

The logo for ACMA (Automotive Component Manufacturers Association of India) is displayed in a bold, white, sans-serif font. The background of the entire page is a dark blue gradient with a network of glowing teal lines and dots, overlaid on a faint image of automotive components like a brake disc and a wheel hub.

ACMA

Automotive Component Manufacturers
Association of India

Shaping the New Normal

60th ANNUAL SESSION

5th September, 2020

COMPENDIUM
OF PAPERS



Automotive Component Manufacturers Association of India

60th Annual Session
Shaping the New Normal

Compendium of Paper

5th September 2020

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F R O S T & S U L L I V A N



Disclaimer: This compendium contains papers contributed by renowned consulting firms. The papers have been compiled with the intent of keeping ACMA members abreast of automotive trends in India and overseas. The views expressed in the papers are solely those of the consultants. It is not intended to be a substitute for detailed research or exercise of professional judgment.

Your feedback is valuable to us. We value and appreciate your compliments and suggestions in order to improve the publication. Please write to Mr. Sushil Rajput, Deputy Director - Government Affairs & Public Policy at sushil.rajput@acma.in

Automotive Component Manufacturers Association of India

The Automotive Component Manufacturers Association of India (ACMA) is the apex body representing the interest of the Indian Auto Component Industry. Its membership of over 850 manufacturers contributes to more than 85 per cent of the auto component industry's turnover in the organised sector. ACMA is an ISO 9001:2015 Certified Association.

ACMA's charter is to develop a globally competitive Indian Auto Component Industry & strengthen its role in national economic development as also promote business through international alliances.

The auto component industry which spans across different geographies of the country, is a large, integrated and complex network of suppliers. Today, it contributes 2.3% of the country's National GDP, 25% of the national Manufacturing GDP and employs over five million people. The industry is dominated by SMEs, is one of the key drivers of India's economic growth and the 'Make in India' program.

The auto component industry manufactures a wide variety of products including engine parts, drive transmission and steering parts, body & chassis, suspension & braking parts, equipment & electrical parts, besides others.

In FY 2019-20, the Indian auto-component industry in the backdrop of slowdown in demand and COVID 19 related issue suffered a de-growth and registered a turnover of Rs. 3,49,673 crore (USD 49.3 billion) thus contracting by (-) 11.7% compared to Rs. 3,95,902 crore (USD 57 billion) in FY 2018-19. The CAGR of the industry stood at eight per cent over a period of six years.

The Indian auto component industry exports declined by (-) 3.2% to Rs. 1,02,623 (USD 14.5 billion) in FY 2019-20, from Rs. 1,06,048 crore (USD 15.16 billion) in FY 2018-19,

registering a CAGR of eight per cent over a period of six year. Whilst, the industry exports to more than 160 countries including North America and Europe contributing to more than 60% of the industry's export.

Bunking the trend, the domestic aftermarket remained steady, in fact in rupee term it grew by 2.8 per cent to Rs. 69,381 from Rs 67,491 crore when compared with previous fiscal.

ACMA's active involvement in trade promotion, technology up-gradation, quality enhancement & collection and dissemination of information has made it a vital catalyst for the component industry's development in India. Its other activities include participation in international trade fairs, sending trade delegations overseas and bringing out publications on various subjects related to the automotive industry.

ACMA is represented on a number of panels, committees and councils of the Government of India through which it helps in the formulation of policies pertaining to the Indian automotive industry.

For exchange of information and especially for co-operation in trade matters, ACMA has signed various MoUs with its counterparts in Argentina, Australia, Brazil, Canada, Egypt, France, Germany, Hungary, Iran, Italy, Japan, Kazakhstan, Malaysia, Mexico, Nigeria, Pakistan, Poland, Russia, South Africa, South Korea, Spain, Sri Lanka, Sweden, Taiwan, Thailand, Tunisia, Turkey, UK, Mexico, Italy, USA and Uzbekistan.

Further information and data on the Indian automotive industry is available on the ACMA Website: www.acma.in

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60th Annual Session Shaping the New Normal

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**Introductory Note:
Shaping the New Normal**

The Auto Component Industry in India: Shaping the New Normal

An Introductory Note

For everyone on the planet, 2020 has been full of unwelcome surprises and inescapable new realities. What started out as a health challenge escalated rapidly into an economic and humanitarian crisis. Businesses and individuals alike have had to adapt rapidly to cope with uncertainty and anxiety in a seemingly unending ordeal. And yet, the world endures. The perseverance of businesses and people has led to the emergence of a new landscape – a “next normal” in which to survive and thrive.

For the automotive industry – already under a shadow cast by the sales slowdown in 2019 – COVID-19 darkened the outlook further. The pandemic came with fluctuating supply chain scenarios, a big change in people's relationship with mobility and newer growth areas such as the aftermarket.

Strategizing to build locally to meet local and global demand, expanding to complementary sectors, optimizing costs and investing in talent and innovation could help regain growth momentum and shape the next normal.

Global trends impacting the automotive sector

The rapidly changing world scenario has created unprecedented times. Five trends stand out that define the landscape for the automotive sector:

- 1 Global supply chain disruption: Shifting trade patterns, propelled by geo-political shifts and of late COVID-19, have been impacting the industry – operating margins dropped by 1.2 percentage points between 2017 and 2019, while margins for auto-part makers fell by 2 percentage points.
- 2 Cautious demand outlook, with some green shoots: Global light vehicle sales were down by 4 percent between 2017 and 2019. The 2020 outlook remains cautious with over a 20 percent fall in yearly sales. The slowdown in demand, further aggravated by COVID-19, could mean that production capacity utilization could nearly halve in 2020. The trajectory of automotive sales in India is similar. In April and May 2020 the sales were around 90 percent lower than the previous year. This trend could continue, with car buyers deferring purchases for financial reasons or because they have nowhere to go. There could, however, be some green shoots in the form of a preference shift to two-wheelers or smaller cars.
- 3 Shift in mobility trends: Globally, the pandemic has enforced a massive change in attitudes towards mobility, with health and safety taking utmost precedence. The preference could be for micro-mobility or small-format mobility. While the electric vehicle (EV) segment

was also hit by the global slowdown, and by the pandemic, adoption could rise again 2021 onwards in key geographies, aided by regulation, technology and monetary incentives.

- 4 • A resilient aftermarket: As more people postpone buying new vehicles in the present scenario, repairs on current and second-hand vehicles will provide a window of opportunity for the automotive aftermarket.
- 5 Potential for auto investment and deal activity to grow: In past financial crises, the automotive industry saw increased deal activity, and the story is not very different in the present scenario. Increased investments in autonomous, connected, electrified and shared (ACES) technologies helped to accelerate auto deal activity in the first half of 2020, with the total investment climbing 57 percent to USD 11 bn compared to the previous year.

Actions to shape the new normal

As this new landscape emerges with its cautious outlook and green shoots, auto component manufacturers could explore new avenues of growth, while strategically using and investing in the relevant resources. The following four themes characterize possible actions:

- **Localize to grow:** As supply chains shift, India could expand its share in the global auto component trade by 4-5 percent by 2026, emphasizing a targeted export expansion and import substitution program for key components. Tier 1 suppliers could work closely with Tier 2 suppliers to build the necessary technological and manufacturing capabilities.
- **Step into adjacencies:** Auto component manufacturers could seek growth through collaborations that help to deepen their aftermarket presence across 19,500 micro-market clusters. They could also address demand for overlapping products in non-automotive adjacent spaces, such as consumer electronics, communication equipment and power. Augmenting manufacturing capacity for these sectors could go a long way towards import substitution and a greater emphasis to make in India.
- **Optimize to become competitive:** Consistent margin pressures have ensured that cost is a critical focus area for auto component manufacturers. Optimizing product design, especially in the expensive manufacturing processes for BS-VI components, could cut down a quarter of total costs. Similarly, a granular analysis of various non-obvious fixed cost segments could help them to cut between 15 to 25 percent of costs
- **Enable a winning mindset:** With the next normal, success could also lie in the mindset as companies explore growth opportunities and optimize on resources. Institutionalizing the power of digital tools and technologies, and investing in the best talent of the future and research and development could be avenues to ensure future-readiness. The adoption of analytics in supply chain optimization could cut inventory costs anywhere between 20 to 40 percent.

EV sales grew only 9 percent in 2019, and COVID-19 caused a 25 percent decline in first quarter 2020 (<https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/mckinsey-electric-vehicle-index-europe-cushions-a-global-plunge-in-ev-sales>)
Investments jumped 80 percent to USD 51 billion in 2008, compared to 2006, Capital IQ
Automotive Component Manufacturers' Association

How the ecosystem could enable growth

The role of industry bodies and the government could be a critical differentiator in the recovery of the automotive sector. For instance, the government can enhance cost effectiveness in automotive manufacturing by reducing logistics and energy costs. Meanwhile, industry bodies can build on scale by working with Export Promotion Councils to expand India's share in global exports. A shift in policies and investment in innovation could assure growth for the entire sector.

While these have been testing times, the auto component industry could rebuild by catering to shifting mobility needs and consumer sentiment. Focusing on local manufacturing, investing in innovation and collaboration with the government and automotive industry bodies could ensure that the segment emerges stronger and more resilient, ready to flourish in the next normal.

Outlook on Indian Economy and Automobile Industry

By

CRISIL

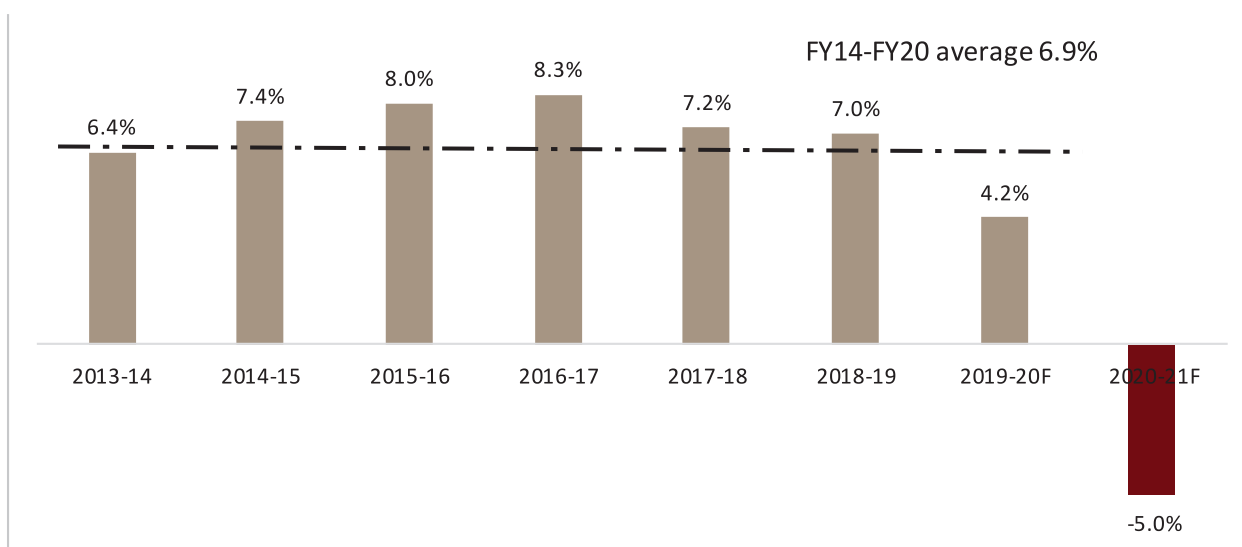
An S&P Global Company

Contents

- Economy
- Automobile industry
- Passenger vehicles
- Commercial vehicles
- Two-wheelers
- Tractors

Economy

Real GDP growth



P: CRISIL projection | Note: Base year is fiscal 2012

Source: Central Statistics Office (CSO), CRISIL Research

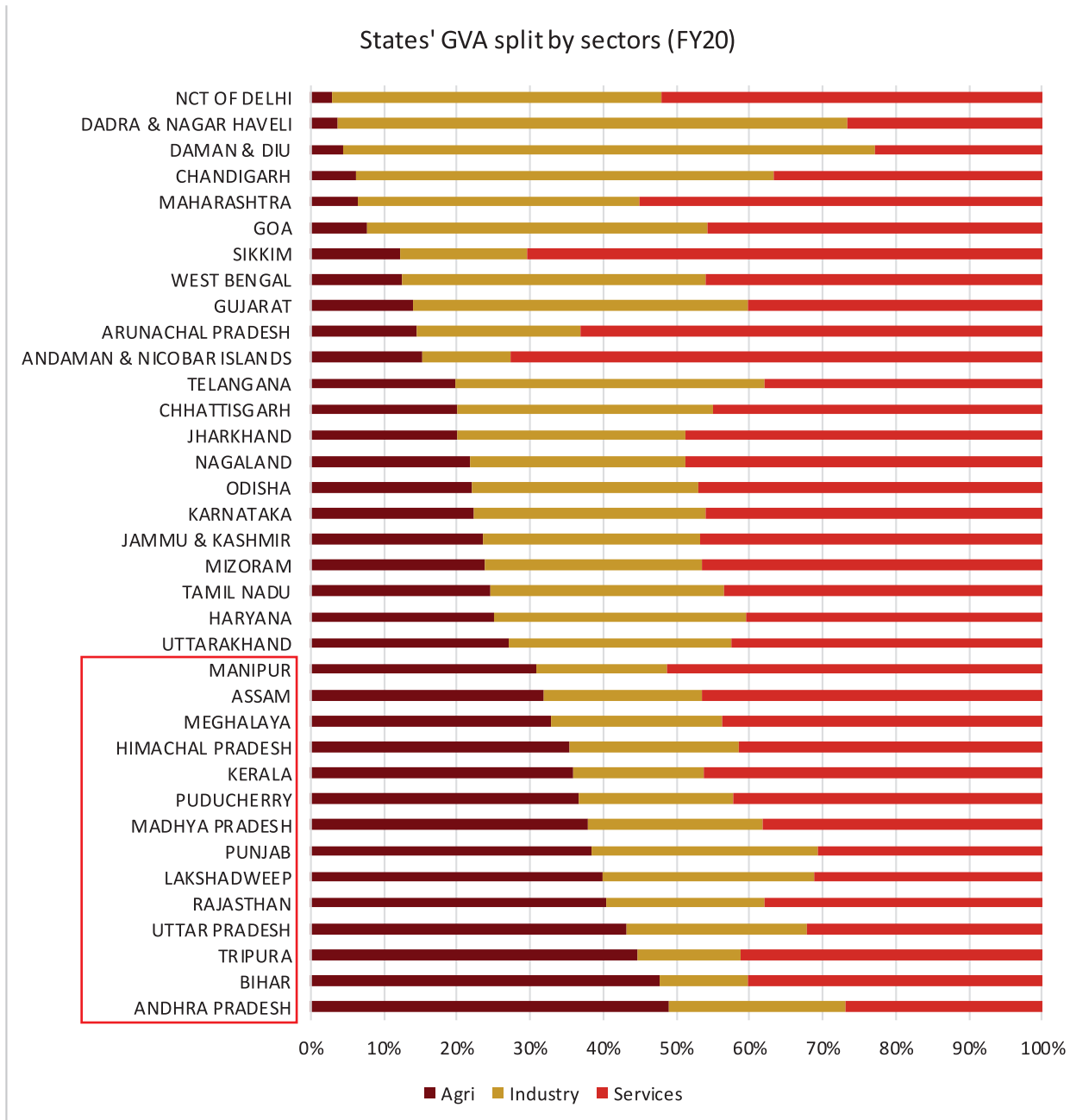
India's real GDP on average grew 6.9% during fiscals 2014-2020. Fiscal 2020 witnessed a decline in consumption and consumer demand because of a weakness in the real estate sector and stress in the financial sector. Thus, the economy was already on a sticky wicket before the pandemic started spreading in India in late January/ early February. With the spread of infections intensifying in March, a nation-wide lockdown was imposed.

As a consequence, CRISIL Research sees Indian economy shrinking 5% on year in fiscal 2021. There is a strong downside to the number. Any revision will depend on the severity of the pandemic, and impact on businesses. Most of the assumptions that CRISIL had made while revising the growth rate to -5% are largely materialising. Local lockdowns have continued even beyond June 2020. Restrictions continue in high consumption areas such as Mumbai, National Capital Region (NCR), and Bengaluru, impacting economic activity. The government has not announced any further fiscal support to revive income and demand. All these have made financiers wary of possible delinquencies.

This would be the fourth recession the country is experiencing. The earlier recessions in fiscals 1958, 1966 and 1980 were due to monsoon shock that hit agriculture which was the biggest contributor to GDP then. This year's recession is different as it is the non-agricultural sectors that are the hardest hit. Though agriculture is expected to be positive on the back of bumper rabi output and rainfall expectations, it will not be able to pull India out of a recession as the sector accounts for only about 15% of the country's GDP now.

Agriculture roundup: Optimism pours

The India Meteorological Department (IMD) has forecast normal rainfall for the country this year at 96-104% of the long period average. As the pandemic impacts industrial states more, agriculture-dependent ones could do somewhat better this fiscal.

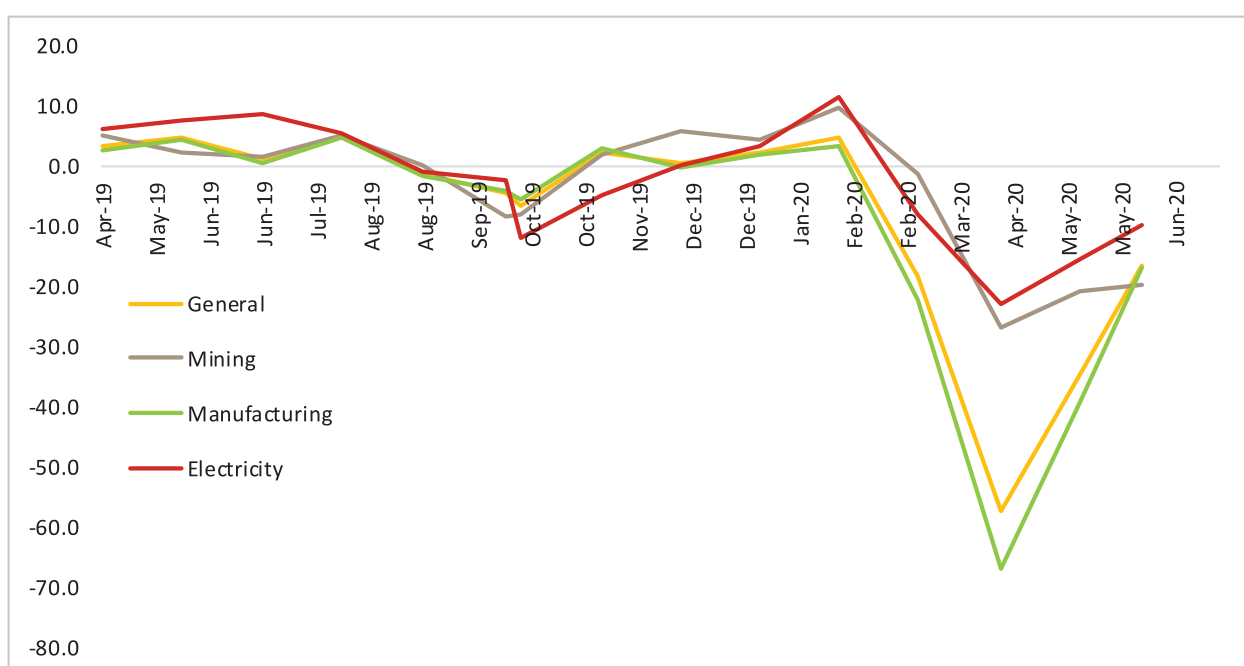


Source: CRISIL Research, the Reserve Bank of India (RBI)

Major states with high dependence on agriculture and those that manage to contain the pandemic faster would somewhat cushion the economy. States such as Andhra Pradesh and Madhya Pradesh could be less adversely impacted than others this year.

Manufacturing to revive from October, services from January

Industrial production (base year FY12; y-o-y %)



Source: CSO

India witnessed negative growth in the Index of Industrial Production (IIP) for August and September 2019. Electricity – a key indicator of industrial activity – showed improvement from December onwards and the index bounced back with a recovery in mining. However, with the pandemic and lockdown in March, IIP again took a negative turn. The index fell further in April as the lockdown continued through the month. In May, the key manufacturing segments that were affected were consumer durables, intermediate goods and construction goods. In June, when phased relaxation started, some of the industries revived. Manufacturing and electricity indices showed lower contraction rate and consumer durables and capital goods sectors performed better than the others.

CRISIL Research expects the manufacturing sector to show improvement from October and the services sector from January 2021 onwards, provided there is no second wave of pandemic.

As mentioned earlier, the recession that we are staring at today is different. Share of agriculture in GVA in 1980, when the country saw the last recorded recession, was 40%; now it is 15%. The

sector can still soften the blow if it grows at 2.5%, assuming normal monsoon. Also for the rural sector, the government has taken various initiatives such as enhanced allocation to MNREGA, PM-Kisan, PM Garib Kalyan Yojana and PM Garib Kalyan Rojgar Abhiyaan.

The decline in demand and consumption has affected most non-agricultural sectors. The slowing global economy is another blow to Indian economy as it spoils the country's all opportunities on the export front.

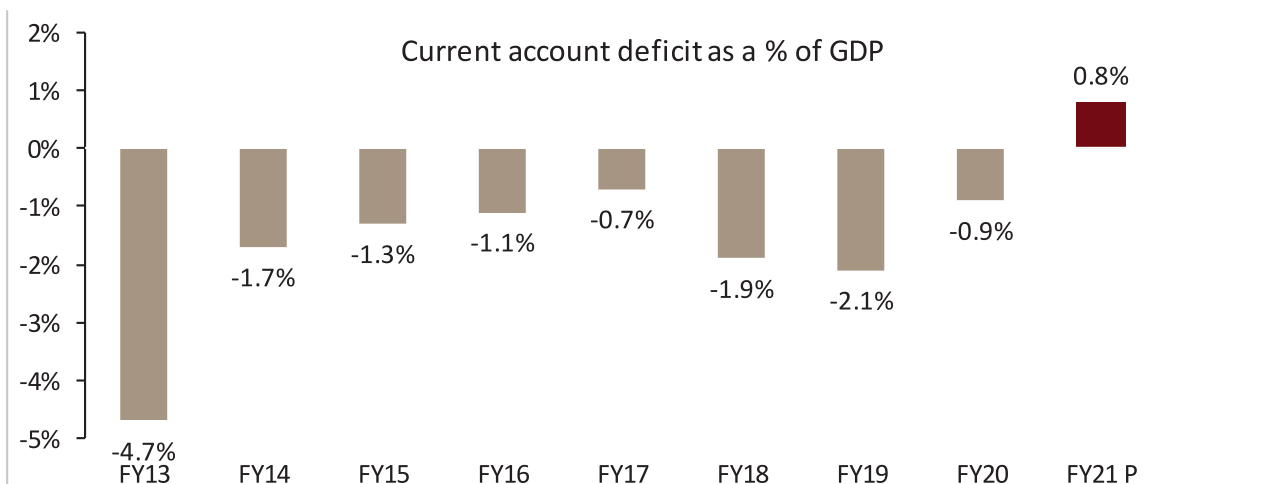
Trade performance (%; on year)

	Exports	Imports	Oil imports	Non-oil imports	Oil exports	Non-oil exports
July 2020	-10.2	-28.4	-32	-27.3	-51.5	-3.6
June 2020	-12.4	-47.6	-55.3	-44.7	-31.6	-10.1
July 2019	2.2	-10.4	-22.1	-5.9	-5	3.5
April-July FY21	-29.8	-47	-54.8	-44.2	-54.5	-25.6
April-July FY20	-0.5	-2	-4.1	-1.2	-2.1	0.2

Source: The Ministry of Commerce & Industry, CEIC, CRISIL Research

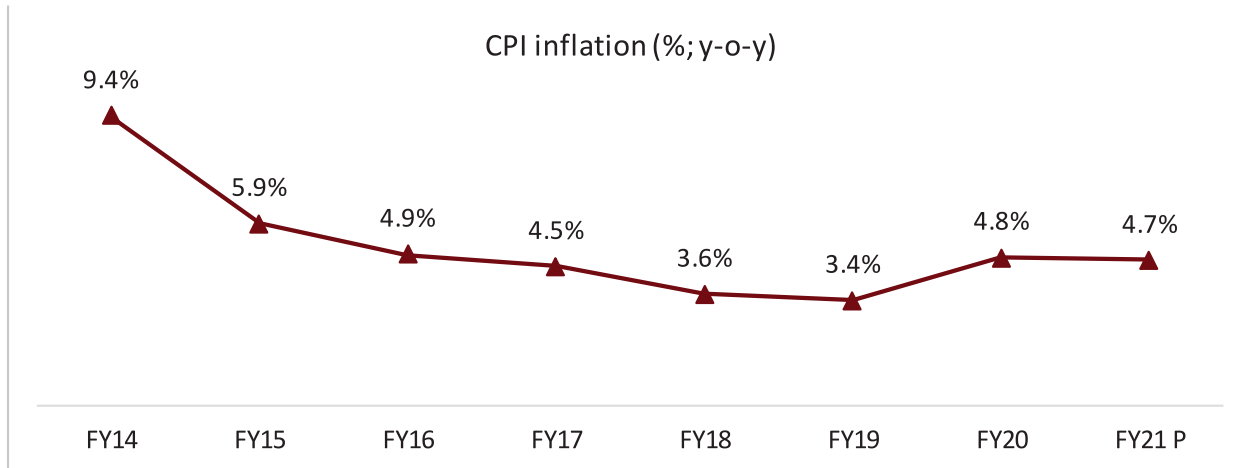
A sharper fall in imports than exports is expected to improve the country's current account deficit this fiscal. While exports face pressure from weak external growth, imports are expected to be lower because of declining domestic growth, the rupee's depreciation against the dollar and a fall in crude oil price. Crude oil is likely to average at \$40-45 per barrel in 2020 compared with \$64 in 2019.

Based on these factors, we expect India's current account balance to average a surplus of 0.8% of GDP in fiscal 2021, as against a deficit 0.9% in fiscal 2020.



Source: CSO, CRISIL Research

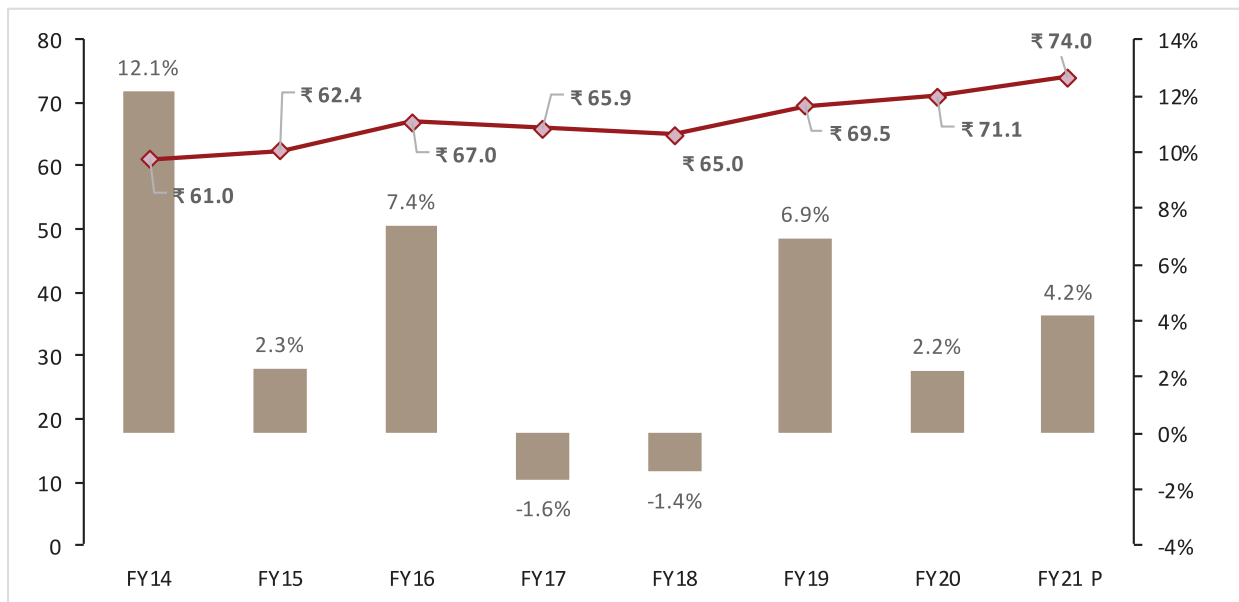
Inflation to soften further in fiscal 2021



Source: Ministry of Commerce & Industry, CSO, CRISIL Research

CRISIL expects CPI inflation to decline from 4.8% in fiscal 2020 to 4.7% this fiscal. The reasons are three-fold: a) the unusual surge in food inflation has started to correct and, going forward, a normal monsoon augurs well for food prices; b) economic slowdown should soften core inflation; and c) a high-base effect would kick in in the second half and keep a check on inflation.

