised players by providing a trade in value for the old car of the customer.

Business model



Source: Industry, CRISIL MI&A

As of fiscal 2023, finance penetration in the pre-owned industry was 25-30%. Dealers earn 1-3% of the financed amount as commission from financiers. Backed by an estimated increase in the share of the organised segment, support from financiers, softening interest rates, finance penetration in the pre-owned car industry is expected to rise to 35-40% by fiscal 2028.

On the other hand, insurance penetration was relatively lower at 15-20% as of fiscal 2023. CRISIL MI&A expects insurance penetration to remain rangebound going ahead. Dealers earn 16-18% of insurance premium as a commission on insurance. These commissions are an easy supplement to dealer revenues.

A few unorganised dealers offer park-and-sell option to sellers, where the seller can park their vehicle at the dealership without transferring ownership to the dealer and get paid only when the car is sold to the buyer. In this transaction, the dealer earns a commission for facilitating the transaction. However, such transactions are not very common.

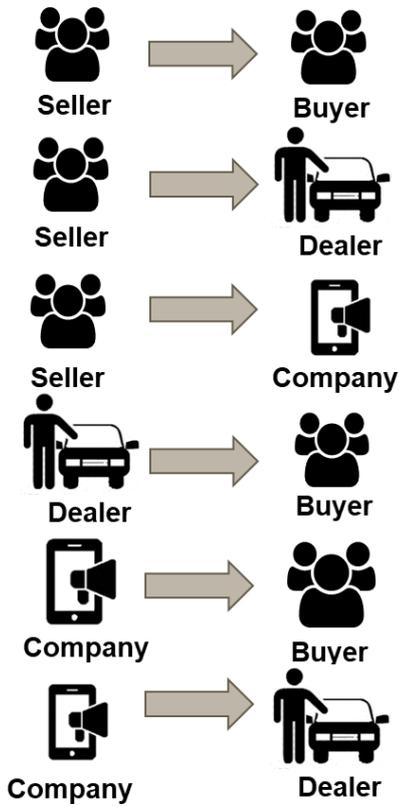
Organised players, especially OEM-backed dealerships, have also invested in digital platforms to supplement their brick-and-mortar business. Potential customers can view the available vehicle inventory with the dealership chain and access dealer details from the website to go to the physical store to test drive and finalise the vehicle. Value-added services like financing and insurance are also available online for these chains.

Digital platforms

Digital platforms are in the B2B business through listing and auctioning. They publish listings of sellers with relevant details about the vehicle. Upon confirmation, they provide buyers with contact details of the sellers and facilitate the buying process. Additionally, if the customer is willing, they provide inspection by experts and fair price estimates too.

They also conduct vehicle auctions where dealers can participate and procure vehicles for their dealerships. Many digital platforms have also entered into retail business through their own brick-and-mortar stores.

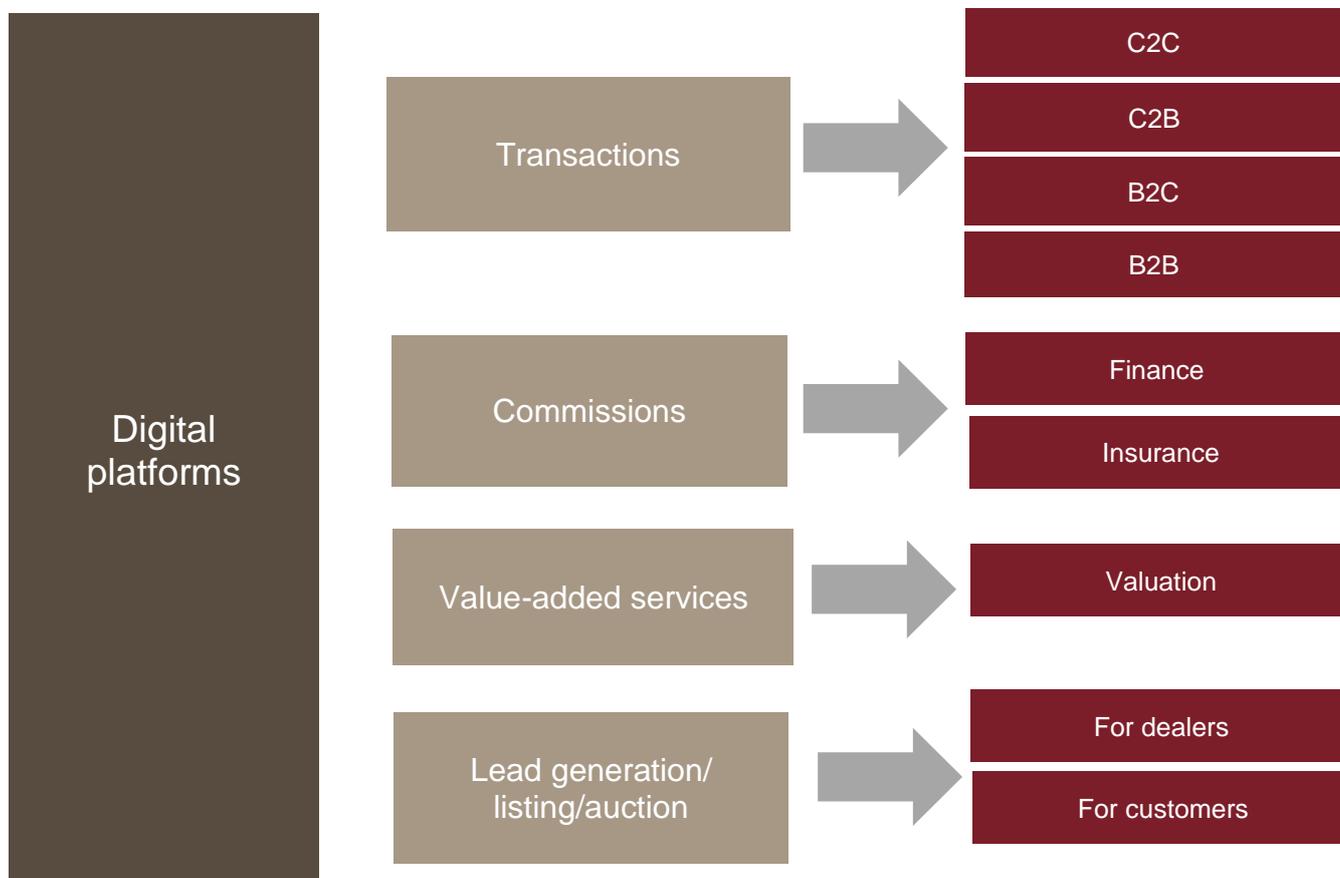
Modus operandi of digital platforms



Source: Industry, CRISIL MI&A

Digital platforms also provide buying assistance in the form of finance and insurance for the vehicle through third parties. Revenue streams for digital platforms include commissions from buyers and sellers of vehicles, commissions from third parties for finance, insurance, inspection, and revenue from lead generation/listing/auction from dealers.

Business model for digital platforms



Source: Industry, CRISIL MI&A

Organised segment expanding further

The pre-owned PV market used to be an unorganised space comprising only small brokers and sellers scattered across geographies. Buyers mostly bought pre-owned vehicles from their friends/relatives or nearby garages.

Maruti was the first player to enter this segment with the launch of Maruti True Value in 2001. It introduced organised segment practices such as warranty, financing and usage of genuine parts. Mahindra followed suit to launch First Choice in 2008. Other OEMs also entered the pre-owned space with their respective pre-owned dealership arms such as H-Promise (Hyundai), U Trust (Toyota) and Auto Terrace (Honda).

Given the dearth of good alternatives earlier, these entities enjoyed good response from customers. Exchange schemes offered by new PV dealers streamlined the supply chain for them. Over the years, the share of organized sector boomed as buyers thronged to these organised establishments.

The rise of digital platforms broadened this pool further. A customer could look at all the options available within her budget at the click of a button. She could assess fair prices, get financing options and contact the seller directly. If she were willing, she could also go for a slightly higher priced but expert-certified vehicle. Digital platforms gave an option to check for all the vehicles available in a city sitting in the comfort of one's home. This ease of access resulted in the digital segment gaining popularity and eating into the share of the unorganised sector. Moreover, the medium brought unmatched transparency and reliability, bringing more customers into the pre-owned vehicle market.

Both the organised and digital segments bring technological advances and attractive financing options.

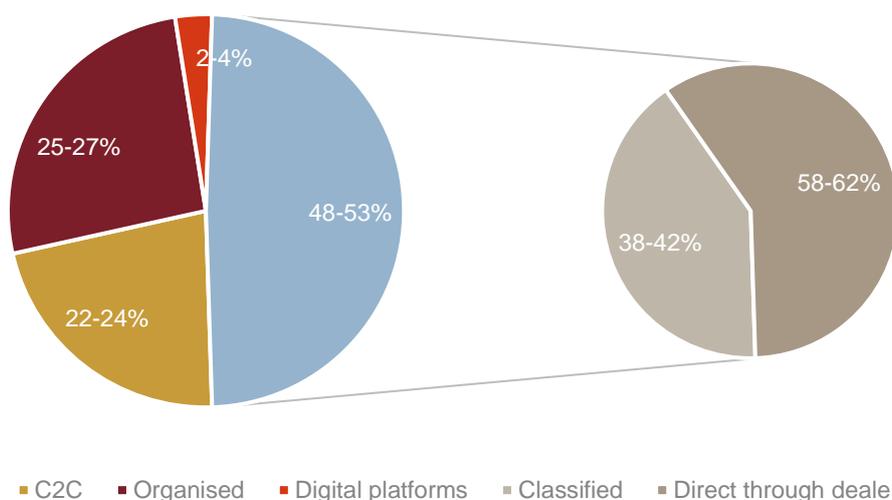
Many of the larger brick-and-mortar pre-owned car dealers with a focus on the digital medium are benefitting with consumer preference shifting from direct walk-ins to digital medium. These large dealers are offering higher convenience, more accessibility, and better options. The digital medium thus helps these dealers in expanding their customer base and acquiring customers.

However, sales through unorganised local dealers continue to form major share of the overall market, though that has shrunk gradually over the years. The organised segment contributed 16-19% in fiscal 2018, while unorganised players dominated the market with ~65% share.

As of fiscal 2023, unorganised dealers accounted for less than half of the overall sales executed. However, 30% of the lead generation for unorganised dealers happened through digital platforms. Organised dealers contributed 28-30% while ~20% took place C2C.

Sales through physical showrooms of digital platforms such as Spinny, and Cars24 is in a nascent stage and contributed to 2-4% of the overall sales.

Pre-owned PV market segmentation as of fiscal 2023



Notes: i) Organised dealers are the dealers with sales showroom and workshop; they include OEM-backed dealerships ii) Unorganised dealers are those with or without a basic sales setup and without workshop iii) Classified are digital platforms through which dealers list vehicle for selling to customers iv) Digital platforms are the physical stores of digital platforms like OlxAuto, Spinny, Cars24 v) C2C denotes direct customer-to-customer transactions

Source: Industry, CRISIL MI&A

In future, CRISIL MI&A expects the pre-owned vehicle market to move increasingly towards the organised segment (including digital platforms), backed by higher convenience, transparency, choices and value-added benefits provided by the organised segment. Moreover, contribution of digital platforms in lead generation for unorganised dealers is expected to increase further.

By fiscal 2028, CRISIL expects the organised segment (including physical stores of digital platforms) to cater to 30-32% of demand and support ~50% of the demand of unorganised segment through classifieds.

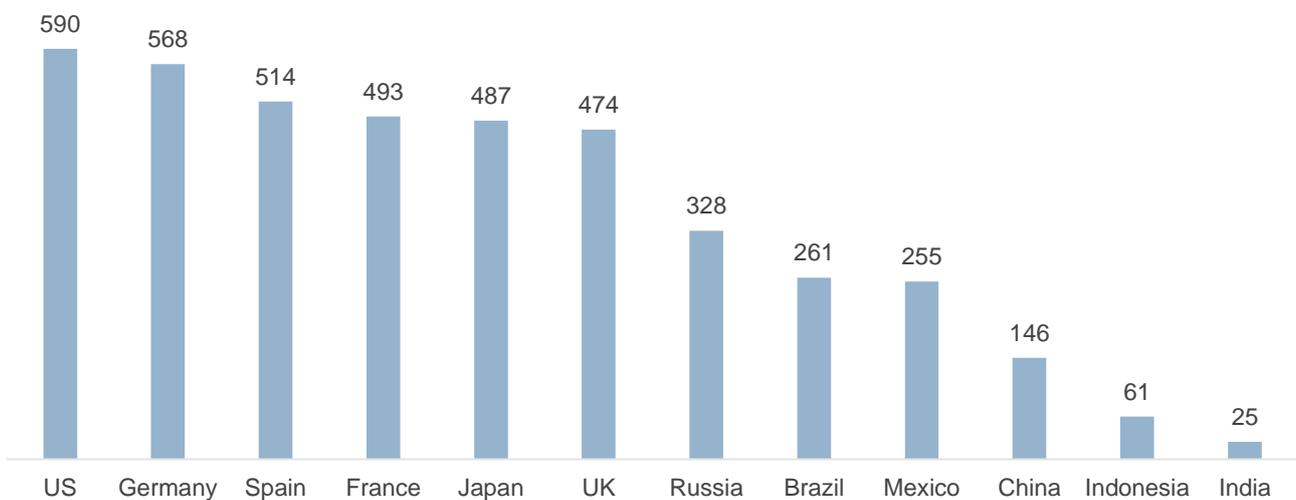
Key drivers for growth in the pre-owned PV segment

Lower vehicle penetration

India's PV market is one of the fastest growing in the world and ranked third in terms of annual sales as of 2022.

However, the market is still highly underpenetrated compared with most developed or even developing nations like China, Brazil and Mexico. This provides significant headroom for growth, especially given the expected improvement in disposable incomes, faster economic growth, younger population, and focus of the global OEMs.

Country-wise car penetration



Source: Road Transport Yearbook, 2019-20

Nascent stage of pre-owned PV market

The pre-owned PV market is still in its nascent stage in India with a lot of ground to cover. As mentioned earlier, all organised players started operations only in this millennium, while the digital startups are not even a decade old. Their success in this limited timeframe reflects demand unaddressed earlier. Both these sectors are expected to consolidate their position in coming years, as investments increase.

As a result, the ratio of pre-owned PVs to new PVs in India, currently at 1.3-1.5, is estimated to improve further. In comparison, the US is at 1.9, Germany 1.9, France 2.7, and UK 3.5. As this segment gets more organised, and customers get more choices, better sales and after-sales support, as well as cheaper financing options, this ratio is only likely to increase.

Advent of digital platforms

The recent emergence of digital platforms has provided an additional thrust to the pre-owned car market's growth. Digital platforms provide more choice, convenience, reliability and transparency. All these factors were majorly lacking when the market was completely dominated by unorganised players.

Digital platforms not only aid the market on the supply side by supporting dealer procurement, but also provides a platform for dealers to showcase and sell their refurbished vehicles supporting demand growth. The added transparency in vehicle valuation and price discovery are other important aspects backing the industry's growth.

CRISIL expects the digital platforms to play a bigger role in the market going ahead. Large/OEM-backed dealerships are also investing in digital technology and their focus on this medium is expected to continue going forward.

Increasing internet penetration

India has witnessed a significant surge in internet users over the past few years. Internet penetration as a percentage of the total population reached ~62% in fiscal 2022 from less than 20% in fiscal 2015.

It is expected to reach more than 75% by fiscal 2028 supported by the government's focus on digital India, aggressive expansion plans of telecom players and continued advancement in technology.

Shortening PV replacement cycle

In the past few years, the vehicle replacement cycle has been coming down. A few years ago, it used to be 6-8 years. By fiscal 2023, it had reduced to 4-6 years. The sharp rise in launches of advanced, feature-rich, trendy-looking vehicles at competitive prices prompted the young customer demographic to sell off their old vehicles for latest ones.

Lucrative exchange schemes offered by most OEMs as well as easy vehicle-selling avenues facilitated by C2C and organised players are boosting customers' eagerness to exchange their vehicles.

The shortening replacement cycle is also supporting the growth of the pre-owned PV industry.

Younger demographic

According to Census 2011 projections, India continues to have a very young demographic with an estimated 61% of its population below 35 years and a median age of around 28 years as of 2021. This younger demographic does not see any stigma in buying a pre-owned PV unlike the older generations. This change in behaviour has also contributed to the acceptance of pre-owned PV segment, especially in small towns and cities. They are also more tech-savvy and, hence, a target segment for C2C intermediaries such as OLX, Quikr, Carwale etc.

A plethora of launches in the past few years has brought feature-laden vehicles to the market. So, the pre-owned PV segment has also been seeing increased engagement from younger customers, who typically want feature-rich vehicles.

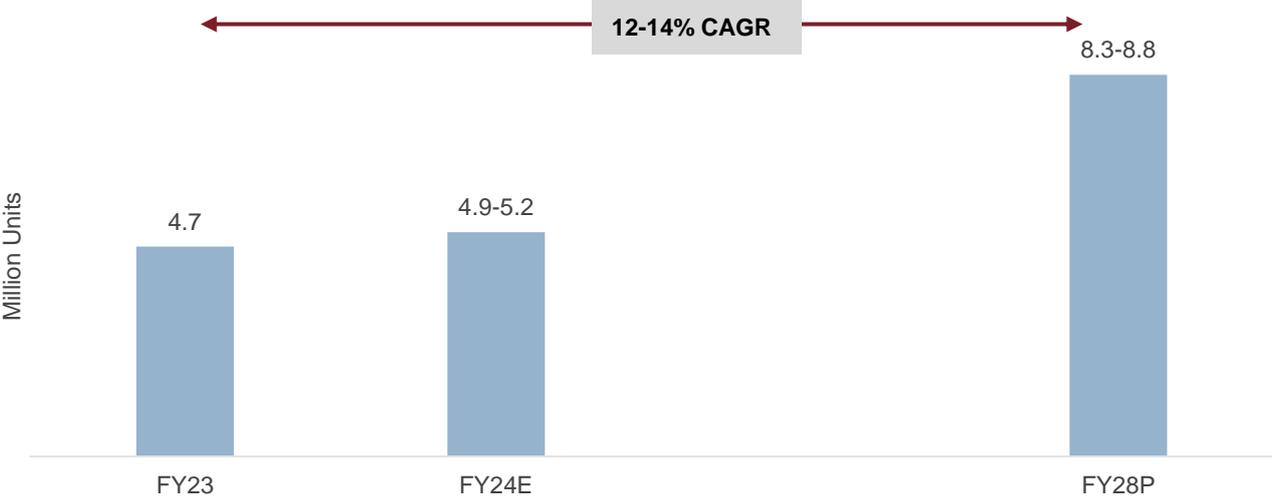
Outlook for the pre-owned PV industry (fiscals 2023-2028P)

In fiscal 2024, CRISIL MI&A expects the pre-owned car industry to grow 7-9% on-year and reach 4.9-5.2 million vehicle sales. The increased supply of new models is expected to limit the growth of the pre-owned car demand during the fiscal.

Between fiscals 2023 and 2028, CRISIL MI&A expects a healthy CAGR of 12-14% for the pre-owned PV market, which will reach 8.5-8.8 million vehicle sales. Increased need for personal mobility, rising aspirations of customers, growing disposable income, lowering replacement cycles and increasing financial penetration will drive the growth. The expanding share of the organised segment will boost the demand.

Moreover, the expected increase in finance penetration from 27-32% in fiscal 2023 to 40-45% by fiscal 2028 will provide an additional kicker to the demand.

Outlook for pre-owned PV industry



Notes: E – estimated, P - projected
Source: Industry, CRISIL MI&A

6 Indian CV industry: Review and outlook

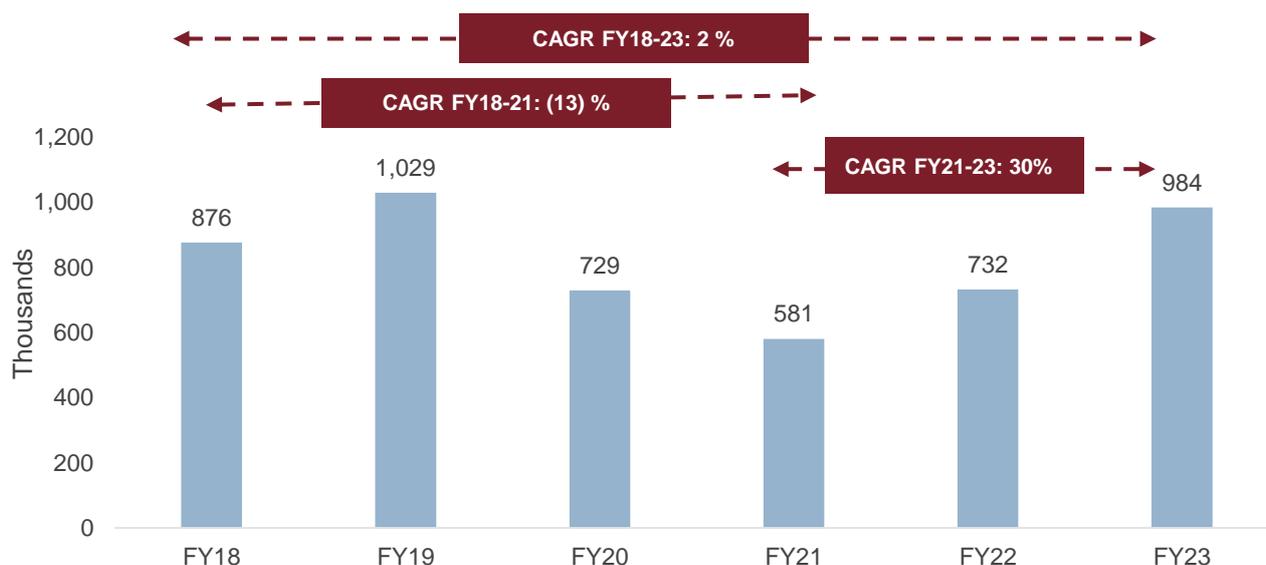
Review (fiscals 2018–2023)

Historic domestic sales (fiscals 2018–2023)

Between fiscals 2018 and 2023, domestic CV sales logged a CAGR of 2%. After a healthy growth in fiscal 2019, the industry witnessed a sharp de-growth in fiscal 2020, due to inventory adjustment done for the BS-VI transition. Moreover, the tapering of the GDP growth impacted the goods vehicle demand while safety regulations (emergency exit doors, fire detection and suppression, escape hatches and emergency lighting) impacted the demand for buses.

The CV industry shrank further in fiscal 2021 as the nationwide lockdown to arrest the spread of Covid-19 brought the economy to a grinding halt. A downturn in freight demand affected the profitability and sustainability of transporters during the pandemic. The industry, however, gained momentum afterwards as consumption demand and industrial activity started gaining pace. The industry rebounded at a healthy CAGR to reach nearly 1 million sales by fiscal 2023.

Review of CV domestic sales trend (including Bharat Benz sales)



Notes: E – estimated; domestic sales include Bharat Benz

Source: SIAM and CRISIL MI&A

Segmental trends

LCV goods vehicles dominate domestic CV sales, accounting for more than half of the vehicle sales in the CV segment. M&HCVs contribute another 30-35% and the balance 5-10% is buses.

During fiscals 2018-2021, CV sales contracted 13% CAGR amid a 30% drop in fiscal 2020 followed by a further 20% contraction in fiscal 2021 due to the pandemic. Over the last five fiscals, the industry has weathered major challenges on account of events such as demonetisation, NBFC crisis, implementation of axle load norms, changes to insurance norms and transition to BS-VI emission norms. All multiple factors, particularly post the second half of fiscal 2019, dampened the demand for CVs.

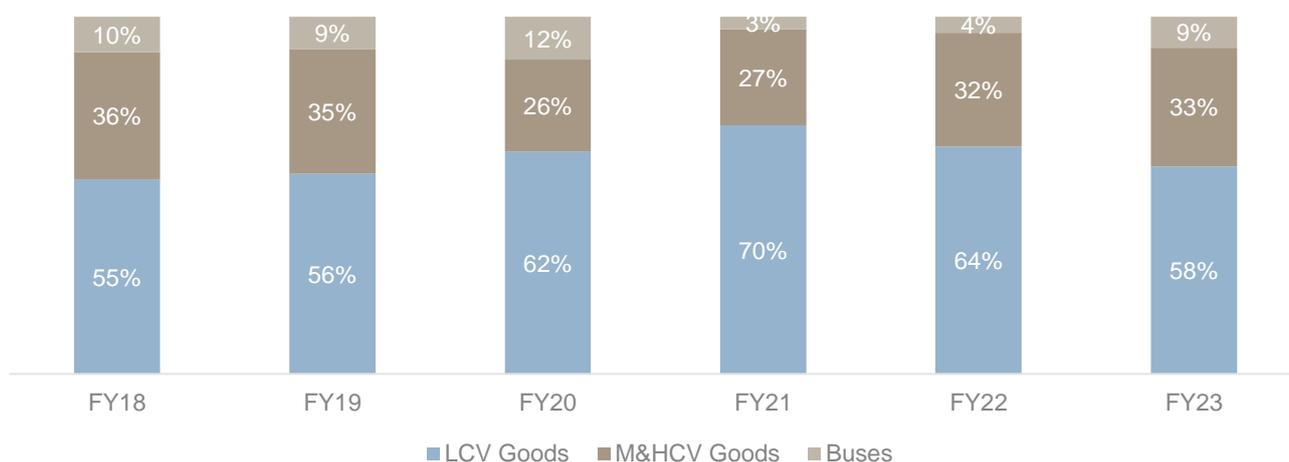
During the pandemic, due to the limited mobility, demand for buses took a hit. As a result, between fiscals 2018 and 2021, the demand contracted a significant 39% CAGR. In fiscal 2020, the demand for buses saw the adverse effect of the safety regulations (emergency exit doors, fire detection and suppression, escape hatches and emergency lighting), which pushed up the ownership cost ~Rs 50,000. This came on top of a price hike of ~Rs 15,000 due to mandatory installation of vehicle tracking system and panic buttons in January 2019.

After the price rise, weakening private consumption also hit the demand for buses in fiscal 2020 as tourist bus operators and inter-city travel operators reduced purchases. Weak corporate hiring and production cuts in manufacturing also shrank the corporate demand for staff buses. However, school and route permit buses showed some resilience in fiscal 2020. The demand from state transport undertakings (STU) ramped up in the second half of fiscal 2020 as they looked to replace much of their older fleet before the BS-VI price rise.

On the other hand, the continued demand for LCVs for e-commerce and last-mile delivery restricted its fall to 5% and thus extending its share to 70% during fiscal 2021. Moreover, LCVs are typically replaced every 6-8 years, and vehicles purchased between 2011 and 2013 were due for replacement in 2019. Given the strong sales witnessed in fiscals 2011 and 2013, the sub-1-tonne segment particularly saw strong replacement demand. This strategic replacement cycle contributed to stable sales in fiscal 2019 and prevented a significant drop in LCV sales in fiscal 2020. The delay in replacement since fiscal 2020 and in turn the pent up demand boosted LCV demand in fiscal year 2023 and is expected to continue in fiscal year 2024.

Even during the pandemic, LCVs outperformed M&HCVs because rural areas had seen less afflictions, which resulted in better sentiment.

Segment-wise share in domestic sales



Note: E – estimated; domestic sales exclude Bharat Benz as SIAM doesn't report the company's numbers

Source: SIAM, CRISIL MI&A

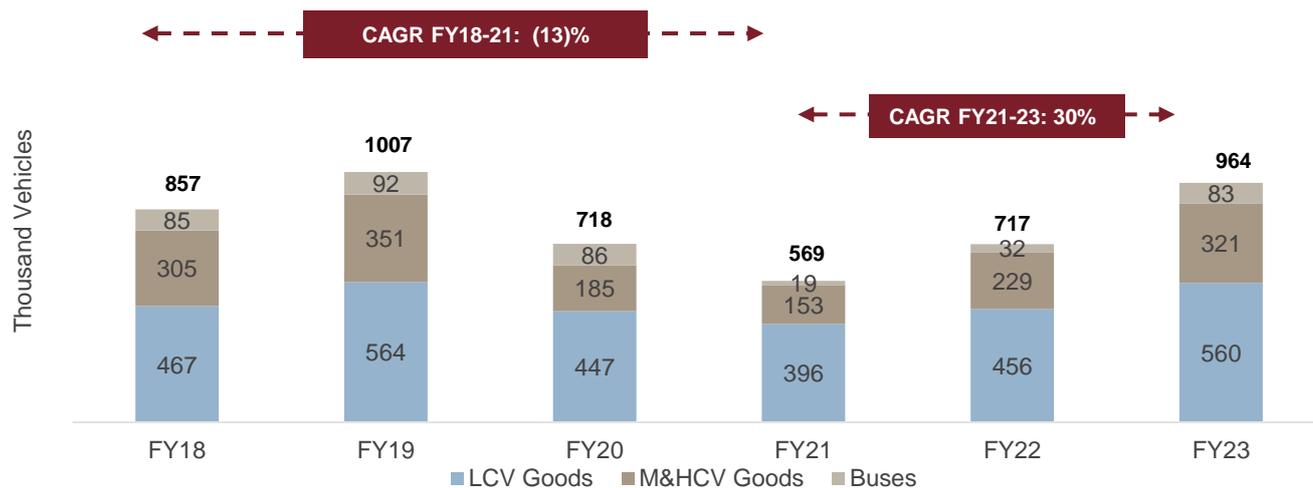
From the low base of fiscal 2021, the CV industry witnessed a strong bounce back during fiscals 2021-2023. Sales witnessed a 19% CAGR growth driven by the sustained replacement demand. The M&HCV segment clocked a 45% CAGR due to government capital expenditure and demand from key sectors.

On the other hand, bus sales more than doubled every fiscal on a very low base fuelled by robust replacement demand and urbanisation trends. In fact, buses saw unprecedented demand. These vehicles are sold primarily to schools, corporates, which use it to ferry staff, and to tours & travel companies, which use it for intercity and interstate

travels. Demand from schools picked up after the pandemic as they shrugged off impact of the pandemic-induced uncertainties with a lot of pent-up demand emerging for buses. Corporates have also gone back to the work-from-office mode with a few IT giants making coming to the office mandatory. This has led to considerable demand for staff service buses as well.

This helped the bus segment clock a ~105% CAGR growth post the pandemic during fiscal 2022 & 2023.

Segmental sales trend (excludes Bharat Benz)



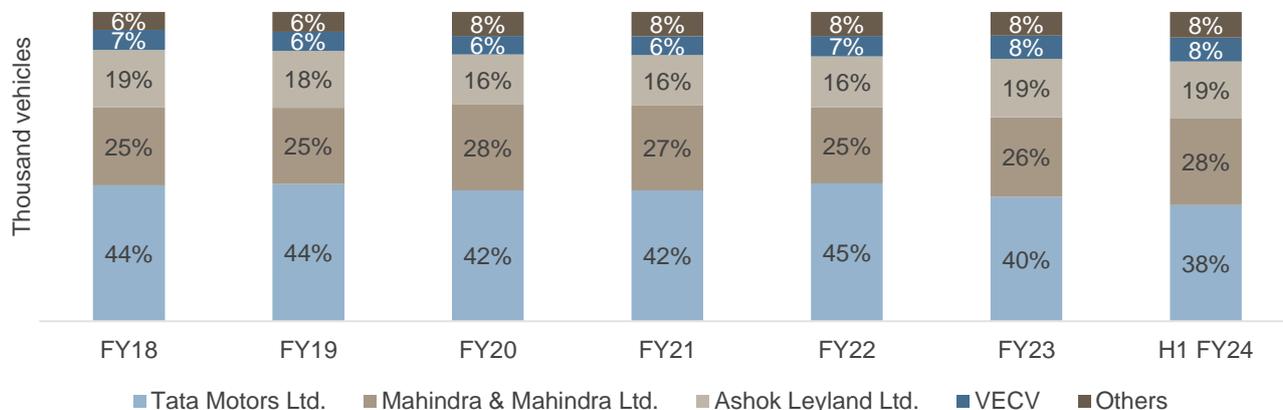
Note: E – estimated; domestic sales exclude Bharat Benz numbers SIAM does not provide them

Source: SIAM, CRISIL MI&A

Competitive scenario

Tata Motors leads in the CV segment in terms of market share, followed by Mahindra & Mahindra and Ashok Leyland (ALL). Over the years, from a high base, Tata Motors has lost some ground to Mahindra and VE Commercial Vehicles Ltd (VECV; Volvo-Eicher joint venture).

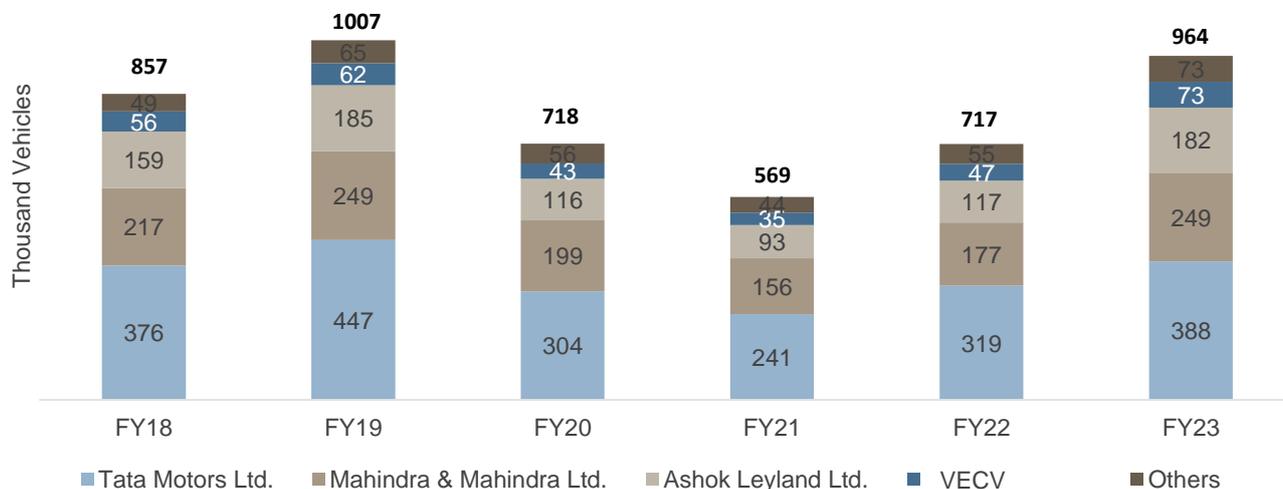
Overall CV industry split by OEM market share



Note: Other players are Force Motors Ltd., Isuzu, JBM Auto Ltd, Maruti Suzuki Ltd, Olectra Greentech Ltd, Piaggio Vehicles Pvt Ltd., SML Isuzu Ltd., Swaraj Mazda Ltd., Toyota Kirloskar Motor Pvt Ltd

Source: SIAM, CRISIL MI&A

CV industry split by OEM volume



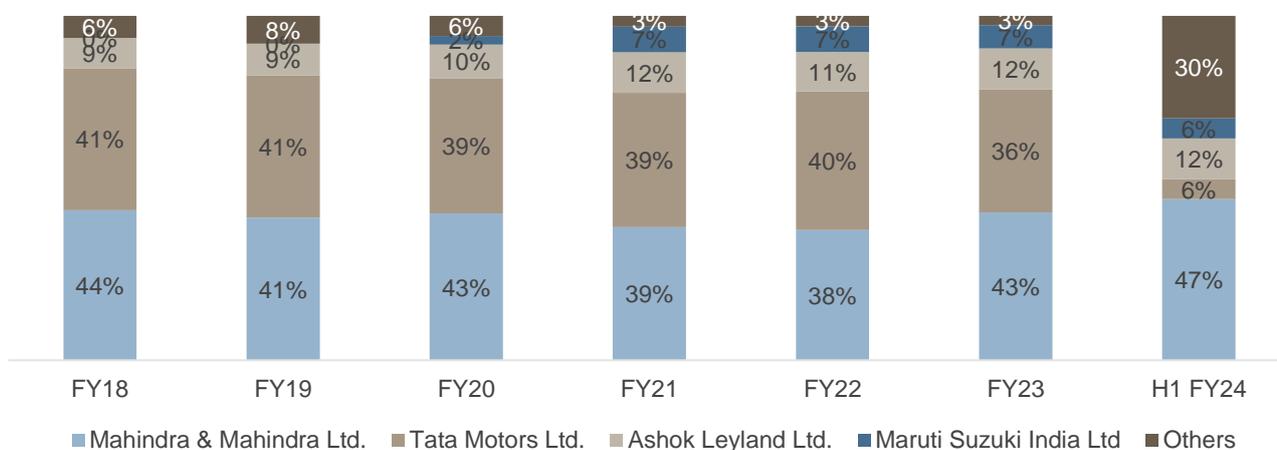
Note: Other players are Force Motors Lt., Isuzu, JBM auto Ltd, Maruti Suzuki Ltd, Olectra Greentech Ltd, Piaggio Vehicles Pvt Ltd, SML Isuzu Ltd, Swaraj Mazda Ltd, Toyota Kirloskar Motor Pvt Ltd, VECV

Source: SIAM and CRISIL MI&A

Mahindra lost some share during fiscals 2021 and 2022 amid the supply constraints and semiconductor shortage. However, in fiscal 2023 as well as in the first quarter of this fiscal, the company regained some ground with some ease in supply and with the launch of new Bolero City pickup, an addition to its existing pickup range, as well as Furio range, boosting its share.

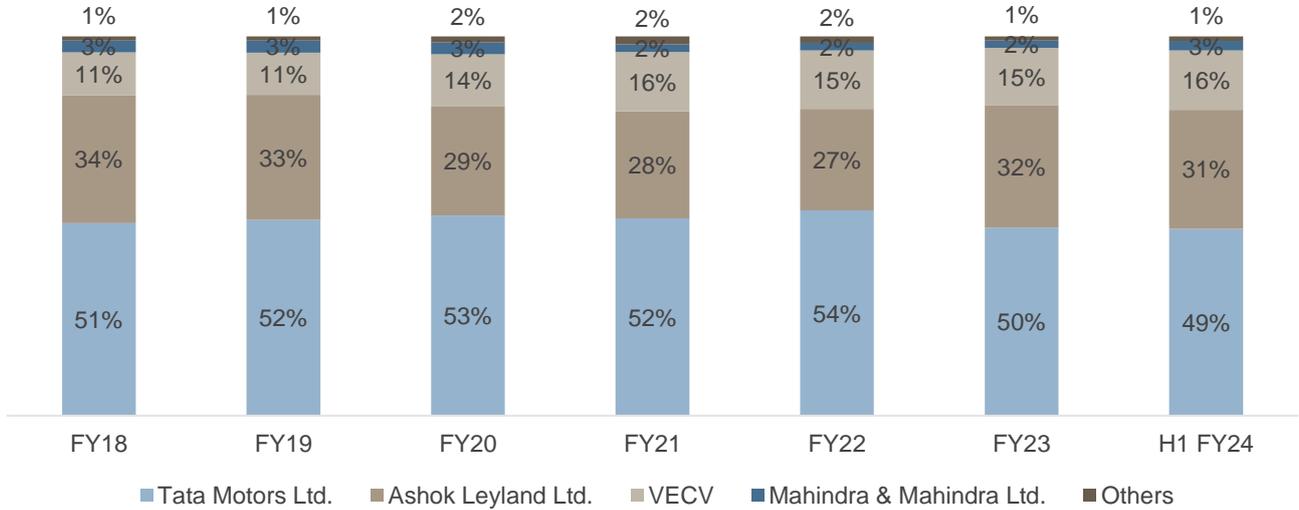
Since the launch of Boss, Ashok Leyland has rapidly gained market share in the intermediate commercial vehicle (ICV) segment. Moreover, expansion of its Ecomet star range has helped ALL expand its presence during the first quarter of this fiscal.

OEM market shares in LCV goods segment



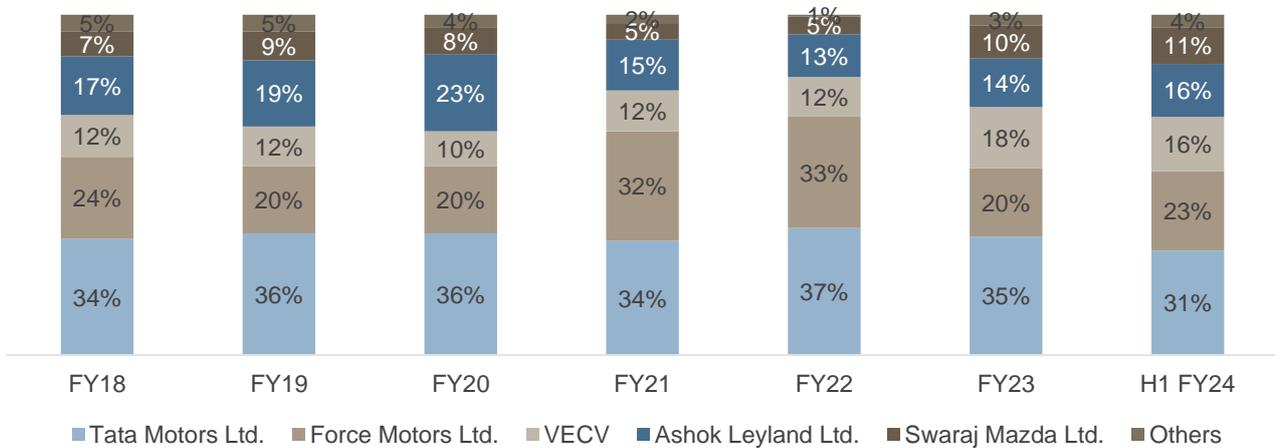
Source: SIAM, CRISIL MI&A

OEM market shares in M&HCV goods segment



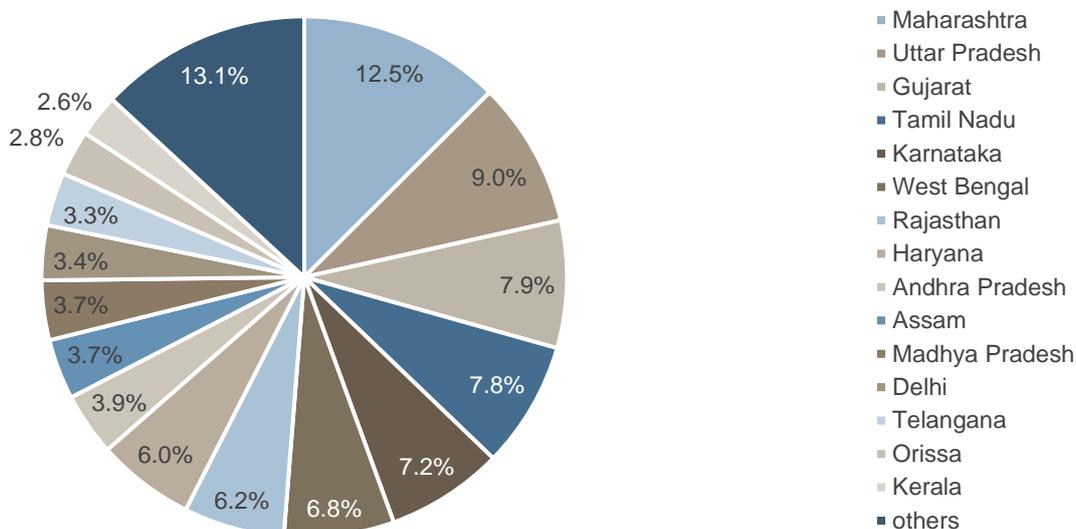
Source: SIAM and CRISIL MI&A

OEM market shares in bus segment



Source: SIAM and CRISIL MI&A

State-wise contribution to annual sales (fiscal 2023)



Source: SIAM, CRISIL MI&A

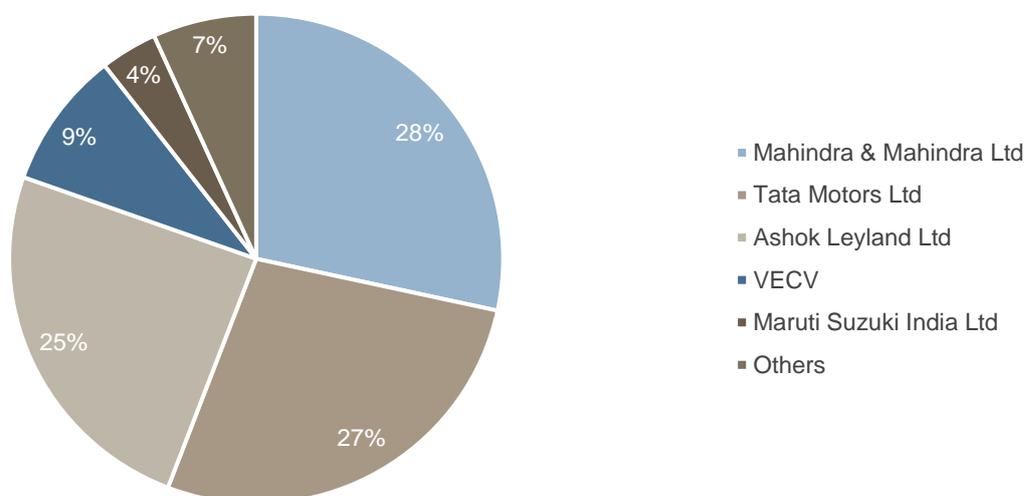
CV sales in India are highly concentrated with top five states accounting for ~40-45% of national sales and top 10 states accounting for more than 70%. Maharashtra and Uttar Pradesh are the biggest contributors to overall CV sales in the country. These two states accounted for 21.5% of national sales in fiscal 2023. Maharashtra, Uttar Pradesh, Tamil Nadu, Gujarat, Karnataka and West Bengal together accounted for nearly half the demand during the period.