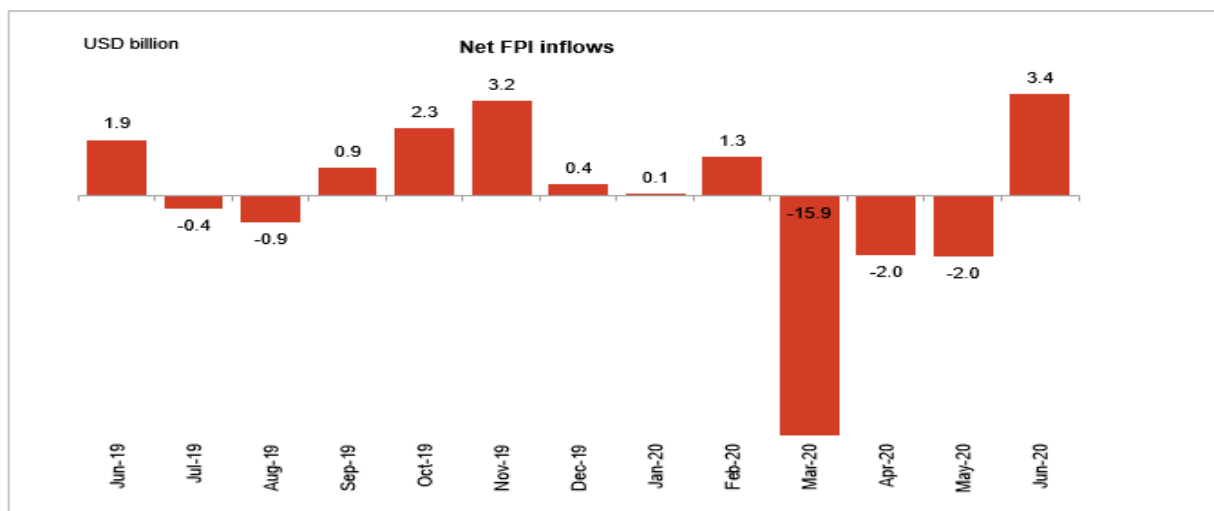
The rupee to inch up; seen at 74 against the dollar



Source: RBI, CRISIL Research

- In June, the rupee depreciated a marginal 0.1% to average at 75.73 against the dollar from 75.66 in May. The downward pressure on the currency because of concerns regarding the

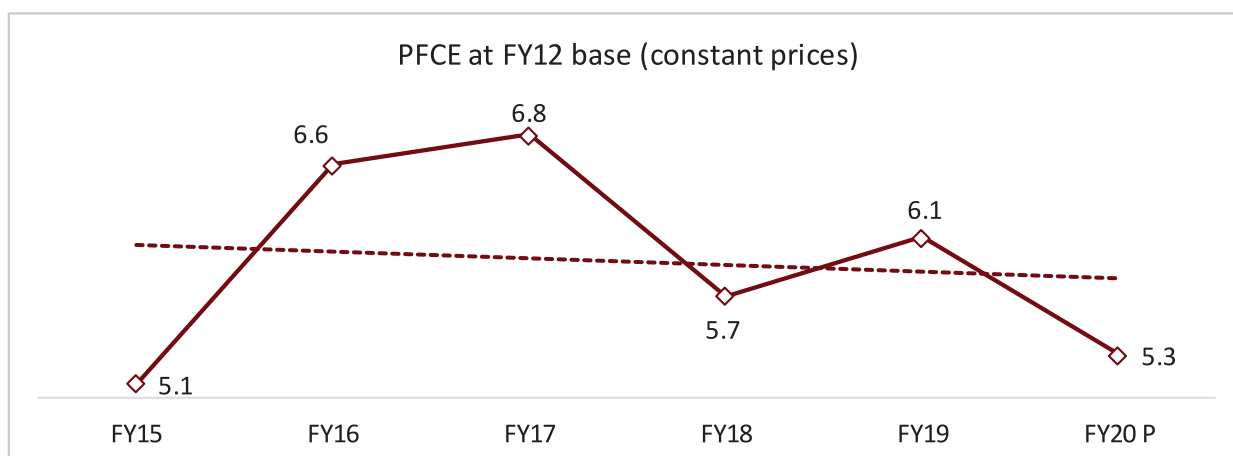
pace of economic recovery is somewhat balanced by the reduced import bill and return of foreign portfolio investors (FPIs)



Source: NSDL, CRISIL Research

- FIIs' net purchases have increased in June, because of the abundant liquidity in the global financial system and improved risk sentiment
- The Reserve Bank of India's (RBI) dollar purchases to manage volatility and swelling reserves have prevented the rupee from appreciating further
- In the latter half of the month, Indo-China geo-political tensions weighed on the local unit, bringing back the risk-off mood. Rising crude oil price also put downward pressure on the rupee, though falling imports cushioned the impact

Private consumption declines as income, credit, sentiment slip

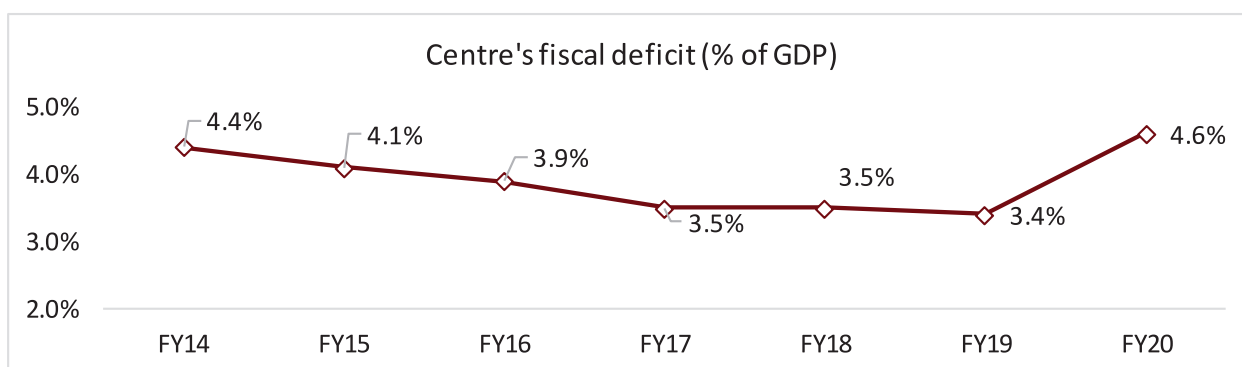


Source: NSO, CRISIL Research

Consumption has been the backbone of India's growth in recent years. Hence, a slowdown here has affected GDP growth too. Private final consumption expenditure (PFCE) includes final consumption expenditure of households and non-profit institutions serving households (NPISH) such as temples.

In fiscal 2020, global economic slowdown was a major external factor. On the domestic front, the crisis in the non-banking finance company (NBFC) sector, which started in the third quarter of fiscal 2019, continued. In fiscal 2021, PFCE is expected to further decline owing to restricted spending appetite of households.

High fiscal deficit to hit government spending



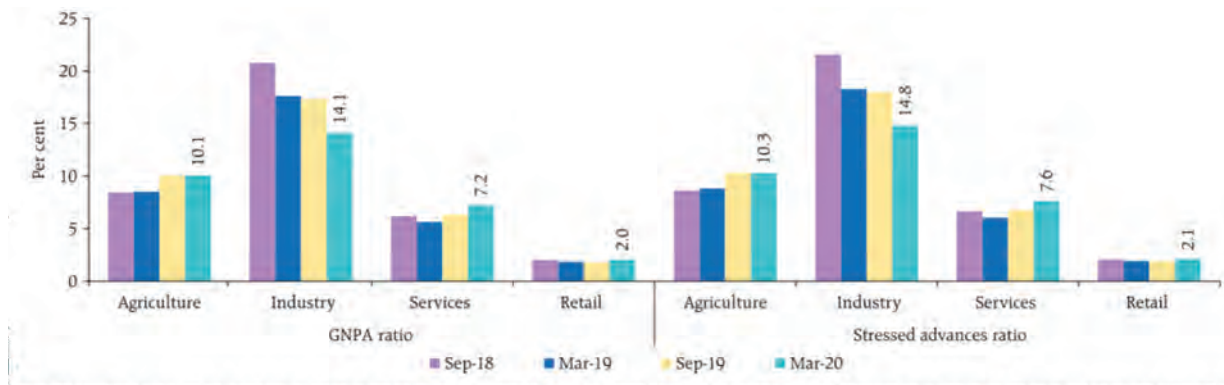
Source: The Department of Economic Affairs, CRISIL Research

In the Union budget for the current fiscal, the government had penned fiscal deficit at 3.5% of GDP. However, it is expected to widen substantially on account of the impact of the pandemic and lockdown. While the sharp decline in economic activity is expected to severely reduce the government's revenue, its expenditure is likely to expand because of relief and stimulus measures.

Monetary policies

- Currently, the RBI's repo rate, reverse repo rate and marginal standing facility (MSF) rate stand at 4%, 3.35% and 4.25%, respectively
- While the central bank has been trying to infuse liquidity into the system, credit offtake remains abysmally low because of a lack of demand and banks' risk aversion
- The Monetary Policy Committee of RBI has cut the repo rate by 115 bps since March. The transmission has been most pronounced in the short-term money market. Rates on both certificates of deposit and commercial papers have come down steeper than the repo rate cut. This is largely attributed to excess liquidity in the system because of the lack of demand

Sector wise GNPA ratio and stressed advances ratio

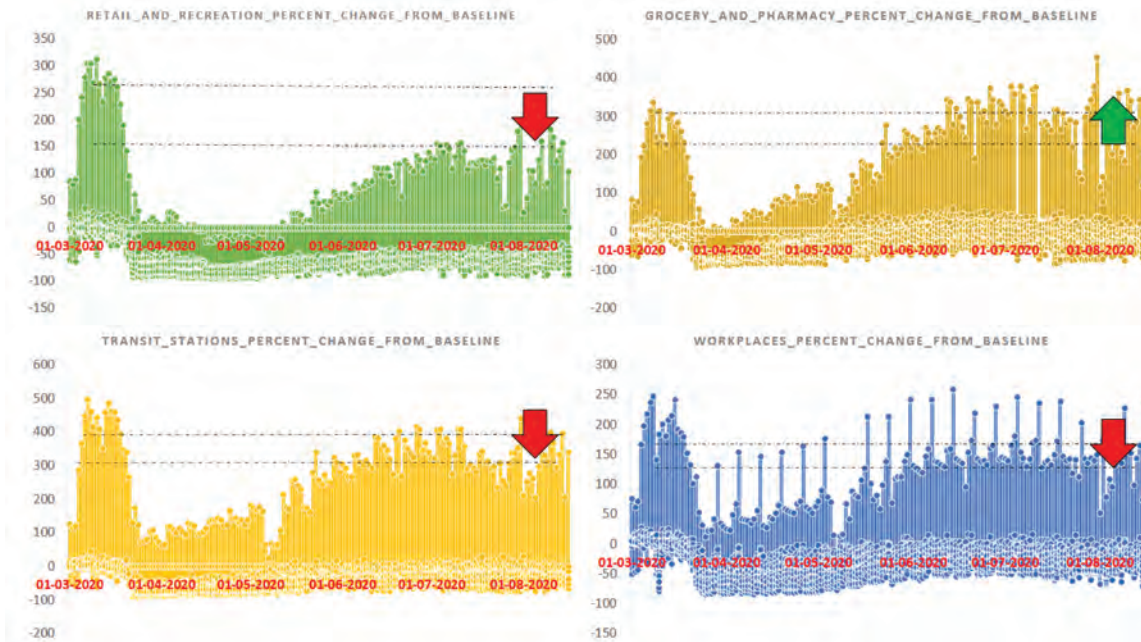


Source: RBI

- While RBI is trying to ensure sufficient liquidity, banks have been wary of lending. Also, demand is not too robust because of the economic uncertainty
- In fact, by March 2020 non-performing assets (NPA) of scheduled commercial banks had come down to 8.5% from 9.3% in September 2019. However, they are likely to see a spurt in the ratio and stressed advances due to the moratorium announced (first for three months, which was subsequently extended to six months) to help consumers tide over the crisis
- As on June 19, bank credit growth was 6.2% on-year, down from 6.3% as on May 22. On the other hand, deposit growth has been steadily going up with investors considering it safe to park their money in banks despite the reduced deposit rates. Deposit growth improved to 11% as on June 19, from 10.6% a month ago
- Retail inflation is forecast to slow to 4.7% (2020-21) from 4.8% (2019-20). Given RBI's expectation of inflation returning to the target zone by the second half and its concern over growth revival, another rate cut cannot be ruled out this fiscal
- With economic activity sharply impacted by the pandemic, bank credit growth will marginally decline this fiscal, down from 6.1% in fiscal 2020

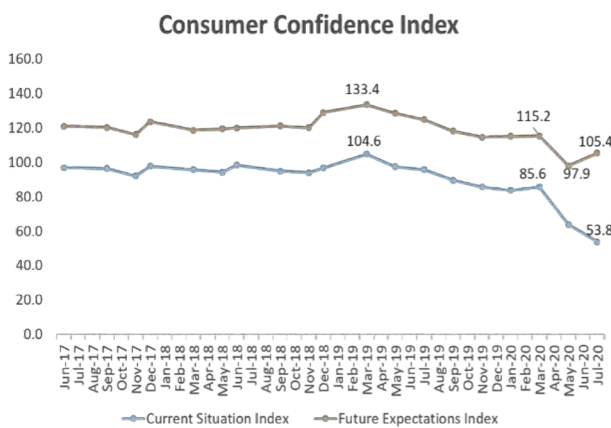
Other early indicators, too, show gradual recovery going forward

- Railway freight cargo transport (categorised as an essential service) also showed a slower pace of contraction in May (at -21.3% compared with -35.3% in April). The pace slowed further to -7.7% in June



Source: CRISIL Research, Covid-19 Community Mobility Reports by Google as on August 20, 2020

- Mobility data from Google shows revival in activity. Grocery and pharmacy visits are exceeding mean pre-COVID levels. A key reason for this could be their categorisation as essential services. For other transit, workplace-related travel is also seeing gradual recovery. Levels are almost similar to July 2020

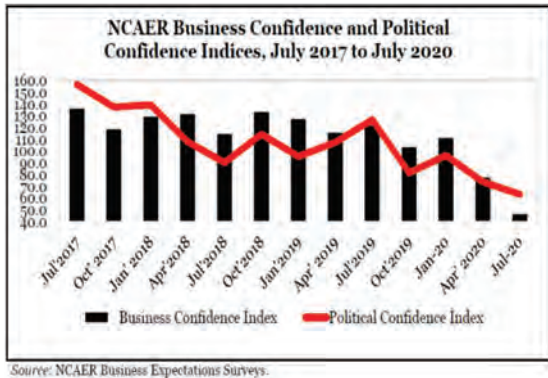


Source: RBI, CRISIL Research

Summary based on Net Responses						
Main Variables	Current Perception compared with one-year ago			One year ahead Expectations compared with current situation		
	May-20	Jul-20	Change	May-20	Jul-20	Change
Economic Situation	-60.0	-65.9	↓	-11.7	2.1	↑
Employment	-48.2	-65.1	↓	-5.9	10.4	↑
Price Level	-75.8	-76.2	↓	-66.4	-61.5	↑
Income	-40.8	-54.5	↓	18.1	26.3	↑
Spending	43.2	30.8	↓	55.6	49.6	↓
Consumer Confidence Index	63.7	53.8	↓	97.9	105.4	↑
↑ Positive Sentiments with sign of improvement compared to last round			↑ Negative Sentiments with sign of improvement compared to last round			
↓ Positive Sentiments with sign of deterioration compared to last round			↓ Negative Sentiments with sign of deterioration compared to last round			

- RBI's Current Situation Index (CSI) hit an all-time low in July. The Future Expectations Index (FEI), however, swung back into the positive territory, indicating signs of recovery
- Consumer perception of the prevailing economic situation, employment scenario and own income was significantly lower than that in May 2020. Respondents were, however, somewhat optimistic about these parameters for fiscal 2021 vis-a-vis the previous survey

- Most respondents reported reduction in discretionary spending though their overall spending increased during the last one year. They do not expect to increase non-essential spending in the coming year as well



Responses	Q4FY20	Q1FY21
Overall economic situation will improve in next 6 months	26.1%	17.1%
Financial position of firms will improve in the next six months	27.5%	19.8%
Present investment climate is positive	19.5%	15.2%
Present capacity utilisation is close to or above the optimal level	80.3%	37.2%

- The National Council of Applied Economic Research's (NCAER) Business Confidence Index (BCI) stood at 46.4 in the first quarter of fiscal 2021, down 40.1% from 77.4 in the fourth quarter of fiscal 2020
- The on-year fall is a steeper 62%. This is the lowest that the index has ever fallen to in the history of 113 rounds of the NCAER Business Expectations Survey
- The decline of 40.1% came on the back of a 30.4% fall in Q4 2019-20 on-quarter (q-o-q) basis

Automobile sales, except tractors', to fall further

Sales projections for various automobile segments



Source: SIAM, CRISIL Research

All automobile segments, except tractors, are expected to see a growth slowdown in the near term because of the economic disruption caused by the pandemic.

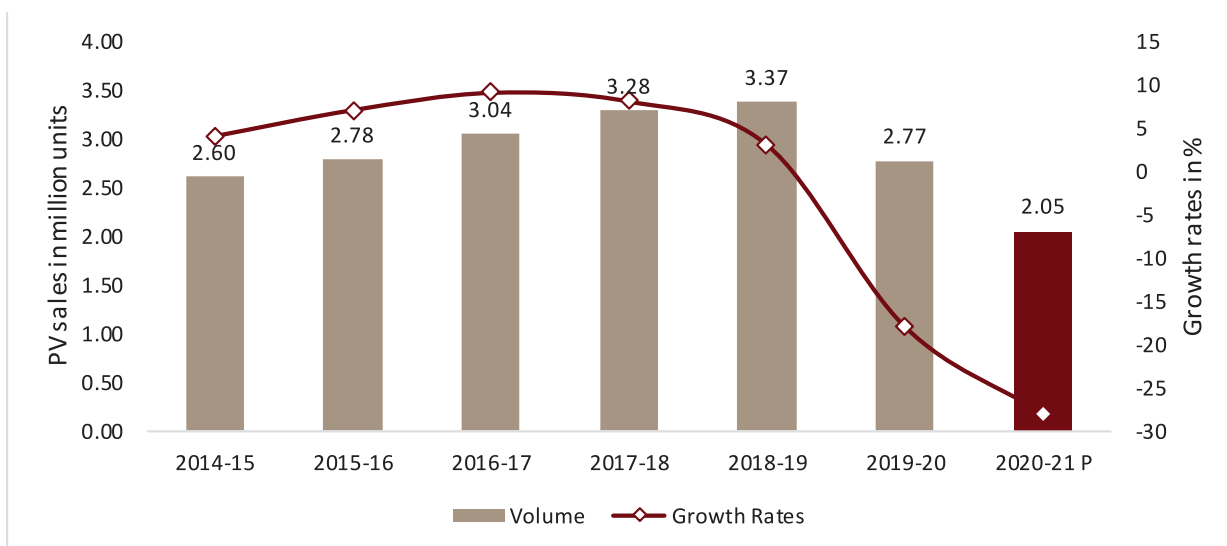
- Income generation of industries and service providers has been impacted due to lower demand for goods and services
- Private consumption, too, is declining due to lower disposable income and reduced propensity to spend because of uncertainty over income potential. Also, with migrants returning to their villages during the lockdown, there is a manpower shortfall for automakers
- Supply chain of the automobile industry, which has a connected value chain, is choked as major auto-component clusters are located in Pune, Chennai and Bengaluru. All these cities have seen a spike in cases and multiple lockdowns even in July
- High fuel prices are expected to continue to keep cost of vehicle ownership high
- BS-VI vehicles are expected to be ~5-15% costlier (varies across vehicle categories) than their BS-IV counterparts. The demand has been muted and volume significantly low. Original

equipment manufacturers (OEMs) have raised vehicle prices and reduced discounts to safeguard their revenues

- Vehicle financiers are also crippled. Despite liquidity measure announced by the central bank, they are averse to lending on account of increasing gross NPAs. They have reduced loan-to-value ratios, too

Passenger vehicles

Pandemic to pummel domestic passenger vehicle (PV) sales



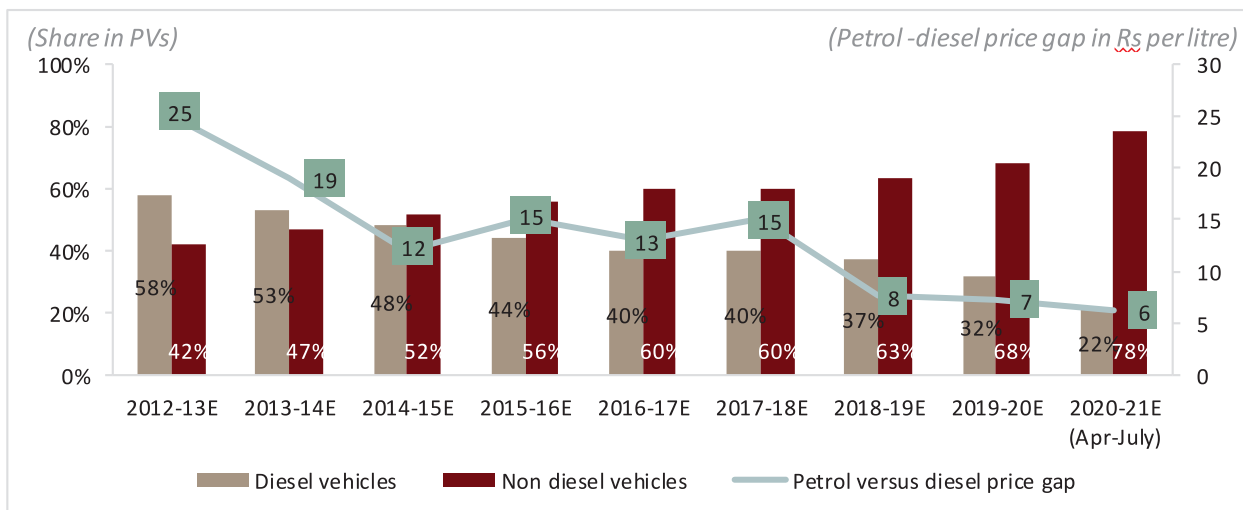
Source: SIAM, CRISIL Research

- The PV industry is expected to decline for the second year consecutively; we expect it to decline 26-28% in fiscal 2021
- An increase of 5-7% in total cost of ownership led to muted growth across segments in fiscal 2019
- The pandemic-induced nationwide lockdown from March-end till May shut down all business activities/ plants and caused supply constraints. From June-July onwards, with stepped relaxations, manufacturers have ramped up their production to meet demand since dealers have very low inventory. In the second quarter of fiscal 2021, we expect wholesale numbers to be better due to inventory built-up on account of the festive season
- Going forward, we expect sentiments to remain muted due to a sluggish economy, job losses, and pay cuts. Business confidence is also down. People are purchasing only essential items and avoiding spending on non-discretionary products
- **Sluggish demand across major key export destinations**
 - PV exports stayed flat in fiscal 2020, owing to demand slowdown in export markets of the US, Chile and Algeria
 - In fiscal 2021, exports are expected to contract 25%

Countries	FY16 (%)	9M FY19 (%)	FY20 (%)	Growth in FY20 (%)
Mexico	13	24	23	2
South Africa	14	12	14	34
USA	0	11	10	-4
Chile	3	5	5	-24
Algeria	7	4	4	-63
Saudi Arabia	3	5	5	109
UAE	4	3	3	55
Indonesia	1	2	2	-22
Nepal	2	3	3	-26
UK	6	2	2	-53
Italy	3	2	2	14

Source: CRISIL Research, DGFT

- We expect utility vehicles (UV) to perform better than cars due to higher sales of compact SUVs, model launches and higher discretionary spending of UV segment customers
- **Other key changes in the PV industry**
 - Diesel share reduced further, after major OEMs phased out diesel variants due to price hike on account of BS VI transition

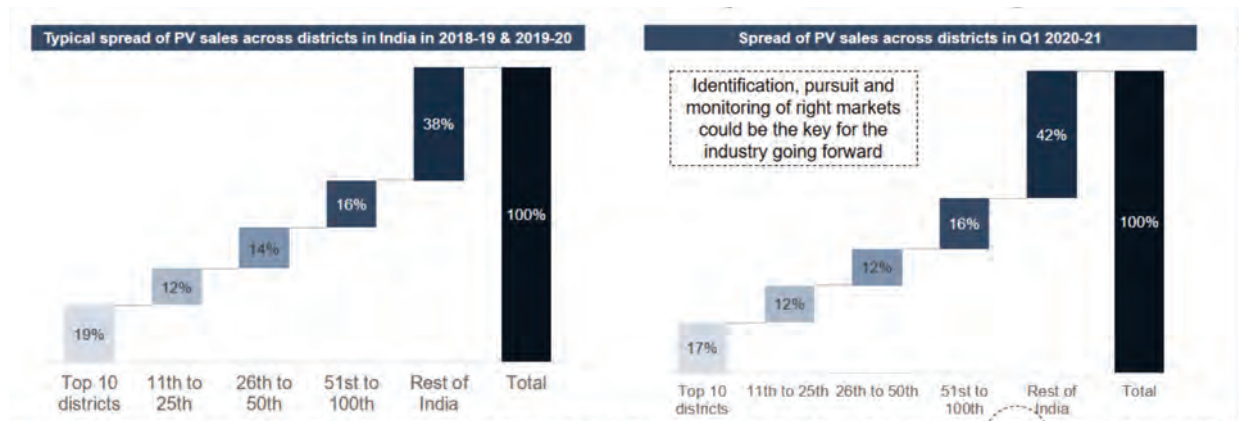


Source: SIAM, CRISIL Research

- **Reducing share of new models in sales**
 - A number of models were launched by new entrants in the UV segment in fiscal 2019
 - New model launches garnered a share of 11% in fiscal 2020, but will slow down going ahead because of the pandemic

- Model launches have either been postponed or players have resorted to the online route, which should see some traction going forward

- Impact of the pandemic on region-wise PV sales

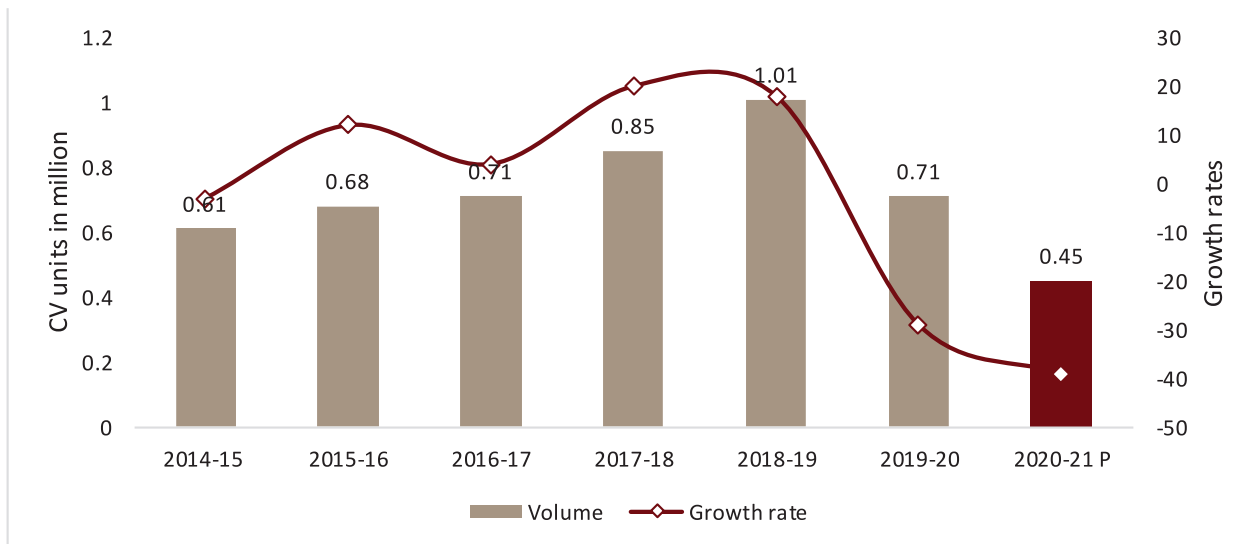


Source: Vahaan, CRISIL Research

- Contribution beyond the top 10 districts has been changing, which suggests that tier 2 and rural markets are doing better, but with the virus spreading in rural areas we need to keep a close watch on the mix

Commercial vehicles

After a decline in fiscal 2021, pandemic worsens woes of the commercial vehicle (CV) industry

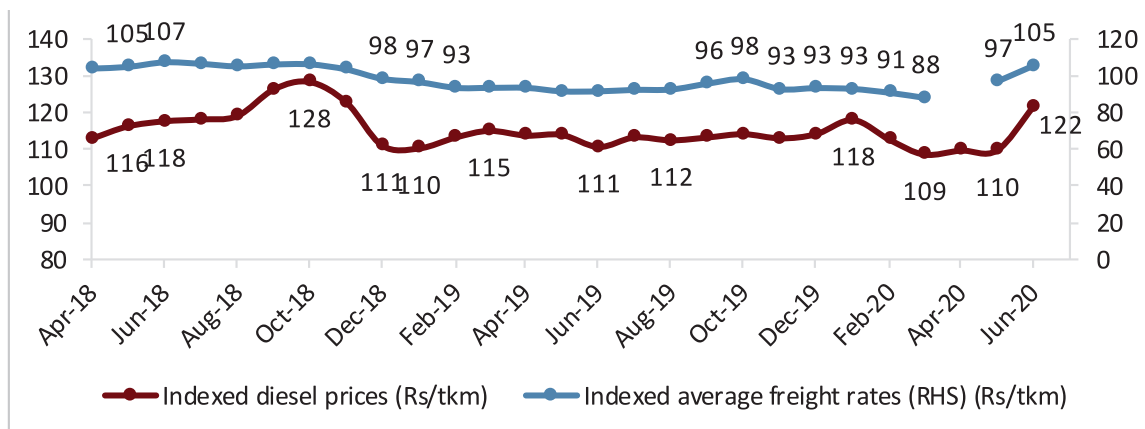


Source: SIAM, CRISIL Research

- Stress in run-up to fiscal 2021:** The domestic CV industry faced a host of challenges such as the Goods and Services Tax (GST), axle load norms, the NBFC crisis and the transition from BS-IV to BS-VI. The CV industry was already grappling with lower freight utilisation along with dampened freight rates in fiscal 2020
- Covid-19:** The lockdown led to closing of all CV manufacturing units and dealerships as well as production constraints due to unavailability of labour. Consequently, CV sales plummeted ~85% in the first quarter of fiscal 2021. With dealerships remaining closed in April, wholesale offtake was near zero in the month. CV manufacturing units in special economic zones (SEZs), export-oriented units (EOUs) and industrial estates/townships or rural areas, started operations in May, albeit gradually. However, manufacturing units in Pune (Pimpri, Chinchwad) and Mumbai, which were hotspots in the early phase of the lockdown, had resumed operations only partially by May-end. We expect second quarter sales to also be muted with gradual recovery in the second half
- Oversupply of trucks in the resale market to impact demand:** The government allowed loan moratorium between March and August because of the pandemic. However, it is not applicable for delinquent customers (i.e. 90 days per due or DPD and above) as on February 29, 2020. Thus, repossession of trucks from delinquent customers rose in the first quarter of fiscal 2021. To add to this, more transporters (especially small fleet operators) who had purchased trucks in 2017, 2018 and 2019 had put their trucks for sale as they were unable to pay EMIs owing to low fleet utilisation, at the same time availing

moratorium. Medium-sized CVs, multi-axle vehicles and T-trailers were mainly reprocessed or put up for sale in the secondary market. Because of the increased supply of trucks in the second-hand market and lower demand for trucks, resale values are estimated to have dropped 20-25%

- BS-VI cost increase completely passed on due to low volumes:** BS-VI vehicles are expected to cost 10-15% higher than their BS-IV counterparts. Given muted demand and significant low volumes, OEMs have taken complete price hike and reduced discounts to safeguard their revenues. We expect discounts to be offered only in the second half of fiscal 2021, post demand revival. In order to make BS-VI truck purchases competitive versus BS-IV trucks, financiers are also estimated to have increased loan tenures by 1 year-2 years in order to keep EMLs similar to BS-IV trucks. After the price increase in fiscal 2021, we expect price hike in CVs in the next fiscal to be modest as discounts are offered to cater to rising CV demand
- High diesel price and lower freight rate impact transporters' profitability**



Source: CRISIL Research

- Transporters' profitability has taken a hit due to poor freight demand owing to the pandemic. However, a three-month moratorium on CV loan payments has prevented delinquencies in the first quarter of this fiscal; but they are likely to rise after the moratorium

• **All end-use segments, except e-retail, likely to degrow**

Segments (% Growth Y-o-Y)	2015-16	2016-17	2017-18	2018-19	2019-20P	2020-21P
Coal (Production)	5.0	3.0	3.0	7	1	(5)-(3)
Iron ore (Production)	21	25	3	3	19	(12)-(10)
Steel (Consumption)	5.8	3.1	8	8	1	(20)-(17)
Cement (Consumption)	4.7	1.9	9	12	(2)	(15)-(12)
Roads (Km Constructed / Day)	6	7	8	9	11	9-10
Consumer durables (Consumption)	6.6	6.6	5.8	7	5	(40)-(35)
E-retail	68	22	35	35-37	23	0-2

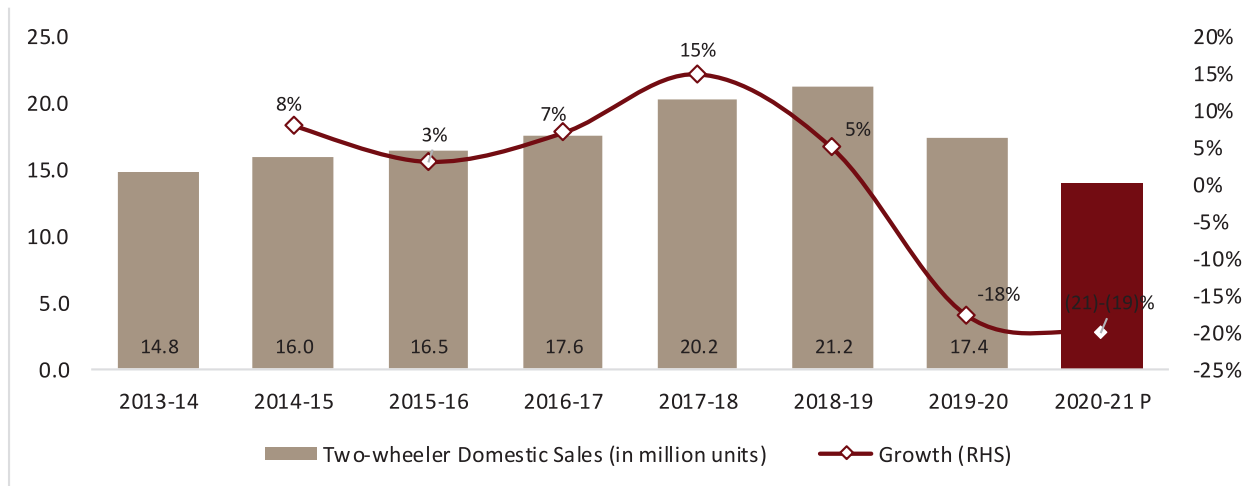
Source: CSO, RBI, SIAM, CRISIL Research

- All major bulk and non-bulk freight are expected to degrow in fiscal 2021, which will put more pressure on freight utilisation
 - The National Highways Authority of India's road construction execution increased 20% on-year this fiscal. However, next fiscal both execution and new projects are likely to see a decline; so also tipper sales
 - The Pradhan Mantri Gram Sadak Yojana (PMGSY) has completed ~27,000 km of road construction so far in fiscal 2021, against the target of 50,000 km. This is in stark contrast to 85% completion (~49,000 km) achieved in the previous fiscal
- **CV financing rate stable even with fall in repo rate**
- Delinquencies in CV loans has made financiers more risk averse, which has led to 5-10% dip in loan-to-value (LTV) for second-hand purchases. To lower the risk, financiers have reduced LTV by ~5% (new truck purchases) and adopted stringent policies. Because of risk averseness, interest rates for CV loans have fallen less than that for two-wheelers and PVs. As a result, absolute availability of finance in the CV segment has declined considerably

The RBI has reduced the repo rate by 250 bps since February 2019 and by 115 bps since March 2020. However, CV lending rates were not proportionately lowered due to higher risk of default.