Southern states of Kerala and Tamil Nadu together accounted for 11% of the domestic CV sales in last fiscal.

Tata Motors, Ashok Leyland and Mahindra were the top 3 contributors across states catering to ~80% of the states' demand. These 3 OEMs contributed 78%, 80% & 85% to the CV sales of Maharashtra, Kerala and Tamil Nadu respectively.

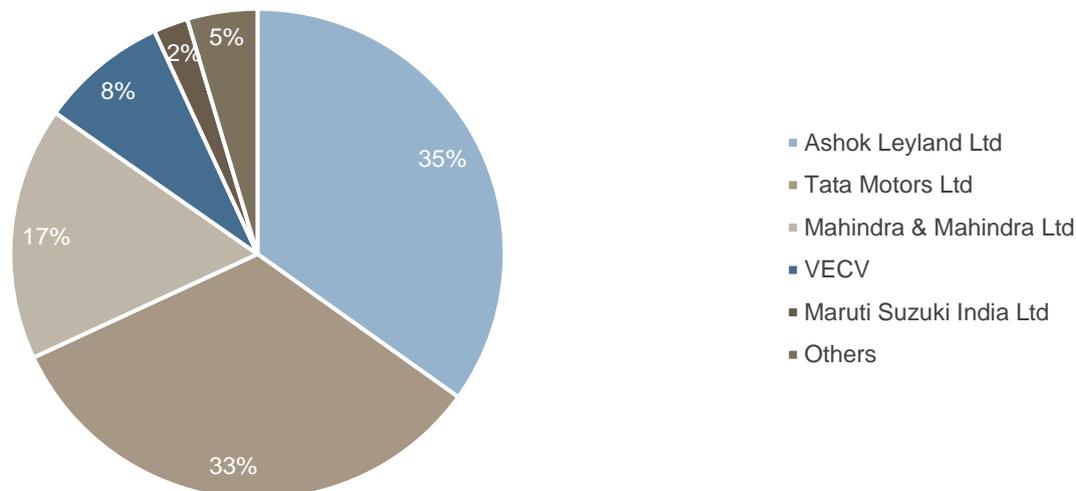
Sales volume mix in Kerala, Tamil Nadu and Maharashtra

**Kerala
FY23**



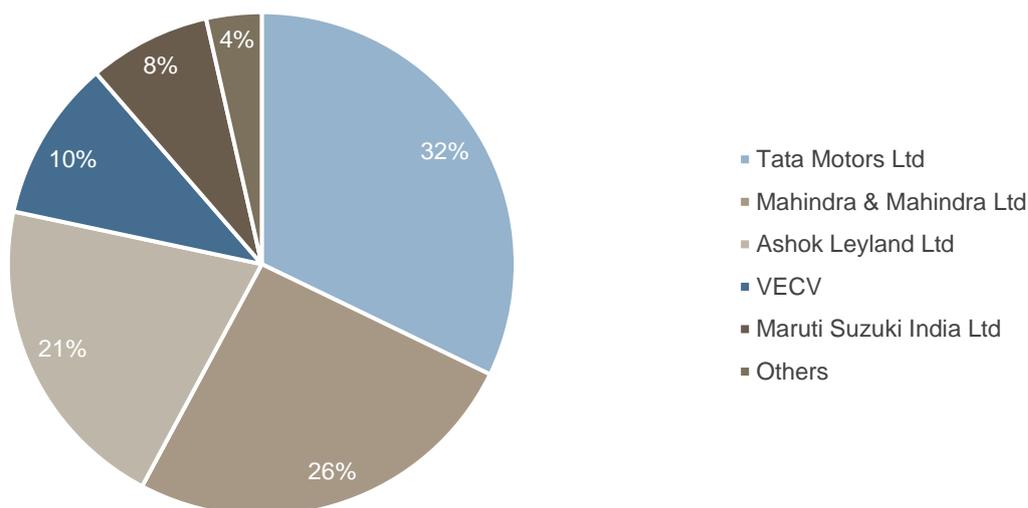
Source: SIAM and CRISIL MI&A

Tamil Nadu
FY23



Source: SIAM, CRISIL MI&A

Maharashtra
FY23



Source: SIAM, CRISIL MI&A

OEM-wise state level sales

Fiscal 2023	Kerala	Tamil Nadu	Maharashtra	Uttar Pradesh	Gujarat	Karnataka
Tata Motors	7,153	25,703	39,729	42,935	31,405	24,838
Mahindra	7,406	12,947	31,583	23,051	19,527	17,259
Ashok Leyland	6,412	27,057	25,337	9,221	12,806	18,385
Maruti Suzuki	974	1,750	9,605	3,742	7,432	1,325
VECV	2,365	6,498	12,742	7,495	4,836	6,098
Others	1,771	1,750	4,349	2,952	2,151	3,783
Total	26,081	77,512	123,345	89,396	78,157	71,688

Source: SIAM, CRISIL MI&A

Key regulatory changes

Recent regulations for new commercial vehicles (CVs) such as the axle norm, bus body code, mandatory anti-lock braking system, speed governors, BS-VI norm enforcement and mandatory cabin ventilation system, impacted the industry. We expect the effects of new fuel-efficiency standards, BS-VI phase 2 norms, truck body code and new scrappage policy to be felt in the long run.

Axle load norms

In the second half of fiscal 2019, the Ministry of Road Transport and Highways notified new axle load norms for CVs, which permits an increase in the load-bearing capacity of trucks. The new norms were applicable to the entire fleet of freight-moving trucks.

New payloads stipulated for M&HCVs

(in Tonnes)	MCV		MAV		T-Trailer		
Previous GVW	16	25	31	37	35	40	49
Previous Payload	9	16.5	21	26	23	27	35
Kerb weight	7	8.5	10	11	12	13	14
GVW as per new norm	18.5	28	35	42	39.5	45.5	55
New Payload	11.5	19.5	25	31	27.5	32.5	41
% increase in rated payload	28%	18%	19%	19%	20%	20%	17%

Source: CRISIL MI&A

The new axle load norms increased freight-carrying capacity of trucks by ~20%, which benefitted the transporters ferrying bulk goods that constitute 35-40% of the truck movement. The movement of bulk goods in billion-tonne-kilometre (BTKM) terms via road fell marginally in fiscal 2020 amid the ~20% rise in capacity for bulk goods transporters. Therefore, bulk goods transportation via roads largely continued to face overcapacity, limiting new truck purchases.

The only saving grace was transportation of voluminous non-bulk goods (60-65% of truck movement), which, while being unaffected by the axle norms, were impacted by the consumption slowdown in fiscal 2020. Moreover, as some bulk transporters were already overloading near the new payload level or moderately above it, the impact of the axle norms on such transporters was less.

After the implementation of the axle norms, the payload of the erstwhile 37T increased to 31T, which was like the erstwhile payload of a 40T T-trailer. Also, the erstwhile 49T T-trailer's payload increased from 35T to 41T. Rated load availability at the 41T mark is expected to be less than 35T. Moreover, issues such as driver availability and lower maneuverability plague T-trailers. Because of these reasons, higher tonnage multi-axle vehicles (MAVs) are likely to be more desirable than T-trailers.

Truck body code

All goods vehicles (>3.5T GVW), manufactured either by a vehicle manufacturer or a body builder on drive-way chassis vehicles, had to comply with the provisions of AIS-093 (Revision 1) in two stages — the first stage of compliance in October 2018 and the second stage in October 2019. We believe compliance with this code led to a cumulative price rise of ~5%.

With standardisation in truck body building, there was consolidation among truck body builders as small players found it difficult to meet the testing requirements. Financiers are believed to have been more willing to fund the generally unsupported body building cost. This is estimated to have reduced the initial downpayment, minimising the impact of the 5% rise in the cost of ownership.

Fuel efficiency norms

To make heavy-duty trucks and buses more fuel efficient, the Ministry of Petroleum and Natural Gas, MoRTH and the Ministry of Heavy Industries are in talks to notify fuel efficiency norms. Based on talks with various stakeholders, BS-IV compliant diesel vehicles of categories M3 and N3, with GVW of 12T and above, will have to comply with these norms. Vehicles are expected to meet the target diesel fuel consumption value for a specific set of speeds, which is dependent on the vehicle's GVW, axle configuration and category (N3/M3).

Emission norms

The Bharat Stage (BS) emission standards regulate the output of air pollutants from motor vehicles in the country. In January 2016, the central government decided to skip BS-V and transition directly to BS-VI norms, fixing April 1, 2020, as the deadline for introduction of BS-VI emission norms.

BS-VI phase 2, implemented from April 2023, entailed addition of on-board self-diagnostic device (OBD2) to monitor real-time emissions. The addition of OBD2 will also require hardware and software upgrades of the vehicles, which resulted in a price increase of 2-4%.

Higher safety measures for buses

Safety regulations regarding vehicle tracking and panic buttons were introduced in January 2019. Later, regulations related to fire detection system, escape hatches, emergency lighting and emergency doors were implemented in April 2019. These regulations pushed up bus prices by Rs 65,000, in addition to regular price increases.

Key trends and growth drivers

Stable agricultural output

Over fiscals 2023 to 2028, CRISIL projects 3-4% gross value added (GVA) growth in agriculture. After growing at 4% in fiscal 2023 over the previous year, agri GVA is expected to remain steady in coming years.

The rabi output was favourable in fiscal 2023, supporting farmer incomes during the early months of fiscal 2024. In the current fiscal, kharif sowing was initially delayed due to the delayed monsoon. However, sowing has picked up in recent months. Moreover, higher MSP allocation for fiscal 2024 and good prices in mandis have maintained the positivity on-ground. Going ahead, the progress and spread of rainfall should play a key role in the current kharif cycle. The progress of the monsoon and its impact on rural demand remain key monitorables.

Fillip to industrial output

The Indian industry's GVA grew at a tepid pace of 3.7% between fiscals 2018 and 2023. After ~5% growth in fiscal 2019, industrial GVA contracted over the next two years amid an unfavourable macroeconomic scenario and the Covid-19 pandemic.

From the low base of fiscal 2021, industrial GVA bounced back rapidly in fiscal 2022 and grew ~11.5%. The gradual improvement continued in fiscal 2023 at 4.4%. Over the next five-year period (fiscals 2023 to 2028), industry GVA is expected to be robust driven by the government's focus on the 'Make in India' scheme. Moreover,

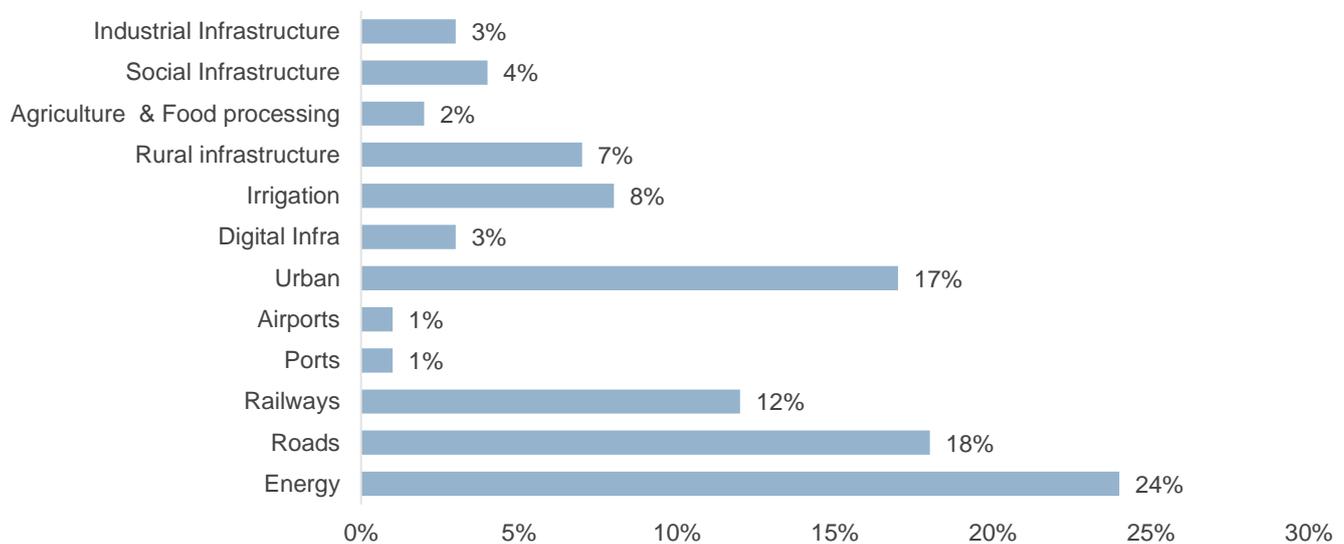
the improvement in infrastructure and expectations of higher corporate expenditure are likely to support the capex cycle post fiscal 2023.

The government’s focus on infrastructure

The National Infrastructure Pipeline (NIP) for fiscal 2019-2025 is a government initiative to develop infrastructure across the country and provide world class services to its citizens. The total capital expenditure in infrastructure sectors in India during fiscals 2020 to 2025 is projected at Rs 111 lakh crore.

The break-up of the plan is given below:

Sectoral break-up of NIP amounting to Rs 111 lakh crore at launch



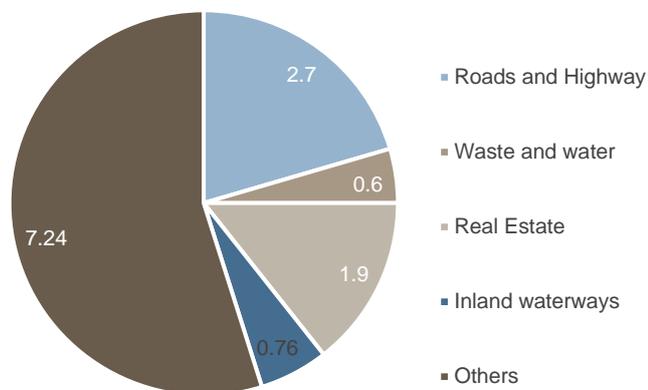
Source: Department of Economic Affairs, NIP Volume I

The NIP plan aims to double the infrastructure investment from the current average of Rs 10 lakh crore per year to Rs 22 lakh crore per year. Of the total NIP investment of Rs 111 lakh crore, projects worth Rs 44 lakh crore (40%) are under implementation, Rs 34 lakh crore (30%) are at the conceptualisation stage, and Rs 22 lakh crore (20%) are under development. Almost 83% of project allocation indirectly benefits the CV sector in India, and this push for infrastructure is a major growth driver.

Further, new projects have been added to the NIP programme with the total cost of projects at about Rs 183 lakh crore as per the India Investment Grid as of August 2023.

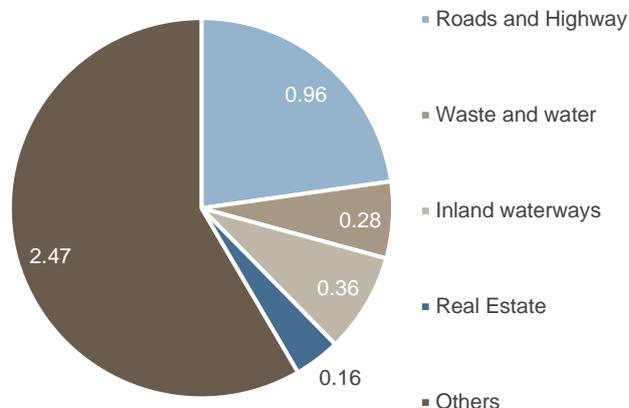
The contribution of Tamil Nadu, Kerala and Maharashtra to NIP is significant, with these three states together accounting for 20-21% of the overall planned outlay of the programme.

Outlay of NIP projects in Tami Nadu (Rs lakh crore)



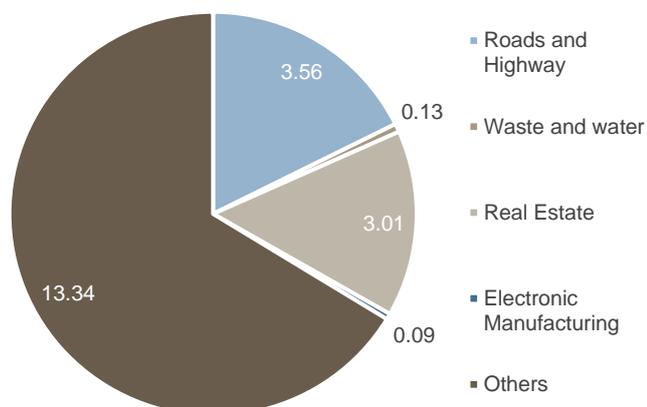
Source: India Investment Grid, CRISIL MI&A

Outlay of NIP projects in Kerala (Rs lakh crore)



Source: India Investment Grid, CRISIL MI&A

Outlay of NIP projects in Maharashtra (Rs lakh crore)



Source: India Investment Grid, CRISIL MI&A

State infrastructure outlay in Kerala

Account (Rs crore)	FY23RE	FY24BE
Irrigation	359	515
Public health	1,658	1,142
Public works	2,807	2,560
Housing and urban development	172	256
Total capex	14,894	14,605

Note: BE – Budget estimates; RE – Revised estimates; all amounts in crore

Source: Finance department, Government of Kerala

Kerala has decreased its total capital expenditure by 2% in fiscal 2024 budget over revised estimates of fiscal 2023. Among infra projects, the outlay for irrigation will increase ~43%, public works will decrease 9%. Housing and urban development and housing will see an increase in outlay of ~49%.

State infrastructure outlay in Tamil Nadu

Account (Rs crore)	FY23BE	FY24BE
Irrigation	3,925	4,559
Education & health	2,055	2,731
Roads & bridges	16,311	17,421
Urban development	6,256	3,719
Total capex	43,043	44,366

Note: BE – Budget estimates; RE – Revised estimates; all amounts in crore

Source: Finance department, Government of Tamil Nadu

The Tamil Nadu government lowered capital expenditure by 10.9% to Rs 38,347 crore in the revised estimates for 2022-23 from ₹43,043 crore in the initial estimates. Tamil Nadu has budgeted an increase of 16% to Rs 44,366 crore over the previous year's revised estimates.

State infrastructure outlay in Maharashtra

Account (Rs crore)	FY23RE	FY24BE
Irrigation and flood control	13,724	17,169
Public health	2,539	3,168
Public works	2,472	3,241
Housing and urban development	8,255	3,053
Total capex	72,452	73,900

Note: BE – Budget estimates; RE – Revised estimates; all amounts in crore

Source: Finance department, Government of Maharashtra

For fiscal 2024, Maharashtra has budgeted an increase of 2% over the previous year's revised estimates. Infrastructure projects will receive a boost this year with the outlay for public works growing 31%, housing and urban development decreasing 63% and irrigation and flood control growing 25%.

Scrappage policy

MoRTH, in August 2018, considered incentivising the scrapping of vehicles sold before April 2005 (15 years old). After deliberations on the modalities on implementation, the government currently aims to promote vehicle scrapping by exempting registration charges for truck purchases made after scrapping older trucks. To incentivise scrapping of older vehicles, the government has increased the registration charges for older vehicles and increased stringency of fitness tests. These will entail higher costs for owners of older vehicles. Hence, by disincentivising the ownership of older vehicles, the government expects the scrapping of older vehicles to increase. We expect the impact of the norms to be limited on additional scrappage (apart from vehicles scrapped in the normal course of business). If transporters are incentivised to scrap vehicles older than 15 years by the government and OEMs, we expect 6,00,000-6,50,000 MHCVs to be available for scrapping.

Commissioning of dedicated freight corridors (DFCs) to put brakes on road freight and hence CV sales

DFCs are expected to help the Indian Railways regain its lost freight share by reducing turnaround times between the importing and consuming destinations. Not only will DFCs induce faster freight movement, but they will also enable faster evacuation of cargo from the ports, thereby improving efficiency. In fact, DFCs and the associated logistics parks are likely to help industries significantly reduce their plant-level inventory as well, enabling savings in working capital. Moreover, the shifting of freight to rail will aid the economy by decongesting major highways.

Thus, the roads segment, which has outperformed rail over the past decade, will lose some share once DFCs are commissioned.

Outlook of the Indian CV industry (between fiscals 2023 and 2028P)

Domestic sales outlook (between fiscals 2023 and 2028P)

The CV industry recovered spectacularly in fiscal 2023, with a 34% growth rate, reaching 96% of pre-pandemic levels of fiscal 2019. The commercial vehicle (CV) industry in India is expected to grow steadily in fiscal 2024, reaching pre-pandemic levels. Increased government spending, robust replacement demand, and strong end-user sectors such as construction and mining are expected to support growth.

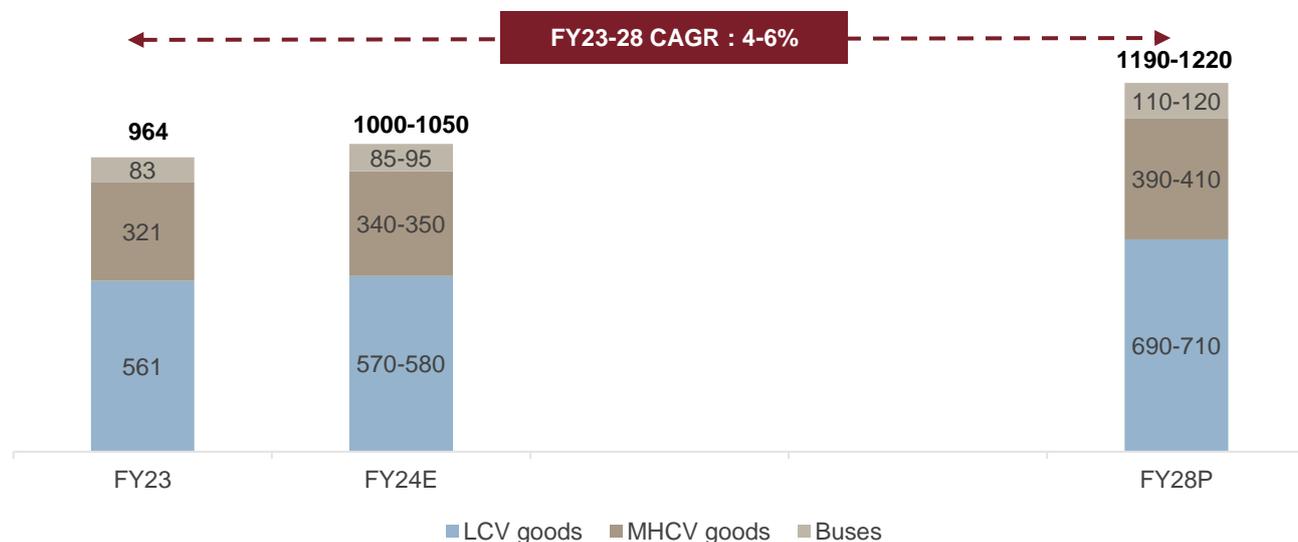
Light commercial vehicle (LCV) sales are projected to grow moderately at 1-5% in fiscal 2024, supported by sustained replacement demand with rising competition from electric three-wheelers, especially in the sub one tonne segment restricting further expansion. In fiscal 2023, LCV sales recorded impressive growth of 23%, rebounding to 99% of pre-pandemic levels. The surge in sales can be attributed to robust replacement demand, especially in the sub-one-tonne category, which was deferred due to economic challenges and the pandemic.

However, LCV sales declined 9% in the first quarter of fiscal 2024 due to supply side constraints on account of OEMs transitioning to BS VI stage II emission standards. Despite this setback, the industry anticipates a revival in sales in the upcoming quarters, driven by a good monsoon season and an improved economic outlook with the easing of supply constraints.

Due to government capital expenditure and demand from key sectors, the medium and heavy commercial vehicle (MHCV) segment is expected to grow at a 4-8% annual rate. Bus sales are expected to increase 11-15% in fiscal 2024, owing to strong replacement demand and urbanisation trends. CNG adoption has been hampered, affecting LCV sales. The CV industry, led by MHCVs, is expected to grow steadily over the next five years.

Over the long-term horizon, domestic CV sales are projected to record a 4-6% CAGR between fiscals 2023 and 2028, led by a 2-5% CAGR in the LCV segment, 3-5% CAGR in the M&HCV segment and 6-9% CAGR in the bus segment.

CV domestic sales outlook



Note: E - Estimated; P – Projected; domestic sales exclude Bharat Benz’s sales as the company’s sales figures are not reported by SIAM
Source: SIAM, CRISIL MI&A

End-use sector outlook (between fiscals 2023 and 2028P)

Key end-use segments and outlook		
Sectors	Growth outlook (FY23-FY28)	Key aspects
Coal	5-6%	Growth in coal-based power generation Demand from allied sectors such as cement and sponge iron
Steel	6-7%	Building and construction, the major demand creator in this segment
Cement	5-6%	Demand to be driven by rural housing/affordable housing and commercialisation in Tier III/IV cities Infrastructure demand also plays an important role according to NIP
Port movement	2-5%	Iron ore exports to support growth, as global demand for steel improves. POL trade (imports), especially in LPG, is poised to go up
Road investment	8-12%	NIP to drive infrastructure investments on roads and highways. CRISIL MI&A expects the Government of India (GoI) to be able to achieve 80-85% of its targeted investments
E-commerce	20-25%	Food, fashion and grocery segments to grow at a faster rate as penetration improves. E-retailers to focus on expansion in Tier I/II cities over this period

Source: CRISIL MI&A

MHCVs set to thrive

The MHCV goods industry is projected to grow at a CAGR of 3-5% from fiscal 2023 to fiscal 2028.

Long-term MHCV sales are likely to be driven by several factors, including the country's improving industrial activity, consistent agricultural output, and the government's continued emphasis on infrastructure development.

However, volume growth may be limited due to efficiencies gained from the implementation of the Goods and Services Tax (GST), the development of improved road infrastructure, and the commissioning of DFCs. Nonetheless, the industry remains on a promising growth trajectory in the coming years.

Over the next five years (fiscals 2023 to 2028), industry GVA is expected to be robust, driven by the government's emphasis on the "Make in India" Scheme. Furthermore, infrastructure improvements and higher-than-expected corporate spending are expected to support the capex cycle after fiscal 2023.

Growth momentum of LCV sales to continue over the long term

LCV goods demand is expected to grow at a 2-5% CAGR from fiscal 2023 to fiscal 2028, owing to increased private consumption, lower penetration, increased availability of redistribution goods, and improved financing. The industry grew at a 4% CAGR between fiscals 2018 and 2023.

Upper-end light commercial vehicles (ULCVs) provide lower returns to transporters than ICVs and are best suited for captive use. Entry restrictions on ICV trucks and higher tonnage MHCVs are expected to keep demand from this segment buoyant. However, the higher toll on ULCV trucks versus pickups will limit segment growth.

The SCV segment now offers a diverse range of products in various tonnages that cater to the needs of all types of customers. To fill tonnage gaps, players have launched a slew of new products, especially in the last five years. In addition, the availability of CNG options is expected to keep volume growth in this segment stable.

Bus demand to witness strong growth over the next five years

Domestic bus sales are expected to grow at a CAGR of 6-9% between fiscals 2023 and 2028. Increased demand for inter-city/state travel, aided by improved road infrastructure, and higher personal disposable income will drive growth. The unregulated segment, which primarily serves demand from schools, businesses, and intercity travel by private operators, will continue to be the largest end-user segment. However, the implementation of metro rail and monorail in several cities would have an impact on future bus sales growth. In terms of penetration (buses per 1,000 people), with one bus per 1,000 people and a 35% urbanisation rate, there is a significant upside opportunity.

These estimates may have an upside if the scrappage policy is enforced.

7 Electric vehicles

Amid rising environmental concerns, electric vehicles (EVs) are gaining traction globally, including in India. The country is one of the signatories to the Paris Agreement under the United Nations Framework Convention on Climate Change. It is also part of the EV30@30 campaign, targeting a 30% sales share for EVs by 2030.

To accelerate EV adoption, the government has been incentivising consumers by extending support via FAME (Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India) subsidy as well as tax cuts. The government announced Rs 100 billion for Phase II of FAME, which commenced on April 1, 2019. The policy aims to provide a subsidy of Rs 10,000 per kWh to four-wheelers (battery EVs, plug-in hybrid EVs, strong hybrids) for commercial purposes and public transport. It envisions creation of infrastructure for charging of EVs. The subsidy for two-wheelers is Rs 15,000 per kWh, although the total subsidy was reduced from June 2023 by lowering the cap on maximum subsidy from 40% of vehicle ex showroom cost to 15%.

Furthermore, the government is taking measures to address one of the major concerns regarding EVs: range anxiety (fear of running out of charge in the middle of the journey) due to low availability of public charging infrastructure. To address this concern, and support an ecosystem to accelerate EV sales, the Ministry of Road Transport and Highways is setting up new EV charging stations as well as supporting the expansion of charging stations in homes and commercial centres.

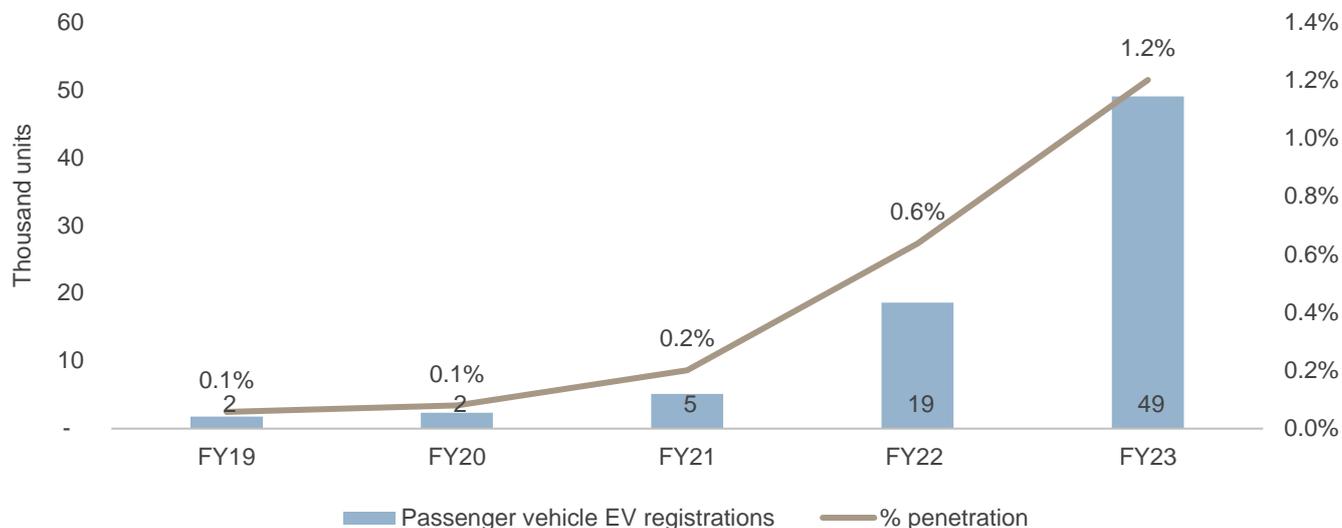
The government support, coupled with rising awareness about EVs, environmental concerns, as well as the expansion in EV infrastructure is driving electrification in India. The EV segment received a real thrust in the last two years backed by model launches at competitive rates, price hikes in ICE vehicles, elevated fuel costs as well as an improvement in infrastructure support.

Passenger vehicles

EV penetration in the passenger vehicle (PV) segment was insignificant till fiscal 2021 but it received a significant boost amid a sharp rise in fuel prices, a rise in ICE vehicle prices and the launch of newer models in the EV segment. It increased from 0.1% in fiscal 2019 to 1.2% in fiscal 2023. Additionally, rising awareness, shifting consumer preferences provided an added boost to EV demand.

However, electrification in the passenger vehicle segment is still at a quite nascent stage amid range anxiety, limited charging infrastructure availability, and relatively high costs of EVs, raising the total cost of ownership of EVs.

Domestic EV penetration trend



Note: VAHAN figures exclude Telangana, Lakshadweep

Source: SIAM, SMEV, VAHAN, CRISIL MI&A

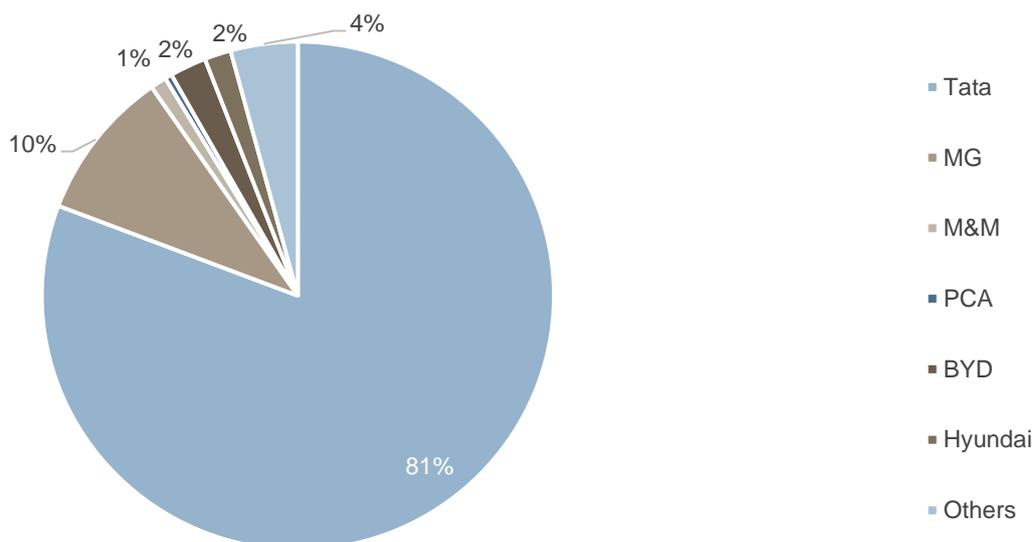
Tata Motors dominates the EV market

The domestic EV landscape in the passenger vehicle segment is highly concentrated with the top two players accounting for more than 90% of the retails.

Tata Motors has been leading the EV segment with its most popular EV Nexon, followed by MG, a distant second. However, the share of other players such as Mahindra, PCA, BYD is on the rise led by recent launches and improved vehicle supply.

Player wise share in EV retails

FY23



Source: VAHAN, CRISIL MI&A

TCO of EVs for personal car remains a challenge

As of fiscal 2023, the total cost of ownership (TCO) of an EV for a personal vehicle (10k annual running) was 20% higher than that of a petrol vehicle. In fiscal 2030, CRISIL expects the TCO of EVs to be higher by only ~3%, reducing the gap between the two.

On the other hand, TCO of EVs for a commercial passenger vehicle/taxi segment (35k annual running) in fiscal 2023 was lower than that of petrol vehicles by 4%, but higher than that of a CNG variant by ~5%, attributable to the higher running of a commercial passenger vehicle and high fossil fuel prices. CRISIL expects the TCO of EVs to decrease further by fiscal 2030.

TCO for private vehicles in fiscal 2023 for four-year ownership

Annual running	6,000 km	10,000 km	15,000 km
EV vs petrol	37% higher cost than petrol	20% higher cost than petrol	5% higher cost than petrol

TCO for private vehicles in fiscal 2030 for four-year ownership

Annual running	6,000 km	10,000 km	15,000 km
EV vs petrol	7% higher cost than petrol	3% lower cost than petrol	13% lower cost than petrol

Source: CRISIL MI&A

The moderation in battery costs is expected to offset the lack of FAME subsidy and will help maintain the competitiveness of BEVs against petrol and CNG variants for cab aggregators in the long run. Over the long term, TCO of EVs is expected to drop below CNG levels, making them the most logical choice for a commercial taxi vehicle.

The taxi segment, which accounts for 6-10% of sales within passenger cars is expected to lead the adoption of EVs.

TCO for taxi/cab aggregator in fiscal 2023 for four-year ownership

Annual running	25,000 km	35,000 km	45,000 km
EV vs petrol	11% higher cost than petrol	4% lower cost than petrol	14% lower cost than petrol
EV vs CNG	17% higher cost than CNG	5% higher cost than CNG	4% lower cost than CNG

TCO for private vehicles in fiscal 2030 for four-year ownership

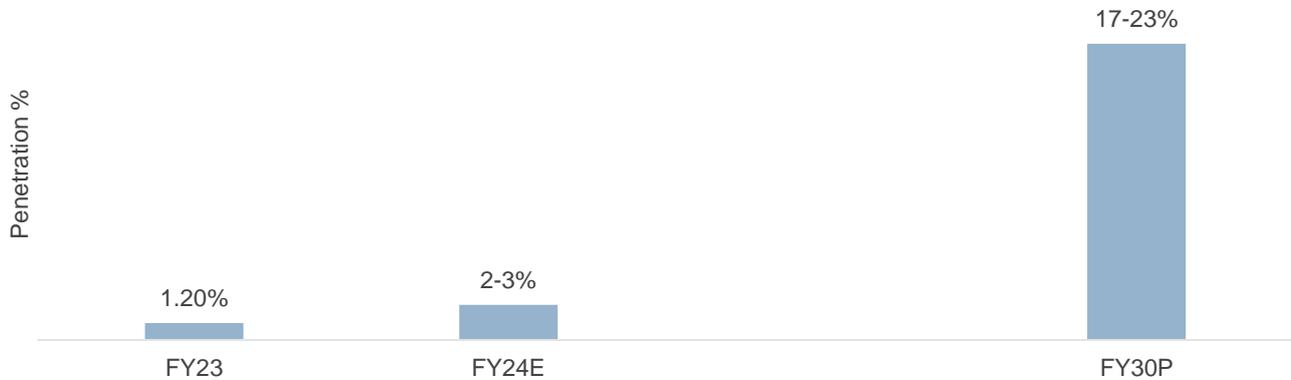
Annual running	25,000 km	35,000 km	45,000 km
EV vs petrol	6% lower cost than petrol	17% lower cost than petrol	25% lower cost than petrol
EV vs CNG	4% lower cost than CNG	12% lower cost than CNG	19% lower cost than CNG

Source: CRISIL MI&A

Long term outlook

From a low base of fiscal 2023, CRISIL MI&A expects EV penetration in the domestic PV industry to rise to 2-3% in fiscal 2024 and reach 17-23% by fiscal 2030. A healthy pipeline of EV launches by OEMs will provide the thrust to EV adoption in PVs.

EV penetration long term outlook



Source: SIAM, SMEV, VAHAN, CRISIL MI&A

This expansion in adoption will be spearheaded by the taxi/commercial passenger vehicle segment. For this segment, the continued lower cost of ownership will provide the incentive to shift from ICE vehicles to EVs. Moreover, the entry of greentech EV-only start-ups such as BluSmart and CAB-E will further boost demand. EV adoption in the personal segment is expected to be gradual.

EV penetration will also be propelled by policies adopted by the government for penalising non-adherence to CAFE norms.

Two-wheelers

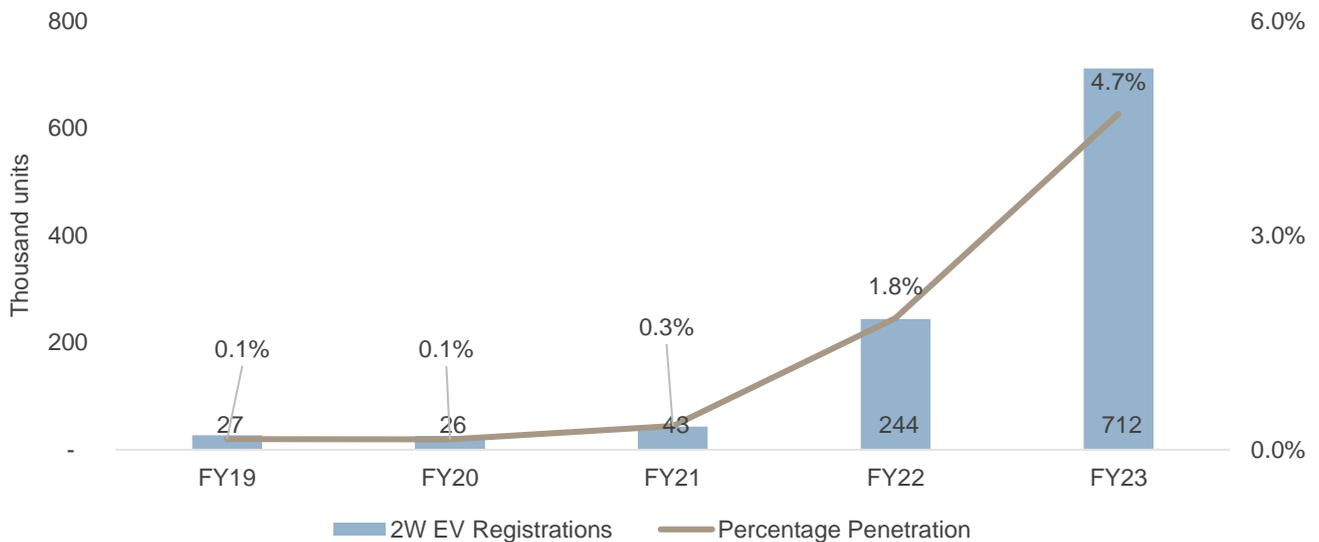
India is the largest two-wheeler market by volume globally. Two-wheelers also comprise a sizeable 75% of India’s total automobiles. Thus, the electric revolution needs to include the two-wheeler segment as well.

Initially, lead-acid battery-powered scooters were launched in India, which had average speeds below 25 km per hour (kmph). With innovations on the battery side, lithium-ion battery scooters gained traction, as they had average speeds of 40-50 kmph.

Moreover, backed by a bevy of vehicle launches, entry of non-traditional players such as Ola and Ather into the EV space, added FAME subsidy incentives, increased ICE vehicle prices, and a sharp rise in fuel prices, EV sales have skyrocketed, especially in the last two years. The tech-savvy younger customer base quickly adopted these latest vehicles, which offered state-of-the-art features, attractive designs, lightweight body, and increased manoeuvrability.

EV penetration rose from 0.1% of domestic retail sales in fiscal 2019 to 4.7% of annual retail sales by fiscal 2023.

EV penetration within domestic two-wheeler industry



Note: High-speed vehicles have been considered in the analysis; VAHAN figures exclude Telangana and Lakshadweep
Source: SIAM, SMEV, VAHAN, CRISIL MI&A

In fiscal 2023, e-2W sales totalled ~7 lakh units vs 25 thousand units in fiscal 2019. e-2W sales jumped last fiscal due to improved model availability, new model launches by ICE OEMs, lower-priced models, improved charging infrastructure availability, hike in FAME subsidy from 10k/kWh to 15k/kWh, and TCO parity with ICE vehicles.

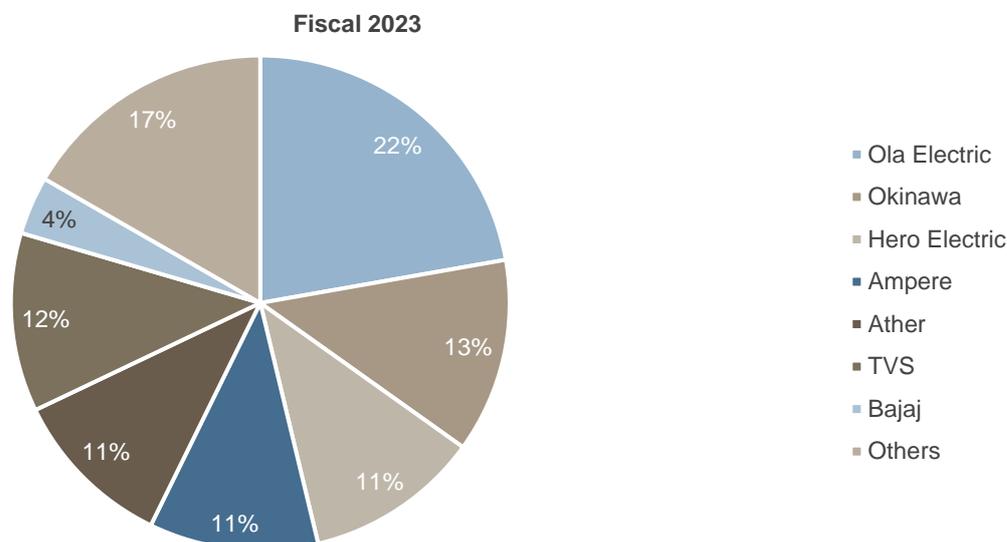
Non-traditional players dominate EV market

Since EVs are simpler to produce than traditional ICE vehicles, many new OEMs have emerged in the space, both start-ups (such as Ather Energy, Simple Energy, and Tork Motors that have developed EV offering indigenously) and established business houses (such as JSW Group foraying into EV manufacturing).

Non-legacy players such as Ola Electric, Ather Energy, Okinawa Scooters, and Ampere EV by Greaves have gained a strong foothold in the domestic e-2W industry, stealing a march on established OEMs, and are disrupting the market with a hope to leverage their first-mover advantage and technological expertise.

Traditional ICE players have taken longer to enter the e-2W segment; however, they are making up for lost time by rapidly expanding their sales network and production capacity, and are likely to challenge the top EV players.

Player-wise share in EV retail sales



Source: VAHAN, CRISIL MI&A

TCO analysis

The TCO of EVs is currently higher than that of their ICE counterparts, especially post subsidy reduction. However, as annual running increases, EVs become more cost-effective. This is one of the major reasons for the proliferation of many ride-sharing businesses such as Bounce and Vogo, which primarily operate with e-2Ws.

The anticipated reduction in battery costs and improved efficiencies are expected to help reduce the gap between the TCO of EVs and their ICE counterparts. As the gap narrows, EVs are expected to become cost-effective at lower annual running distances, incentivising customers to switch to EVs.