Two-wheelers

After a sharp decline in fiscal 2020, two-wheeler sales growth to continue in negative territory in 2021

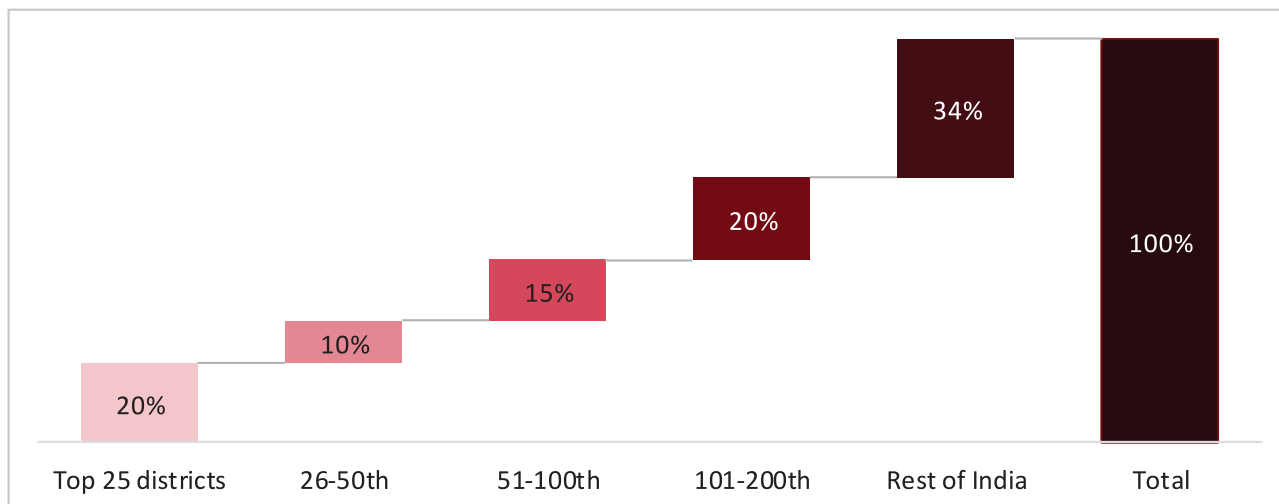


Source: SIAM, CRISIL Research

- The two-wheeler industry is expected to clock negative growth in fiscal 2021 because of the pandemic and the subsequent national and intermittent state-level lockdowns, which have hampered consumer sentiments and led to lower consumption
- Rural income sentiments are likely to be mildly positive due to better rabi crop output and expectations of better upcoming kharif crop thanks to normal monsoons, which is a good augury for motorcycle demand
- Lockdown-led supply constraints in key automotive production clusters such as Chennai, Aurangabad and Pune are expected to hinder production, but should normalise by September if the virus situation improves
- Two years of high cost, which increased the total acquisition cost by 17-19% in fiscals 2019 and 2020 compared with average hike of 3-5%, will continue to impact demand in fiscal 2021, as the year witnesses lower/negative income growth
- Risk averseness will hinder financing for two-wheelers, whereas cost of acquisition is expected to rise due to lower LTV, higher vehicle cost and not passing of complete rate cut benefit to the customers
- Demand is expected to improve in fiscal 2022, on account of improving urban income and buoyant rural sentiments owing to normal monsoons and a lower base of fiscals 2020 and 2021

Tier 2 and 3 markets gained share in the two-wheeler segment in the first quarter of fiscal 2021.

Typical spread of two-wheeler sales across districts in India

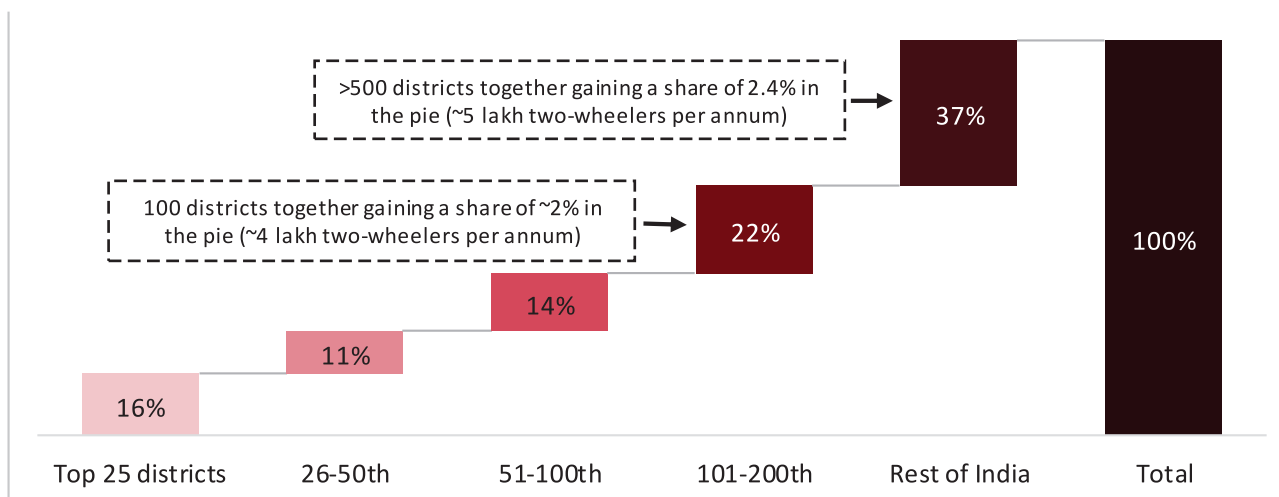


Note: FY19 and FY20 average taken for typical spread, figures may not add up due to rounding in some cases

Source: MoRTH, CRISIL Research



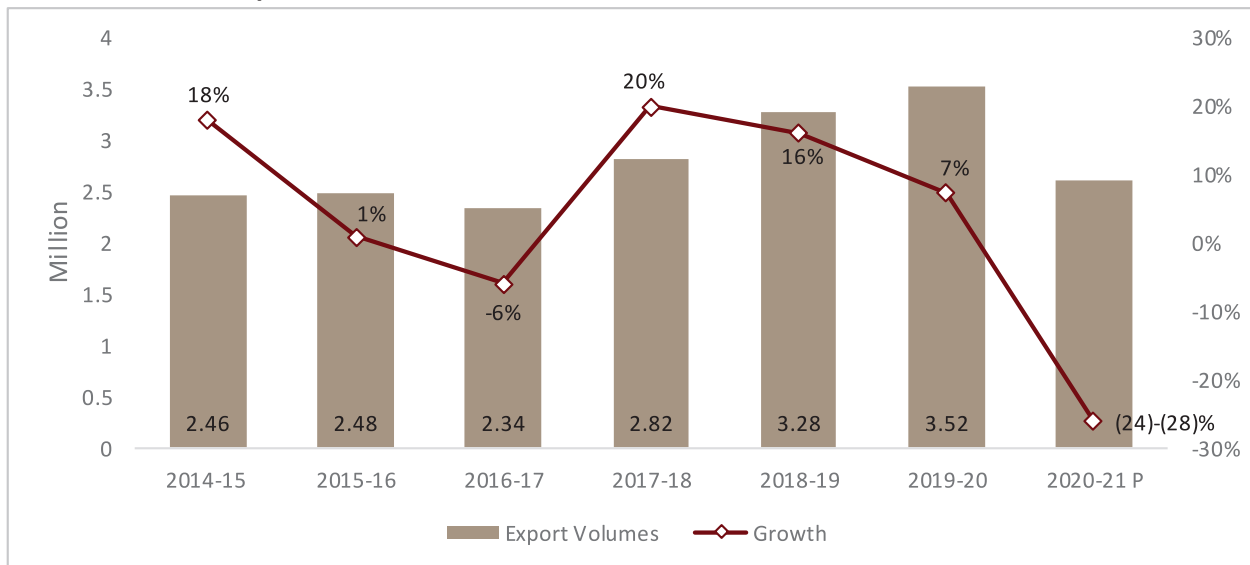
Spread of two-wheeler sales across districts in the first quarter of this fiscal



Source: MoRTH, CRISIL Research

Top 25 districts, largely comprising urban and semi-urban cities, suffered the sharpest drop in share in the first quarter of this fiscal due to the lockdown, although certain parts of the country performed resiliently and did gain share.

The motorcycle segment fared relatively better, as exports are mainly to Africa and Latin America, which experienced lockdown later than other nations due to lower Covid-19 cases.



Source: SIAM, CRISIL Research

Increased vehicle cost to impact cost of ownership

In fiscal 2021, BS-VI transition is estimated to have led to a 10-15% price increase for two-wheelers due to fuel injection technology replacing carburetors. There has already been a cost increase of 15-20% prior to this on account of insurance and ABS (anti-lock braking system) norms. We expect the cost of ownership to further increase owing to higher EMIs on a higher priced vehicles and higher petrol prices.

Government support and timely monsoon uplift rural sentiment

Agricultural lends support to a struggling economy:

➤ Crop scenario:

- Rabi crop value index (CVI) improved 15% in fiscal 2020, on the back of bumper crop harvest
- Timely on-set of monsoon has led to a 10% on-year increase in Kharif sowing (as on August 7)
- Hence, we expect Kharif CVI for fiscal 2021 to be up 2-4% on-year

➤ **MNREGA:**

- In July 2019, 18.4 million households had sought jobs under MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act), while in July 2020, the number jumped to 31.5 million
- This reflects the massive demand for work under the scheme due to the lockdown. Hence, government outlay towards MNREGA increased 63% on-year during April-July

Government support:

➤ **PM Kissan and PM Garib Kalyan Yojana:**

- The sixth instalment of Rs 17,000 crore under PM Kissan Scheme was released on August 9, 2020, taking the total amount transferred under the scheme since the lockdown to Rs 22,000 crore
- PM Garib Kalyan Yojana was extended till November-end, wherein the government ensures distribution of foodgrains to the poor. This would entail an additional government expenditure of Rs 90,000 crore

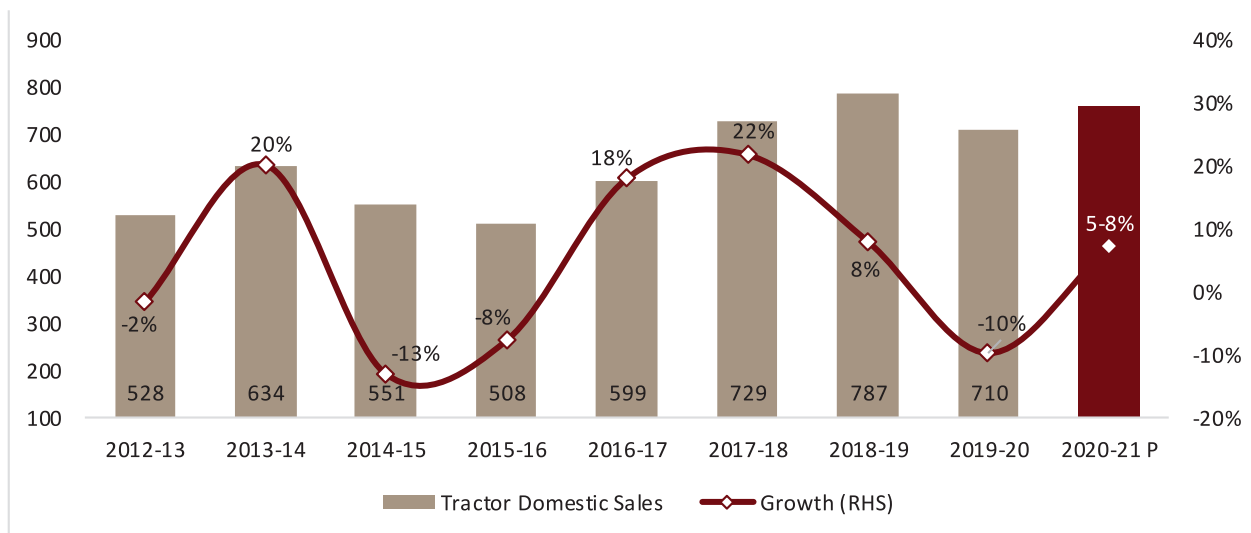
➤ **PM Garib Kalyan Rojgar Abhiyaan:**

- With an outlay of Rs 50,000 crore, the scheme is targeted towards workers with some skillsets and will cover 25 areas of work in 116 districts. Out of this scheme, Rs 10,000 crore has been spent
- The scheme encompasses various government schemes that will be rolled out in districts with high influx of migrant workers

Government support coupled with good agricultural sentiments indicates positivity in rural India. Foodgrain production is expected to increase 2-4% in fiscal 2021, supported by increase in minimum support prices, expected to lead to better farm income in the current year. However, the spread of Covid-19 has been increasing in rural areas - a key monitorable - which could hamper motorcycle demand.

Tractors

Domestic tractor demand resilient in fiscal 2021, owing to positive rural sentiments



Source: TMA, CRISIL Research

Domestic demand for tractors degrew in fiscal 2020, on account of uneven spread of rainfall and decline in sales from commercial activities (largely PMAY-U and PMGSY)

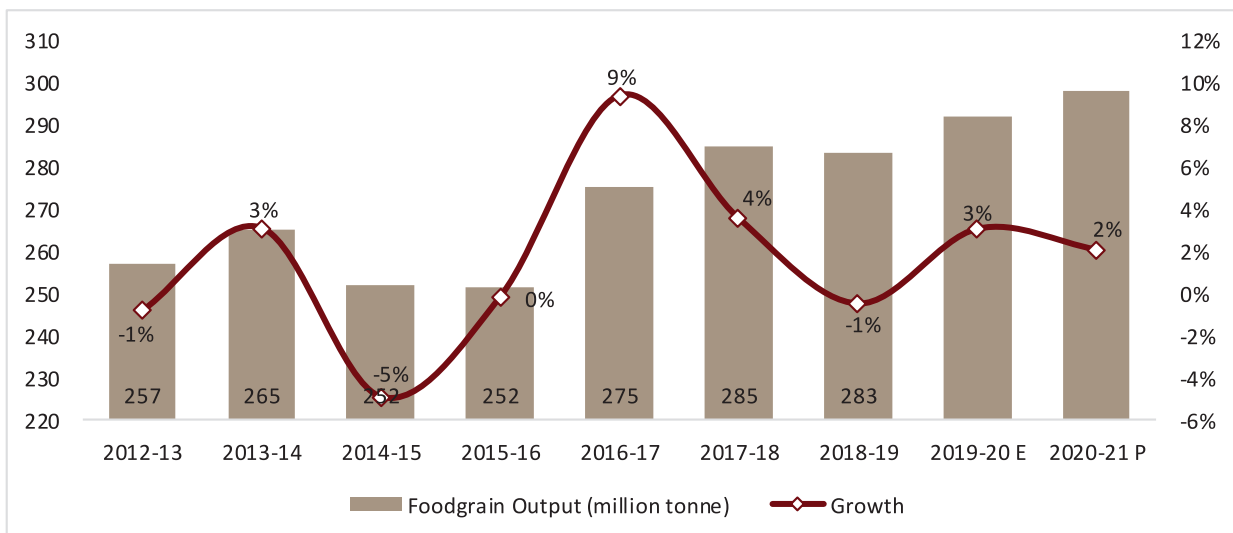
- Normal monsoon is expected to drive 5-8% growth in tractors in fiscal 2021
- Kharif crop to be supported by higher sowing and increase in yield on account of favourable weather conditions to improve farm income, whereas healthy reservoir levels will support rabi crop
- Higher procurement targets by the central and state governments will boost income and improve tractor demand
- Lockdown-induced pent-up demand and robust agricultural sentiments are expected to result in strong demand during the festive season
- Pick-up in sand mining activities in the northern and central regions will aid commercial demand
- Tractor demand growth in the northern region is expected to be higher than pan-India on account of better farm income, good reservoir levels supporting the rabi season and marginal improvement in commercial demand
- Fear of Covid-19 spread in west and south India could hamper demand in certain states, but demand across states is expected to be positive during the festive season, which will boost tractor demand in the current year

Normal rainfall and improving farm income to drive domestic tractor demand

Parameters	Impact		
	FY19	FY20	FY21 P
Farm income	F	N	F
Crop prices (minimum support price or MSP)	F	F	F
Crop output	F	N	F
<i>Kharif output</i>	F	NF	F
<i>Rabi output</i>	F	F	F
Demand indicators	F	NF	NF
Infrastructure development	F	NF	NF
Sand mining	F	N	N
Finance	N	N	N
Agri credit, finance availability	N	N	N
Supply	N	N	N
Channel inventory	N	N	N
Player action: Pricing & products	F	F	F

Source: CRISIL Research

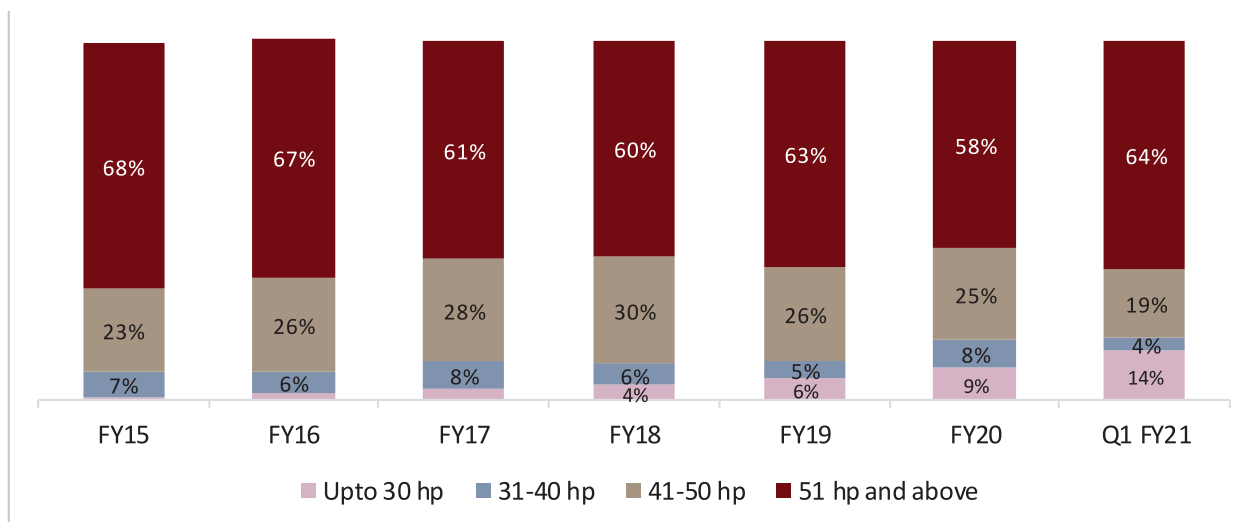
Government has increased foodgrain target by 2% for fiscal 2021



Source: Ministry of Agriculture, CRISIL Research

Crop production is expected to increase in fiscal 2021, supported by higher sowing, favourable weather conditions and better crop yield. Higher MSP and mandi prices are expected to increase the CVI.

Tractors <30HP on an uptrend in exports



Source: CRISIL Research

Tractor exports to decline 20-24% in fiscal 2021

- Exports are expected to contract 20-24% in fiscal 2021, as 28% of tractor exports are to top 20 pandemic-impacted countries
- Asia, Africa, and Europe are estimated to have constituted 70-75% of export sales in fiscal 2020, and North America ~14%. However, decline in demand from Algeria and Nigeria has brought down Africa's export share to 14%
- India is fast emerging as an export hub of relatively small tractors (30-75 HP). With increase in companies' focus on international markets with the launch of 90-120 HP tractors, we expect sustainable export growth over the next five years

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Global Light Vehicle Outlook

By



LMC
AUTOMOTIVE

Global

Light Vehicle Outlook 60th ACMA Annual Session

LMC Automotive
27 August 2020

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Macro outlook: 2020 Synchronised Contraction

Real GDP Growth	2018	2019	2020	2021	2022
Eurozone	1.9%	1.5%	-7.4%	6.1%	3.2%
France	1.8%	1.5%	-10.6%	7.8%	3.5%
Germany	1.5%	0.6%	-6.1%	5.2%	3.2%
Italy	0.7%	0.3%	-9.3%	5.7%	2.8%
Spain	2.4%	2.0%	-10.6%	7.6%	3.7%
UK	1.3%	1.4%	-10.8%	10.2%	3.5%
Russia	2.5%	1.3%	-6.4%	3.5%	2.2%
USA	2.9%	2.2%	-4.0%	4.3%	3.8%
China	6.7%	6.1%	2.1%	8.4%	5.1%
Japan	0.3%	0.7%	-6.0%	2.7%	3.1%
Brazil	1.3%	1.1%	-7.5%	5.0%	4.5%
World	3.2%	2.5%	-5.0%	6.5%	4.1%

2019 – growth was already cooling

2020 – global growth estimated to collapse by 5%

(2009 – Financial Crisis, global growth fell by 1.3%)

Source: Oxford Economics

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Macro outlook: Major markets

- Quarterly evolution of GDP: China hit in Q1 with sharp recovery in Q2. US and Europe impact phased in one quarter later. No major second wave distortion assumed though remains a risk.

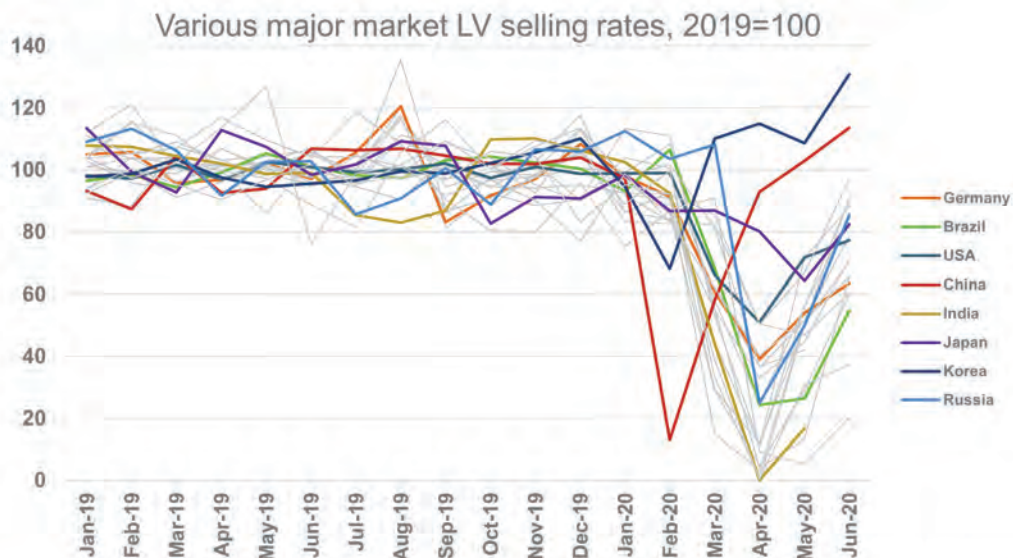


- China annual growth remains positive while all see year-on-year bounce back in 2021. Latest data has led to improved forecasts for China and US though a pronounced global recession for full year 2020 remains inevitable.

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Source: Oxford Economics

Global Light Vehicle sales, April low point for most



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Source: LMC Automotive

Industry Support

Americas



Canada: Tax holiday had been considered to support vehicle sales though nothing officially proposed



USA: Earlier talk of industry support though this looks increasingly unlikely as the market is outperforming expectations

Europe



France: Announced support for BEVs and PHEVs plus scrappage support.