TCO for scooters in FY23 for four-year ownership

Annual running	6,000 km	8,000 km	10,000 km
EV vs petrol	21% higher cost than petrol	8% higher cost than petrol	2% lower cost than petrol

TCO for scooters in FY30 for four-year ownership

Annual running	6,000 km	8,000 km	10,000 km
EV vs petrol	4% higher cost than petrol	4% lower cost than petrol	11% lower cost than petrol

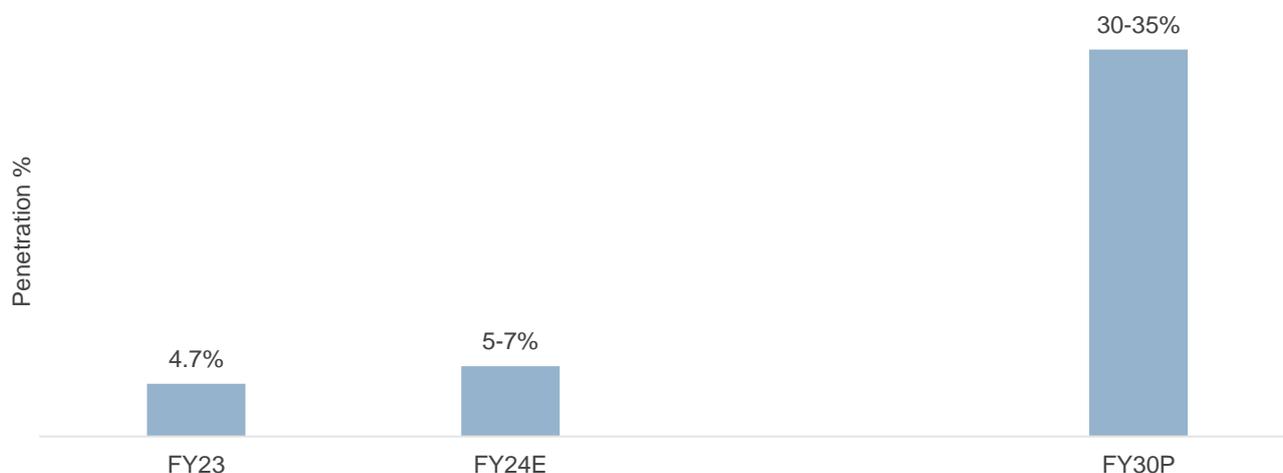
Note: Total cost of ownership analysis framework takes into consideration down payment/initial payment, EMI, fuel cost, maintenance cost, and battery replacement cost, if any, over the ownership period adjusted for the resale value

Source: Industry, CRISIL MI&A

Electrification in two-wheeler industry

CRISIL MI&A expects e-2W market penetration to be 5-7% in fiscal 2024, restricted by the cut-down in FAME subsidy in May 2023. After a sharp dip in EV retail sales during June 2023, CRISIL MI&A expects gradual improvement going forward, backed by a plethora of price-competitive launches and gradual acceptance of increased prices by customers.

Long-term outlook for EV penetration



Source: VAHAN, CRISIL MI&A

EV penetration is expected to reach ~30-35% by fiscal 2030, driven by urban scooter buyers. The adoption will be led by the expanding portfolio of EVs, improving EV infrastructure, subdued EV ownership costs, and rising awareness.

Moreover, improving EV supply amid expanding EV capacity will likely provide an additional kicker to the long-term EV demand.

Alarming levels of air pollution across metro cities in India and actions taken by local governments are resulting in higher awareness levels among masses, especially youth, regarding environmental issues and advantages of EVs in addressing some of these issues. Therefore, growing awareness and concerns regarding environmental issues are likely to be among the key drivers supporting electrification in India.

Three-wheelers

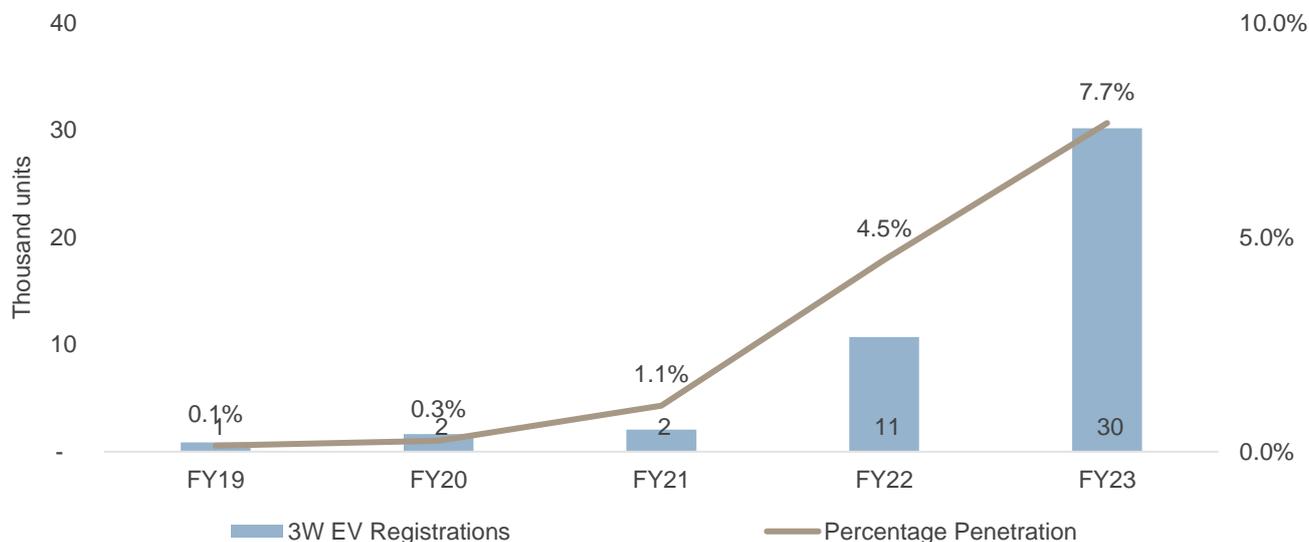
The price-sensitive three-wheeler segment has seen faster EV adoption than other automobile segments, given the sharp rise in ICE vehicle prices and elevated fuel costs.

The three-wheeler industry, particularly the passenger segment, faced significant challenges during the pandemic due to reduced mobility, resulting in decreased demand for last-mile delivery services. The goods vehicle segment, on the other hand, showed resilience due to the continued requirement of last-mile delivery even during the pandemic.

Industry sales gradually improved in fiscal 2022 and 2023 from a low base of fiscal 2021, driven by improved mobility as pandemic-related restrictions eased. However, vehicle prices increased due to the requirement to comply with stricter emission norms. Moreover, fuel costs also rose, pushing the cost of ownership higher. Even CNG prices increased sharply in fiscal 2023, pushing customers to opt for EVs.

Backed by the government's support in the form of subsidy, coupled with EV model launches by traditional OEMs such as Piaggio and Mahindra & Mahindra, EV penetration increased significantly to 7.7% in fiscal 2023. E-3W passenger vehicles, unlike ICE vehicles, do not fall within the ambit of the permit system. This has also led to a shift in customer preference to e-3Ws.

EV penetration within domestic three-wheeler industry



Note: E-rickshaw has not been considered in the analysis; VAHAN figures exclude Telangana and Lakshadweep
Source: SIAM, SMEV, VAHAN, CRISIL MI&A

Large traditional players dominate the EV space

Unlike the fragmented e-rickshaw segment, which is dominated by the unorganised market, the e-autos segment is much more organised and dominated by large traditional players.

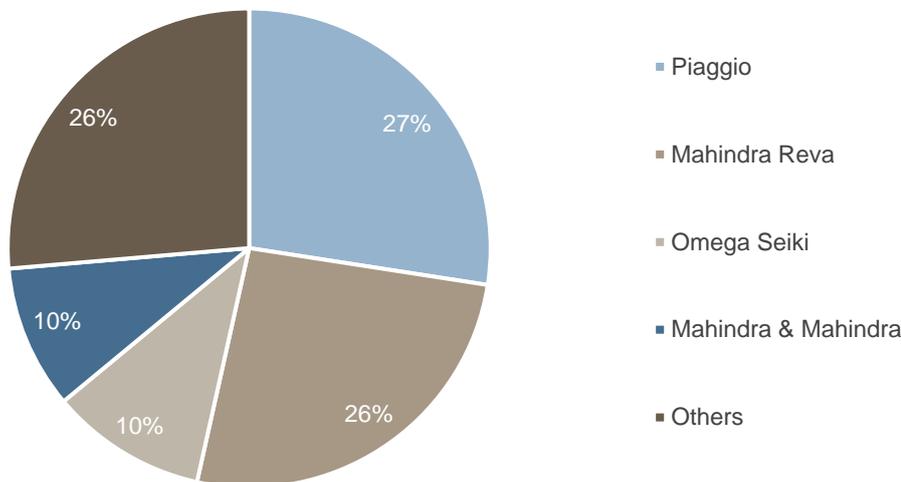
E-3Ws use lithium-ion batteries and have a speed of more than 25 kmph. They are used for cargo and passenger movement. This space is characterised by the presence of relatively few players such as Piaggio and Mahindra & Mahindra. Under FAME-I, lead-acid battery-driven e-3Ws were also eligible for the subsidy. However, under FAME-II, only advanced batteries and registered vehicles are eligible.

Piaggio and Mahindra & Mahindra currently dominate the e-3W/e-autos retail market, accounting for more than 60% of retail sales. Market leader in the ICE segment, Bajaj has recently entered the e-autos space. It is expected to account for a sizeable share of the e-autos market in fiscal 2024.

The e-autos space is expected to remain organised and dominated by legacy players.

Player-wise share in EV retail sales

Fiscal 2023



Source: VAHAN, CRISIL MI&A

Lower ownership cost for e-three-wheelers

As of fiscal 2023, the TCO of e-3Ws was 16% lower than that of CNG counterparts, considering 30,000 km annual running. The gap is wider vis-à-vis the petrol variant at 20%.

Moreover, the increase in annual running lowers ownership costs and widens the gap with CNG and petrol counterparts.

TCO for three-wheelers in FY23 for four-year ownership

Annual running	25,000 km	30,000 km	35,000 km
EV vs petrol	14% lower cost than petrol	20% lower cost than petrol	25% lower cost than petrol
EV vs CNG	10% lower cost than CNG	16% lower cost than CNG	21% lower cost than CNG

TCO for three-wheelers in FY30 for four-year ownership

Annual running	25,000 km	30,000 km	35,000 km
EV vs petrol	30% lower cost than petrol	34% lower cost than petrol	37% lower cost than petrol
EV vs CNG	27% lower cost than CNG	31% lower cost than CNG	34% lower cost than CNG

Note: Total cost of ownership analysis framework takes into consideration down payment/initial payment, EMI, fuel cost, maintenance cost, and battery replacement cost, if any, over the ownership period adjusted for the resale value

Source: Industry, CRISIL MI&A

The incentive to choose EVs over traditional CNG/petrol variants is expected to rise over the long term, with the ownership cost gap between the two increasing to above 30% for a typical 30,000 annual running.

The reduced ownership cost is expected to provide a boost to EV penetration over the long term.

Electrification momentum to continue for three-wheeler segment

Three-wheelers are anticipated to spearhead the Indian EV journey because these vehicles are often used for short-distance trips, carry more load, and generally make do with a day’s worth of charge. In addition to the cost advantage due to central and state subsidies on EVs, the total cost of ownership of an e-3W is much less than that of an ICE alternative.

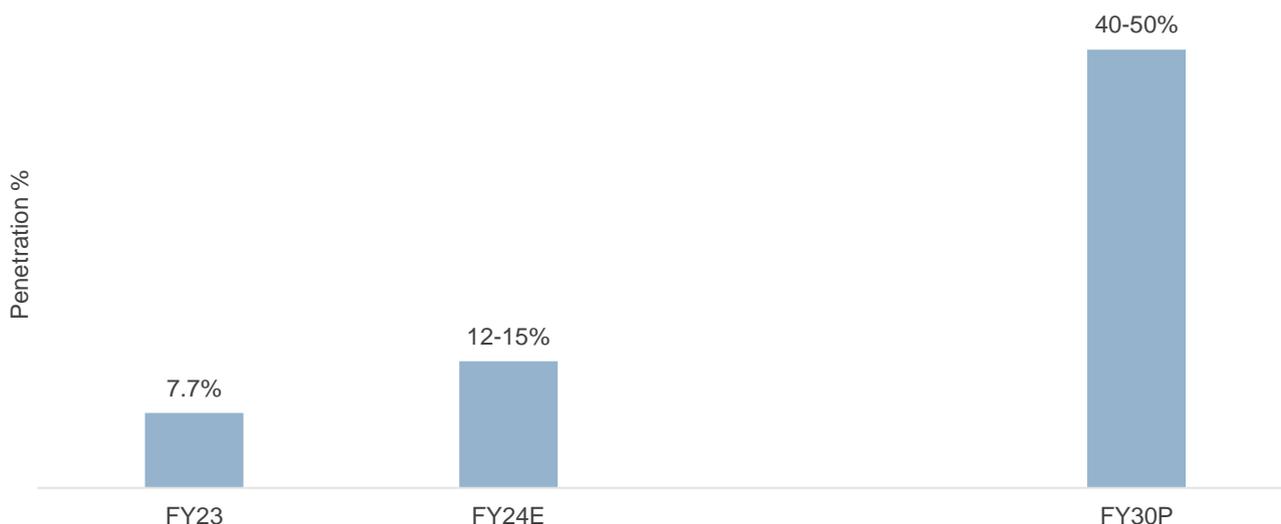
Moreover, all the conventional large OEMs including Bajaj, Piaggio, Mahindra& Mahindra, and TVS have launched e-autos in the Indian market, and their supply has been improving. This is expected to provide a boost to EV adoption in the long term.

Additionally, the ban on permits for diesel vehicles by a few top-selling 3W states, expanding financing options, rising demand from end-user industries such as e-commerce and FMCG, infrastructure development (metro lines, road connectivity, etc.), and the need for zero-emission 3Ws for last-mile connectivity will provide the necessary thrust to EV adoption.

CRISIL MI&A expects EV penetration in the 3W segment to be 12-15% in fiscal 2024 and reach ~40-50% by fiscal 2030. Penetration in fiscal 2023 was ~8%.

In the medium term, higher initial cost of e-autos, a limited range of products in the market, vehicle supply constraints, and poor charging infrastructure availability are expected to affect the pace of EV penetration. However, despite these challenges, lower operating costs and environmental benefits will support the shift towards e-autos. And as more players launch products in this category, it is expected to drive e-3W sales. Incentives declared in FAME-II and state-specific EV policies are also anticipated to provide additional thrust to the adoption of EVs.

Long-term outlook for EV penetration



Source: VAHAN, CRISIL MI&A

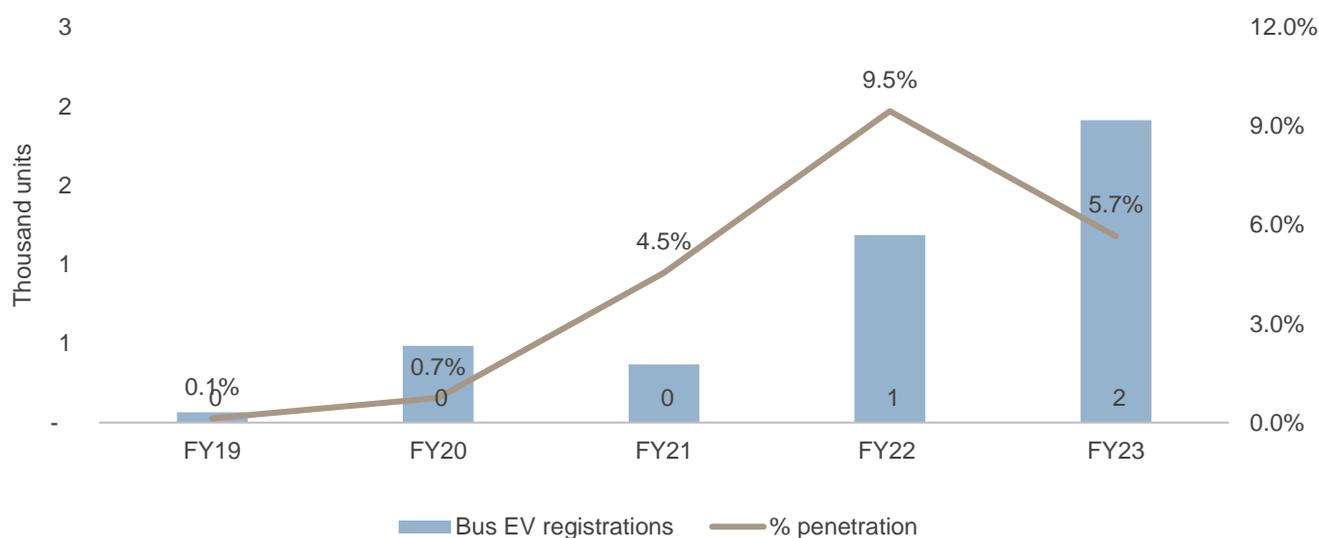
Commercial vehicles

Within the commercial vehicle segment, significant electrification has happened in the bus sub-segment. However, EV penetration in the LCV and MHCV segments is still insignificant. Limited availability of EV options in these segments has restricted EV penetration.

In buses, from an inconsequential contribution to overall bus retails in fiscal 2019, penetration rose to 5.7% in fiscal 2023, driven by the launch of models by various players and addition of electric buses by various STUs.

Moreover, the government has been stepping up efforts to promote electric mass mobility through FAME-II, and it has identified STU buses as one of the key vehicle segments for electrification.

EV penetration within domestic commercial vehicle industry (buses)



Note: VAHAN figures exclude Telangana and Lakshadweep

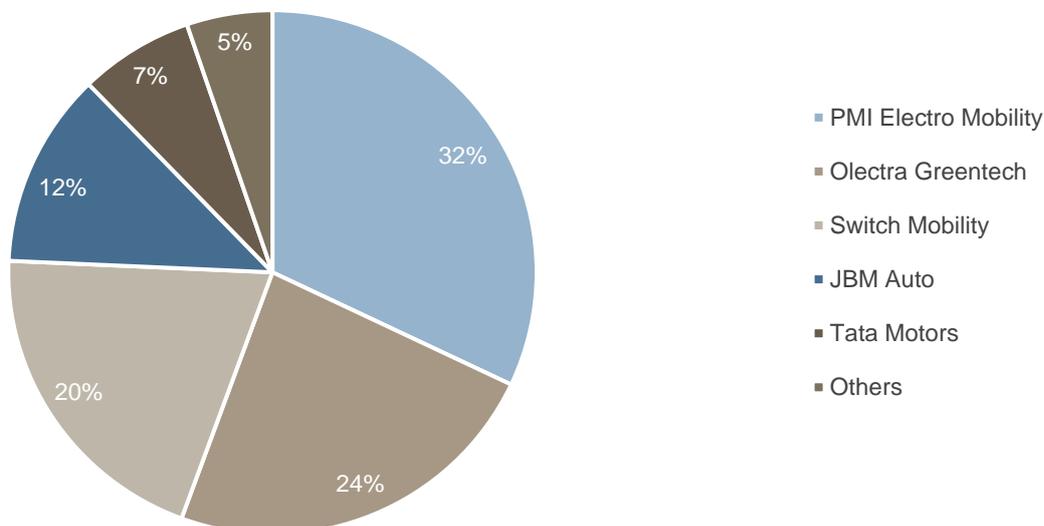
Source: MoRTH, CRISIL MI&A

New-age players lead electrification in bus segment

The EV bus industry in India is characterised by the presence of both legacy ICE vehicle players such as Tata Motors and Ashok Leyland (Switch Mobility) and relatively new players such as PMI, Olectra Greentech, and JBM. Other players such as EKA (a subsidiary of Pinnacle Industries) are making new strides in this space. During fiscal 2023, PMI and Olectra catered to more than half of the e-bus demand.

Player-wise share in EV retail sales

Fiscal 2023



Source: VAHAN, CRISIL MI&A

TCO assessment

Commercial operation of any vehicle will be viable only if the cost of operating it is below the revenue earned. A vehicle with a significantly higher cost of operation will not be viable due to competition from other vehicle categories and varying powertrains.

The cost of ownership of an electric bus is similar to that of a standard diesel bus. In the bus segment, owing to the excessively high battery cost, there is a 4-5x difference in the initial purchase cost of a diesel/CNG bus and an electric bus. Because of this large differential, the gap in the break-even period between electric and diesel powertrains is more than 20 years despite a 30-35% lower operating cost for EVs. Hence, we believe capital subsidy would be needed to make electric buses viable by fiscal 2030, which, in turn, may limit their penetration to the public transport (STU) segment.

TCO analysis for MCV buses – without subsidy

Rs/km	FY23			Rs/km	FY30		
	8 years	10 years	12 years		8 years	10 years	12 years
Diesel	44.3	43.2	42.4	Diesel	49.5	48.2	47.1
CNG	38.6	37.3	36.3	CNG	44.0	42.4	41.2
Electric	49.4	46.9	44.9	Electric	46.9	44.6	42.7

Note: Numbers denote TCO in Rs per km, TCO period in years, Calculations for 12m bus without subsidy

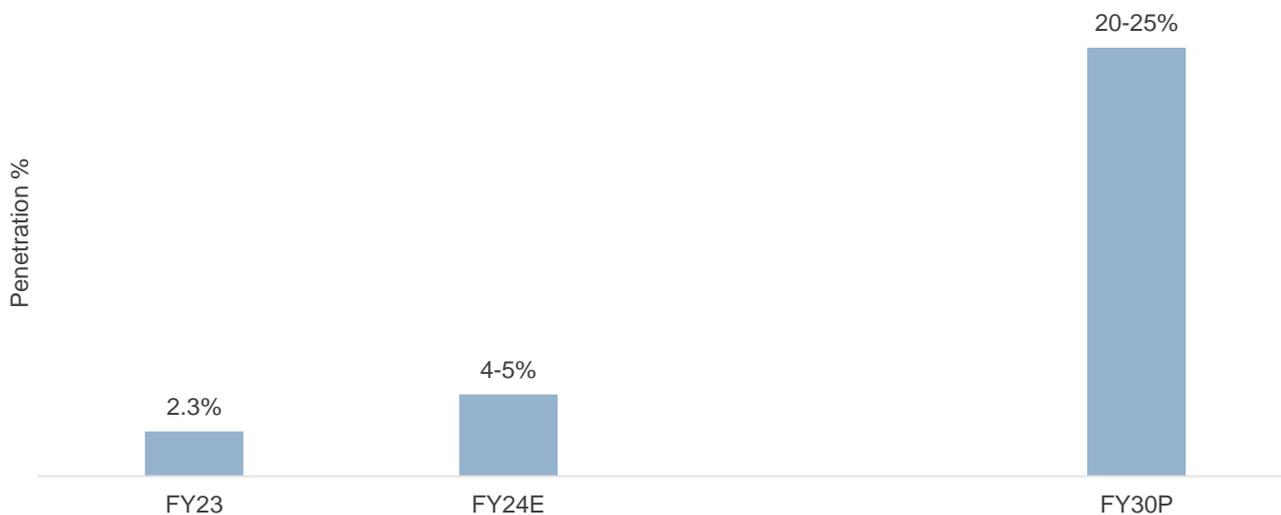
Source: Industry, CRISIL MI&A

Electrification outlook

CRISIL MI&A expects EV penetration in buses to be 4-5% in fiscal 2024 and reach 20-25% by fiscal 2030, driven by STUs. Penetration in fiscal 2023 was 5.7%. The operational profiles of buses with fixed routes and regular stops make them suitable for charging at pre-determined intervals and specific locations. With other incentives from central and state governments, the sales of electric buses are expected to pick up in the long term.

A majority of the state governments have policies to enforce complete electrification of their STUs by 2030. This, along with the recently announced PM-eBus Sewa scheme (Rs 57,631 crore will be allocated to deploy 10,000 e-buses in 169 cities), will fuel demand.

EV penetration long-term outlook



Note: Total passenger CV segment has been considered for calculating the penetration

Source: VAHAN, CRISIL MI&A

8 Automobile dealership industry in India

Dealerships form an intrinsic part of the automobile sector, playing the role of an intermediary between the customers and the manufacturers. The dealership plays an indispensable role in the overall vehicle supply chain, providing a local vehicle distribution channel based on a contract with an automaker. It also plays a key role in the aftermarket space by providing maintenance services and supplying spares/automotive parts and accessories.

From manufacturers' perspective, dealers play the crucial role of retail distribution at regional, city and local levels, and provide manufacturers with customer insights that are useful in the production planning of manufacturers.

Dealers support customers from the initial phase with guidance on vehicle selection and also assist in the necessary vehicle financing. They facilitate a smooth transfer of vehicle from manufacturer to customer, assisting in registration and required insurance formalities. Additionally, dealers provide the required support for accessorising and vehicle customisation.

For financial institutions, dealerships provide a huge business opportunity in the form of retail finance as well as inventory funding. Even for insurance providers, dealerships act as an easy avenue for new customer acquisitions.

A dealership is a one-stop shop for all the below requirements:

- Buying a new vehicle
- Vehicle repair and servicing
- Regular maintenance/ AMC
- Buying necessary spares/ lubricants
- Vehicle accident repair
- Buying a pre-owned vehicle
- Selling/ exchanging an old vehicle
- Availing required financing
- Buying vehicle insurance
- Renewing vehicle insurance
- Vehicle registration
- Vehicle customisation/ beautification
- Buying accessories
- Insurance claims (for accident repair)
- Availing additional services such as anti-rust coating, paint protection, and interior clean-up

As of last fiscal, there were around 20,000 dealerships with nearly 70,000 touchpoints (including sub-dealerships, customer outreach centres, and authorised representatives of the dealer) across India catering to customers of two-wheelers, PVs, CVs, three-wheelers and tractors.

Typically, two-wheelers dominate the number of dealerships (with 55-60% share), followed by PVs (~15%) and CVs (8-10%) — three-wheelers and tractors account for the rest.

Dealership scenario in India

In India, a typical dealer is associated with one or more manufacturers across vehicle segments: CVs, PVs, two-wheelers, three-wheelers, and tractors. While smaller dealers associate with one particular manufacturer of a single vehicle segment, larger dealers associate with multiple manufacturers across segments, diversifying their investments.

Dealers normally have three types of outlets: sales-service-spares (3S), only sales (1S), and only workshops. Most large dealers have multiple outlets or touchpoints with a few 3S outlets and many workshops/ service stations across the city. They also have a large sub-dealer network that works under the umbrella dealership and caters to smaller semi-urban/ rural areas nearby. A few dealers also have ARDs (authorised representatives of the dealer) that provide the minimal required services to customers in rural areas. ARDs are more prominent in the two-wheeler segment.

For PV dealers, the main dealer has a few 3S dealership outlets in major cities, complemented by a large number of workshops catering to service and maintenance demand. Moreover, PV dealers have an affiliated OEM franchised dealership for pre-owned vehicles, such as True Value, H-Promise, and U Trust.

CV dealers typically have their 3S dealerships outside the city, while the smaller, only sales outlets (especially for LCVs) are located within the city. They also have a large number of workshops on the major highways, providing service support. Separate affiliated pre-owned vehicle dealerships are not common in the CV segment.

Small dealers normally have 1-3 sales outlets and 2-4 workshops in one particular city or town. Large dealers have 10-15 outlets in multiple cities across 1-2 states, with 20-40 service outlets and a network of sub-dealers.

Larger dealerships offer significant advantages and better profitability to dealers in terms of economies of scale, better negotiation with manufacturers, increased workshop revenue, better insurance finance deals, and higher customer retention. These advantages have been discussed in detail in subsequent chapters.

Currently, there are only a handful of very large dealerships in India with more than 100 outlets and a presence across 4-5 states, compared with global dealership giants such as Penske Automotive (320 outlets across the US and the UK), AutoNation (over 340 outlets across the US) and Group 1 Automotive (~200 outlets across the US and UK). Indian dealerships are still in the development stages with significant room for expansion. A large size helps global dealerships expand their top line as well as bottom line, earning a few billion dollars in revenue and 8-20% in gross profits.

In CY2022, Autonation registered \$26.9 billion (10.5% gross margin), Penske Automotive earned \$22.3 billion in revenue (21% EBITDA), while Group 1 Automotive clocked \$16.2 billion (17.2% gross margin).

These global dealerships also have a significant contribution (~30% by revenue, compared with 5-15% for their Indian counterparts) from their pre-owned vehicle business. In volume terms, for global dealerships, 50-55% of vehicles sold are pre-owned, compared with only 20-25% for Indian dealers.

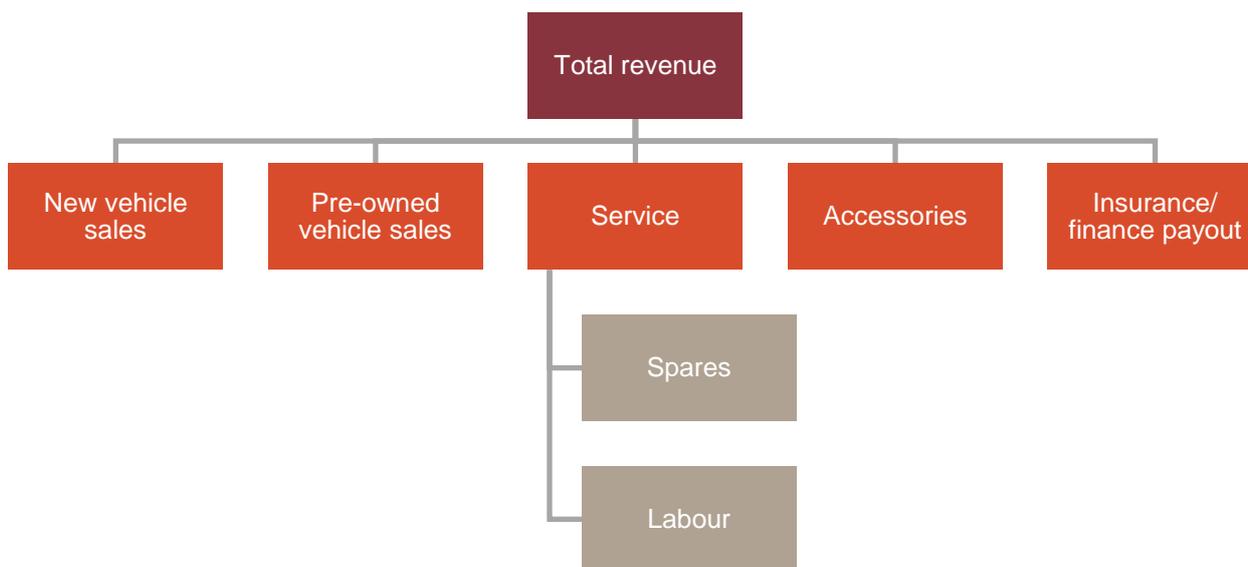
The Indian pre-owned vehicle market (predominant in PVs) is still in a nascent stage, with significant room for growth. The pre-owned PV segment is covered in detail in a separate section.

Dealership income

An automotive dealer has five major income/ revenue streams: vehicle sales (new and pre-owned), service, accessories sale, and commission from financing and insurance.

Vehicle sales remain the primary source of income, accounting for 60-70% of revenue. It is followed by service (regular maintenance and repair), which accounts for 20-25%. Sale of accessories and insurance/ finance commission account for the remaining 2-7% (for PVs).

Revenue streams for a dealership



In the CV industry, the sale of pre-owned vehicles is mainly undertaken by independent brokers, and its contribution to CV dealers is insignificant. Also, CVs do not require many accessories. Hence, the share of accessories in dealer revenue is inconsequential. Vehicle segment-wise dynamics are discussed in the subsequent chapters.

PV dealership landscape

Dealer revenue

For a typical PV dealership, there are five major revenue streams.

Vehicle sales: Selling vehicles is the primary business for any dealership and naturally forms the lion's share of overall dealership revenue. This share is also aided by revenue earned from the sale of pre-owned PVs.

The option of exchanging an old vehicle during the purchase of a new vehicle is predominant in the PV segment, as compared with other segments, with 30-40% of vehicles sold with exchange. Thus, most dealerships provide vehicle exchange schemes that aid the overall vehicle sale revenue share. Using the digital medium, large organised players provide increased transparency in vehicle valuation and pricing, aiding customer trust and providing an added impetus to vehicle sales.

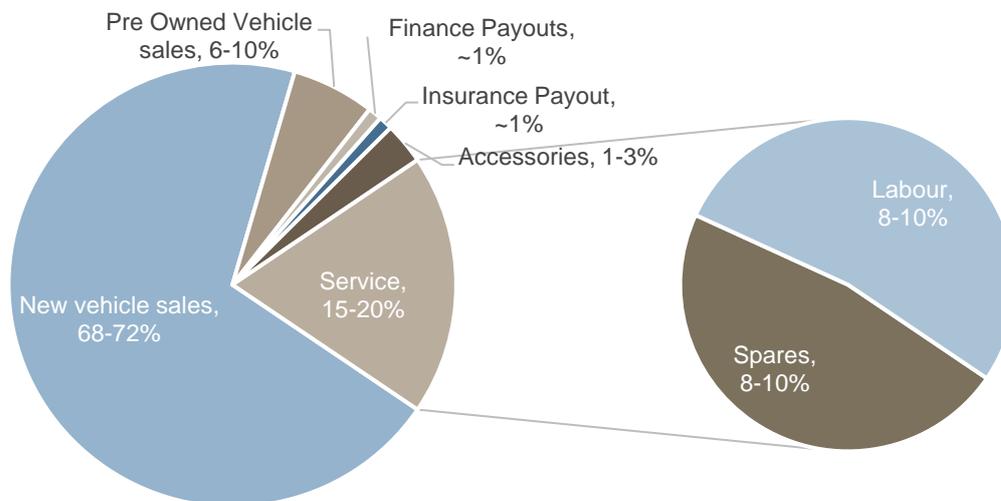
Major PV manufacturers have an affiliated dealership chain, such as Maruti True Value, Hyundai H-Promise, Mahindra First Choice, Toyota U Trust, and Honda Auto Terrace, that provides selling services for pre-owned vehicles. These pre-owned vehicle dealerships are typically affiliated with a new vehicle sales dealership;

exchanged, old vehicles from the new vehicle dealership are normally sold through these affiliated pre-owned vehicle dealerships. Moreover, typically, such dealerships can accept vehicle of any brand in exchange and can sell it to the end-customer.

However, most of these pre-owned dealerships keep exchanged vehicles of their own brand and sell the other brands' exchanged vehicles to other local dealers.

According to CRISIL MI&A, for a typical PV dealership, new vehicle sales form 68-72% of overall revenue, while sale of pre-owned cars accounts for 6-10%.

Typical revenue break-up for a PV dealer



Source: Industry, CRISIL MI&A

Service: Income from the service segment is another major source of revenue for the dealer. This includes revenue earned from sale of spares/ auto parts/ lubricants used, as well as the labour costs involved. Service revenue is earned during the regular maintenance/ periodic service visits by customers, running repairs with normal wear and tear, and accident repair work undertaken at the dealer workshops. Service is a highly profitable and perceptible growth segment for a dealer.

Service revenue can be divided into two major parts: spares and labour. Revenue earned by selling automotive components, parts, lubricants, etc., used for vehicle repair or maintenance is considered spares revenue. The amount charged for the effort or the technical expertise required for the vehicle repair is considered labour revenue. For PV dealers, parts and labour costs contribute equally to service revenue.

Many customers use authorised workshops as long as the vehicle is under warranty. Once the warranty lapses, roadside mechanics are preferred over authorised dealership workshops. This is mainly due to customers' perception that dealer workshops are relatively more expensive. Moreover, unlike local mechanics, dealerships use only genuine, branded spare parts, which are more expensive, increasing the overall repair cost for customers.

However, this trend is less prominent amongst PV owners, given the relatively lower running and repair requirements of PVs, as well as customers' willingness to spend relatively more for the safety and proper maintenance of the self-used vehicles. Hence, the share of customers preferring official dealership workshops for repair even post-warranty is higher for PVs than CVs.

This is reflected in the higher share of service revenue for PV dealers, as compared with CV dealers. For PV dealers, service forms 15-20% of overall revenue, while for CV dealers, service accounts for 10-15% of overall revenue.

Customers who own premium PVs show stronger preference for OE dealerships when it comes to servicing, in comparison to owners of mass-market vehicles. Premium vehicle customers typically belong to the upper middle class and rich class and are better off than mass-market customers. They do not hesitate to spend extra on genuine parts and consumables.

Dealers also provide extended warranty options to customers in order to ensure continued usage of authorised service centres. Moreover, dealers, especially larger ones, stress on using white-labelled products during warranty servicing, thereby securing extended preference for their own authorised service centres. To ensure customer retention, dealers also focus on providing quality work and better customer experience through a high-class customer care division and use of analytics to understand customer needs.

In recent years, the use of sensors and other state-of-the-art technology has increased significantly in PVs. These upgrades have improved vehicle efficiency as well as user driving experience. However, the repair of such vehicles requires IT-backed automated repair systems and enhanced technical expertise that roadside mechanics may not have access to.

CRISIL MI&A expects the share of revenue from service segment to expand going forward on the back of the growing demand for technical expertise and supporting infrastructure to repair the latest advanced vehicles. Only organised dealerships can provide these.

This is expected to enhance customer retention, especially for large dealers, and gain traction as technology in vehicles improves further.

Accessories: For a PV owner, parking sensor/ camera, GPS/ navigation system, LED headlamps, music system, speakers, seat covers, floor mats, car cover, wheel covers, air fresheners, tyre inflators, etc., form part of the requisite accessories list. Depending on the vehicle and the variant, a few of these accessories come pre-installed/ packaged with the car price. However, for most vehicles, many of these have to be bought separately. All PV dealers provide a collection of such accessories at their showrooms.

Moreover, dealers also provide a few value-added services such as:

- Sunscreen film
- Anti-rust coating
- Under-body coating
- Rodent repellent
- Ceramic coating
- Fumigation
- Upholstery cleaning
- AC cleaning and disinfecting
- Paint/ polish protection
- Windscreen treatment
- Headlight/ taillight treatment

Sale of these accessories and value-added services provides an additional source of revenue for dealers. Revenue from accessories typically forms 1-3% of overall revenue of PV dealers. Value-added services also have very high margins.

Finance payouts: Financing is an integral part of vehicle purchase. For the PV segment, finance penetration is between 75% and 80%. PV dealers facilitate easy financing for their customers through tie-ups with various banks and NBFCs. Representatives of these financial institutions are stationed at the dealerships and help customers avail financing for their vehicle purchase.

For every financing deal done from the dealership, the dealer receives a percentage of the financed amount as commission or finance payout, which forms part of the dealer's overall revenue. For larger dealers, commissions can range from 0.5% to as much as 3% of the financed amount. Typically, dealers earn 1-1.5% of the financed amount as commission.

These finance payouts contribute nearly 1% to the dealer's revenue.

Moreover, a few OEMs with their captive NBFCs not only provide financing but also offer customised service packages to customers — this helps dealers in retaining customers.

Insurance payouts: When purchasing a new vehicle, the Motor Vehicles Act mandates customers to avail vehicle insurance for damage to any third party involved in case of an accident.

To comply with this, dealers provide support to customers through various insurance schemes offered by insurance companies registered with the Insurance Regulatory and Development Authority (IRDA). Many customers also prefer to opt for extended cover for own damage (OD), ensuring safety of both their vehicles and themselves.

Normally, more than 90% of the customers avail insurance through dealers when purchasing a new car. Moreover, most customers get their insurance renewed from dealers after the expiry of initial coverage, providing another fillip to dealer revenue, especially for larger dealers that have a significant vintage. Currently, customers have to renew their insurance coverage every year.

In line with finance payouts, dealers also earn a percentage of premium as a commission from the vehicle insurance done at their dealerships. Larger dealers can even get up to ~19% of premium as a commission. These commissions form ~1% of dealers' overall revenue.

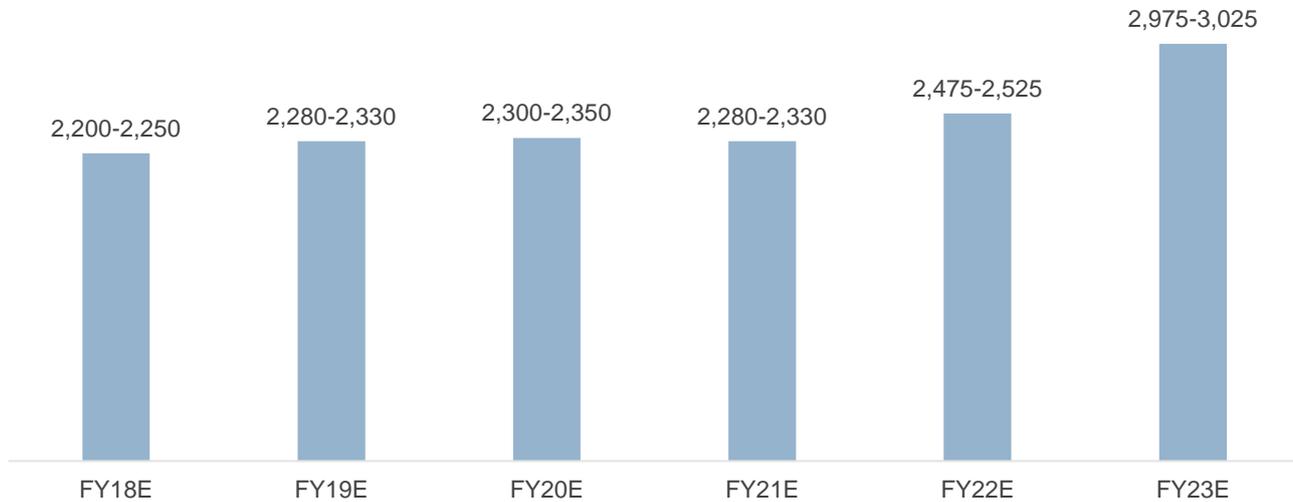
Dealer additions

PV dealerships formed ~15% of overall dealerships in India last fiscal.

Primary PV dealerships are typically based in large cities, with multiple outlets throughout the city and a touchpoint network covering nearby semi-urban and rural areas. The multiple outlets and touchpoints work under the umbrella dealership, where the primary dealership handles overall ordering and procurement.

Dealerships are allotted by manufacturers based on OEMs' coverage of that region, mapping of the competition, expected retail sales, and their market share goals. Dealer expansion is primarily done taking into account the macroeconomic environment and the growth prospects of the industry. Manufacturers also introduce dealerships in line with their long-term goals. In such cases, large dealerships with good long-term track record are favoured during new allotments.

Trend in number of dealerships



Source: Industry, CRISIL MI&A

In the last 5 years, OEMs expanded their dealership network gradually in tandem with PV sales. New entrants such as Kia and MG provided a boost to the expanding dealership network.

However, the pandemic put brakes on this expansion during fiscal 2021. An unfavourable macroeconomic environment and declining sales impacted dealership operations across the automobile segments. During this difficult period, dealers had to bear the financial burden of fixed costs as well as interest, while their income avenues were very limited. The added cost of complying with strict Covid-19 protocols exacerbated the situation, which made the dealerships unviable for many. CRISIL MI&A estimates that 2-4% of dealerships shut during fiscal 2021.

However, despite the second wave of the pandemic, the PV industry witnessed a revival in fiscal 2022, amid the previous bookings for newly launched cars, increased need for personal mobility due to the pandemic, and pent-up demand. Reopening of the markets, increased inoculation levels, increased mobility, and improvement in production levels provided a fillip to PV sales during the fiscal. Wholesale sales improved 13% y-o-y and retail sales grew nearly 15% y-o-y.

In line with increasing sales, future sales expectation, new vehicle launch line-up, and increased market share targets, OEMs revived their network expansion plans and accelerated dealership expansion during fiscal 2022. CRISIL MI&A estimates network expansion of 8-10% in fiscal 2022 from a low base of fiscal 2021. The expansion was primarily undertaken by Tata Motors, which has been fast expanding its presence in the market, and Kia Motors. Hyundai Motors and Toyota India also expanded their network last fiscal.

Last fiscal, PV sales recorded significant growth, driven by continued traction, bevy of new launches, improved vehicle supply, and reduced waiting period. Offtake grew 27% on-year, and retail sales increased ~25% on-year in line with the offtake. Industry sales reached a historical high during the fiscal. To cater to the increased demand, OEMs accelerated their network expansion to maintain their presence in the market.

Overall, dealerships increased 18-20% on-year last fiscal. All the major OEMs, including Maruti, Hyundai, Tata Motors and Mahindra, and the recent entrants, such as Kia, contributed to this dealership expansion.

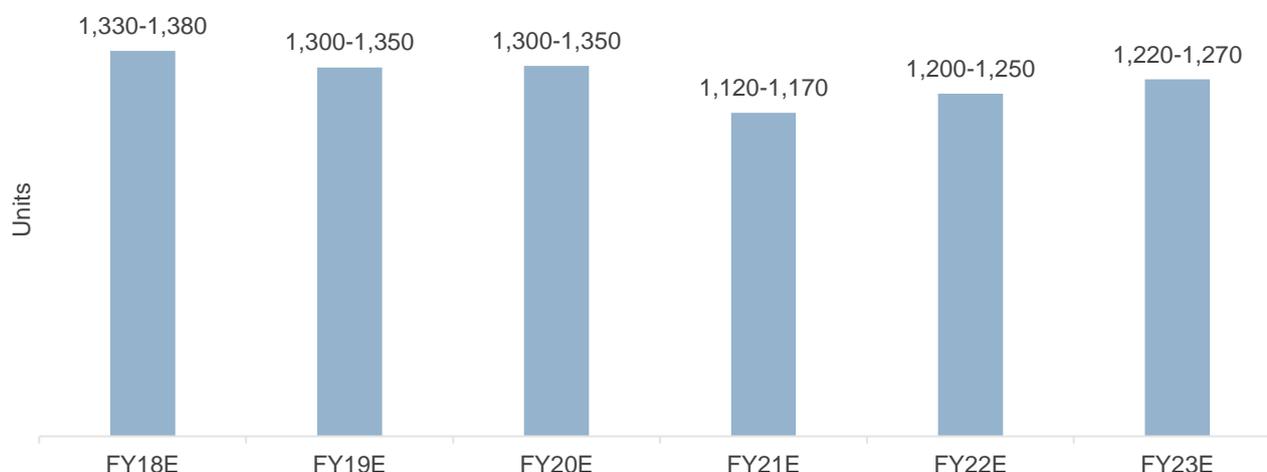
CRISIL MI&A expects the network expansion to continue going forward, albeit at a gradual pace from the high base, in tandem with industry sales growth expectations.