Germany: Auto-specific support focused on BEVs/PHEVs. Broader VAT reduction



Italy: Industry support for both IC and EV vehicle purchases from this month



Spain: Announced industry support including limited scrappage scheme



UK: Had been rumours of a scrappage scheme though this amounted to nothing



Russia: Scope of preferential loan scheme widened plus other support measures

Asia



China: No support beyond current incentives



India: Regional road tax exemption. Talk of scrappage scheme



Indonesia: Supply side support so far. Lobbying for excise duty cut



Korea: Excise tax cut



Thailand: Excise tax cut rejected, but awaiting news on other measures

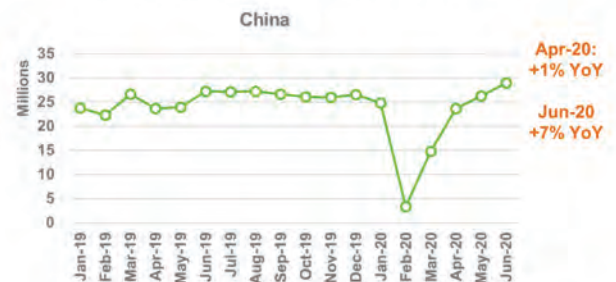
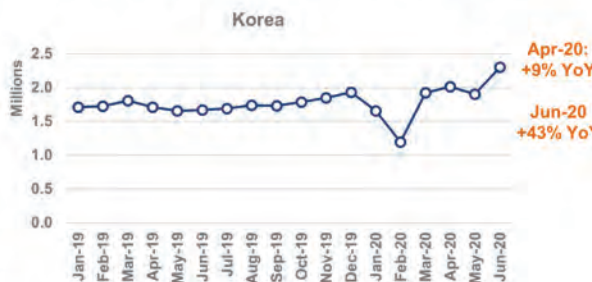
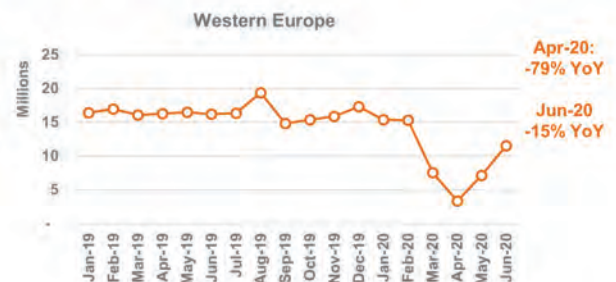
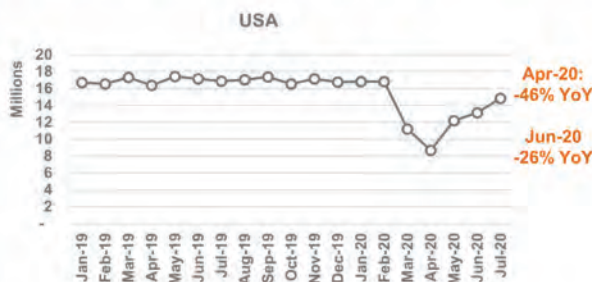


Vietnam: Registration fee cut and reduction to import tax

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Source: LMC Automotive

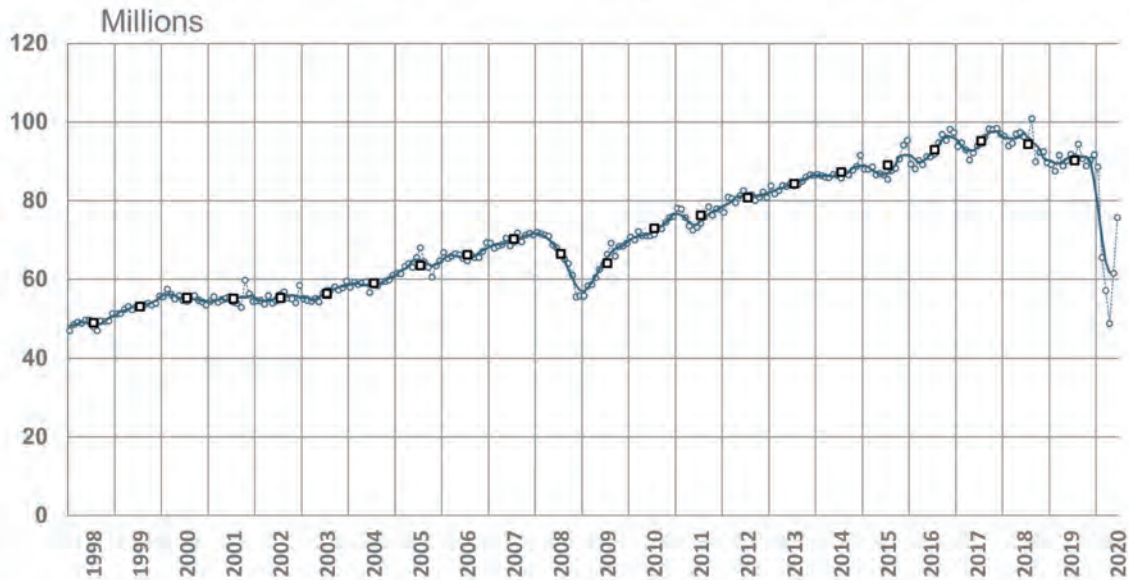
Current LV selling rate ... Global YTD June -27%



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Source: LMC Automotive

Global Light Vehicle sales – rebound well under way

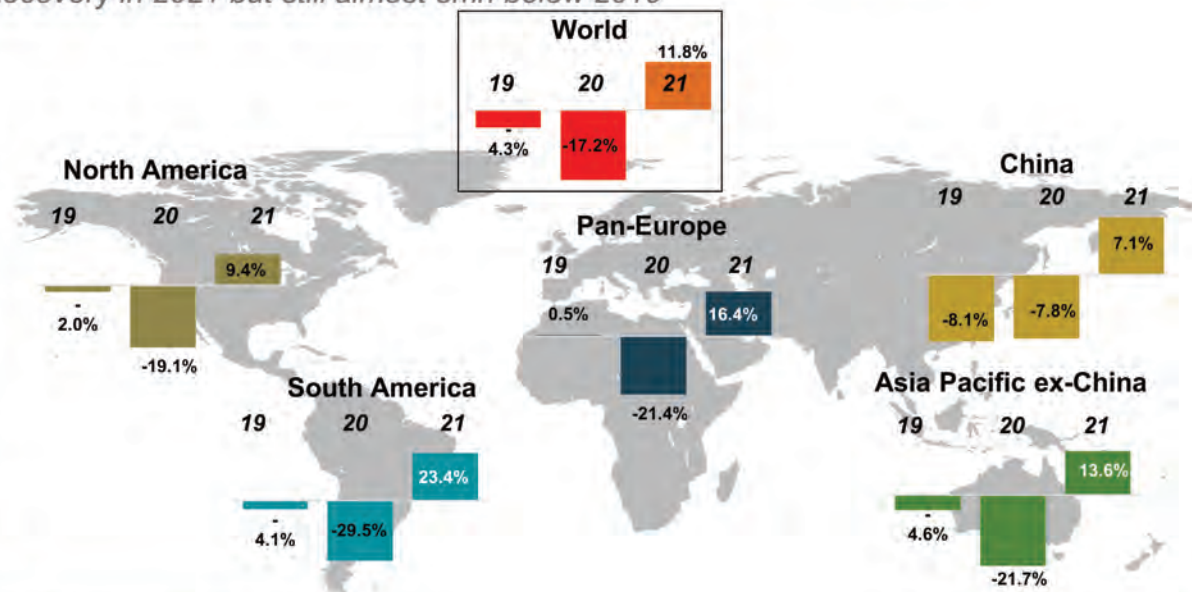


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Source: LMC Automotive

Global LV Demand: 2020: 74.8mn, 2021: 83.7mn

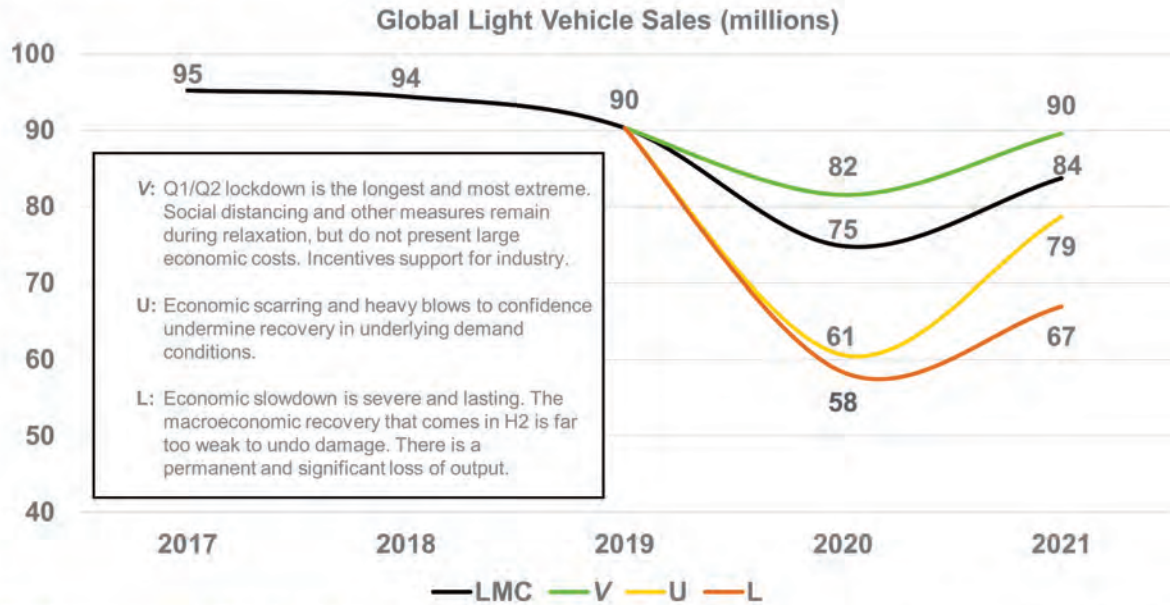
Recovery in 2021 but still almost 8mn below 2019



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Source: LMC Automotive

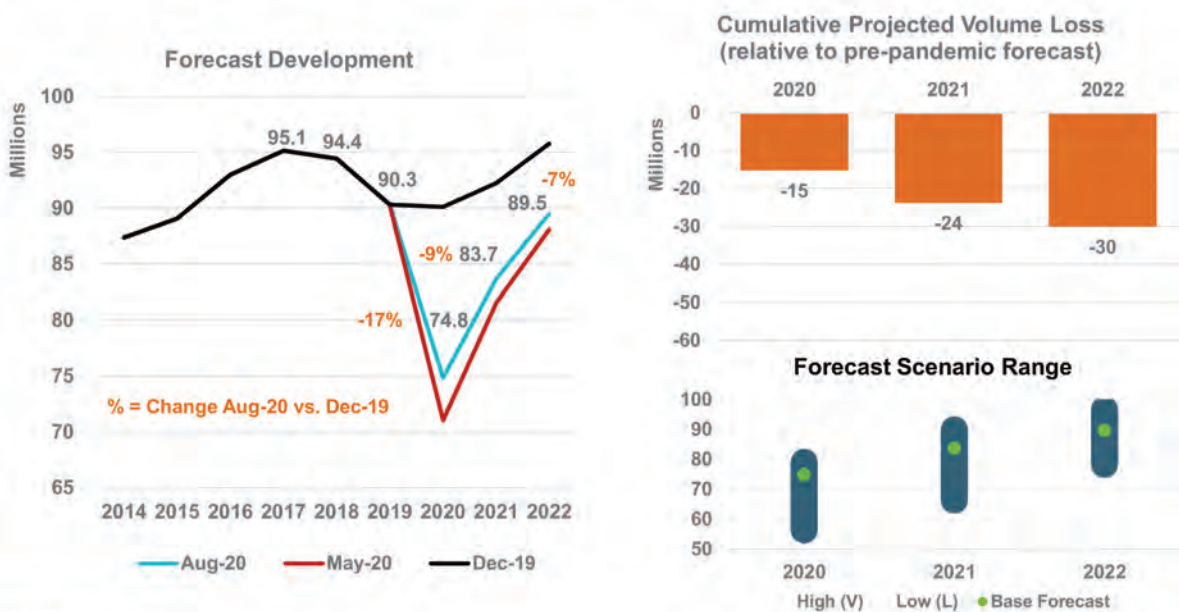
Outlook scenarios for 20-21: V, U or L



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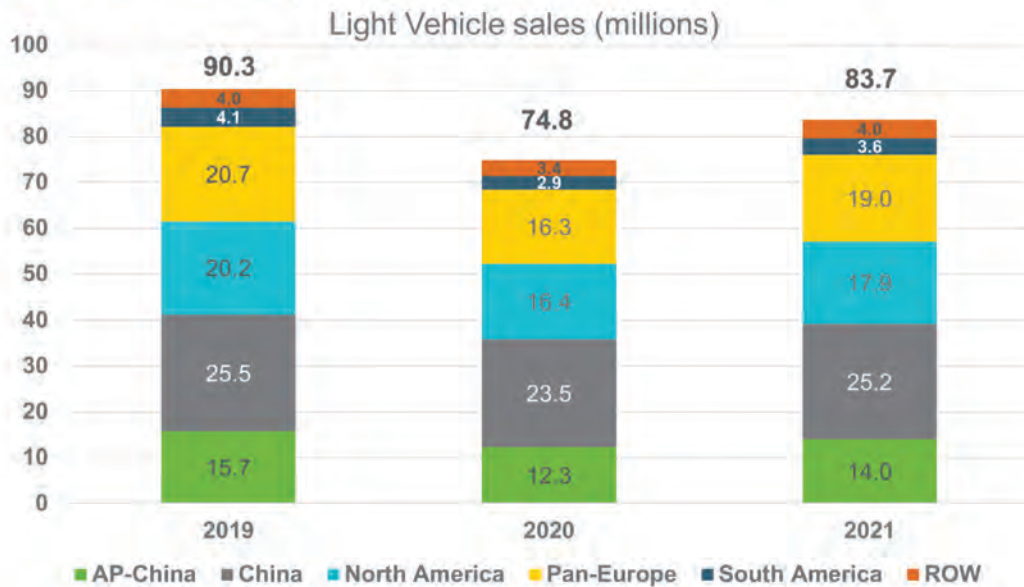
Change to global Light Vehicle sales forecasts



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Source: LMC Automotive

Vehicle demand by major market

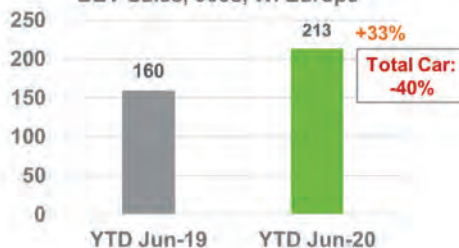


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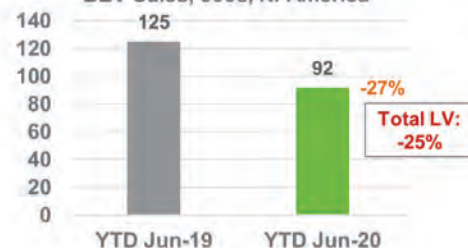
Source: LMC Automotive

World BEVs down 23% in H1 but Europe diverging (upwards)

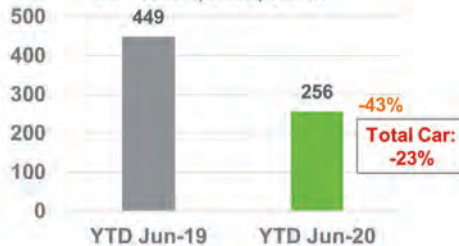
BEV Sales, 000s, W. Europe



BEV Sales, 000s, N. America



BEV Sales, 000s, China



- Europe: high short-term incentives and new product proliferation
- China: incentives already reduced, BEV advantage in reduced in credit system, ample product
- N. America (USA): limited/declining incentives, cheap gas, slower product launches, loss of interest

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Source: LMC Automotive

Latest global production baseline estimate

Light Vehicle production (millions)



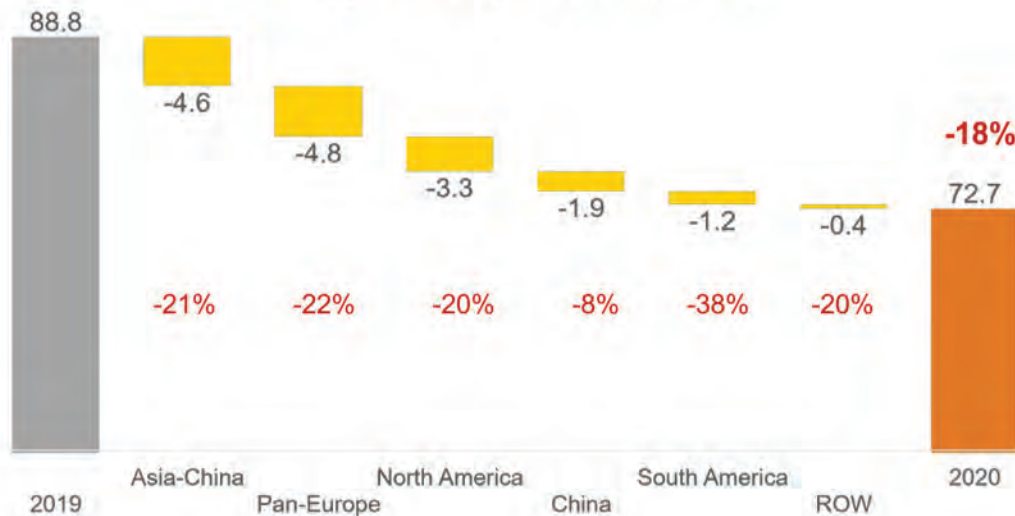
- Disruption to major production facilities appears to have been minimal since restarts commenced.
- More settled outlook – but still with huge 2020 contraction – could see minds focussed on utilisation and sustainability.
- Q2 financial reporting timeline may feature cost cutting and capacity reduction.

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Source: LMC Automotive

Global production decline by major market

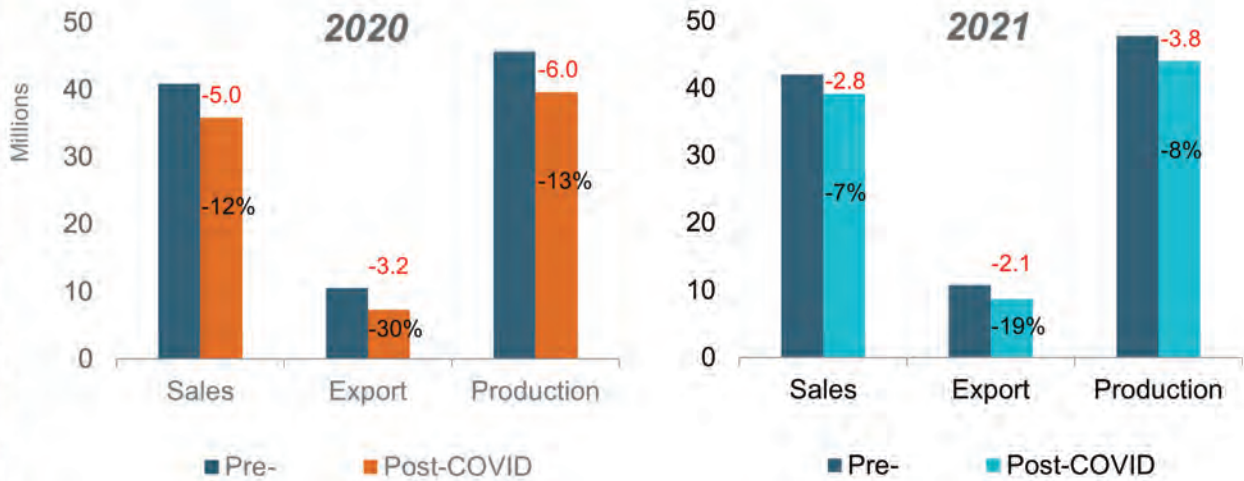
Light Vehicle production (millions)



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Source: LMC Automotive

Asia: Pre- versus post-COVID-19 LV outlook

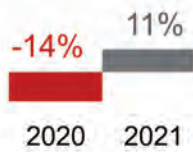


Sales = Total LV sales including imports. Exports include intra-Asia volumes

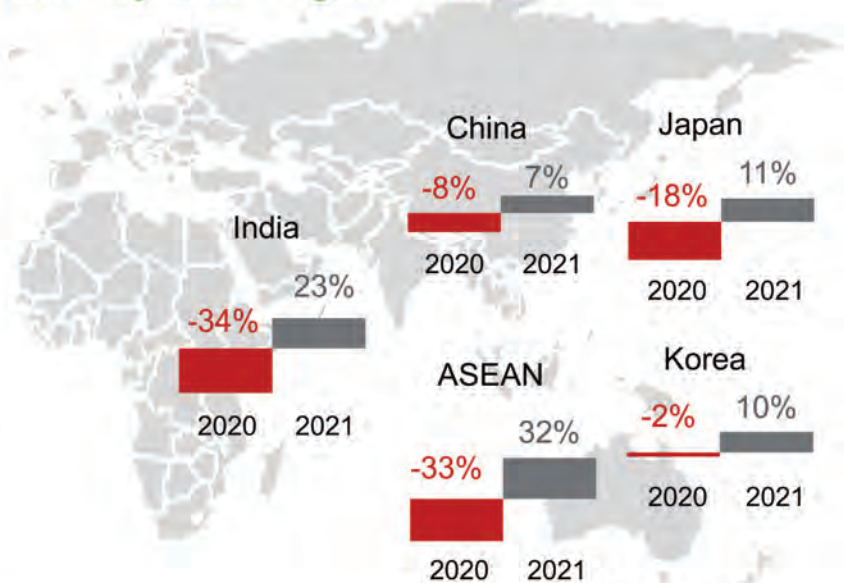
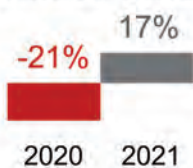
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Asia production: Country/Sub-region outlook

Asia LV Production

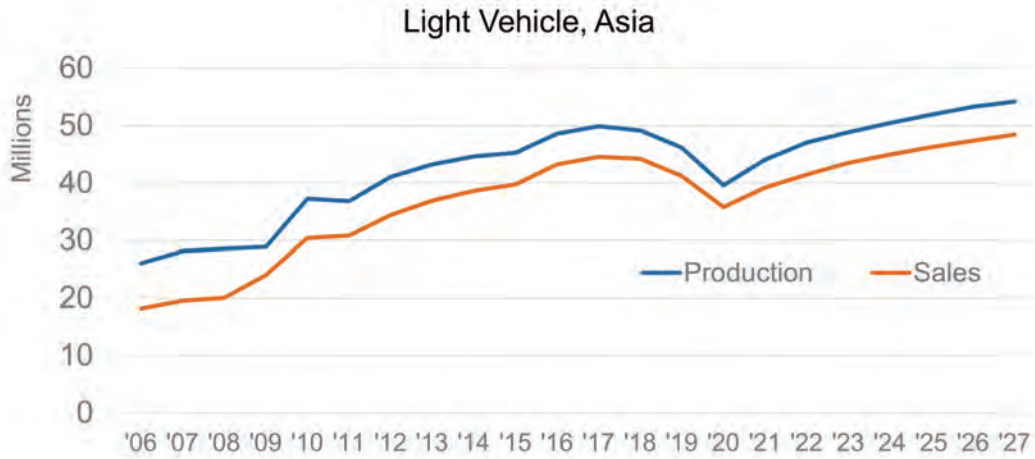


Asia ex China



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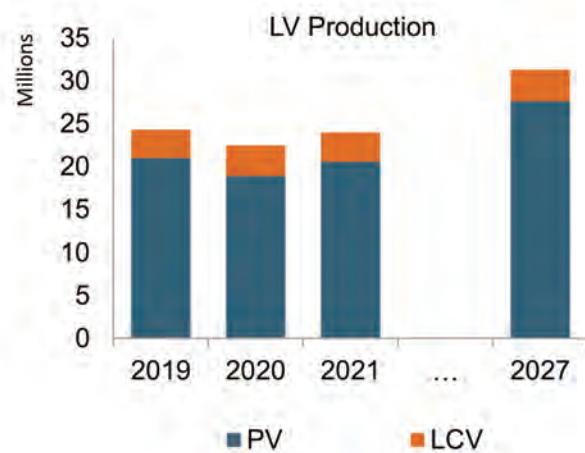
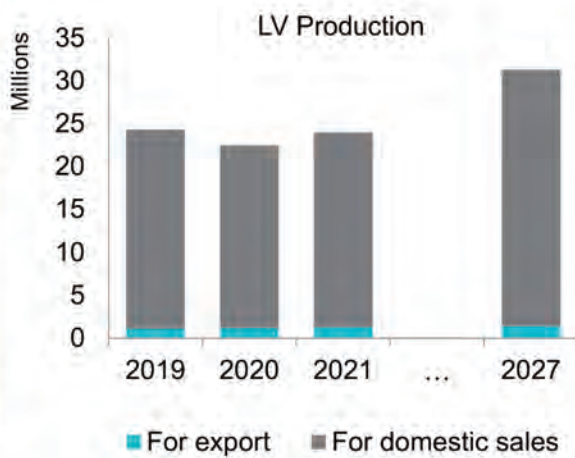
Asia: Recovery



Sales = Total LV sales including imports

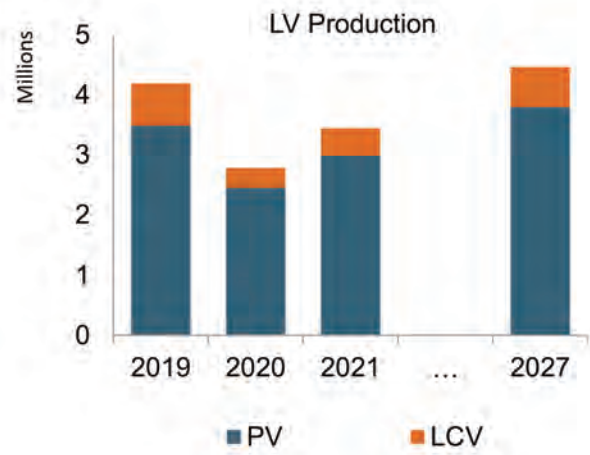
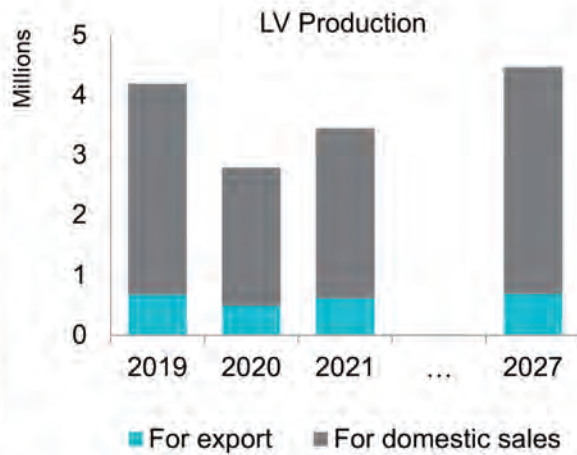
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China: There is still room to grow despite short-term challenges



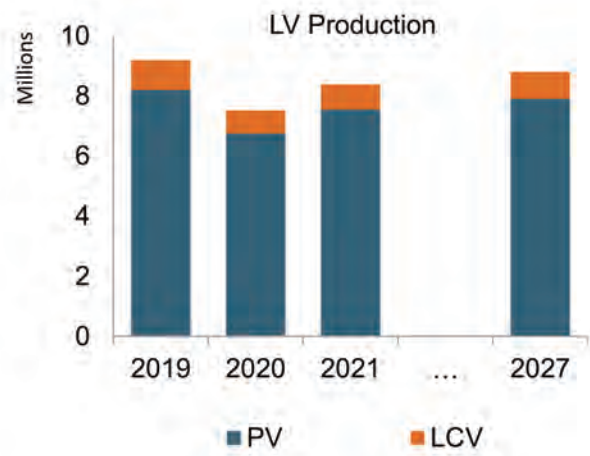
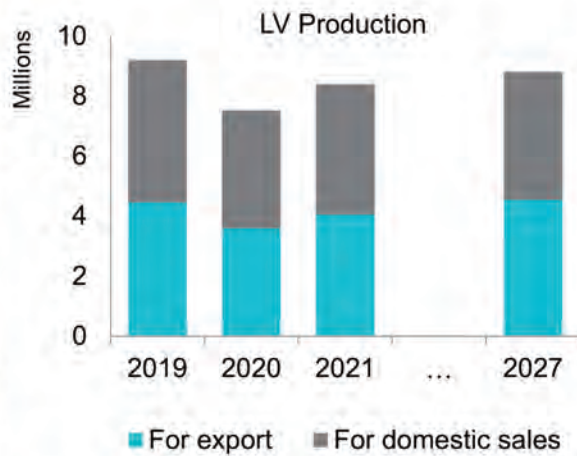
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India: Peak 2018 output unlikely in foreseeable future



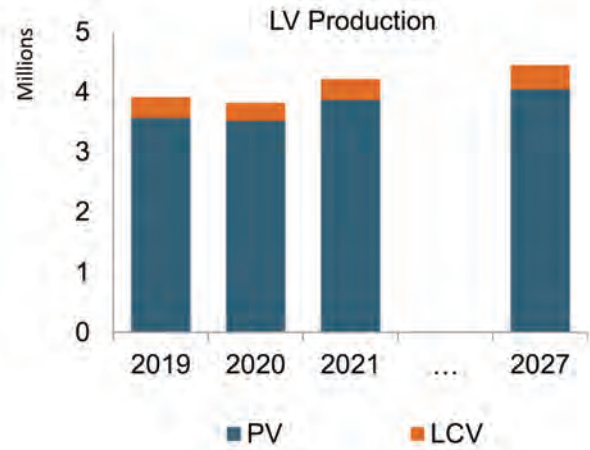
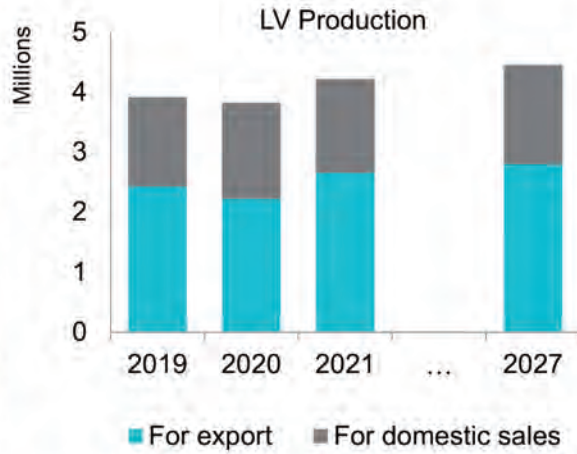
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Japan: 2020 production at decades low



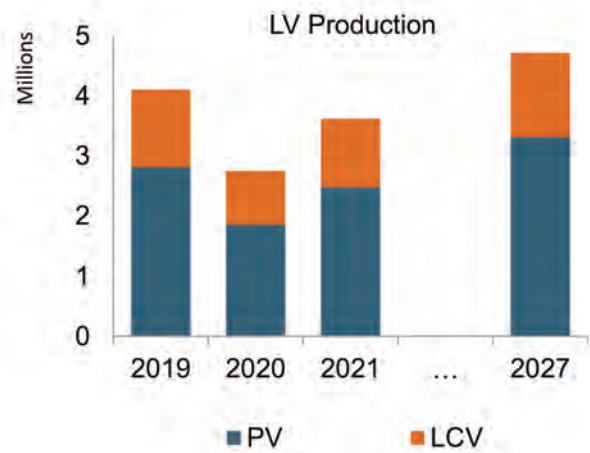
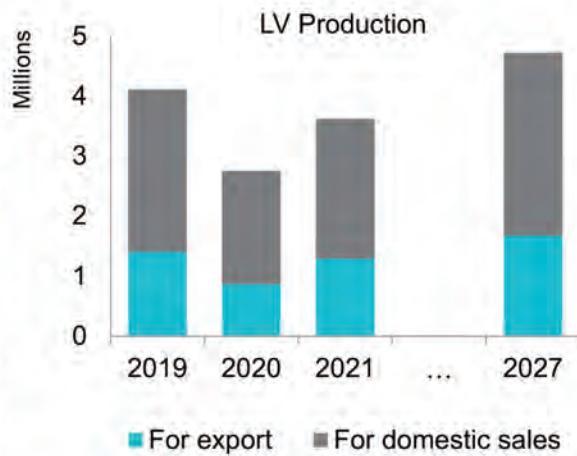
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Korea: Uniquely resilient in the face of the pandemic



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ASEAN: 2020 production at a decade low level

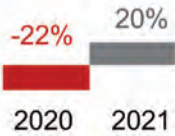


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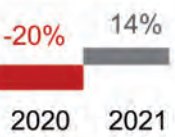
Exports include intra-Asia volumes

Pan-European production: Country/Sub-region outlook

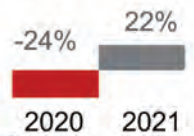
Pan-European Production



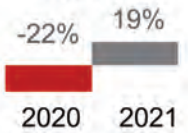
Eastern Europe



Western Europe

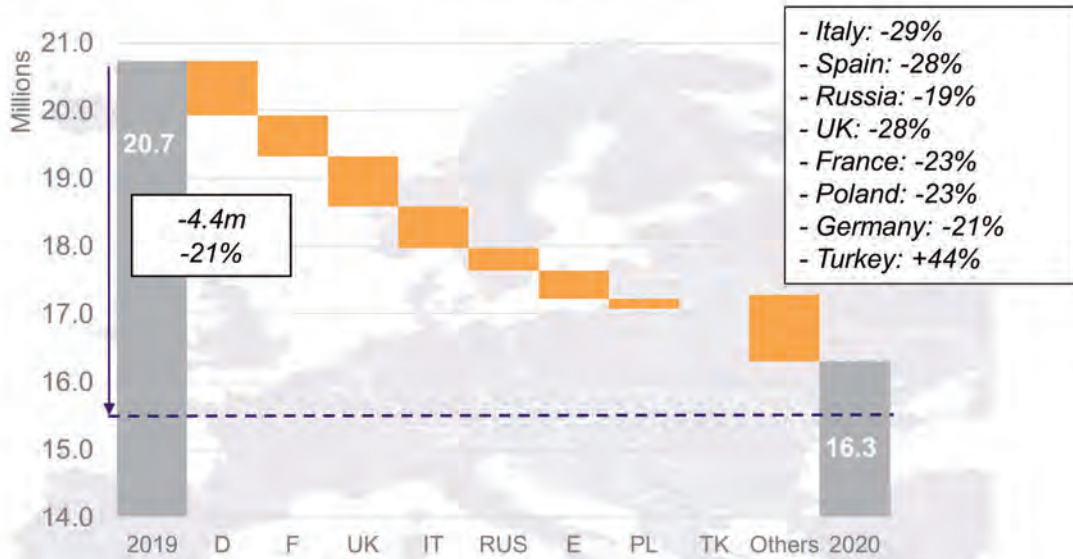


CIS



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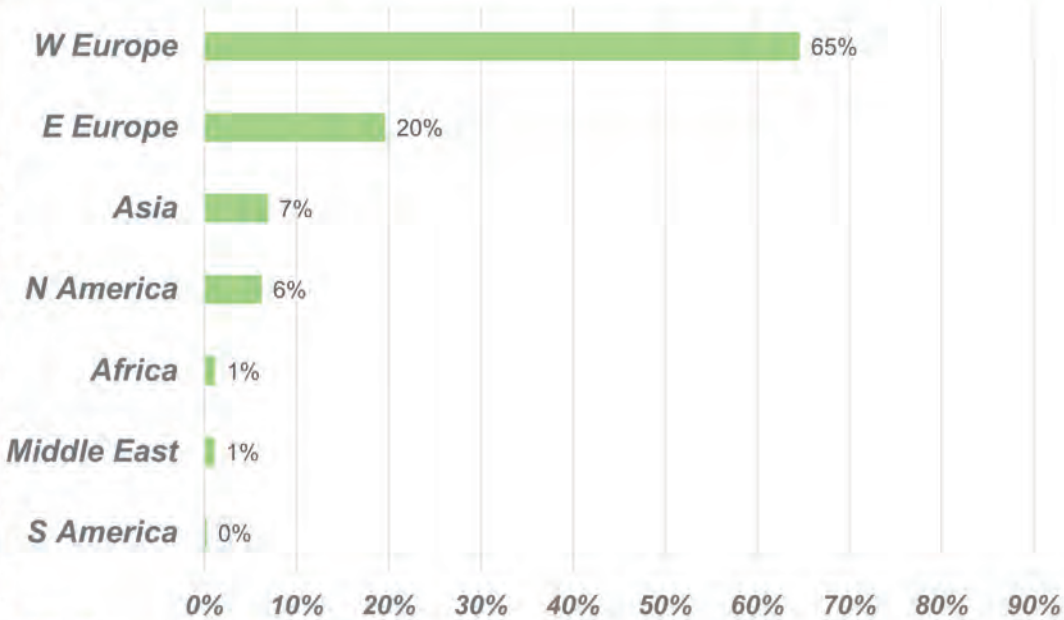
Pan European LV Sales: 2020 v 2019



Note: Negative interest rates and a low base in 2019 are behind the strong YoY growth in Turkey

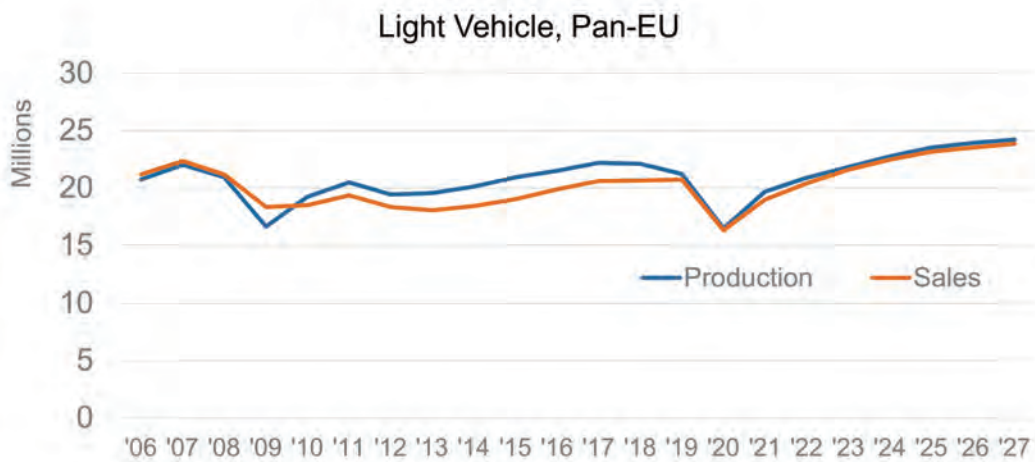
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Pan-European LV Production 2020 by destination



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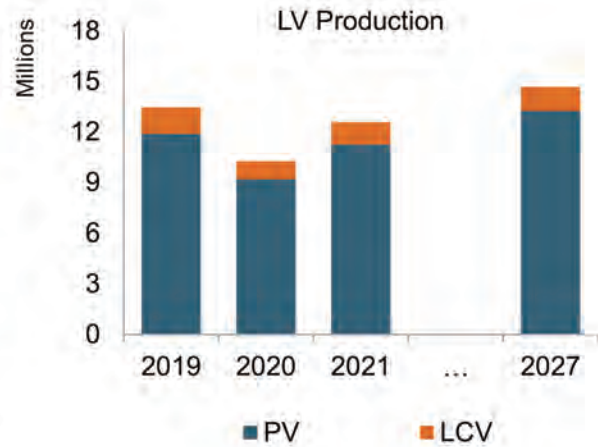
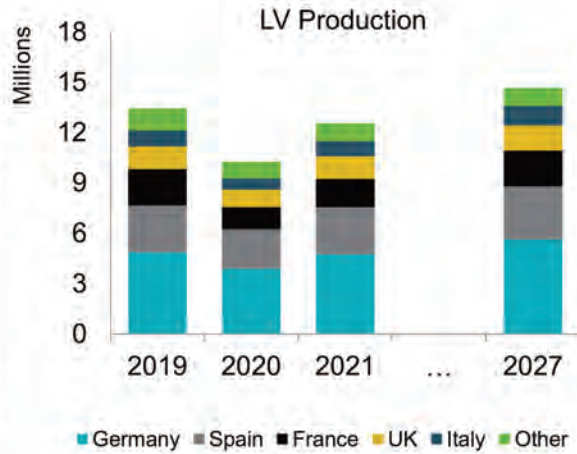
Pan-European Recovery



Sales = Total LV sales including imports

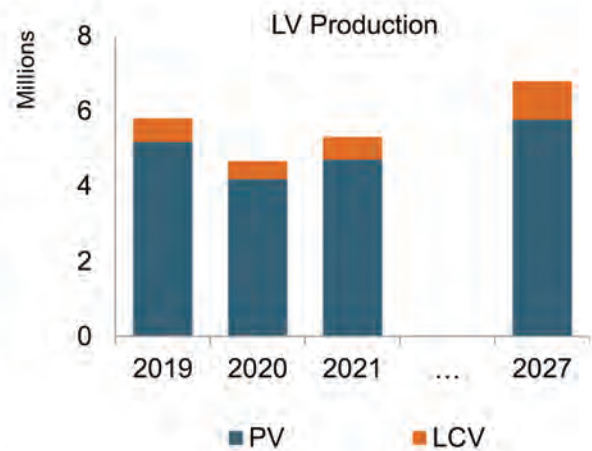
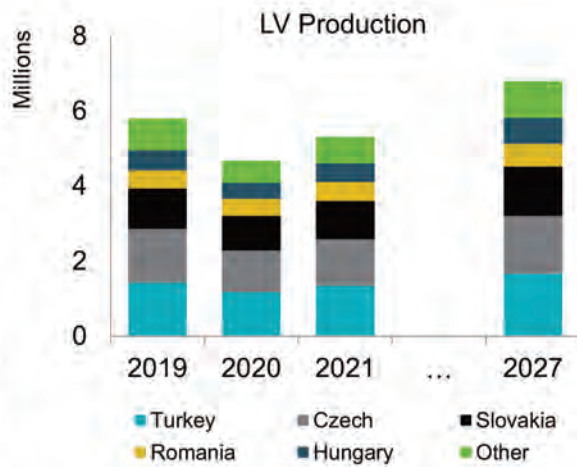
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Western Europe production outlook



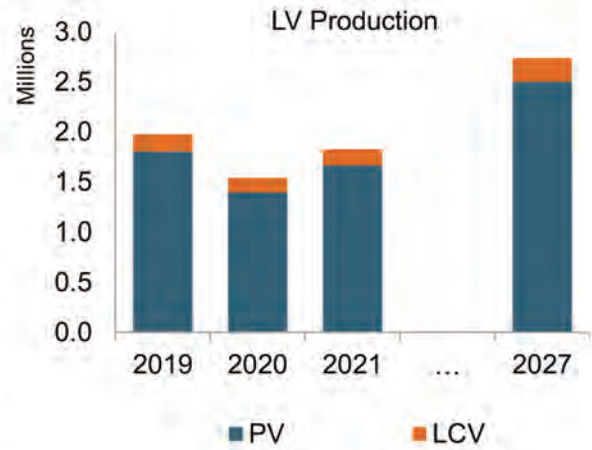
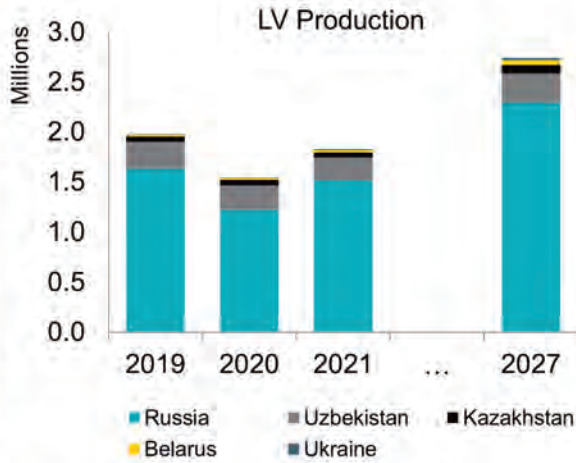
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Eastern Europe production outlook



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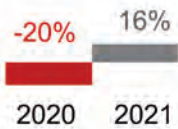
CIS production outlook



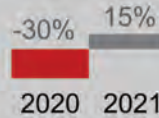
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North America production: Country/Sub-region outlook

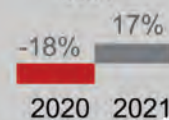
North America Production



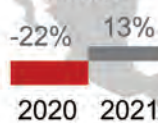
Canada



USA



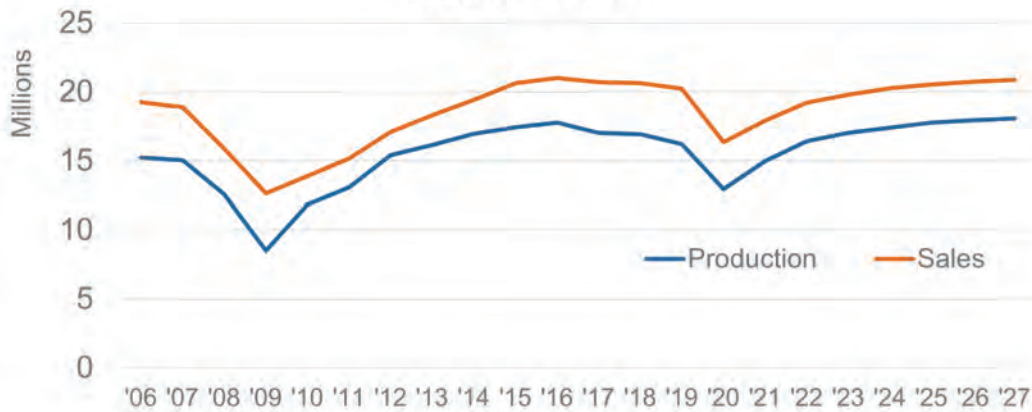
Mexico



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North America: Recovery

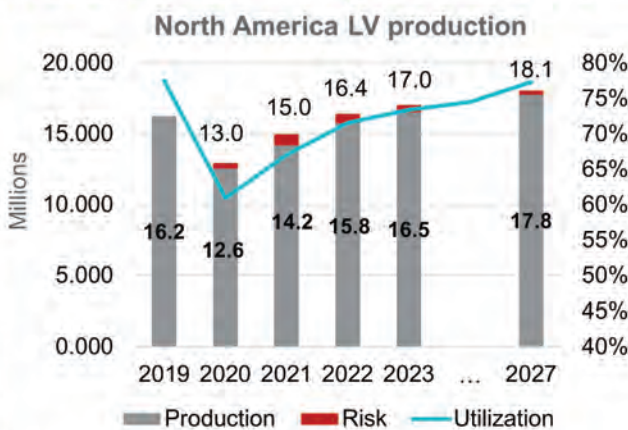
Light Vehicle, NA



Sales = Total LV sales including imports

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North American production snapshot

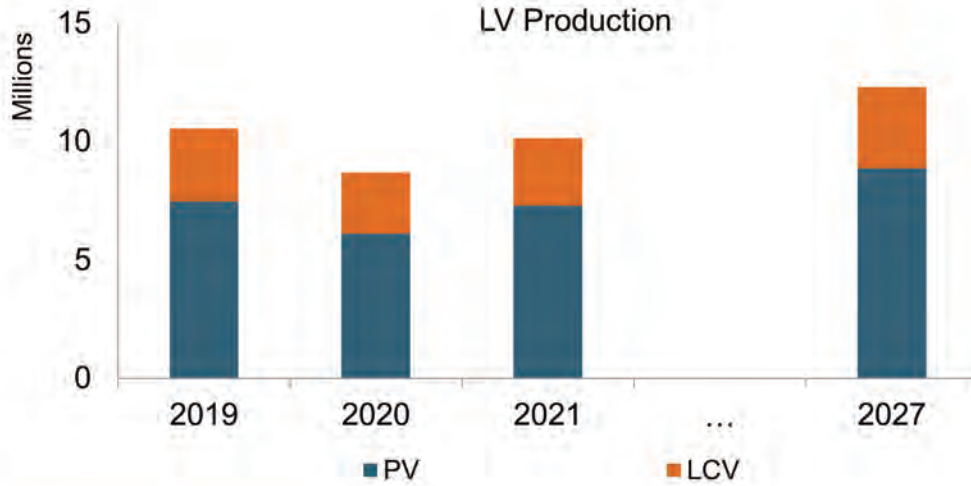


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- Base case volume down 20%, with utilization at just 61% in 2020 returning to 73% by 2023. Sustained "normal" output not expected until 2022.
- Inventory remains extremely low at 2.6mn units, 29% lower than July 2019.
- No significant additional delays in upcoming launches.
- Risks – Timing of increased inventory may not match demand causing imbalance. Additional outbreak still a risk.

Source: LMC Automotive

USA production outlook



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US Sales recovery track has improved!

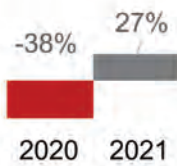


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Source: LMC Automotive

South America production: Country/Sub-region outlook

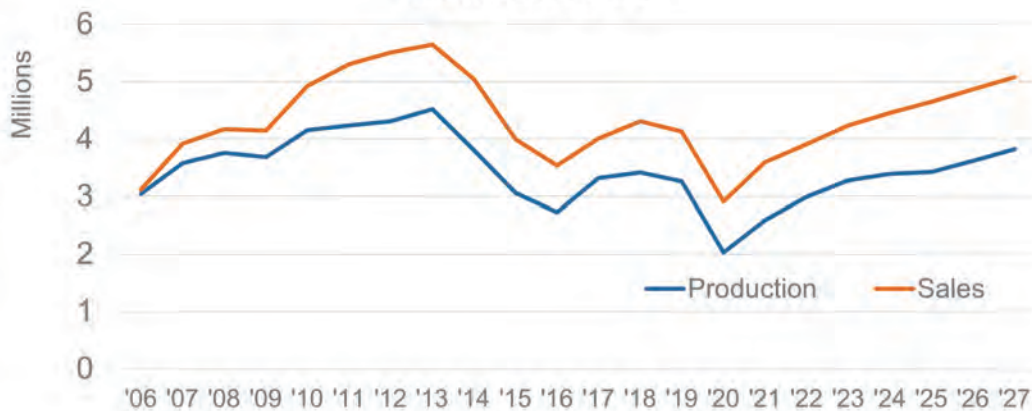
South America Production



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South America: Recovery

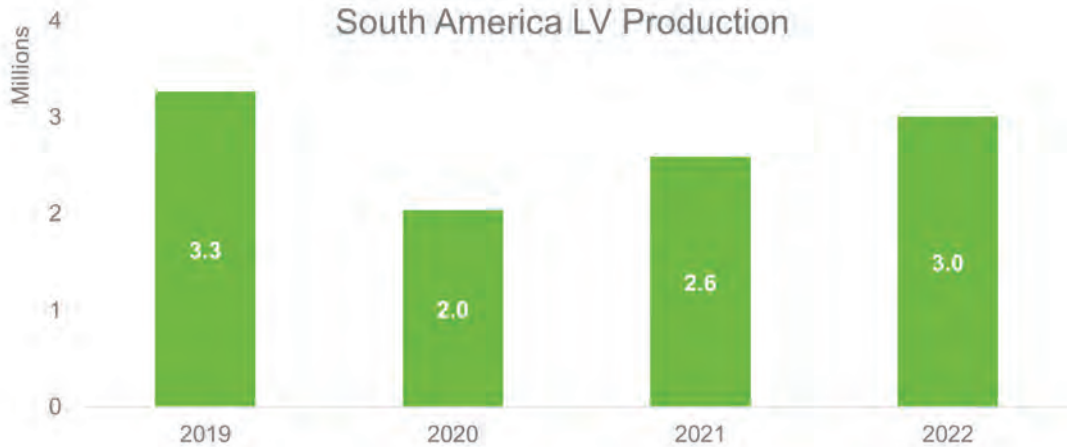
Light Vehicle, SA



Sales = Total LV sales including imports

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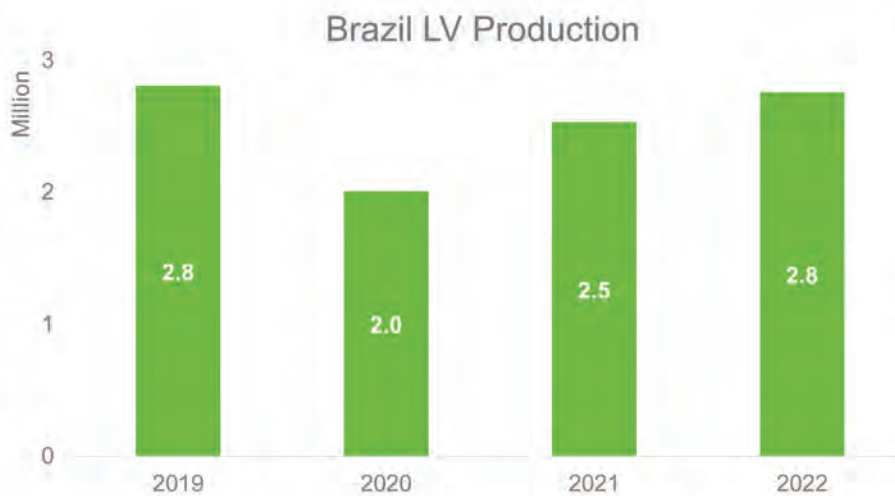
South America production outlook



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Fonte: LMC Automotive

Dependent on local sales, Brazil production set to fall by 29%

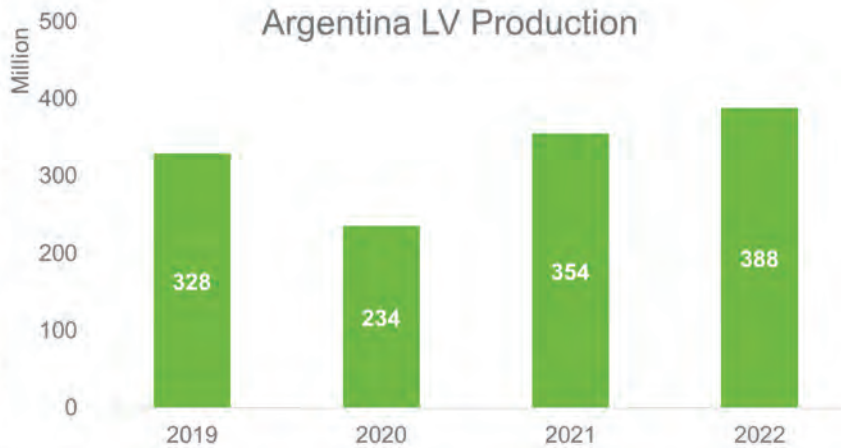


- Toyota had the worst performance in H1 2020, down by 66%. BMW build fell the least (-12%)
- Except for Iracemapolis, all factories are back up and running

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Source: LMC Automotive

Argentina build to fall at the same rate as Brazil



- Output of 234k units in 2020 represents a 29% decline in Argentina, in line with Brazil
- Transfer of the Peugeot 208 and end of Honda production do not really impact 2020 output

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Fonte: LMC Automotive

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Thank you

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Indian Auto Component Industry: Setting in The New Normal

By

F R O S T & S U L L I V A N

PTABLE OF CONTENTS

- Global Automotive and Auto Component Industry — Short-term Outlook
- Imperatives for the Success and Growth of the Global Automotive Market
- Indian Automotive Industry Outlook
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- Localisation of Components
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- Digitisation of the Indian Automotive Market
- Conclusions and Opportunities for the Indian Automotive Industry

Global Automotive and Auto Component Industry — Short-term Outlook

The COVID-19 pandemic is expected to have an adverse effect on global automotive sales in 2020, reducing by more than 14% to an estimated 77.4 million units.

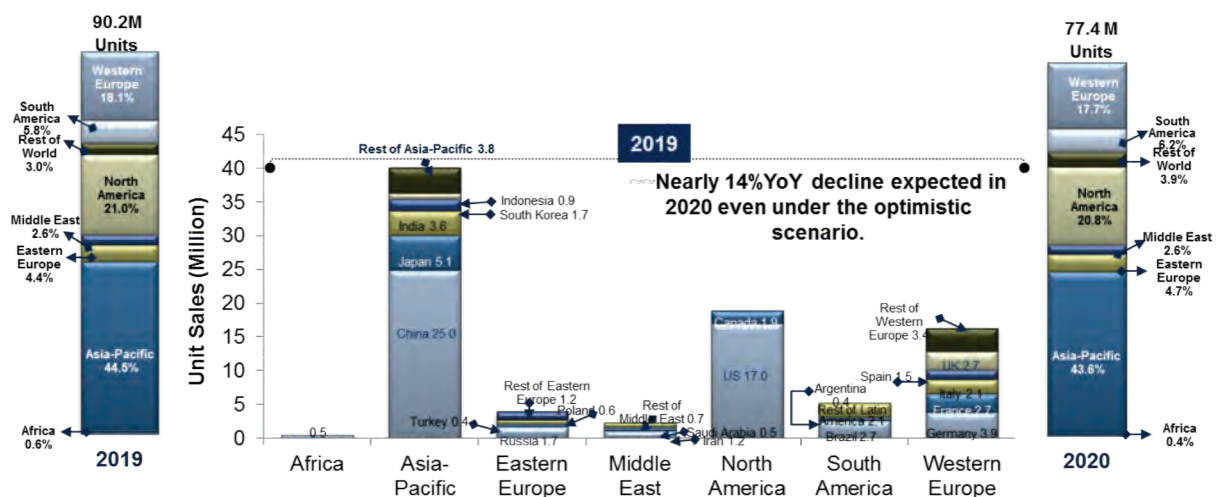
COVID-19 will Catalyse a Decline in LV Sales

Light vehicle (LV) sales in China, the US, and Western Europe (primarily the UK, Spain, Germany, France, and Italy) were hardest hit by the COVID-19 outbreak in the first quarter of 2020. A mild recovery can be expected in the second half of the year, assuming a vaccine for the virus is found and the situation improves. Overall, global sales are expected to decline by over 12 million units in 2020 as compared to 2019.

Global LV Sales by Region in 2019 and 2020—Snapshot

The pandemic has had the strongest impact on LV sales in China, the US, and Western Europe (the UK, Spain, Germany, France, and Italy). Combined sales are projected to decrease by over 9 million units in 2020.

Automotive Industry Outlook: LV Sales, Global*, 2019 and 2020



Focus on BEVs

Most European OEMs are likely to reduce the number of plug-in hybrid electric vehicle (PHEV) models and introduce battery electric vehicle (BEV) models into their product lines. European OEMs are revisiting their product mix in order to comply with emission norms and targets. Over 450 models—300 BEVs and 150 PHEVs—will be available for sale in 2020.

Rise of Lean Product Development Strategy

In 2020, Frost & Sullivan expects the increased application of reused and shared parts in new product development, a significant cut in the number of trims, engine variants, and overall build combinations (down to 100 per programme from current levels of 200). Such initiatives will be aimed at funding heavy investments into electrification.

Launch of New IoT Platforms

In 2020, mainstream OEMs will follow Tesla’s lead in terms of launching new Internet of Things (IoT) platforms. For instance, VW will launch its new IoT platform on the ID.3. This platform will provide advanced connected car services like We Upgrade, which offers lighting and cruise control as well as connected features such as Wi-Fi hotspot and voice control.

Top Trends for the Automotive Industry in 2020



Source: Frost & Sullivan

Imperatives for the Success and Growth of the Global Automotive Market

- Automotive sales were negatively impacted in the first quarter of 2020. In the short term, automakers and suppliers will need to safeguard their capital reserves in order to deal with pandemic-related disruptions. Once restrictions ease, greater emphasis will need to be placed on maximising returns on investment (ROI) on existing products.
- Companies should look at partnership strategies to share the cost burden of long-term technology R&D. This will be a safety measure to preserve their balance sheets. Vital infrastructure located in pandemic hotspots should be reorganised and relocated as part of medium- to long-term strategies to future-proof supply chains against disruptions like the COVID breakout.
- As automakers embark on building their cloud capabilities, collaborations with cloud vendors are expected to increase. In this context, it is imperative that the right vendor is chosen, corresponding to specific service requirements. These could range from domain-specific needs to data storage and processing requirements.
- As digitisation disrupts the automotive aftermarket space, traditional aftermarket players should evolve to adopt innovative digital business models and solutions to sell spare parts. They should offer vehicle maintenance services that impart greater customer convenience.

Indian Automotive Industry Outlook

Today, India's automotive industry contributes around 7.1% and the auto components industry about 2.3%, respectively, to the country's GDP. The total automotive industry generates almost US \$104 billion (₹ 7,825 billion) and, together with the US \$57 billion (₹ 4,288 billion) auto component industry, provides employment to between 38 – 40 million people.

A major employment generator and FDI earner, the automotive industry has played an instrumental role in shaping the country's economy. Today, India is the 5th largest car manufacturer, 7th largest commercial vehicle manufacturer and one of the largest two-wheeler manufacturers in the world.

However, consumption has slowed down over the past year due to multiple factors such as policy resets, increased insurance prices, the higher cost of ownership, Lok Sabha elections, and a tight job market. Collectively, these have impacted consumer demand sentiment across the country. During FY 2019, auto sales slumped to 5% from 14% in the previous year. Over and above this, the decision to temporarily halt production from mid-March caused the automotive industry to suffer an estimated production loss of 800,000 to 1,000,000 units in March alone. In revenue terms, every day of production shutdown cost the industry a staggering US \$2 billion (₹ 150 billion). Not only did the lockdown leave companies incapable of generating revenue, it left them bleeding money on fixed expenses, while completely skewing balance sheets for all industry stakeholders.

Meanwhile, the need to comply with new BS-VI emission norms had, prior to COVID-19, triggered an increase in vehicle prices. In the current environment, however, OEMs could be forced to reverse this price hike, reducing the price of BS-VI compliant vehicles to boost demand. Defaults by Infrastructure Leasing & Financial Services (IL&FS) and its group firms has led to a crunch in the non-banking financial company (NBFC) space, prompting banks to be cautious with lending. This could potentially create a huge bottleneck as most vehicles in the country are purchased on loans.

Impact of COVID-19 on the Indian Automotive Industry

'Stay at home' restrictions and economic uncertainty are likely to cause customers to limit mobility and defer purchase decisions.

Reduced consumer traffic at physical showrooms: A drop of almost 70-80% in consumer traffic at physical showrooms due to social distancing, economic uncertainty and overall negative sentiment is expected to bring the demand for car sales to a standstill in the short-term. Consequently, new car sales are expected to drop by up to 24% in 2020.

Weakening demand for vehicle servicing and spare parts: A 3/4th drop in consumer walk-ins for periodic maintenance is predicted. A 50% reduction in parts enquiries was recorded in March 2020. Fear of infection will motivate consumers to postpone periodic maintenance of their vehicles. Accordingly, an up to 16% drop in revenues from vehicle servicing and parts is anticipated in 2020.

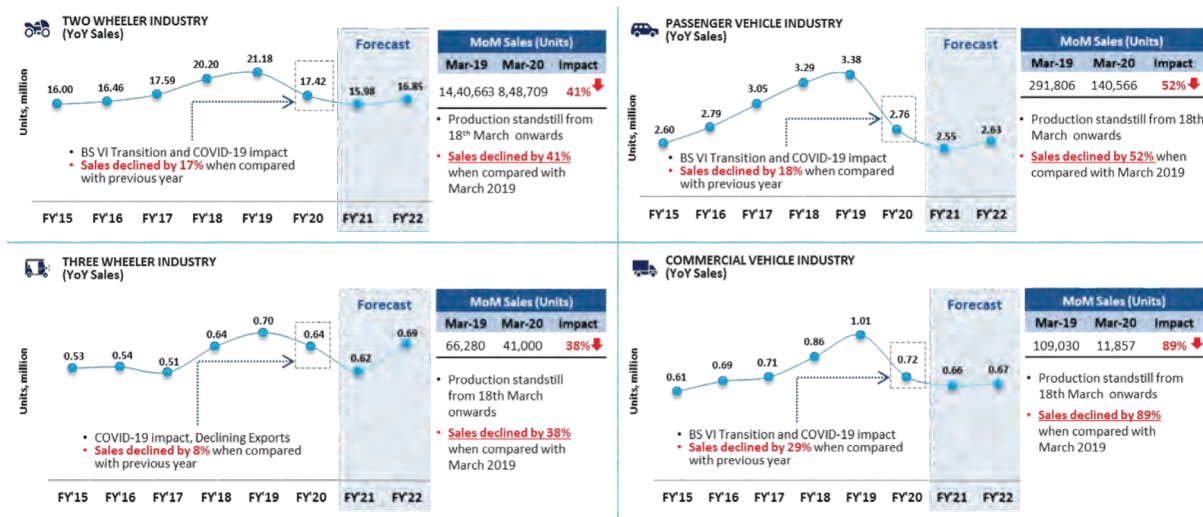
Travel restrictions affecting short-term car rentals: More than 60% of the revenue generated by short-term car rentals comes from leisure and business tourists. Travel restrictions and general apprehensions about being out in public have limited the demand for short-term car rentals.