Average dealership sales

For a PV dealer, revenue from new vehicle sales forms a dominant 68-72% share of total revenue. Two factors directly impact dealer vehicle revenue: vehicle retail demand, and number of dealerships catering to that demand.

Last fiscal, retail sales shot up nearly 25% y-o-y. Dealership network also expanded, albeit at a slower pace, providing a fillip to average dealership sales.

Average sales per dealership trend for PV dealers



Note: These represent the average retail sales per dealership, which are nearly 3x the average sales per touchpoint

Source: Industry, VAHAN, SIAM, CRISIL MI&A

Going forward, dealership additions are expected to be in sync with economic growth as well as the estimated growth in PV sales. New OEM entrants are expected to continue their network expansion, especially in Tier 2/ Tier 3 cities, while dealership expansion for established players is expected to remain relatively subdued. Meanwhile, vehicle sales are expected to continue their growing trend, providing a push to average sales per dealership in the long term.

Dealer profitability

Margins received from the revenue segments vary significantly. Although vehicle sales dominate overall revenue, returns from this segment are among the lowest. On the other hand, service/ spares and accessories sales form a relatively small share of total revenue but their contribution to overall profit is significant.

Deep dive into profitability of each revenue segment:

- New vehicle sales:** Margin earned by the dealer from new vehicle sales is the per-vehicle margin paid by the manufacturer to the dealer (OEM margin). Manufacturers pay dealers a percentage of the vehicle price as a fixed margin. While this margin is decided by the manufacturer and is similar for all the dealers of that particular manufacturer across India, it does vary from manufacturer to manufacturer.

For PVs, the per-vehicle sales margin is in the range of 3-5%, varying marginally from manufacturer to manufacturer. Luxury PV manufacturers provide a relatively high margin of 6-8% per vehicle.

Over and above this per-vehicle margin, manufacturers offer added incentives to dealers, based on the dealer's performance, the number of vehicles sold by the dealer, target completion, manufacturer market share goals, seasonality, etc. These incentives vary from region to region as well as from dealer to dealer.

For a well-established large dealer, these incentives can provide an additional margin of 3-5% per vehicle, taking the overall margin achieved per vehicle to 5-7% for a normal PV dealer. A luxury vehicle dealer can achieve a per-vehicle margin of 8-10%, including incentives. In fiscal 2022, OEMs extended higher support to dealers through increased vehicle margins. Last fiscal, OEM margins remained rangebound. However, the increased ticket size (amid the premiumisation trend) and higher average sales per dealership led to an increase in quantum received by dealers.

Going forward, CRISIL MI&A expects growth in dealer revenues to continue, supported by a projected increase in vehicle sales, hike in vehicle prices, and premiumisation.

Over and above the yearly price hike undertaken by OEMs, the compliance with safety and emission norms is expected to push vehicle prices. Moreover, the shift in customer preference from basic small cars to premium hatchbacks and UVs will provide an additional fillip to average vehicle prices and, in turn, dealer revenues.

- **Pre-owned vehicle sales:** Pre-owned vehicle sales segment is more common in the PV segment, as compared with CVs. Most manufacturers offer exchange schemes at their new vehicle sales outlets.

Pre-owned vehicles received in exchange are typically routed to their pre-owned vehicle sales arms like True Value, First Choice, U Trust, Auto Terrace, and H Promise, where the vehicles are refurbished and sold to customers.

Margins in the pre-owned vehicle sales segment vary significantly from vehicle to vehicle, depending on the vintage and the state of the vehicle being sold. It also depends on the original make of the vehicle. Even in the pre-owned vehicle market, a few brands enjoy higher traction, while others are normally avoided. Although these notions are primarily based only on customer brand perceptions, they play a major role in price negotiations for pre-owned vehicles.

Margins in this segment vary from 5-10%.

Service: The major contributor to dealership profitability is the service segment. Unlike vehicle sales, this is a high-margin segment for the dealership and contributes a sizeable amount to overall dealer profitability.

All dealerships use only OEM-branded or manufacturer-approved genuine parts/ lubricants/ oils. Dealers procure these parts directly from manufacturers/ official distributors and use them in their workshops. Given the significant quantity of parts used by the dealer workshops, dealers also receive additional discounts on the same.

For a PV dealer, margins on spare parts are usually in the range of 20-30%.

For the other major part, labour, dealer expense is limited to the salary and employee benefits offered to the workers employed in the workshop. Given the high vehicle volumes in the workshop, the same mechanic works on several vehicles simultaneously, reducing the dealer's per vehicle employee spend. Thus, labour revenue is the most profitable segment for a dealer, with typical margins ranging at 60-80%.

For the overall service segment, margins range from 45-55%.

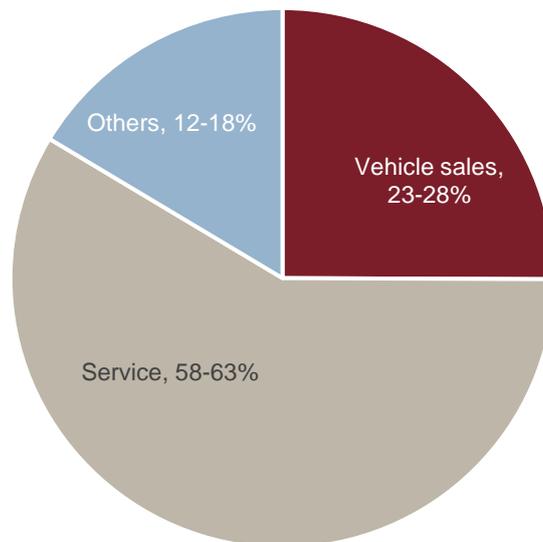
- **Accessories:** Dealers procure OEM-branded accessories like seat covers, floor mats and wheel covers from the manufacturer, while other accessories like electronics are procured from branded suppliers.

This is another high-margin segment for the dealers, with margins from 15% to 25% on some products.

- **Finance/ insurance pay-outs:** These are relatively smaller segments for dealer revenue, contributing ~2% combined for PV dealers. This revenue is a percentage commission earned by the dealer for facilitating the finance or insurance scheme opted for by the customer.

These pay-outs do not warrant any notable additional expenses from the dealer and directly contribute to dealer profitability.

Typical segment-wise share in gross profits



Note: Vehicle sales include new and pre-owned PV sales; others include accessories, finance pay-outs and insurance pay-outs
Source: Industry, CRISIL MI&A

The service segment is the primary contributor (58-63%) to the dealer profitability. Dealers with a higher dependence on vehicle sales are at a disadvantage, given the much lower profitability margins earned from vehicle sales compared with service, which provides a 45-55% margin. Moreover, under unforeseen circumstances like the pandemic, when significant uncertainty was looming over vehicle sales, regular servicing /repair/ spare sales provided a much-needed breather to the dealers.

In the longer run, dealers with a greater focus on the service segment are expected to have an edge over others.

Despite being the preliminary revenue contributor, profitability of the vehicle sales segment is relatively low (3-5%, not including incentives), as compared with the second largest contributor – service. And although manufacturers have supported dealers by increasing vehicle margins/ incentives over the years, the major support to dealer profitability came from the service segment, especially during the difficult period of fiscal 2021.

In line with average sales, dealer revenue from vehicle sales was also on a downward trajectory since fiscal 2018/ fiscal 2019. Fiscal 2021 was very difficult for dealers with fixed costs piling up amid revenue contraction.

Fiscal 2022 saw some improvement in revenue from the low base of fiscal 2021. Dealer revenue is estimated to have improved further in fiscal 2023 backed by healthy increase in sales, higher vehicle prices as well as premiumisation trend in PVs.

CRISIL MI&A expects improvement in vehicle sales revenue for dealers in the long run; however, OEM margins earned from the segment are expected to be range bound.

Digital transformation to aid dealer profitability

Like most of the other industries, digital technology is supporting the dealership industry as well. From expanding customer base, easier customer acquisition, better customer connects, faster response to increased customer convenience, digital technology is transforming the dealership industry.

Automobile dealers, especially the large ones, have invested in the digital technology, which will support their revenue growth as well their profitability. With the help of digital technology, dealers can provide an enhanced consumer experience while optimising their marketing and sales costs as well their manpower expenses.

CRISIL MI&A expects the dealers who have invested in the digital technology to have an edge over other dealers in the longer run.

Dealer returns

Operating margins for PV dealers are typically in the range of 2-5%. Large dealers, given higher economies of scale, operate at 3.5-5% margins, while smaller dealers operate at 2-3%. Return on capital employed (ROCE) for PV dealers is generally in the range of 10-15% (as per fiscal 2022 performance).

Returns for PV dealers have been under pressure over the past few years amid the continued decline in average dealership sales. Fiscal 2022 provided some relief to the dealers with an improvement in average sales. Fiscal 2023 provided further boost to the sales as well as profitability of the dealers.

CRISIL MI&A expects further improvement going forward with potential improvement in sales and service revenue going ahead.

Dealership growth drivers

- **Estimated growth in new PV sales:** CRISIL MI&A expects the industry to clock 6-8% CAGR to reach 5.4-5.6 million vehicles by fiscal 2028. This growth in sales will provide a boost to the dealer revenues going ahead.
- **Continued traction for pre-owned vehicles:** Pre-owned vehicle sales contribute to 6-10% of the dealership revenue. Pre-owned vehicle industry (mass + premium vehicles) is expected to grow at an accelerated pace of 8-10% CAGR in the next five years (fiscals 2023-2028), boosting dealership revenues.

Increased need for personal mobility, rising aspirations of customers, growing disposable income, lowering replacement cycles and increasing financial penetration will drive growth. Expanding share of the organised segment will provide an added boost to demand.

- **Rise in average vehicle prices:** OEMs hike vehicle prices every year to compensate for the rise in material costs. Prices are also increased to comply with the changing safety and emission norms. CRISIL MI&A expects the average price hike to continue going ahead with general annual price hike as well as price increase to accommodate the safety and emission norms.

Additionally, the premiumisation trend in the PV industry is expected to further increase the average vehicle prices, supporting dealer revenue growth. Increase in the share of premium, CNG, hybrid and electric vehicles will also push vehicle prices upwards. This will also aid the accessories revenue as well.

- **Shift towards authorised workshops:** Service segment plays a major role for a dealership. It contributes 15-20% to dealer revenues and 58-63% to dealer profits.

Many customers use authorised workshops as long as the vehicle is under warranty. Customer preference for authorised workshops is increasing with latest technological gadgets increasingly being used in new age vehicles.

These vehicles require higher technical expertise as well as latest tech infrastructure to repair, which most local mechanics lack. Thus, higher number of customers have to depend on authorised workshops for maintenance and repair of their vehicles. Moreover, dealers offer attractive extended warranty / AMC schemes to customers, incentivising them to opt for an authorised dealership.

This is expected to provide traction to dealers' service revenue growth in the longer term. Additionally, the cost of repairing latest vehicles, including components, is relatively higher, thus providing additional support to dealer revenue growth.

- **Rising financial penetration:** Increasing support from financiers, subdued interest rates, and rising LTV (Loan to Value) are expected to augment finance penetration levels.

This is expected to aid dealership revenue in two ways: one by bringing newer customers/ first-time buyers into the market backing dealership revenue growth, and second, by providing additional revenue from the financing commission that dealers earn on the financed amount.

- **Digital technology aiding revenue and margin growth:** Digital advancement is supporting the automotive dealership in customer outreach, improving customer buying experience, increased transparency and customer retention. In turn, it is helping dealers expand their reach and maintain customer connect indirectly boosting dealer revenues. Facilitating technology enabled services and digital offerings is leading to better customer satisfaction and increased customer retention. Moreover, it is also helping optimise dealership costs and reduce their overheads strengthening dealership margins.

CRISIL MI&A expects the digital medium to continue to provide support to the dealership operations and play a larger role going forward.

Added advantage for large dealers

Large dealers, given the sheer size of the business, enjoy added benefits as well as higher economies of scale backing their better finances. Some major advantages are:

- **Better negotiation with manufacturers:** Large dealers enjoy higher bargaining power, as compared with smaller dealers, helping them bag better deals with manufacturers, thus boosting their profitability. Moreover, large dealers get higher incentives per vehicle with the higher number of vehicles sold aiding their profitability further.
- **Favourable allotment of new dealerships:** Large dealerships with good long-term track record are favoured by OEMs during new dealership allotments and are given first pick during introduction of premium counterparts like Nexa dealerships.
- **Better deals with vendors:** While procuring supplies like tyres, paint and spares from other vendors, large dealers have an edge over their smaller counterparts, ensuring higher profitability.
- **Greater share of service revenue:** Bigger dealers typically have a large number of sales outlets and an even larger number of workshops catering to the repair and service segment. This enables them to serve a higher number of vehicles, boosting their high-margin service revenue. For large dealers, the service to sales ratio, or the number of vehicles serviced to number of vehicles sold, can be in the range of (15-20):1, whereas for smaller dealers this ratio is much flatter. Moreover, their service centres are highly automated with a large spares inventory, helping provide faster as well as better customer service. With the fast-increasing

advancements in vehicles, larger dealers with an exhaustive, IT-backed, state-of-the-art setups will be able to service new-age vehicles, providing a boost to their service segment revenue in the longer term.

- **Better insurance/ finance deals:** Dealers earn a percentage of financed amount/ insurance premium as commission from financiers/ insurance companies. The percentage earned as commission varies from dealer to dealer, depending on the volume of customers generated for the service providers. Hence, large dealers enjoy leverage over their smaller counterparts because of the much larger number of customers provided to the service providers. In certain cases, CRISIL MI&A has come across insurance pay outs as high as 19% of the premium paid.
- **Higher customer retention:** Large dealers provide a better buying experience to their customers, offering relatively lavish ambience, individual attention, better bargains, including higher dealer discounts, faster delivery, wider accessory choices, immediate availability for accessories/spares, value-added services like customisation, vehicle detailing, paint protection, etc. During the Covid-19 pandemic, amidst restrained public movement, many large dealers provided home delivery of vehicles as well. All these benefits help bigger dealers retain a large share of their customers, ensuring long-term sales growth.

Additionally, better equipped workshops of large dealers also help in customer retention.

- **Higher enquiry generation:** Large dealers typically have call centres connecting with potential customers and following up with existing customers. These call centres provide a wider network coverage and better customer reach across platforms. This helps large dealers generate more leads and, in turn, higher sales. These initiatives were especially helpful during the pandemic when most dealerships were closed, limiting walk-in enquiry generation.
- **Value-added services:** Over and above the normal services and accessories, dealers, especially the large ones, provide value-added services to their customers. These include services like interior/ exterior anti-rust treatment, body beautification, exterior paint polish treatment, vinyl floor mat fixing, and fabric cleaning, which generate additional revenue for the dealers. These are high-margin services and contribute significantly to dealer profits.
- **Multiple brand dealerships at single location:** Large dealers also benefit from opening multiple brand dealerships (across brands, across vehicle segments – mass market/ premium / luxury PV/ CV) at a single location. Sharing of infrastructure, parking space and workshop brings in additional cost efficiencies, bringing the overall costs down.
- **Others:** Large dealers also benefit from centralisation of their services as well as better utilisation of their shared services like call centres, IT backend services, HR and admin. Better IT infrastructure is expected to provide an edge to large dealers. Although, share of online sales in the overall domestic vehicle sales is currently insignificant (<5%) for passenger vehicles as well as commercial vehicles segments.

Dealership consolidation

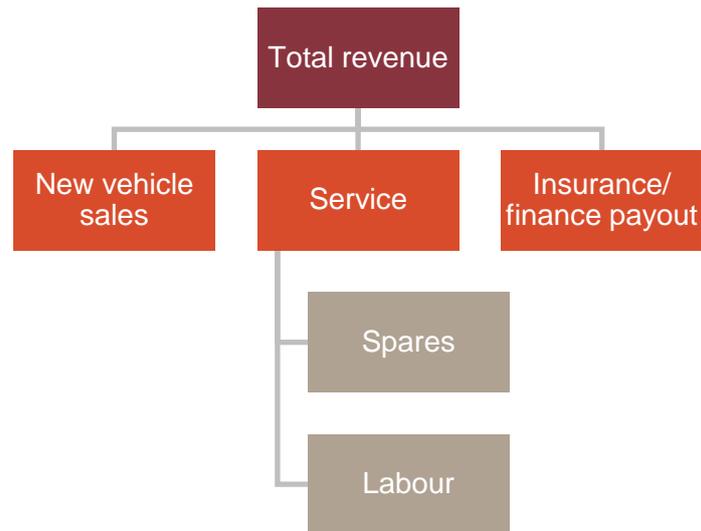
Given the advantages of large dealerships, most dealerships aspire to expand their presence in the market. However, dealerships typically cannot expand exponentially in a short span of time, given the very high investment required to open a new dealership as well as due to the agreement conditions set by manufacturers. Manufacturers expand their dealerships mainly on the basis of the estimated market potential and their market share goals and typically do not allow unrestrained dealership expansion.

That leaves consolidation as the primary source of business expansion for dealers. Consolidation is achieved by acquiring smaller dealerships as well as obtaining the dealership code from a defunct dealership. OEMs also prefer to be attached to a larger dealer with successful experience of running a dealership, ensuring higher customer satisfaction and in turn market share expansion.

Although OEMs offer large dealerships first pick for their expansion plans, expansion pace remains restricted in such cases given the intense competition among dealership groups. And thus, consolidation remains one of the primary ways for dealerships to grow exponentially in a short span of time.

CV dealership landscape

For a typical CV dealership, there are three major revenue streams.

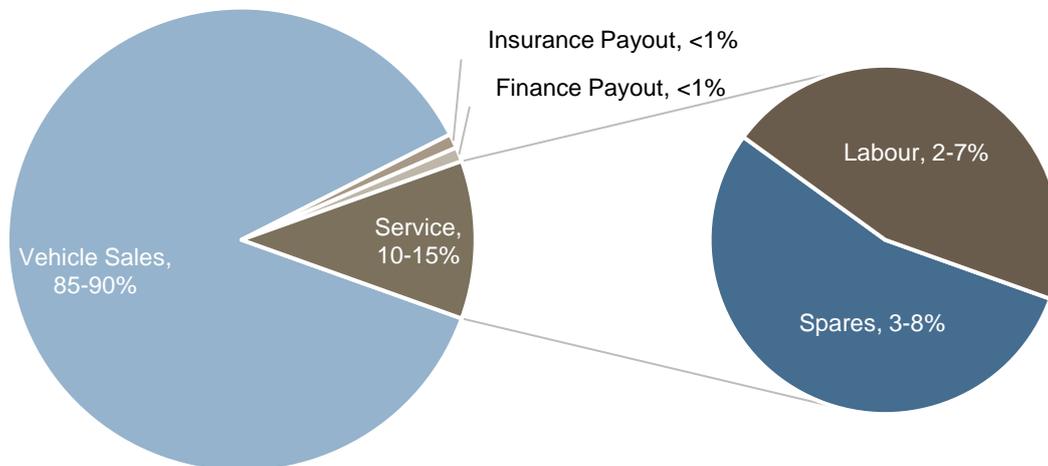


Vehicle sales: Selling of vehicles is the primary business for any dealership and forms the dominant share of overall dealership revenue, earned primarily from the sale of new vehicles.

In the CV industry, the sale of pre-owned vehicles is mainly undertaken by independent brokers, and its contribution to CV dealers is insignificant. Given the high running cost and extended replacement cycles in this industry, the association of pre-owned vehicle dealerships with new vehicle dealerships is relatively uncommon. Nonetheless, a few manufacturers introduced a vehicle exchange option in the past few years, but there were not many takers.

According to CRISIL MI&A, for a typical CV dealership, 85-90% of revenue is contributed by new vehicle sales.

Typical revenue break-up for a CV dealer



Source: Industry, CRISIL MI&A

Service: Income from the service segment is another major source of revenue for the dealer. Service is a highly profitable and perceptible growth segment for a dealer.

The service segment can be divided into two major sub-segments: spares and labour. Revenue from the sale of automotive components, parts, lubricants, etc, for vehicle repair or maintenance is considered spares revenue. Labour revenue represents the amount charged for the effort or technical expertise provided for vehicle repair. For CV dealers, labour contributes to 15-20% of services revenue, and spares, the rest.

In CV dealerships, income from service is relatively limited to only 10-15% of overall revenue. Fleet operators normally use authorised workshops only during the AMC period, and thereafter, prefer their own workshops or non-authorised mechanics.

CRISIL MI&A, however, expects the share of revenue from services to expand on the back of increased demand for technical expertise to repair the latest advanced vehicles – only authorised dealerships can provide this.

Over the years, for a safer, more efficient drive, the use of electronic engine control units and various sensors in CVs has surged. Moreover, the implementation of emission norms, BS-IV and BS-VI, has propelled the use of sophisticated technology in vehicles.

As diesel vehicles are more polluting than their petrol counterparts, they witnessed a significant upgradation to comply with stringent emission norms. Thus, the impact of increased engine complexity and advanced active emissions control technology systems (e.g., selective catalytic reduction technology) was more pronounced on CVs, which are solely diesel vehicles.

These technological advances, however, necessitate sophisticated IT-backed tools to repair vehicles. Thus, in such cases, non-authorised mechanics can provide only limited assistance. With more customers opting for authorised workshops, CV dealers' service revenue will receive a boost over the long term.

Finance payout: Financing of vehicles is an integral part of vehicle purchase. For the CV segment, finance penetration is above 95%. CV dealers facilitate easy financing to their customers through tie-ups with various financial institutions. Representatives of these financial institutions are stationed at the dealerships and help customers avail financing for their vehicle purchase.

For every financing deal, the vehicle dealer receives a percentage of the financed amount as commission or finance payout – this contributes <1% of dealer revenue.

Insurance payout: While purchasing a new vehicle, the Motor Vehicles Act requires customers to purchase vehicle insurance as well. Dealers provide support to customers through various insurance schemes offered by insurance companies registered with the Insurance Regulatory and Development Authority of India.

As in the case of finance payout, the dealer earns a percentage as commission from vehicle insurance purchased at the dealership – this contributes <1% of dealer revenue.

However, many fleet operators have their own tie-ups with insurance companies and do not avail these dealer services.