General public reluctant to use shared mobility services: The Government has been limiting passenger travel in metro carriages. Taxi use is largely restricted to emergency rides and the fear of being exposed to the virus in a shared mobility mode has meant that the use of ride-hailing, car sharing, metro and bus services have all dropped.

Sales volumes in India likely set back by 4 years; recovery not expected in FY 21 and FY 22

The current slowdown in India's economy has been exacerbated by COVID-19, severely impacting domestic sales. Recovery of the automotive industry is only anticipated from 2022.

Impact of Vehicle Sales in India, FY 15 to FY 22



FY: Financial Year (1st April to 31st March)

While the industry is projected to pick up from 2022 onwards, a troubling concern is that in the immediate aftermath of relaxed restrictions, vehicle purchases will be a low priority for many people. In a depressed business climate where revenues have shrunk and salary cuts have become routine, both companies and individuals will be cautious about spending on big ticket items, including cars.

India Automotive Component Market Outlook

The Indian auto component market is one of the largest in the world. In FY 2019, the market, including OE supply, aftermarket and exports generated estimated revenues of ₹519,590 crores. Overall, it contributes 2.3% to the country's GDP and accounts for a 4% share of India's exports business as well. However, OE supply accounts for 67% of the auto components business, the aftermarket for 13%, with exports making up the remainder.

The Indian auto components market grew at 15% in FY 19 as compared to the previous fiscal. The market employs close to 500,000 people around the country and is a major employment

generator. The Indian automotive aftermarket alone is worth INR 67,491 crores (excluding the lubricant and tyre markets). The aftermarket’s revenue stream is generated by various sources like OE spares, the independent aftermarket and also spurious parts/ unorganised spares.

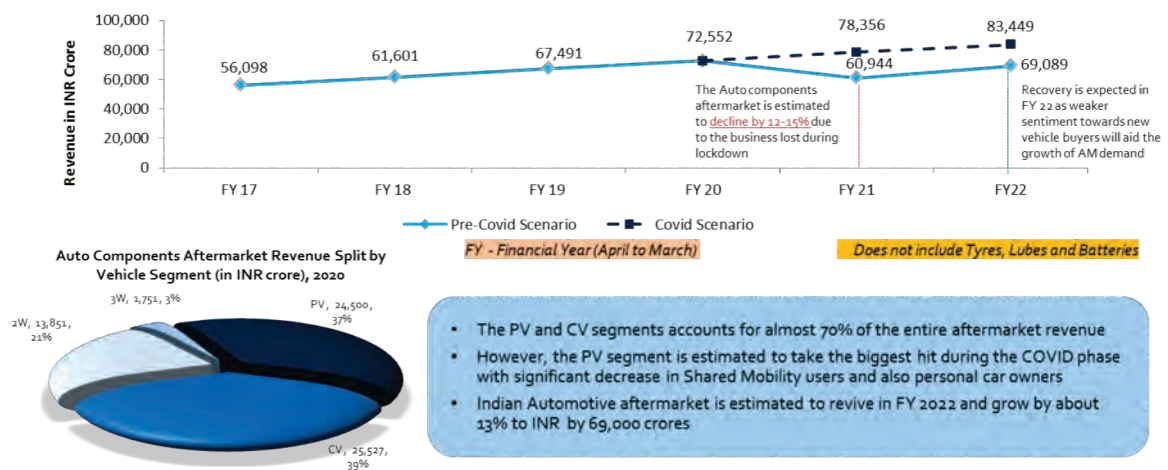
The automotive aftermarket in India services multiple vehicle segments. To succeed in the market, therefore, participants have to cater for a number of replacement parts in multiple vehicle segments, while also covering different vehicle models under each segment.

The Indian auto components aftermarket has been steadily growing at a compound annual growth rate (CAGR) of 13% over the past five years. However, the market - estimated at INR 67,491 crores - is expected to go through a difficult phase over the current fiscal due to operations having been halted as a result of the COVID-19 pandemic. This could possibly cause a decline in the market. The market is expected to grow steadily once normal operations resume, reaching about INR 75,000 crores by 2023.

Picture 1

Auto Components Industry Forecast

Auto Component Aftermarket Potential in India, FY 17 - FY 22 (in INR crore)



Source: ACMA, Frost & Sullivan

Suspension, braking, transmission, steering and engine components account for almost 70% of market revenues. Apart from this, electrical components and heating, ventilation and air conditioning (HVAC) components contribute about 20% of the market. HVAC components, in particular, have shorter replacement intervals due to the hot climatic conditions in most parts of the country resulting in continuous replacement demand from consumers in the passenger car market .

The key trends shaping the aftermarket in India include:

- Despite marginal growth in the automotive industry over the last couple of years, vehicle parc continues to remain substantial owing to the longer life cycle of vehicles. This trend is driving growth in the aftermarket.
- Increasing customer awareness and regular maintenance are contributing to growing demand in the aftermarket.
- The transition from BS-IV to BS-VI involves a number of technological upgrades, including OBD systems. This will also stimulate the growth of multi-branded showrooms that offer diligent diagnostic servicing, triggering increased customer preference for OE spares.

The life cycle of automobiles is very high in India across all vehicle segments; vehicles are used to their maximum potential before they are finally scrapped. Post-warranty customer retention at dealerships is very minimal for two-wheelers and, to an extent, for four- wheelers. This huge market is addressed by the independent aftermarket.

The Indian aftermarket is transitioning to BS-VI which requires the majority of motorcycles to be FI. This means that components used in either fuel systems or replacement parts, like spark plugs, for non-compliant models, may become obsolete once the needs of the existing vehicle parc are addressed.

Localisation of Components

The Government of India's emphasis on "Make in India", coupled with the global automotive industry's quest for alternatives to China-based component suppliers, is creating a huge opportunity for Indian auto component manufacturers. To maximise on this growth potential, Indian auto component manufacturers need to ramp up the production of quality components, both for export from India to other foreign destinations as well as to meet domestic demand and reduce import dependence among local OEMs.

Although more than 90% of components in mass market cars, two-wheelers, commercial vehicles and tractors in India are locally manufactured, a substantial quantity of parts used in mid-size, premium and luxury sedans and also high-end motorcycles are imported.

Among the top parts imported by Indian OEMs include:

- Auto electronics (ECUs and sensors, among others)
- Steering gear systems
- Gear boxes, Gear parts
- Electric motor parts
- Lithium-ion batteries
- Body and frame parts of top-end models
- Premium motorcycle parts
- Spark ignition engines
- Steering wheels and columns

SOURCE:; Ministry of Commerce & Industry, Import data based on HS codes

Similarly, the major components imported in the aftermarket include:

- Touchscreen controls
- Infotainment systems and parts
- Bluetooth connectivity
- Digital instrument clusters
- Telematics
- Climate control
- Daytime running lights
- LED lamps

The reasons most often cited by OEMs for importing components include:

- Lack of technology (electronics)
- Lack of cost competitiveness (electronics)
- Product quality – in terms of product finishing and quality of raw material used
- Lack of R&D and product development Initiatives by many Indian component manufacturers

According to the World Bank¹, only 47% of auto firms in India have internationally recognised quality certifications, compared to 83% in China.

Indian auto component manufacturers need to address OEM concerns in order to achieve higher levels of localisation. This will also enable them to build their export portfolio in the long run.

Emergence of E-commerce

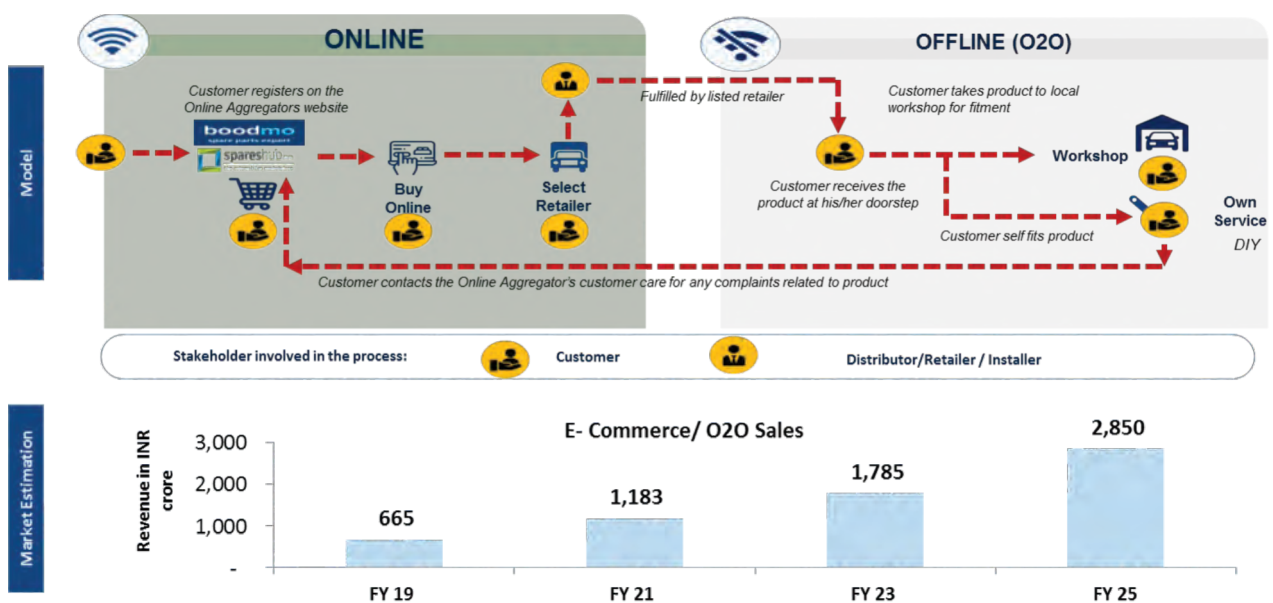
The e-commerce market for auto components is slowly gaining traction in India due to an expanding Do-it-Yourself (DIY) customer base. According to a Frost & Sullivan study, it is currently estimated to be around INR 689 crores and is expected to reach INR 2,000 crores by 2025. As traditional retail shops and garages grapple with reduced footfalls due to fears over the spread of the coronavirus, e-commerce with its contactless transactions is picking up momentum.

The current penetration of the e-commerce aftermarket as compared to the total Indian auto-component aftermarket is only about 1%. However, penetration levels are expected to grow steadily over the next few years with the emergence of players like Boodmo and SparesHub.

¹ <https://blogs.worldbank.org/psd/what-s-holding-back-india-s-automotive-sector>

E-commerce Model in the Auto Components Industry – India

The e-commerce market for auto components is expected to surge in the near future due to the likelihood of ongoing social distancing practices being followed even after the pandemic eases. Such trends will be reinforced by the convenience and variety of choice offered in e-commerce transactions.



Source: Frost & Sullivan

Digitisation of the Indian Automotive Market

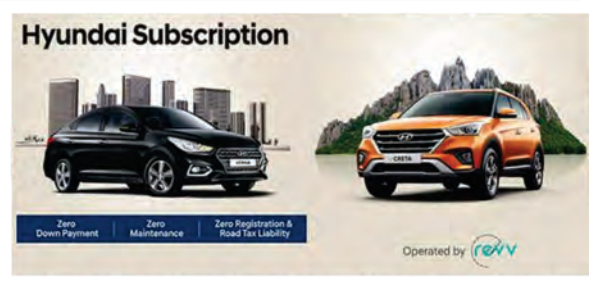
The future of automotive retailing in India will be digital, with the market moving from a transactional model towards an experience-based approach that leverages digital technology. Advanced technologies are incorporating the online user experience and its digital elements into the physical retail experience. Until recently, most OEMs and dealers viewed digitisation as a 'Plan B', a 'Nice to Have' tool. As of April 2020, however, it has become the ticket to survival, creating new dimensions of engagement.

Vehicle Subscription and DRT to drive India’s New Mobility Market

India’s new mobility market will grow to an estimated \$ 90 billion by 2030, with revenues from the taxi cluster alone expected to exceed \$61 billion.



OEM	Existing Subscription Service	Future Plans	Partnerships
MAHINDRA	<input checked="" type="checkbox"/>		2GO, reVV
NISSAN	<input checked="" type="checkbox"/>		
TOYOTA		<input checked="" type="checkbox"/>	dream
HYUNDAI		<input checked="" type="checkbox"/>	OLA, reVV
MAZDA		<input checked="" type="checkbox"/>	MYLES
KIA		<input checked="" type="checkbox"/>	OLA



Source: Frost & Sullivan

Digital and connectivity services will witness unprecedented growth pre and post COVID-19. Meanwhile, reduction in miles driven will impact demand for replacement of tyres and other maintenance-related parts. This will indirectly slow down aftermarket growth.

Automotive Sub-Segments	Supply Dynamics			Demand Dynamics			Market Dynamics		Impact Assessment [2020]	Recovery Assessment [2020]
	Supply Chain Disruption	R&D Investment ↓	Working Capital Pressure	Consumer Affordability ↓	Customer Demand	Fear of Contamination	Government Relief Measure	Travel Restrictions & Country Lockdown		
Shared Mobility	-n.a.-	↓	↓	↑	↓	↓	-n.a.-	↓	Red Circle	Medium
Electric Vehicles	↓	↓	↓	↓	↓	-n.a.-	↑	-n.a.-	Yellow Circle	Fast
Connectivity	↓	↑	↓	↑	↑	↑	-n.a.-	↑	Yellow Circle	Fast
Aftermarket & Vehicle Service	↓	↓	↓	↑	↑	↑	↑	↓	Yellow Circle	Medium
Vehicle Leasing	-n.a.-	-n.a.-	↓	↑	↑	↓	-n.a.-	↓	Yellow Circle	Fast
Digital Retail	-n.a.-	-n.a.-	-n.a.-	-n.a.-	↑	↑	-n.a.-	↑	Green Circle	Fast

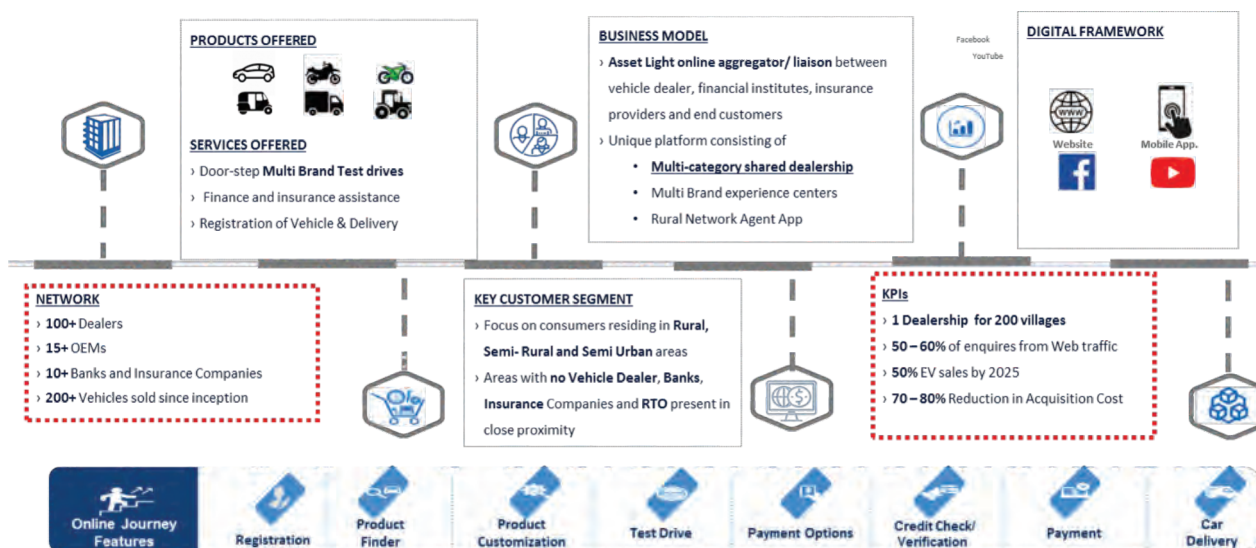
Level impact: ↓ Negative ↑ Positive | Overall impact: Red Circle Negative Impact Yellow Circle Medium Impact Green Circle Positive Impact

Source: Frost & Sullivan analysis

Digital technologies are transforming supply chains, manufacturing, connected products, retail and mobility services. Enterprises, whether in the automotive industry or elsewhere, need to become digital in their DNA and transform processes and KPIs accordingly. Digital will be a key business enabler – it will accelerate data analytics, and create new revenue models. Most importantly, it will allow for personalisation of user experiences and service offerings.

Case Study: Multi-Brand Retail for Rural India

www.Nayaqaadi.Com – Rural India’s 1st multi-utility online market place for new vehicles and electric vehicles (EVs). Was ranked among ‘2018 Top 100 Start-ups’ by the Karnataka Government.



Although conventional channels will still account for a majority of vehicle sales in 2025, complementary marketing channels and new business models are already radically changing the landscape.

Conclusions and Opportunities for the Indian Automotive Industry

The Indian automotive industry has been challenged by subdued consumer sentiment and weak retail sales. Auto sales across all segments have been slumping and manufacturers have been cutting down production.

In order to successfully navigate through this volatile environment, the Indian automotive industry will need to focus its energies on the right set of customers and business models. Technology convergence will enable industry stakeholders to develop and deliver effective digital solutions. Despite few signs of respite from ongoing lockdowns, Government authorities have allowed resumption of plant operations. OEMs should support Government initiatives aimed at promoting business continuity and supplier stability. It will also be important to facilitate the availability of critical components to meet any sudden surges in demand for service and maintenance at 3S (Sales, Service and Spares) facilities. Thus, ensuring real-time monitoring of supply to manage in-transit inventory will be key.

OEMs and component manufacturers need to work towards redesigning / revisiting supplier sourcing, product development and launches

Production	Product and R&D	Sales	Corporate
<ul style="list-style-type: none"> Freeze smaller batch lines 	<ul style="list-style-type: none"> Reduced Variants/Trims 	<ul style="list-style-type: none"> Virtual showrooms & Online customer journey Attractive credit & financing options Drive 'Certified Programs' 	<ul style="list-style-type: none"> Exceptional employee care protocols Draw extended credit lines
<ul style="list-style-type: none"> Outsource some production 	<ul style="list-style-type: none"> Shift to low-spec vehicles 		
<ul style="list-style-type: none"> White labelling/Licensing Platform Joint component sourcing & pooling 'GLocal' supply chain strategies 	<ul style="list-style-type: none"> Delayed new product launches 	<ul style="list-style-type: none"> Distinctive customer management systems. Pay freeze/redundancy, gig economy workers. New remote working technologies 	<ul style="list-style-type: none"> Target Vulnerable Co.'s (M&A)
<ul style="list-style-type: none"> Strategic uses of 3D printing 	<ul style="list-style-type: none"> Engineering insourcing 		
<ul style="list-style-type: none"> Automation interest rises 	<ul style="list-style-type: none"> Delay Technological Changes 		
	<ul style="list-style-type: none"> Truck as a Vehicle of Health services Digital platforms and connectivity 		

Furthermore, auto component manufacturers will need to focus on:

- Boosting local production to cater to OE supply and the aftermarket
- Expanding aftermarket offerings to capture value from existing vehicle parc and aftermarket exports
- Exploring opportunities in areas with growth potential like electric vehicles, connectivity, and data-enabled services and solutions
- Developing component categories that contribute more to vehicle costs in the future
- Expanding portfolios to serve adjacent industries

On their part, additional welcome measures from the Government could focus on:

- Reassessment of tax structures
- Relief on fuel price hike
- Incentive-based scrappage policy
- Rationalisation of GST
- Easy availability of credit facilities through financial institutions

As always, setting up sustainable practices and an enabling ecosystem will depend on the collaborative efforts and shared vision of OEMs, regulatory bodies and the Government.

**Auto Component Industry
Performance Review: 2019-20**

By

ACMA

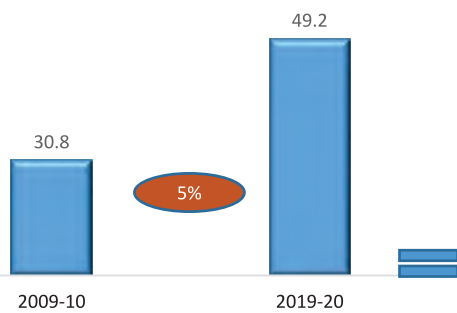


**Auto Components Industry
Performance Review - 2019-20**



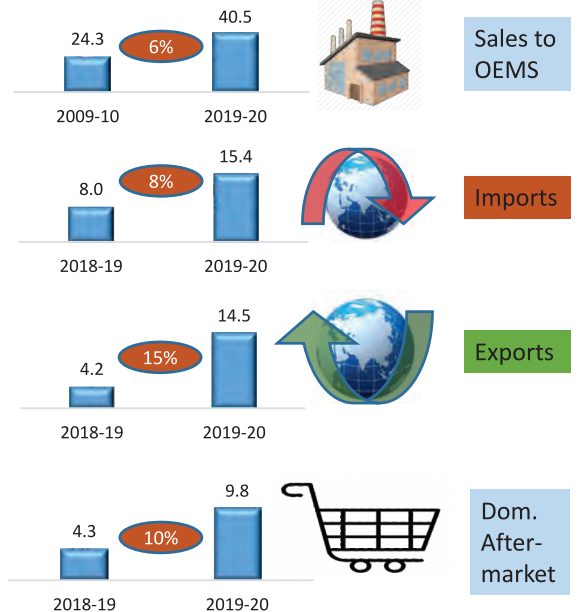
Indian Auto Component industry – A key driver of Indian economy

Industry Revenue



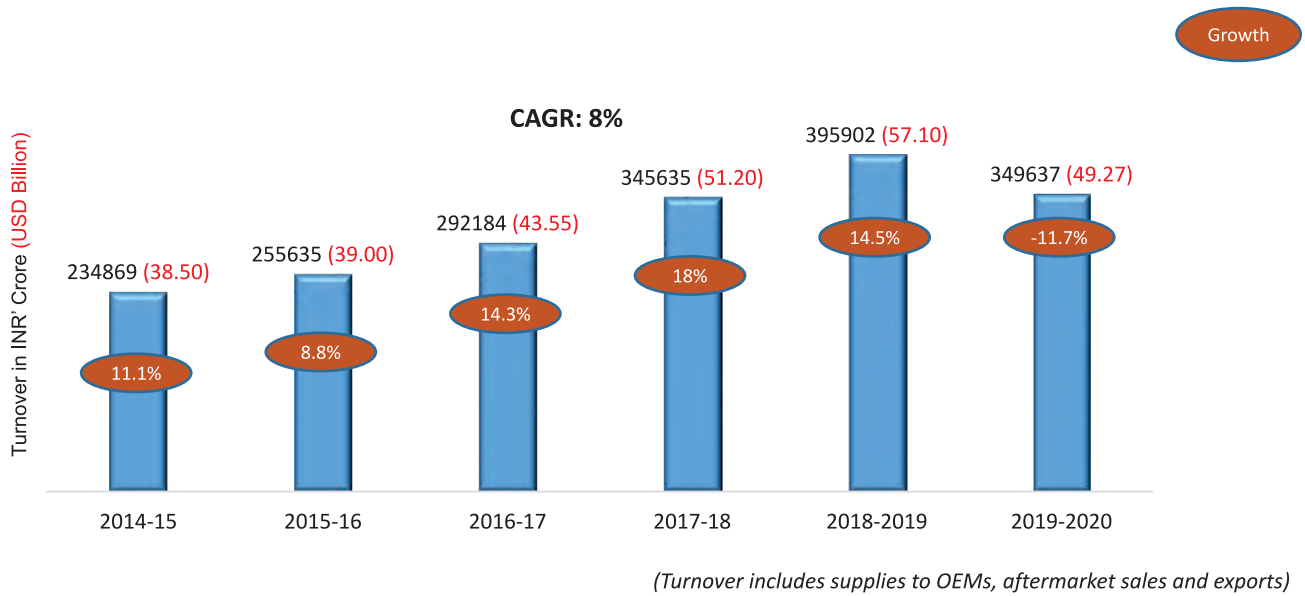
CAGR

(USD Billion)

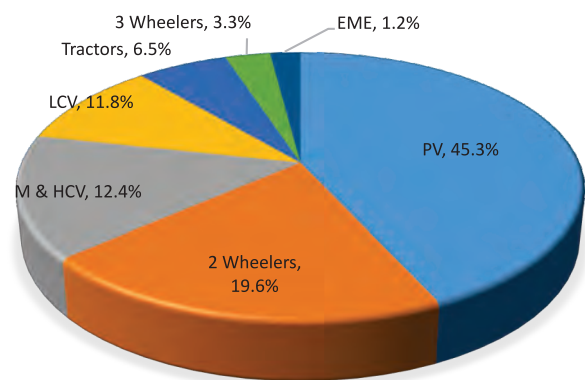
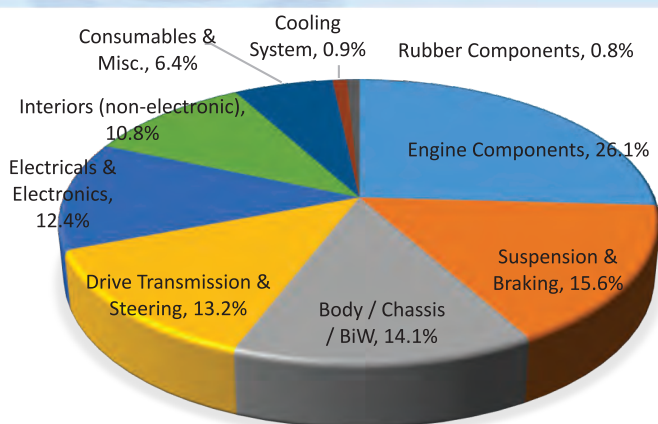


- Accounts for 2.3% of National GDP; 25% of manufacturing GDP
- 4% of exports
- Creates 50 lakh jobs
- Cost competitive; globally renowned for frugal engineering
- ~25% of exported; North America & Europe account for 60% of Exports
- India Share's in Global demand increased from 0.6% to 1.3% in last 10 years

Auto Components Industry Performance: FY19-20



Product Range and Auto Components Supply to OEMs

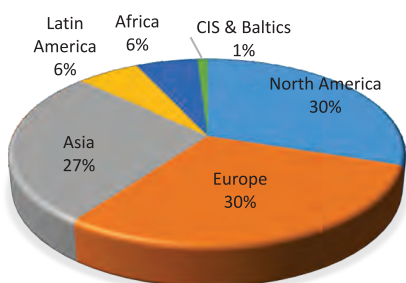
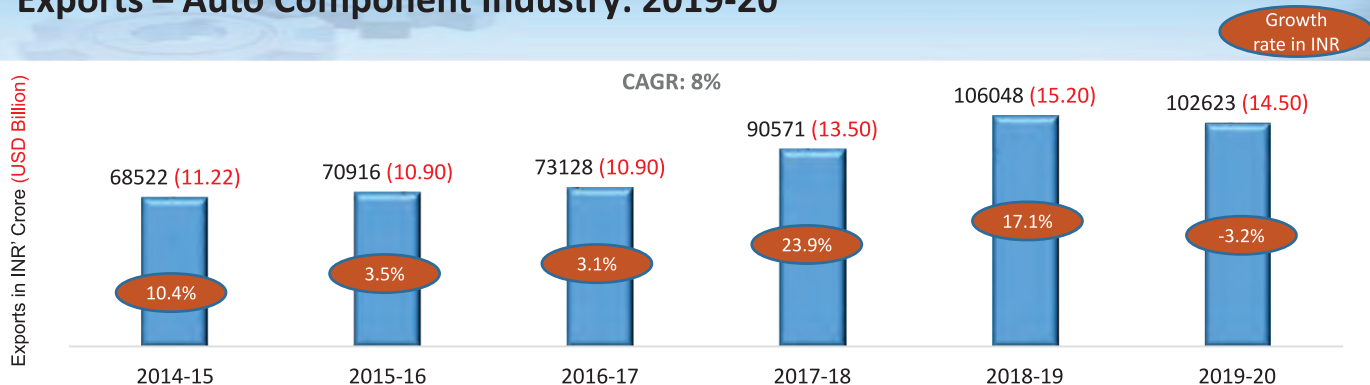


The produces high quality, price competitive Components

- PV Passenger Cars, Utility Vehicles, Vans
- 2Wh Scooters, Motorcycles, Mopeds
- LCV All Commercial Vehicles < 7.5 T
- M & HCVs All Commercial Vehicles > 7.5 T
- 3Wh Goods and Passenger 3 wheelers
- Tractors Tractors
- EME Earth Moving Equipment

*OEMs consumption includes locally produced Components and Imports

Exports – Auto Component Industry: 2019-20

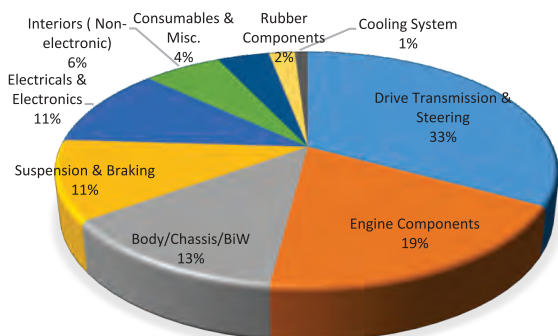
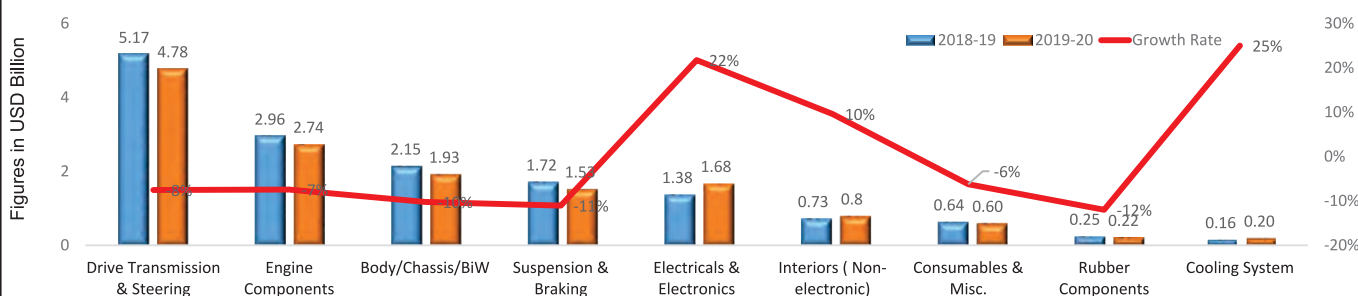


Export Destinations: Top 10 Countries in %

USA	26%	Brazil	4%
Germany	7%	Italy	3%
Turkey	4%	Bangladesh	3%
Thailand	4%	Mexico	3%
UK	4%	UAE	3%

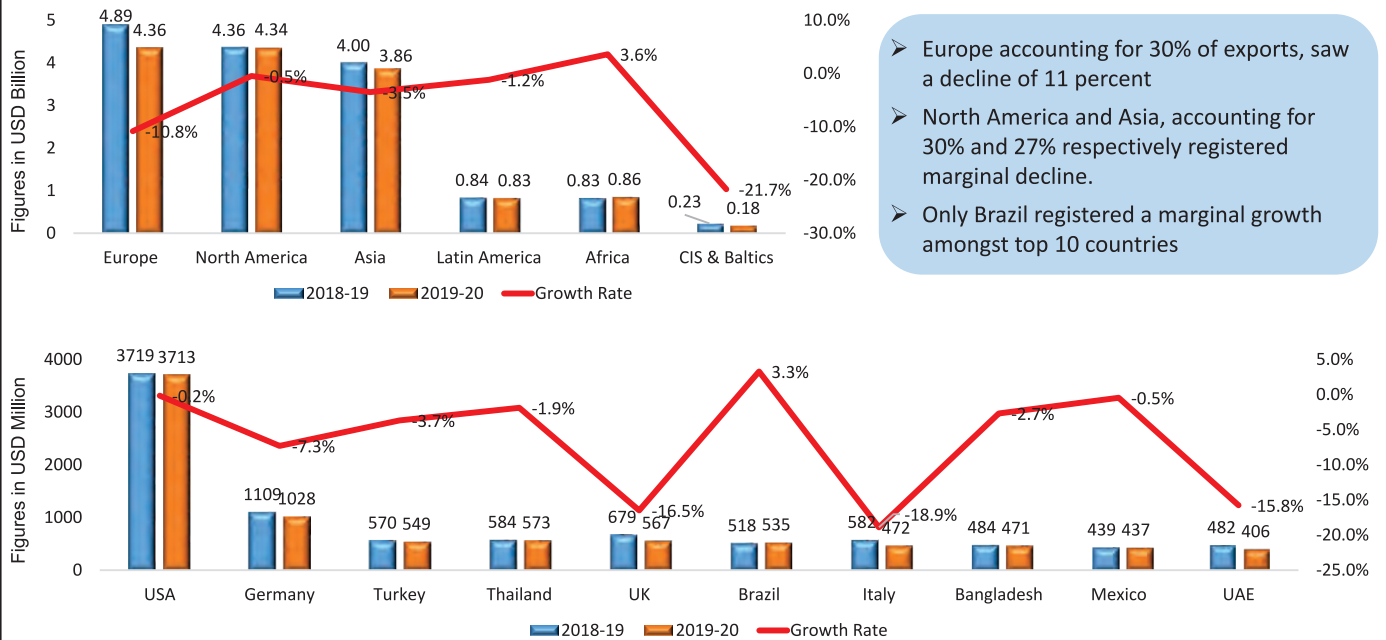
61%

Segmentation by Product type: Exports



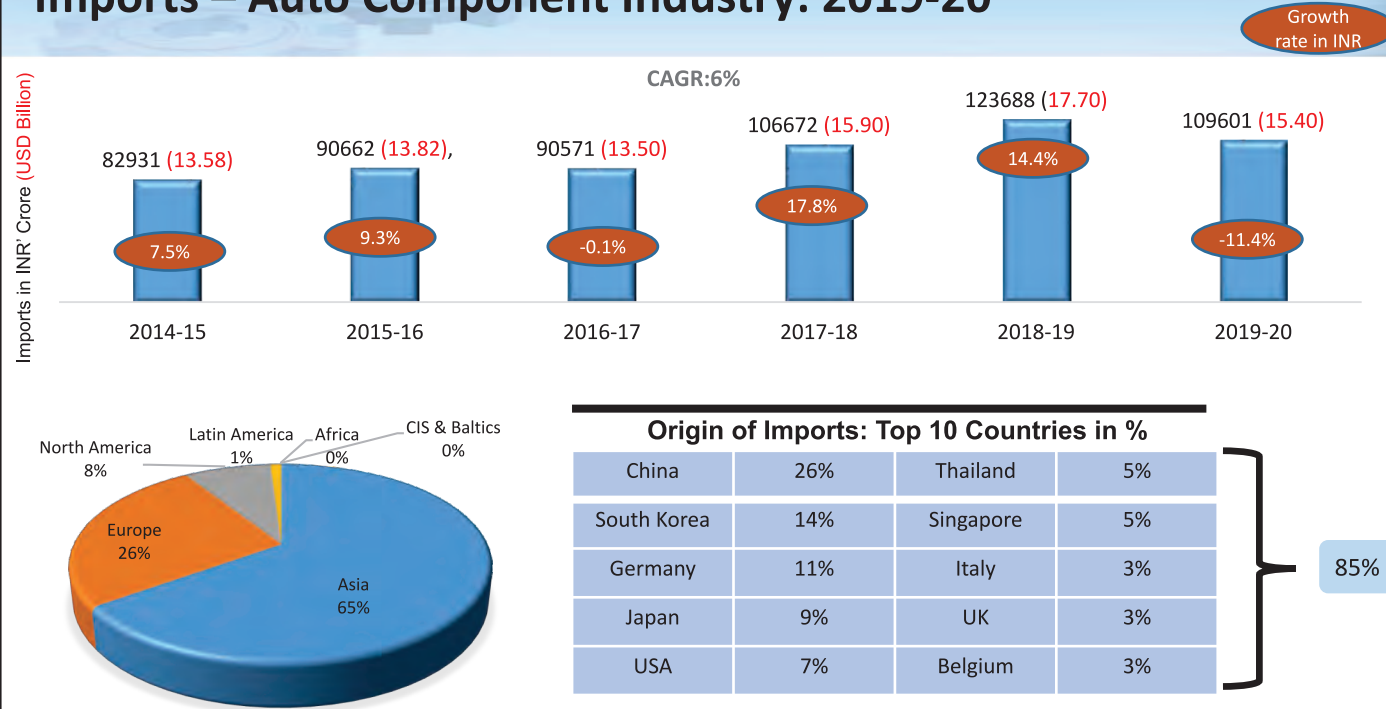
- Engine, Transmission and Steering parts continue to account for more than half of all components (52%) exports from India.
- Electricals & Electronics registered 22% growth

Region wise and country wise exports

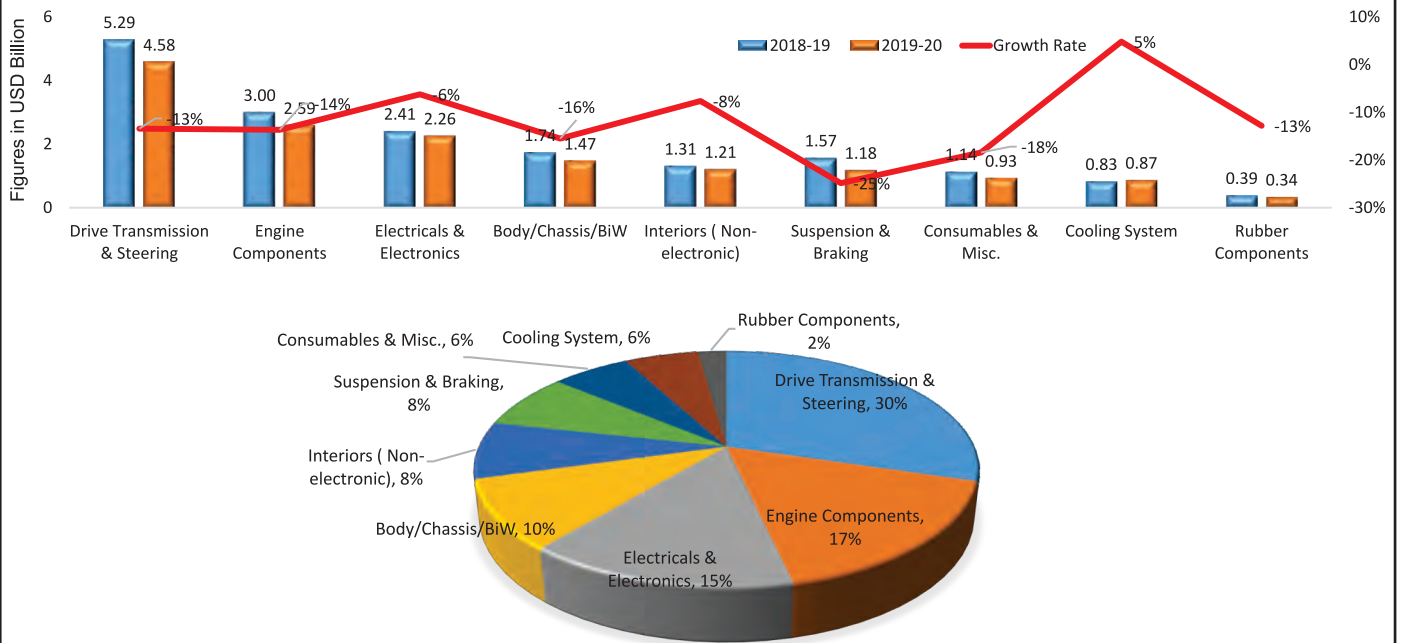


- Europe accounting for 30% of exports, saw a decline of 11 percent
- North America and Asia, accounting for 30% and 27% respectively registered marginal decline.
- Only Brazil registered a marginal growth amongst top 10 countries

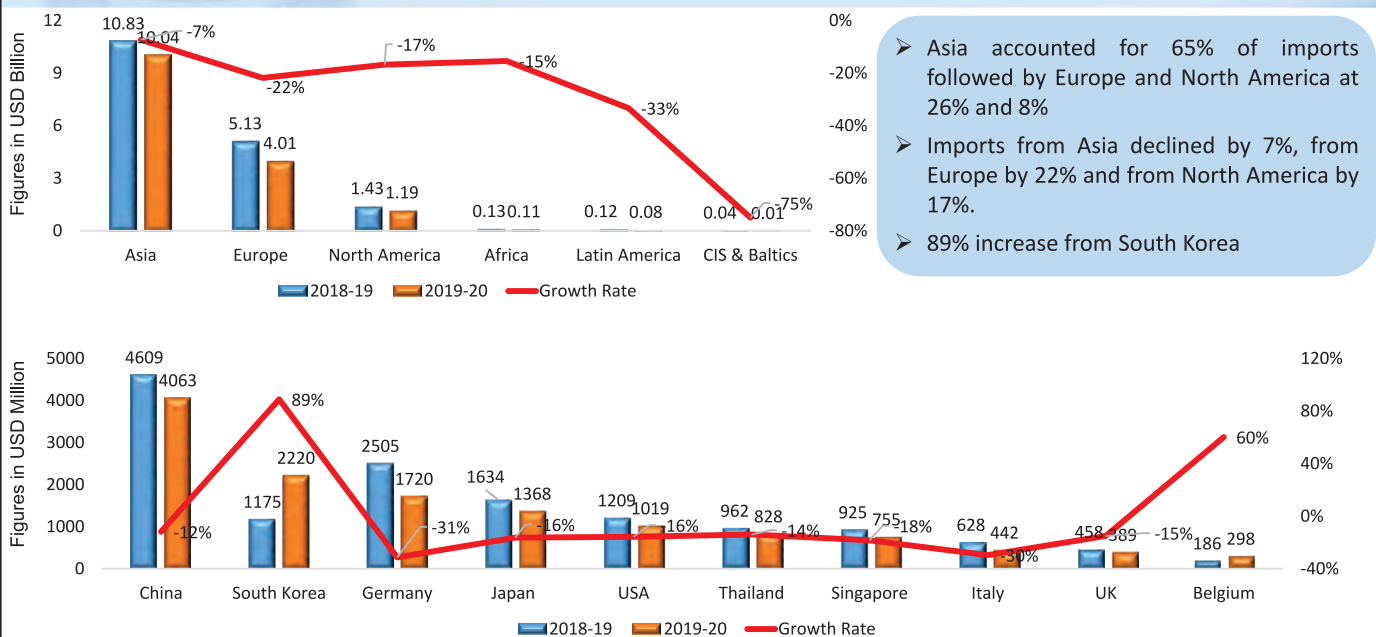
Imports – Auto Component Industry: 2019-20



Segmentation by Product type: Imports

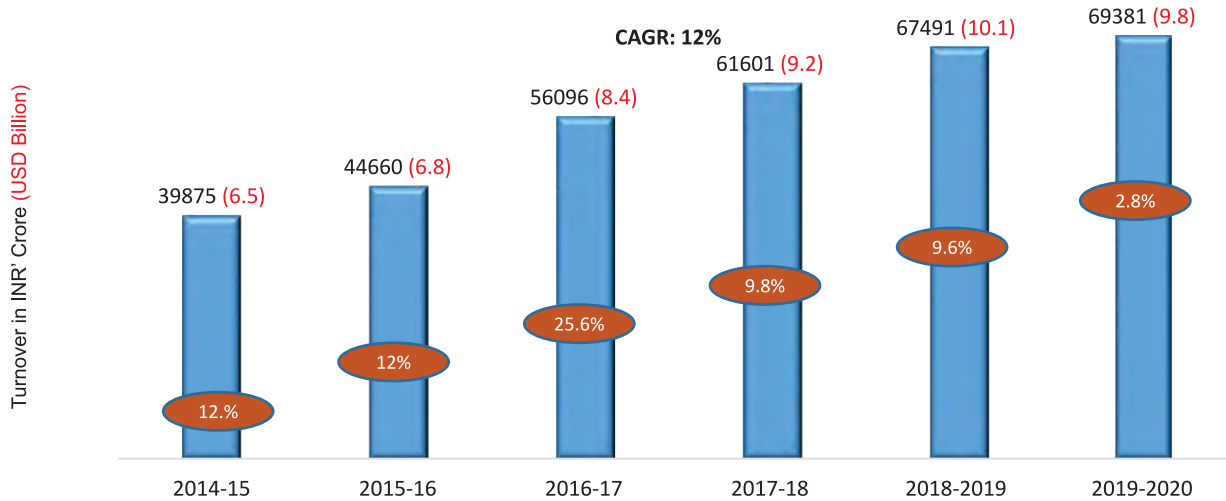


Region wise and country wise Imports

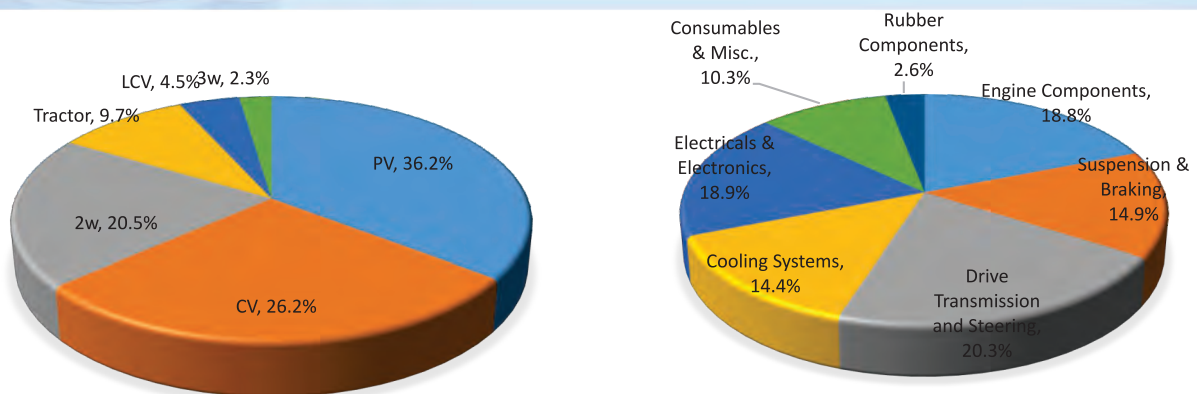


Indian Automotive Aftermarket: 2019-20

Growth rate in INR



Aftermarket Revenue: Segmentation by product category



Aftermarket by Vehicle Segments

Aftermarket by Components

Thank You

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Overview of Fiscal Incentives in India for Automotive Sector

By





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Overview of Fiscal Incentives in India for Automotive Sector

While the general aim of investment incentives is to influence the locational decisions of investors and thus to reap the positive effects of investments by way of economic development of the State. Investment incentives may also be provided to investment in industries which help in substituting imports and accelerate exports. For example, investment incentives may induce grants to indigenous companies for investing in advanced technologies or to subsidies foreign firms investing in India.

The Industrial development policies also aims to establish state-of-the-art infrastructure, promote manufacturing, enhance inclusivity, foster innovation and create employment opportunities across sectors. It also promotes higher capital formation, raises wage incomes and absorbs surplus workforce to bring about equitable development. Therefore, the State Governments in India are according top priority to industrial growth as means to mitigate poverty and unemployment.

In this backdrop, the investors across states have been offered various **fiscal incentives** relating to *Land* (for instance concessional land, stamp duty waiver, single window clearance, other concessions on registration charges, property taxes etc.), *Expenditure* (for instance electricity duty exemption, rebates in tariff of electricity, water, gas etc.) and *Capital investment & employment* (such as VAT/ CST linked subsidies/ soft loan/ exemption, Subsidies linked to social security contributions [PF/ ESI], Special incentive package for Mega Projects etc) and **non-fiscal incentives** such as ensuring availability of land, water & power, common effluent treatment plant for industrial estates, Vendor Development Initiatives etc. The extent and process of claiming these incentives varies from State to State and the procedure to avail these incentives are provided under the operational guidelines of these schemes as well as the policies issued by the State Governments. These guidelines include the conditions and mechanism to avail these incentives.

The nature and quantum of these incentives will vary depending upon various factors such as:

- Whether the investment is classified as a **new unit or an expansion unit**;
- In case of some states, the state has been divided into **groups/zones/blocks depending on the development index** in that area and the quantum of incentives vary over these groups;
- The definition of **eligible fixed capital investment** varies in each state which determines the eligibility of incentives in that state;
- **Investment period criteria** i.e., the time period within which the investment made is considered for eligibility of incentives;
- **Operative period criteria** i.e., the minimum number of years for which a unit has to be in commercial production;
- The states prescribe the minimum percentage of **local labour** that should be employed by the unit;
- Tailor made incentives for projects with substantial investment and employment generation capabilities (usually referred to as **Mega Projects/thrust sectors**)

Fiscal incentives offered under various State Incentive Schemes

We have summarised below the fiscal incentives available under the Industrial Development Schemes of the states leading in contributing to the growth of the automotive industry:

Haryana Enterprises Promotion Policy-2015

Haryana is known for its vibrant agrarian economy and strong industrial base and is amongst the front runners of Industrial development in India that is showcased with its leading position in production of

number of industrial / consumer goods i.e. nearly 80% of escalators, 52% of cranes, 50% of cars and 33% of two-wheelers are manufactured in the State.

The Policy envisages generating investments of more than Rs.1 lakh crore and providing employment to in excess of 4 lakh. Application under this policy can be made before 14th August 2020, provided the effective steps are undertaken during the validity period. A new Enterprise Promotion Policy is being formulated and is likely to be released shortly, for which suggestions will be invited from all stakeholders.

Per the exiting policy of 2015, the state has been divided into groups from A (being the most developed region) to D (being the least developed region), in accordance with the development index of that region and benefits have been determined accordingly. The basis for projects categorization and benefits available to Mega and Large new units under the said policy have been summarized below:

Project Category

(Figures in INR Crore)

Enterprise	A	B	C	D
Large	More than 50* but less than 100			
Mega	Not defined	100 or generating employment for more than 500 persons		100 or generating employment for more than 200 persons
Ultra Mega	6,000 on a land area of minimum 500 acres			

* These limits are subject to amendments under the MSME Act, 2006 from time to time

Benefits Available under Mega New Units

Groups	Investment Subsidy on VAT*		Employment generation Subsidy**	Electricity Duty Exemption	Stamp Duty Refund	EDC Charges Exemption
	Percentage	Years				
A	-	-	-	-	-	-
B	30%	1-5	INR 36,000 per year for women/SC or INR 30,000 per year for General category for 5 years or 20% of VAT/SGST deposited, whichever is less	100% for 5 years	50%	50%
	15%	6-8				
C	50%	1-5		100% for 5 years	75%	50%
	25%	6-8				
D	75%	1-5	100% for 7 years	100%	50%	
	35%	6-8				

* Capped at 100% of Fixed Capital Investment

** At least 50% of the employees need to be hired locally

Benefits Available under Large New Units

Groups	Investment Subsidy on VAT*		Employment generation Subsidy**	Electricity Duty Exemption	Stamp Duty Refund	EDC Charges Exemption
	Percentage	Years				
A	-	-	-	-	-	-
B	-	-	-	-	-	50%
C	50%	1-5	INR 36,000 per year for women/SC or INR 30,000 per year for General category for 5 years or 20% of VAT/SGST deposited, whichever is less	100% for 5 years	75%	50%
	25%	6-8				
D	75%	1-7		100% for 7 years	100%	50%
	35%	8-10				

* Capped at 100% of Fixed Capital Investment

** At least 50% of the employees need to be hired locally

At this juncture, it is relevant to note that any investment > INR 100 Crores qualifies as Mega Project under the State Policy a customized package may be available to industries (even when the same falls in Group A), subject to approvals by the Government.

Ultra-mega projects can opt for customized package basis negotiations with the State Government irrespective of the fact that project site falls in which Group

Maharashtra Industrial Policy – Package Scheme of Incentives-2019

The State Government of Maharashtra has recently declared the New industrial Policy 2019 to ensure sustained industrial growth through various innovative initiatives so as to further improve the conducive industrial climate in the State and to provide global competitive edge to the industries in the State. The Maharashtra Industrial Policy (**MIP – 2019** or **PSI-2019**) is valid from 1st April 2019 to 31st March 2024 or till the new Package Scheme of Incentives comes into force.

Incentives under this Policy are available according to the size of the industrial unit and the taluka/area in which it is established. However, the aggregate fiscal incentives provided by State departments/agencies cannot exceed the basket of incentives as a percentage of FCI. The basis for projects categorization and benefits available to Mega and Large units under the said policy have been summarized below:

Scale of Operations

Area Classification	Large Scale industries (LSI)*		Mega Units	
	Minimum admissible FCI [INR crore]	Minimum employment [Number of people]	Minimum admissible FCI [INR crore]	Minimum employment [Number of people]
A&B	750	1000	1500	2000
C	500	750	1000	1500
D	250	500	750	1000
D+	150	400	500	750
Vidarbha, Marathwada, Ratnagiri, Sindhudurg & Dhule	100	300	350	500
No industry districts, Naxalism Affected Areas, and aspirational districts	100	250	200	350

***Special Large Scale Industries:** Units with Gross FCI between INR 50 Crore and up to the minimum thresholds defined above for LSI

Note 1: In order to fulfil the **criteria for classification** as large scale industry or mega unit, the proposed project must **either** fulfil the minimum admissible FCI limit **or** the minimum employment threshold.

Note 2: **Investment period** for **Large and Special Large units** is 4 years and for **Mega and Ultra Mega Units** is 5 years and such investment period should commence within the policy period (only land can be procured prior to policy period).

Incentives available to Large Scale Units and Special Large Scale Industries

Area Classification	Incentives Period [Years]	Ceiling as % of Fixed Capital Investment [FCI]	Industrial Promotion Subsidy (IPS)	Stamp Duty exemption	Electricity Duty exemption
A	7	25%	LSI: 50% Gross SGST paid on the first sale of eligible products, billed and delivered to the entity within Maharashtra Special LSI: Except for Zones A & B, 40% Net SGST paid on the first sale of eligible products, billed and delivered to the entity within Maharashtra	100% for IT/BT manufacturing units in Public IT/BT parks	100% for EO/IT/BT Units for seven years
B	7	25%		75% for IT/BT manufacturing units in Private IT/BT Parks	
C	7	40%		100%	100% for eligibility period
D	7	60%			
D+	7	70%			
Vidarbha, Marathwada, Ratnagiri, Sindhudurg & Dhule	9	80%			

Area Classification	Incentives Period [Years]	Ceiling as % of Fixed Capital Investment [FCI]	Industrial Promotion Subsidy (IPS)	Stamp Duty exemption	Electricity Duty exemption
No industry districts, Naxalism Affected Areas, and aspirational districts	9	100%	IPS is granted to eligible New/Expansion/Diversification Large Scale Industries set up at a single location		

At this juncture, it is relevant to note that when the project qualifies as Mega Project (or above category) under the State Policy a customized package would be available basis negotiation with the State, subject to approvals by the Government.

Incentives under Andhra Pradesh Industrial Development Policy 2020-2023

The State Government of Andhra Pradesh has recently declared the new Industrial Development Policy 2020-23 focusing on sustainable industrialization and development with accent on MSMEs and wide based development of the state. The Policy period of the scheme is only for three years instead of five years in view of current COVID-19 pandemic.

The basis for projects categorization and benefits available to Mega and Large new units under the said policy have been summarized below:

Project Category

(Figures in INR Crore)

Industrial Undertaking	Gross Fixed Capital Investment	Annual Turnover
Large	More than INR 50 Crores and employment > 250	More than Medium enterprises and less than Mega Project
Mega	Direct employment generation of 2,000 employees	

Benefits Available to various Industrial Undertakings

Incentives	Large	Mega
Refund of Net SGST	100% for 5 years or upto realization of 100% fixed capital investment, whichever is earlier, linked to employment	Government will extend tailor-made benefits to Mega Projects on a case to case basis

At this juncture, it is relevant to note that when the project qualifies as Mega Project (or above category) under the State Policy a customized package would be available basis negotiation with the State, subject to approvals by the Government.

Incentives under Tamil Nadu Industrial Policy, 2014

While this policy was issued in 2014 and the operative period of the policy is scheduled to expire in 2020. As per the information available in public forum, the government of Tamil Nadu will shortly launch a new industrial policy that will provide GST regime compatible incentives, and in the Budget estimates for 2020-21, a sum of Rs 2,500 crore has been provided for payment of industrial incentives.

The basis for project categorization and benefits available to industrial undertakings under the said policy have been summarized below:

Project Category

(Figures in INR Crore)

Industrial Undertaking	Gross Fixed Capital Investment		
	Zone A	Zone B	Zone C
Large	More than MSME and less than Mega Project		
Mega	More than 500-1500 and employment of 300 in 3 yrs	More than 350-1000 and employment of 200 in 3 yrs	More than 200-500 and employment of 100 in 4 yrs
Super Mega A	More than 1500-3000 and employment of 400 in 5 yrs	More than 1000-2000 and employment of 300 in 5 yrs	More than 500-15000 and employment of 250 in 5 yrs
Super Mega B	More than 3000-5000 and employment of 600 in 6 yrs	More than 2000-4000 and employment of 500 in 6 yrs	More than 1500-3000 and employment of 350 in 6 yrs
Ultra Mega	More than 5000 and employment of 700 in 7 yrs	More than 4000 and employment of 600 in 7 yrs	More than 3000 and employment of 500 in 7 yrs

Benefits Available to various Industrial Undertakings

Investment in eligible fixed assets	Direct Employment	Capital Subsidy (in INR Crore)	Electricity Tax Exemption
50-100	200	0.60	3 years
100-200	300	1.00	4 years
200-500	400	1.50	5 years
500-1500	600	1.75	5 years
1500-3000	800	2.00	5 years
3000 and above	1000	2.25	5 years

Note 1: Additional incentive will be available depending upon the location of the manufacturing unit

Note 2: In order to avail the capital subsidy, criteria for investment in fixed assets and direct employment, both have to be met

At this juncture, it is relevant to note that when the project qualifies as Mega Project (or above category) under the State Policy a customized package would be available basis negotiation with the State, subject to approvals by the Government.

Gujarat Industrial Policy, 2020

Gujarat Government has released a New Industrial Policy 2020 with the objective to further help in supporting jobs, create value addition across sectors, increase productivity, drive innovation with focus on research and development so as to propel the state further towards “Atmanirbhar Gujarat”. The GR for the New Policy and Guidelines are still awaited.

The incentives offered to industrial undertakings under the said policy have been summarized below:

- **Capital Subsidy** - The New Policy would give incentive in the form of capital subsidy thereby delinking itself with old scheme where incentive was given as refund of Net SGST on local sales in Gujarat. Maximum of up to 12% of Fixed Capital Investment (FCI) will be given to large industries for setting up manufacturing operations in the state in the form of capital subsidy. There is no upper ceiling on the amount of incentive to be given to any particular unit. This benefit will be given over a period of 10 years subject to annual ceiling of INR 40 Crore.

Taluka Category	General Sectors	Thrust Sectors
Category 1	10% of FCI	12% of FCI
Category 2	8% of FCI	10% of FCI
Category 3	4% of FCI	6% of FCI

- **Electricity Duty Exemption** - The units will continue to get Electricity Duty Exemption for 5 years.

Under Gujarat’s existing policy (**Gujarat Industrial Policy 2015**), the customized package incentives were available only to ultra mega projects basis negotiation with the State, subject to approvals by the Government, however, the policy guidelines for the new Industrial Policy, 2020 are still awaited.

Central Incentives offered by the Government

Manufacture and Other Operations in Warehouse Regulations ('MOOWR')

Entities engaged in the manufacture or trading of goods for supply into the domestic market or for export are eligible for the benefits of obtaining a license for the purpose of undertaking the manufacturing and processing activity in a Custom Bonded Warehouse. Generally, Customs duty is payable at the time of import of goods into India. However, MOOWR provides for duty deferment/ savings in case of imports, subject to various compliances and procedures.

Benefits available under the Manufacture and Other Operations in Warehouse Regulations, 2019 are summarised below:

- Duty-deferment in case of import of capital goods. Customs duty shall be payable only when the capital goods are cleared into DTA from the private warehouse;
- Duty-deferment in case of import of raw material. Customs duty shall be payable only when the finished/ manufactured goods are cleared into DTA from the private warehouse;
- No Customs duty to be paid if the goods are directly exported from the private warehouse;
- No Export Obligation attached to the above-mentioned benefits

Interest Equalization Scheme ('IES')

The Interest Equalisation Scheme (IES) was implemented on 1st April 2015 to provide pre- and post-shipment export credit to exporters in rupees through RBI and its network of banks. At the time, exporters were facing increasing credit costs in their export cycles due to the stagnation of global demand and extended credit periods.

Under the IES, the scheduled commercial banks were tasked to identify eligible exporters for the period starting from 1st April 2015 to 30th November 2015 by the Reserve Bank of India. Thereafter, from December 2015, the banks were asked to pass-on the interest equalization amount to the entitled exporters.