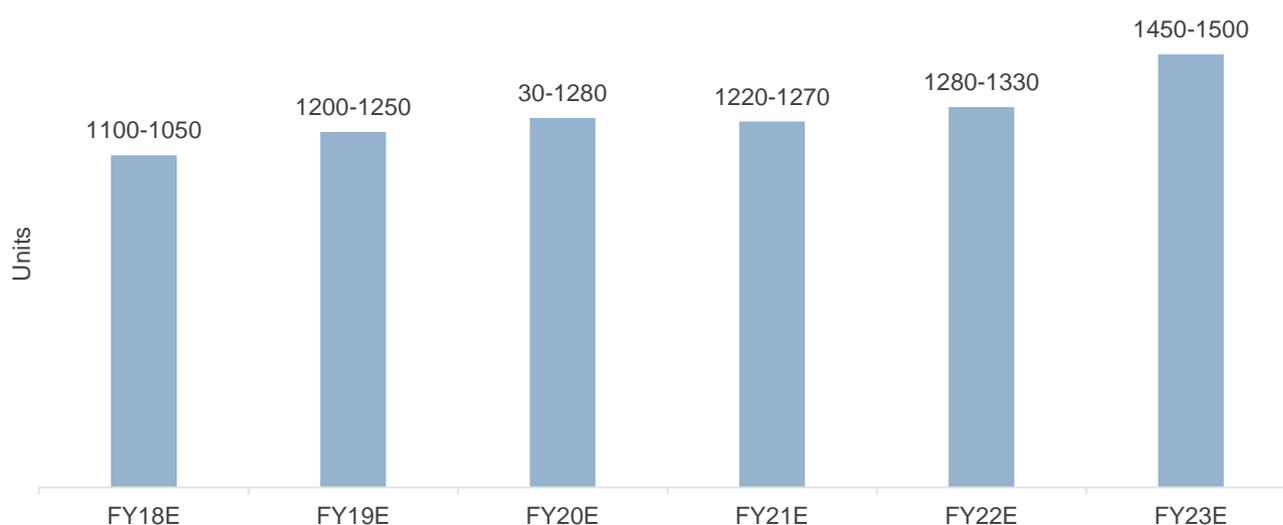
Dealership additions

CV dealerships form 8-10% of overall dealerships in India.

Till 2019, manufacturers expanded their dealerships to cater to the healthy growth in domestic sales. Expansion was done at a faster pace in fiscals 2016 and 2017 in anticipation of high demand, given the consecutive above 8% growth in GDP. Dealership expansion was spearheaded by market leader Tata Motors to strengthen its foothold, especially in southern India.

During fiscal 2021, the pandemic and the slowing sales impacted business of many dealers. A few dealers had to close their dealerships. However, in fiscal 2022, with increased inoculations, waning of the pandemic, improvement in the economy, and normalised market conditions, sales improved. OEMs expanded their network during the year. Expansion in dealerships continued in fiscal 2023 backed by healthy retail demand, improvement in the macroeconomic scenario, and normalised market operations. This expansion in the dealerships was primarily done in the SCV/LCV segment by Maruti, Tata Motors, Mahindra and Ashok Leyland.

Number of dealerships

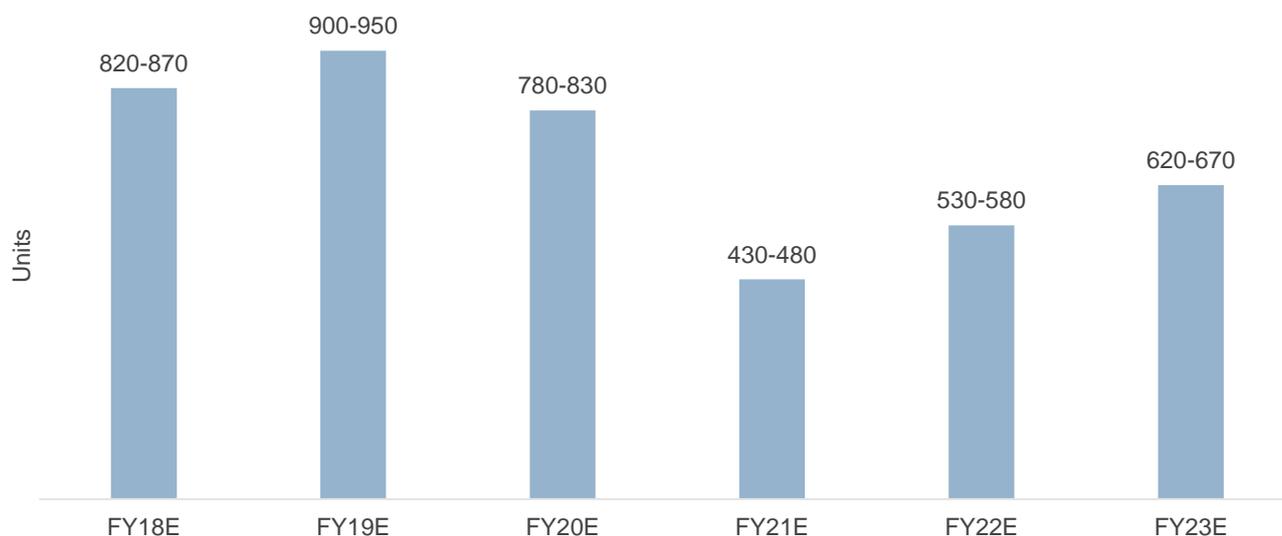


Source: Industry, CRISIL MI&A

Average dealership sales

In line with the increased sales, average sales per dealership also received some boost during fiscal 2023. Faster growth of retail compared with the expansion in dealerships helped push average sales during the year.

Average sales per dealership for CV dealers



Note: These represent average retail sales per dealership, which are 3x of the average sales per touchpoint

Source: Industry, VAHAN, CRISIL MI&A

Dealer profitability

Margins from the revenue segments vary significantly. Vehicle sales dominate overall revenue, but their returns are among the lowest. The spares and labour sub-segments have a relatively small share of overall revenue, but their contribution to profits is significant.

Profitability of revenue segments

- New vehicle sales:** Margin earned from new vehicle sales is the per vehicle margin paid by the manufacturer to the dealer. The manufacturer pays a fixed margin to the dealer as a percentage of the vehicle price. This margin is decided by the manufacturer and is similar for all the dealers of that particular manufacturer across India.

For CVs, the per vehicle margin hovers at 2-4%. M&HCVs have higher margins than LCVs. Over and above this per vehicle margin, the manufacturer offers incentives to the dealer based on dealer performance, number of vehicles sold by the dealer, target completion, manufacturer's market share goals, seasonality, etc. These incentives vary between regions and dealers.

For a well-established large dealer, these incentives can provide additional margin of 2-4% per vehicle. This can take the overall margin per vehicle to 4-6% for a normal CV dealer.

- Service:** Another primary contributor to dealership revenue is the service segment. Unlike vehicle sales, this segment is a high-margin one for dealers and contributes significantly to overall dealer profitability.

Dealers use only OEM-branded or manufacturer-approved genuine parts/ lubricants/ oils. Dealers procure these directly from manufacturers. Given the high number of parts used by dealer workshops, dealers also

receive discounts on them. For a CV dealer, margin for the spares sub-segment is normally in the range of 15-20%.

For the other major sub-segment, labour, dealer expense is limited to salary and benefits given to workers in the workshop. One mechanic works on a number of vehicles simultaneously, thus reducing the per vehicle spend of the dealer. This sub-segment is the most profitable for the dealer, with the margin typically at 70-80%.

For the service segment, overall margins are in the 40-50% range.

- **Finance/ insurance payout:** This is a relatively small segment. It contributes only ~1% of revenue for CV dealers. The segment’s revenue is commission earned by dealers for facilitating finance or insurance schemes opted by customers.

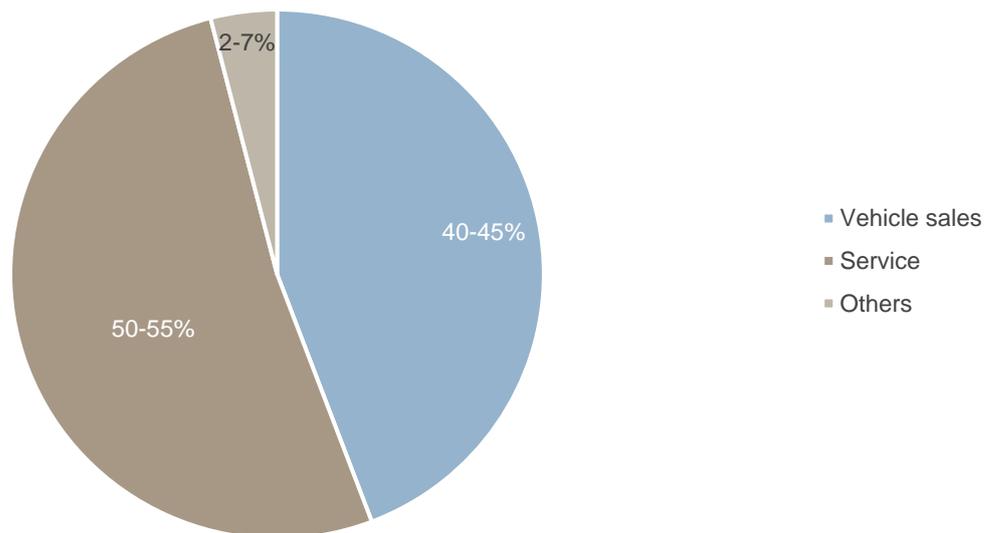
This does not warrant any notable additional expenses from the dealer, and the payout contributes directly to dealer profitability.

For CV dealers, vehicle sales dominate dealership revenue – contribution of vehicle sales to revenue is higher for CV dealers than PV dealers. The second-largest contributor, the service segment has a lower share.

However, the dealer margin for the service segment (including spares) is 40-50%, much higher than the 2-4% margin for vehicle sales (not including incentives). Thus, the service segment continues to contribute significantly to dealers’ profitability, despite having a much lower share of revenue.

Dealer margin for vehicle sales typically vary with the average dealer sales revenue, as the per vehicle margin remains almost steady. However, contribution from the service segment, which has a significant share in dealer profitability, can vary considerably between dealers, in line with their focus on this segment.

Typical segment-wise share in gross profit



Source: Industry, CRISIL MI&A

Contribution of the service segment significantly influences the dealer’s profitability. Higher the share of service in the dealer’s revenue, higher is the profitability.

Dealer returns

CV dealers have relatively high fixed costs given the larger size of their workshops and the higher inventory costs. Also, they have limited room to add value to the end product, which limits their EBITDA margins in a modest range of 2-5%. Limited contribution from the high-margin service segment also restricts their margins.

For large dealers, given their higher economies of scale, EBITDA margins are relatively high. Meanwhile, smaller dealers face stiff competition from larger players, which limits their bargaining power and impacts margins. Moreover, higher exposure of smaller dealers to the low-margin LCV segment limits their returns. Higher discounts offered by large dealers exert some pressure on their margins.

Returns for CV dealers have been under pressure over the past few years amidst a reduction in average dealership sales. The profitability of dealers witnessed some improvement during fiscals 2022 and 2023 with improvement in sales. CRISIL MI&A expects some improvement in returns going forward, with potential improvement in sales and service revenue.

Dealership growth drivers

- **Estimated growth in new CV sales:** Rising domestic consumption, improving rural income, government's focus on infrastructure investments (through the NIP), and initiation of commercial mining in India are likely to steer growth for CV industry sales. CRISIL MI&A expects the industry to clock 4-6% CAGR from fiscal 2023 to reach 1,190-1,220 thousand vehicles by fiscal 2028. The rollout of scrappage policy should further aid domestic CV demand.
- **Rise in average vehicle prices:** Dealers get a percentage of the vehicle price as their commission for selling a vehicle. As such, an increase in vehicle prices will translate into increased revenue for the dealers.

OEMs undertake an annual vehicle-price hike to limit the impact of a rise in material costs. Moreover, they also increase prices to comply with the changing safety and emission norms. CRISIL MI&A expects the average price hike to continue, with the traditional annual price hike as well as price increase to accommodate safety and emission norms.

An increase in the market share of the costlier CNG, hybrid and electric vehicles should provide an additional fillip to vehicle prices.

- **Shift towards authorised workshops:** Service segment plays a major role for a dealership. Many customers use authorised workshops as long as the vehicle is under warranty. Customer preference for authorised workshops is increasing, with an increase in latest technological gadgets being used in new-age vehicles.

These vehicles require higher technical expertise, as well as latest technological infrastructure for repairs, which most local mechanics lack. Thus, many customers opt for authorised workshops for maintenance and repair of their vehicles. Moreover, dealers offer attractive extended warranty/AMC schemes to customers, incentivising them to opt for an authorised dealership.

This is expected to provide traction to the dealers' service revenue growth in the long term. Additionally, the cost of repairing the latest vehicles, including components, are relatively costlier, providing an additional kicker to the dealers' revenue growth.

- **Rising financial penetration:** Increasing support from financiers, subdued interest rates and rising LTV are expected to augment finance penetration levels.

This is expected to aid dealerships by providing additional revenue from the financing commission dealers earn on the financed amount.

- **Digital technology aiding revenue and margin growth:** Digital advancement is supporting automotive dealerships in customer outreach, thereby improving customers' buying experience, increasing transparency and ensuring customer retention. In turn, it is helping dealers expand their reach and maintain customer connect, indirectly boosting dealer revenues. Moreover, it is helping optimise dealership costs and reduce their overheads, thereby strengthening dealership margins.

CRISIL MI&A expects the digital medium to continue to provide support to dealership operations and play a larger role.

Added advantages for large dealers

Large dealers, given the size of their business, receive additional benefits and have higher economies of scale. A few of the major advantages of large dealers are as follows:

- **Better negotiation with manufacturers:** Large dealers enjoy higher bargaining power than smaller dealers, which helps them get better deals from manufacturers. Moreover, large dealers get higher incentive per vehicle due to the higher number of vehicles sold.
- **Better deals with vendors:** Large dealers have an edge over their smaller counterparts while procuring supplies such as tyres, paint and spares from vendors.
- **Higher share of service revenue:** Along with a high number of sales outlets, large dealers also have many workshops catering to the service segment. For large dealers, the service-to-sales ratio, i.e. the number of vehicles serviced to the number of vehicles sold, can be 10-15:1, whereas for smaller dealers, this ratio is much flat. Moreover, service centres of large dealers are highly automated and have higher spares inventory levels, helping them provide faster and better service to customers. With OBD II and major upgradations for BS-VI compliance, the CV segment is going through a major technological upgrade. Going forward, large dealer workshops armed with latest IT-backed instruments will be able to service and repair new-age vehicles, providing a boost to high-margin service revenue.
- **Better insurance/finance deals:** Dealers earn a percentage of financed amount/insurance premium as commission from financial institutions/insurance companies. The percentage varies between dealers, depending on the volume of customers provided to the service providers. Hence, large dealers benefit more than their smaller counterparts.
- **Higher customer retention:** Compared with smaller dealers, large dealers can offer higher discounts to customers over and above the discounts offered by manufacturers. For typical CV customers and fleet owners, discounts are an important selection criterion, given the minimal scope of value addition in CVs. Thus, these discounts helps large dealers retain their customer base.
- **Multiple brand dealerships at a single location:** Large dealers also benefit from opening multiple brand dealerships (across brands, across vehicle segments mass market/premium/luxury PV/CV) at a single location. Sharing of infrastructure, parking space and workshop brings in additional cost efficiencies, thereby reducing the overall costs.
- **Others:** Large dealers also benefit from centralisation of their services and better utilisation of their shared services such as call centres, IT back-end services, human resources, and administration. Better IT infrastructure is expected to provide an edge to large dealers. Although, share of online sales in the overall domestic vehicle sales is currently insignificant (<5%) for passenger vehicles as well as commercial vehicles segments.

9 Player comparison

The tables below compare a few of the noteworthy large PV and CV dealership groups in India. Most of these groups have dealerships of multiple OEMs, comprising the PV, luxury PV and CV segments. However, a few dealers such as Indus Motor, Sai Service and Pebco Motors represent only one manufacturer.

All the below-mentioned dealers are regional players with a stronghold in a few major states. Kataria Automobiles, Sai Service and Navnit Motors are concentrated in western India. Popular Group, Indus Motor and VST Motors dominate southern India.

Player dominance also varies with vehicle segment. For example, Popular Group is among the top three Maruti dealers in Kerala for PVs, while it is the top Tata Motors dealer in the state for CVs¹.

Player-wise OEM presence

Player	Popular Vehicles and Services	Sai Service	Bhandari Automobiles	Kataria Automobiles	Landmark Cars	Navnit Motors	Competent Automobiles	Pebco Motors	Indus Motor	VST Motors
PV	Maruti	✓	✓	✓	✓	✓	✓	✓	✓	
	Hyundai									
	Tata (PV)									✓
	Mahindra									
	Honda	✓				✓				
	Renault					✓				
	VW					✓				
	Jeep					✓				
	JLR	✓					✓			
	Mercedes					✓				
	BMW						✓			
	Ferrari						✓			
	Mini						✓			
	Porsche				✓		✓			
CV	Tata (CV)	✓	✓							✓
	Bharat Benz	✓			✓					

¹ Based on audited sales figures provided by Popular Group and the corresponding state-level sales/registration details for Maruti Suzuki India Limited and Tata Motors reported by SIAM and MoRTH.

Player	Popular Vehicles and Services	Sai Service	Bhandari Automobiles	Kataria Automobiles	Landmark Cars	Navnit Motors	Competent Automobiles	Pebco Motors	Indus Motor	VST Motors
Ashok Leyland					✓					
2W Ather	✓									
3W Piaggio	✓									

Source: Industry, company website, CRISIL MI&A

Player-wise service offerings

Particulars	Popular Vehicles and Services	Sai Service	Bhandari Automobiles	Kataria Automobiles	Landmark Cars	Navnit Motors	Competent Automobiles	Pebco Motors	Indus Motor	VST Motors
New vehicle sales	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-owned vehicle sales	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-owned vehicle purchase	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Service	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spares	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Accident repair	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Financing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Insurance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Source: Industry, company website, CRISIL MI&A

Player-wise financial comparison (fiscal 2023)

Particulars	Popular Vehicles and Services	Sai Service	Landmark Cars#	Competent Automobiles	Pebco Motors	VST Motors
Operating revenue (Rs bn)	48.8	37.6	33.8	17.3	1.8	13.9
Type (national/regional)	Regional (South)	Regional (West and South)	Regional (west)	Regional (North)	Regional (East)	Regional (south)
OEM	Maruti (PV), Honda (PV), JLR (PV), Tata Motors (CV), Bharat Benz (CV), Ather (2W), Piaggio (3W)	Maruti (PV)	Honda (PV), Renault, VW, Jeep, Mercedes (PV), BharatBenz (CV)	Maruti (PV)	Maruti (PV)	Tata Motors (CV and PV)
No. of Outlets	150+	70+	115+	25+	10+	20+
OP. margin (%)	4.5	6.0	7.1	3.7	4.0	5.2
PAT margin (%)	1.3	3.4	2.5	1.4	2.9	2.6
ROCE (3-year moving average) (%)	19	24	22	10	12	20
Return on Tangible Networth (%)	20	14	21	8	7	21
Gearing Ratio	1.6	0	0.7	0.5	0.1	1.0

Note:

Number of outlets as of January 2024 based on company websites

Fiscal 2023 financials not available for other players.

Return on Tangible Networth: PAT/ Tangible Networth; Gearing is calculated as Total Debt/ Tangible Networth

#: Proforma Revenue (As per company Annual Report) for fiscal 2023 was Rs 45.9 billion. Proforma Revenue includes reported revenue + value of cars sold under Mercedes Benz Agency Model less Agency Commission

Source: Ministry of Corporate Affairs, Annual Reports, CRISIL MI&A

Player-wise financial comparison (fiscal 2022)

Particulars	Popular Vehicles and Services	Sai Service	Bhandari Automobiles	Kataria Automobiles	Landmark Cars#	Navnit Motors	Competent Automobiles	Pebco Motors	Indus Motor	VST Motors
Operating revenue (Rs bn)	34.7	26.8	19.7	23.5	29.8	8.8	12.5	1.5	19.8	10.8
OP. margin (%)	4.7	7.5	3.0	3.5	5.9	5.4	4.4	4.8	2.5	5.4
PAT margin (%)	1.0	3.9	0.2	0.9	2.2	3.1	1.6	8.1##	0.6	2.8
ROCE (3-year moving average) (%)	15	25	11	11	14	5.3	12	12	9	13
Return on Tangible Networth (%)	12	14	6	14	38	NM	7	18	15	22
Gearing Ratio	1.4	0	6.9	3.4	1.8	NM	0.5	0.1	3.2	1.2

Note:

#: Proforma Revenue (As per company Annual Report) for fiscal 2022 was Rs 33.7 billion. Proforma Revenue includes reported revenue + value of cars sold under Mercedes Benz Agency Model less Agency Commission

##: Non-operating income including profit on sale of investments, profit on sale of assets and rental income pushed PAT in fiscal 2022

Source: Ministry of Corporate Affairs, Annual Reports, CRISIL MI&A

10 Annexures

Particulars	Popular Vehicles and Services			Landmark Cars#		
	FY21	FY22	FY23	FY21	FY22	FY23
Operating revenue (Rs bn)	28.9	34.7	48.8	19.6	29.8	33.8
OP. margin (%)	5.3	4.7	4.5	5.6	5.9	7.1
PAT (Rs bn)	0.3	0.3	0.6	0.1	0.7	0.9
PAT margin (%)	1.1	1.0	1.3	0.6	2.2	2.5
Tangible Net worth	2.4	2.7	3.1	1.6	1.7	4.0
ROCE (3-year moving average) (%)	19	15	19	9	14	22
Return on Tangible Network (%)	14	12	20	7	38	21
Gearing Ratio	1.5	1.4	1.6	2.1	1.8	0.7
Cash Flow from Operating activities (Rs bn)	1.0	0.7	1.1	0.4	0.8	0.7
Inventory Days	47	45	38	64	48	59
Earnings per Share - Basic	25.9	26.9	51.1	3.1	17.9	22.6
Earnings per Share - Diluted	25.9	26.9	51.1	3.1	17.5	21.7
Total Debt/ Operating profit	2.3	2.3	2.3	3.0	1.8	1.2

Note:

Return on Tangible Network: PAT/ Tangible Network; Gearing is calculated as Total Debt/ Tangible Network

$Inventory\ Days = \frac{Total\ inventory}{(Material\ costs + Traded\ goods\ purchased)} * 365$

EPS, Cash flow from operating activities values are as per MCA /Annual Report data.

#: Proforma Revenue (As per company Annual Report) for fiscal 2023 was Rs 45.9 billion & for fiscal 2022 was Rs 33.7 billion. Proforma Revenue includes reported revenue + value of cars sold under Mercedes Benz Agency Model less Agency Commission

Source: Ministry of Corporate Affairs, Company Annual Reports, CRISIL MI&A



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