This scheme, which is also referred to as interest subvention, was designed to benefit the MSME segment in particular. It was originally implemented for five years. However, as part of the relief measures announced during COVID-19 Lockdown, the government has extended the Interest Equalisation Scheme for Pre & Post Shipment Rupee Export Credit. The approval of the extension stays still with the same scope & coverage. The extension shall take effect from April 1, 2020 and ends on March 31st, 2021 covering a period of one year.

The eligible category and Equalisation provided

Export items	Eligible Category	Rate of equalisation
Identified tariff lines listed in the scheme (presently 416 items)	<ul style="list-style-type: none"> • Large sector manufacturers from 1.4.2015; and • Merchant exporters from 2.1.2019 onwards 	3% per annum
All products	MSME sector manufacturers	<ul style="list-style-type: none"> • 3% per annum w.e.f. from 1.4.2015; and • 5% per annum w.e.f. 2.11.2018

To fulfil the **eligibility requirements**, the goods exported must meet the criteria of **minimum processing in order to qualify as 'originating from India'** and to be governed by provision of Paragraph 2.108 (a) (Rules of Origin [Non preferential]) of Handbook of Procedures of Foreign Trade Policy 2015-2020.

Credit Linked Capital Subsidy Scheme ('CLCSS') for Technology Upgradation

The Credit Linked Capital Subsidy Scheme, shortly referred to as the CLCSS is an innovative credit product launched by the Ministry of Micro, Small and Medium Enterprises. A large number of small-scale industries in India still work with out-dated technology. They are unable to upgrade their machinery due to non-availability of funds. The CLCSS helps small-scale industries upgrade their equipment and plant machinery by offering capital subsidies on purchase of machinery.

At present, the Scheme is being implemented by 12 nodal banks/agencies including SIDBI and NABARD. Except SIDBI and NABARD, all the nodal banks/agencies would consider proposals only in respect of credit approved by their respective branches, whereas, for other Primary Lending Institutions (PLI) approved under the guidelines, SIDBI and NABARD would be the nodal agencies for release of subsidy under this Scheme.

The primary objective of this scheme is to aid the technology up-gradation of micro and small enterprises, especially in rural and semi-urban areas by providing an upfront capital subsidy of 15 percent upto maximum cap of 15 lakhs (i.e., maximum investment in approved machinery is 1 crore) for induction of well-established and improved technology in the specified 51 sub-sectors/products approved.

This scheme is **available to all micro and small enterprises having a valid UAM number** whether in **rural or urban areas, existing SSI units** upgrading their existing plant and machinery with the state of the art technology, with or without expansion or new enterprises or **New SSI units** setting up their facilities only with the appropriate eligible and proven technology duly approved by the GTAB/TSC.

Benefits available under CLCSS, 2019 are summarised below:

- Helps in the up-gradation of technology of small-scale industries belonging to the various sectors/product categories as notified by the MSME Ministry.
- It offers 15% subsidy upto a maximum of 15 lakhs for purchasing eligible plant equipment and machinery. This helps in reducing the overall loan burdens of micro and small enterprises.
- It aids in the growth of rural industries that can now manufacture high-quality products.

Scheme for Building Awareness on Intellectual Property Rights (IPR) for MSMEs

This scheme aims at identifying IPR needs of an MSME Industry and advice to strengthen the IP portfolio wherein the objective is to enhance awareness of MSME about Intellectual Property Rights (IPRs) to take measures for the protecting their ideas and business strategies. Effective utilization of IPR tools by MSMEs would also assist them in technology up-gradation and enhancing competitiveness.

Quantum of Grant available per Application/ Proposal

S.NO.	Activity	Maximum Grant per Application/ Proposal (Rs. In Lakhs)	Component of Grant
(a)	Awareness/Sensitisation Programmes on IPR	1.00	Would cover the expenses towards rent for venue, training materials, audio/video aids, TA/ DA and honorarium to the Guest Faculty, expenditure on transport, purchase of stationary items, refreshment and other miscellaneous expenses but not for capital items.
(b)	Pilot Studies for Selected Clusters/Groups of Industries	2.50	Would primarily to cover expenses of the Expert Agencies for the conduct of the Pilot Study.
(c)	Interactive Seminars/Workshops	2.00	Would cover expenses towards rent for venue, training materials, audio/video aids, TA/DA and honorarium to the guest faculty, expenditure on transport, purchase of stationary items, refreshment and other miscellaneous expenses but not for capital items.
(d)	Specialized Training (i) Short term (ST)	6.00	Would primarily cover expenses towards for Faculty / Experts, boarding & lodging of the participants,

	(ii) Long term (LT)	45.00	course material, field visits and other relevant expenses.
(e)	Assistance for Grant on Patent/GI Registration (i) Domestic Patent (ii) Foreign Patent (iii) GI Registration	0.25 2.00 1.00	One time financial support in form of reimbursement to the applicant.
(f)	Setting up of 'IP Facilitation Centre for MSME'	65.00	Would primarily cover expenses of hardware/software license fee, furniture and fixtures, networking, hiring the services of external consultant & staff on contract basis, expenses for telecommunication, stationary, miscellaneous/institutional, overhead cost etc.
(g)	Interaction with International Agencies (i) Domestic Intervention (ii) International Exchange Programme	5.00 7.50	For approved specific activities as per the recommendations emerging from joint consultative process/MoU.

Scheme eligibility for MSME Sector

Participants	Definition	Eligibility as Applicant
MSME Units	Units with Registration or EM credentials (subject to verification)	Assistance for Grant on Patent for both Domestic and Foreign Patent
MSME Organizations	Industry Association, Societies/Cooperatives/Firms/Trust and Other Bodies Including NGOs Representing or Working for MSMEs, Research/Technical & Educational Institutions, Universities with a Track Record of Assisting MSMEs etc.	<ul style="list-style-type: none"> Awareness/Sensitisation Programmes on IPR Pilot Studies for Selected Clusters/Groups of Industries Pilot Studies for Selected Clusters/Groups of Industries Assistance for Grant on GI Registration Setting up of 'IP Facilitation Centre for MSME' Interaction with International Agencies both Domestic and International exchange programme

To conclude, there are many schemes by both Central and State Governments, and only key incentive schemes are mentioned above. Further, while the Centre & State Governments widely publicize such schemes and policies, still many taxpayers miss availing such incentives due to lack of knowledge regarding the same.

The taxpayers planning to set-up a new unit or expand their existing unit, must explore the possibility of availing benefits under such schemes before making investment therein as it would provide immediate relief in current COVID situation so as to boost the automobile sector as it surely has a large role to play in the growing economy of India.

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**Opportunity to Improve The
Competitive Advantage Amidst COVID-19 Crisis-
Way Forward for Automotive
Component Manufacturers**

By



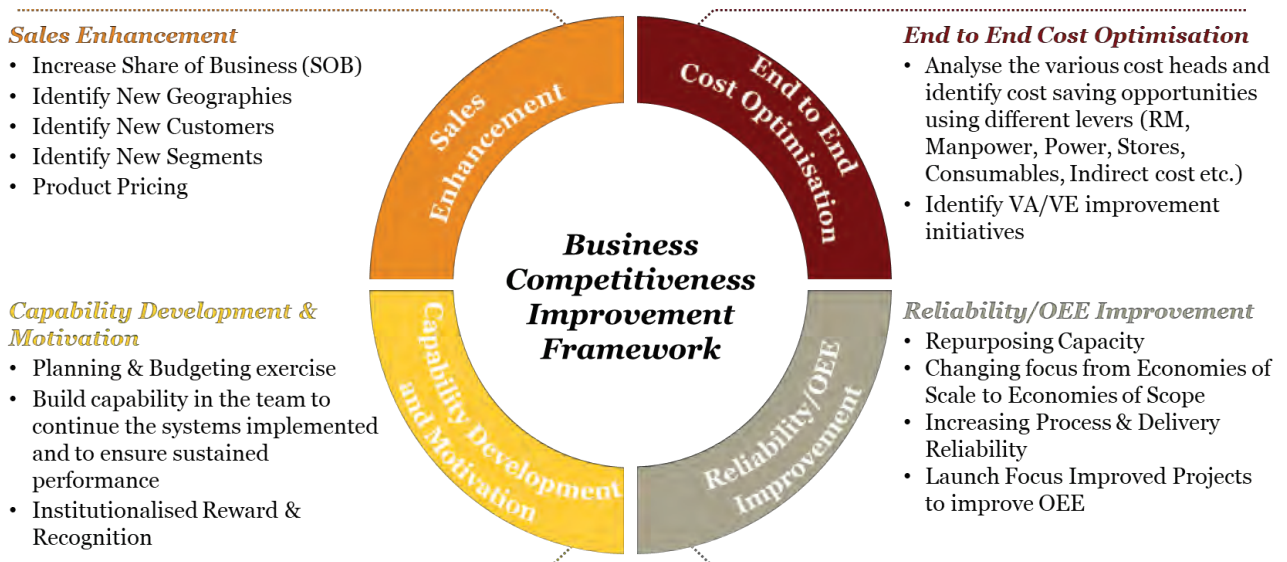
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**Opportunity to Improve the Competitive Advantage amidst COVID-19 crisis -
Way forward for Automotive Component Manufacturers**

COVID-19 pandemic has created a huge disruption globally. It has put the world and India to the severest test in a generation. It has created widespread uncertainty on health, social and economic fronts, and is a shock experienced by India’s 1.35 billion citizens. But as this ‘New Normal’ unfolds, this crisis has highlighted frictions that were slowing Indian economy. If these frictions are addressed and taken advantage of, the nation can accelerate recovery and drive what we call “full potential revival” and growth. For Automotive sector, domestic demand slump in FY’20 followed by COVID-19 has exacerbated the problem.

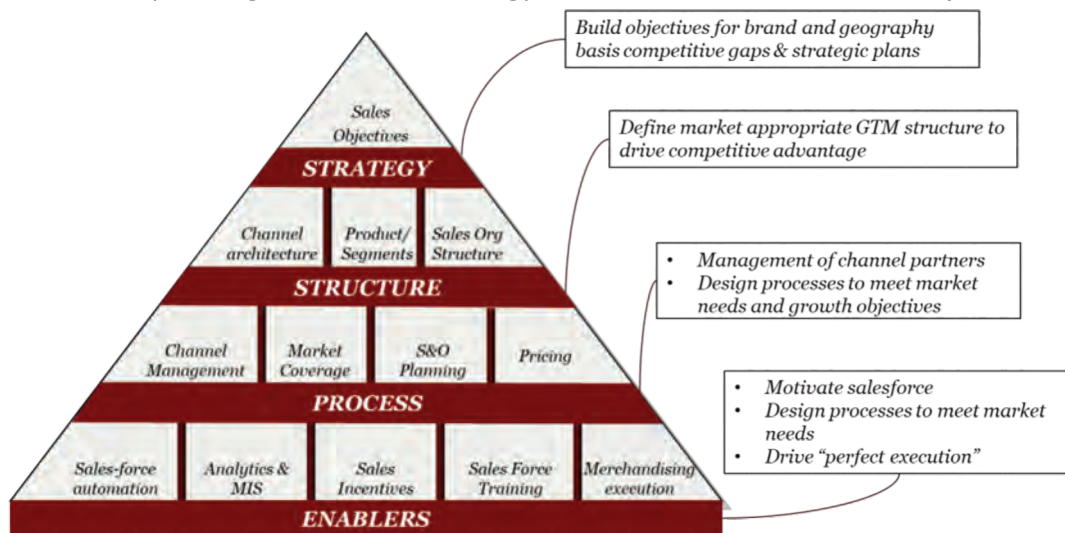
Automotive component industry declined by 11.7% in FY’20 which was due to weak domestic demand mostly. There will be further de growth in FY’21 as a result of COVID-19. There has been recovery in two-wheeler demand supported by strong aftermarket sales. However, liquidity crunch, uncertainty on e-mobility policy, weakening export markets, BS IV to BS VI transition remain some of the key challenges.

A comprehensive strategy is required for recovery and faster profit growth. End to End Cost optimization will be the key for any industry, especially automotive industry given the large additions to capacity over the previous years. A four-vector business competitiveness improvement framework can be adopted amidst the evolving ‘New Normal’ as shown below.



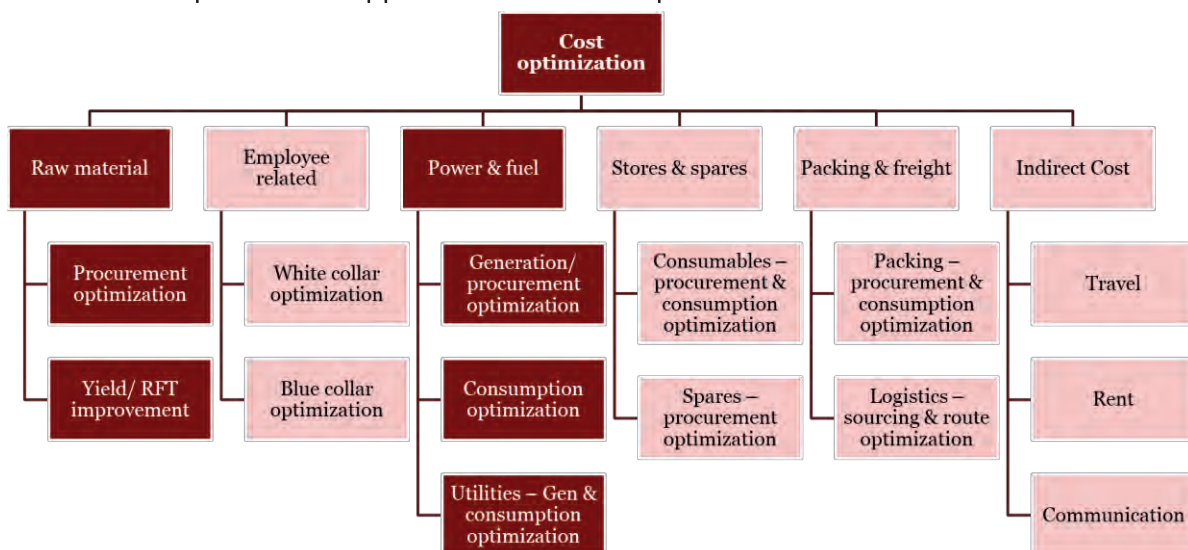
1. Sales Enhancement:

Improving the topline is the priority for all businesses especially amidst weakening demand. Increasing SOB from existing customers can be an opportunity depending on efficiency in operations resulting in price competitiveness. Identification of new customers, new geographies, new segments or adjacent product lines will determine the recovery rate and near-term growth for businesses. Product portfolio optimization and product pricing should be streamlined based on performance and cost assessment. Our GTM framework covers all aspects of the Operating Model from strategy to execution to deliver sales objectives



2. End to End Cost Optimization:

End to End Cost optimization is the need of the hour for all businesses. Both Direct and Indirect costs can be optimized by using multiple levers. Following are some of the buckets where cost optimization opportunities can be explored.



2.1. Raw Material Cost: Following are some of the levers used -

- Volume Consolidation
- Price Variance
- Consumption Variance
- VA/VE
- Manufacturing & Process Improvement

2.2. Employee Cost: Following are some of the levers used –

- Shift Relieving Norms
- Scientific FTE manning norms
- Adoption of Shared Services/Resources
- Layer Rationalization
- Business Process Re-engineering (BPR)
- Low Cost Automation
- Span of Control
- Work Utilization level
- Role Overlap & Compression

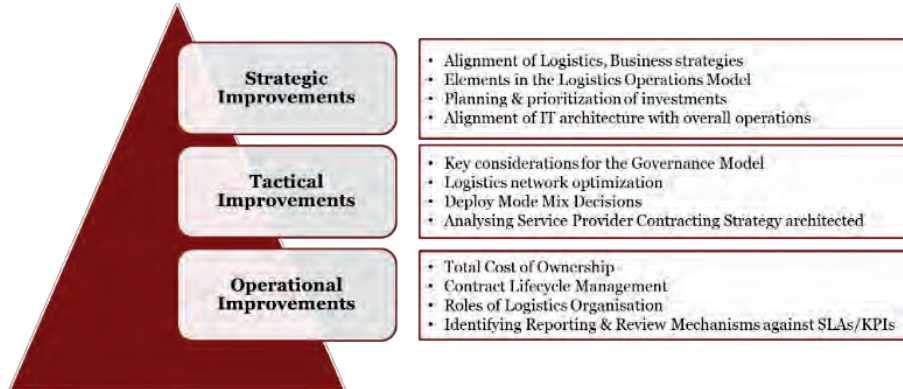
2.3. Power & Fuel Cost: Following are some of the levers used –

- Power Sourcing
- Generation Efficiency
- Distribution Losses
- Load Management
- Mechanical Losses
- Utility System Losses
- Specific Power Consumption
- Idling Losses
- Redundant Capacity

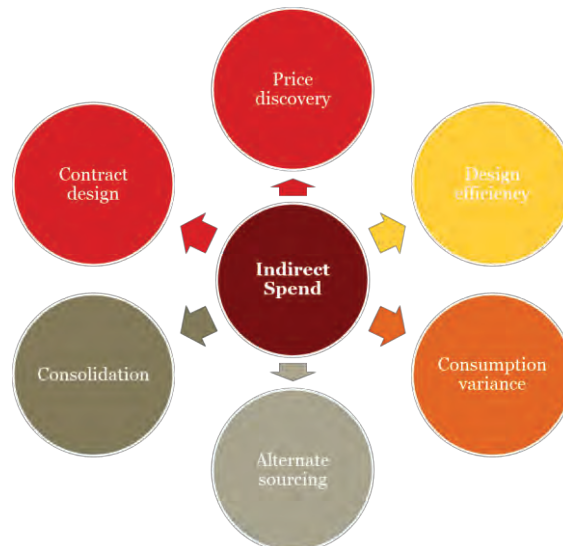
2.4. Repair & Maintenance Costs: Following are some of the levers used –

- Scope of AMC
- Historic cost trends
- Indigenization of Spares
- Premature Failure Analysis
- Inventory Optimization
- Identify alternative consumables
- Standardizing SOPs
- Revisiting Product Design

2.5. Logistics Costs: Following top down approach is used for identifying opportunities for optimizing Logistics cost -

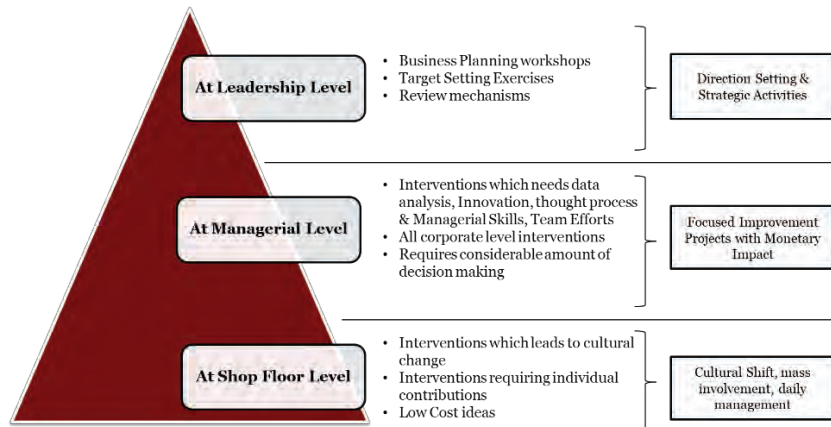


2.6. Indirect Costs: A vector approach is used for identifying cost saving opportunities in Indirect spend as shown below -



3. Capability Development & Motivation:

Capability building across the depth of the organization is required for implementation and sustenance of cost optimization initiatives. This involves strategic decision making and direction setting at leadership level followed by decision making and implementation of focused improvement projects at managerial level accompanied by cultural changes at shop floor level as shown below -



Capability building across the organization is important for sustenance of turnaround activities. Goal Deployment, Training, Reward & Recognition mechanisms etc. can be instrumental in the capability building and motivation across the organization.



4. Reliability/OEE Improvement:

- 4.1. Repurposing Capacity:** Repurposing of capacity is crucial for Auto sector to eliminate certain fixed costs, shift to alternate product lines, convert fixed costs to variable etc.
- 4.2. Economies of Scale to Scope:** Shift of focus from Economies of Scale to Economies of Scope as domestic demand remains subdued in the auto sector.
- 4.3. Reliability:** Process and delivery reliability is critical amidst the supply chain disruption being experienced across the globe to win against competition.
- 4.4. OEE Improvement:** Current OEE levels need to be evaluated and monitored. Focused Improvement Projects can be initiated for OEE improvement

5. Conclusion:

Many organizations have already resolved to utilize this crisis as an opportunity and come out much more stronger and competitive in the market. Some of the organizations have already initiated a structured and step by step approach to enhance their competitiveness and acquire additional market share using the four-vector approach we have mentioned above.

“Every adversity brings with it the seed of an equivalent advantage” – Napoleon Hill, American author

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**Need for Collaboration in
Indian Tooling Ecosystem**

By



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Tooling is key to enabling mass production in almost all industries helping to overcome geopolitical and pricing issues

Shrinking product lifecycle and increased emphasis on localization are set to drive the demand for the Indian tooling industry.

1. Overview of Indian Tooling Industry

The tooling industry plays a critical role in the manufacturing value chain by providing dies and moulds needed for mass production of various parts and thereby forms the backbone of industrial growth. As per the latest estimates, the market size of Indian tooling industry stands at ~INR 15,000 Cr¹, with more than half of the total demand attributed to the automotive and auto components sector. Most major global auto manufacturing hubs have a robust domestic tooling industry, with India being a notable exception, where a significant portion of tool demand is still met via imports.

With the increase in the variety of products and shortening product life cycles across the globe, worldwide demand for tooling is well poised to grow significantly in the future. Countries with superior capabilities and capacities in tooling will be at an advantage. Hence, it becomes even more critical to facilitate the growth of Indian tool makers and enable access to new customers beyond national borders. Tooling localization would also result in many economic benefits such as employment creation, development of indigenous machine makers, better R&D landscape, and more efficient supply chains. Therefore, the time is ripe to deep dive into the hurdles to the growth of Indian tool makers and measures required to tackle these hurdles.

1.1 Need for strong tooling ecosystem

Tool Room: The Mother Industry

Tools, Dies & Moulds industry plays a pivotal role in growth across manufacturing verticals like Auto, Plastics, Packaging, Electronics, etc. Localization of the tooling ecosystem can be the next frontier to improve overall manufacturing and, in particular, the automotive sector's contribution to India's GDP. The most recent example has been toys for children, wherein the government is planning for localization. Here again, a large part of the domestic manufacturing will be dependent on the availability of good and right cost tools.

Geopolitical issues

Current geopolitical tensions reiterate the inherent need to strengthen domestic manufacturing position and supply chain competency. It also goes in line with the Government of India's self-reliance mission *Atmanirbhar Bharat*.

Pricing issues

Tooling imports only squeeze profit margins on stiff pricing pressure from the OEMs in terms of tooling cost. Even for Indian Tool Rooms, (ITRs) cost of imported content and machinery renders them in-competitive against cheaper imports.

¹ TAGMA Indian Tool Room Industry Report FY17

1.2 Drivers of growing tooling demand

Growing automotive market and shortened product lifecycle

With vehicle sales increasing and product lifecycles shrinking, OEMs are producing higher volumes and introducing more models in the market as well. Product life in India has shrunk to 8 years, and on an average, ten models are launched annually. Hence, concurrent engineering is needed between Indian Tool Rooms, OEMs & Tier 1s to meet rising demand.



Fig1. Average Product Life: Global vs. India

Year	No. of new launch*	Key Models Launched
2014	8	Celerio, Ciaz, Xcent, Zest, Elite i20
2015	12	Baleno, S-Cross, Creta
2016	11	Endeavour, Tiago, Elantra
2017	10	Compass, Ignis, Dzire, Verna
2018	11	Yaris, Amaze, Swift, Marazzo
2019	13	Venue, Seltos, Harrier, XL6

Fig2. Introduction of New models

India as a hub for frugal engineering

Global OEMs are leveraging India's frugal engineering through active involvement in design and development. India has emerged as a global hub for small vehicles with 1/3rd share in the small car production worldwide. Investments by the OEMs in the segment are de-risked by the big domestic market for small cars in India. Also, the availability of large vendor bases for small cars and the availability of a sizeable talent pool has contributed to the low-cost development of global small car models in India.

For example, MSIL, India, in 2016 launched Vitara Brezza, a model developed and designed by the Indian R&D team. The company till 2016 depended on Suzuki Motor Corp (SMC) for the development of products. This development reflected the significance of MSIL, India, in the Japanese parent's global operations.

2. OEMs/ Tier1: Tooling Procurement Criteria & Challenges

Tooling end-user critical criteria for tooling procurement are QCD (Quality, Cost & Delivery), design capability, program management, and tool room infrastructure

India is seeing a growing demand for tooling in the last few years. However, a significant amount of tools are still imported. The critical criteria for tooling procurement play a significant part in explaining the imports of a significant amount of tools.

2.1 Key Criteria for tooling procurement

The tooling end-user assesses the procurement on the following four parameters:

- **Quality, cost, and delivery (QCD):** In the case of shortlisting a new tooling supplier, all three requirements of the QCD must be met. Also, calibration of the tools is an essential check before deciding on the final buy.

- **Design Capability:** Tool design capability and ability to incorporate small changes in design, response time to design request & work experience of tool designer also play a key role
- **Program Management:** Financial capability and program management capabilities of tooling suppliers are also evaluated before placing final order
- **Tool Room Infrastructure:** Sufficiency of tooling equipment and machines like EDM, VMC, Wire Cut, and the use of quality instruments is a critical parameter evaluated by the end-users.

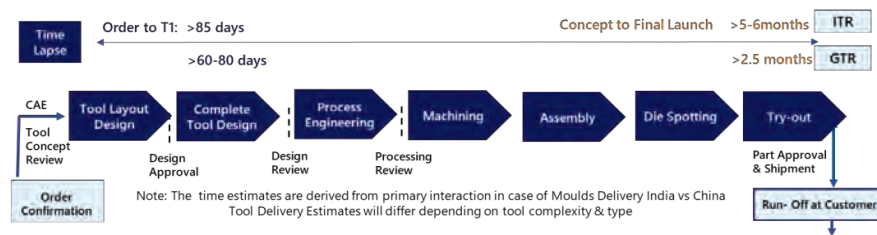
2.2 Reasons why Auto OEM and Tier-1 resort to imports

70% of the tooling imports in India is by the Auto OEMs and Tier1 due to following reasons:

- **Critical Parts Tooling:** Lack of adherence of Indian Tool Rooms (ITRs) to the stringent quality requirement for Critical Big Parts & Ultra High Tensile parts, hence imported directly by OEMs from Global Tool Rooms (GTRs)
- **High Aesthetic Parts:** High aesthetic parts like Bumper tools, Instrument Panels, Dashboard, Fascia Parts tools that require specific texturing and smooth finishing are also imported from GTRs
- **Workforce Skill:** Major skill gaps of ITR manpower with regard to Computer-Aided Engineering exist along with diminished ability to respond to design change requests are viewed as an inhibition
- **Infrastructure & High Delivery Time:** Lack of adequate infrastructure/capacity of advanced CNC machining & reliable subcontracting base makes it difficult for ITRs to adhere to delivery timelines

70% of the tooling imports is by Auto OEMs and Tier 1 due to the absence of strong tooling ecosystem in India

Indian tool rooms face higher delivery lead time compared to overseas tool makers due to vast differences in infrastructure and supporting ecosystem



The key difference in Indian Tool Rooms compared to Global Tool Rooms are mentioned in figure 4.

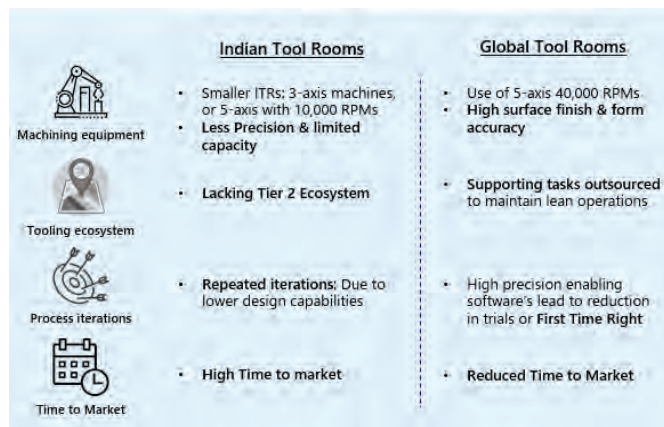


Fig4. Comparison of ITRs vs. GTRs

Tooling clusters provide effective outsourcing opportunities, thereby enabling the tool room operations to remain lean. For example, in Korea, a mould cluster complex was set up to integrate mould production systems ranging from R&D to receiving orders, processing, and delivery of goods. In the case of Taiwan, the co-location of tool rooms, design centres, machining centres, and mould base suppliers enables large scale subcontracting. It also provides an opportunity to process bigger orders faster by sharing capacity & capabilities. A well-developed local tooling ecosystem will support in adapting to cost pressures and quicker delivery timelines.

3. Learnings from global tooling industry

A well-clustered industry constructed a good infrastructure for job sharing, sub-contracting, and technology distribution in Taiwan.

3.1 Taiwan

Taiwan developed a tooling cluster for four major reasons:

- Closely Knit Industrial Clusters
- Transfer of technology and technical skills from Japan
- Government Support
- Unique Cluster of Machine Tools Industry

For instance, in Taiwanese tooling clusters, many factories operate with one machining centre, a press machine, or two ordinary lathes. If a firm designs dies/ moulds using product drawings, it is able to subcontract most of the manufacturing processes. Regardless of the size of the operation, most manufacturers export their dies & moulds, E.g., Shyuan Shin, a Taiwanese tool room employs five workers, but exports 30% of the moulds produced. It operates with 2 EDMs, one conventional lathe & 1 milling machine, and outsources all machining activities.

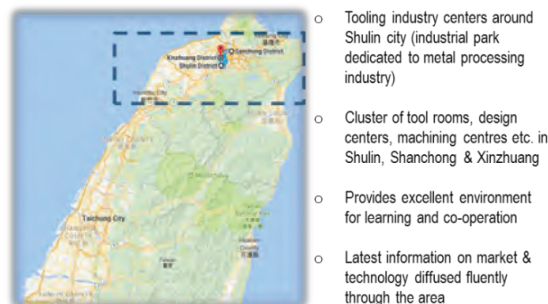


Fig5. Tooling clusters with outsourcing ecosystem in Taiwan

3.2 Japan

The traditional system of local sourcing and high level of product quality have contributed to Japan's growth as a tooling hub

Japan tooling industry has developed over four decades backed by strong domestic tooling demand, digital technology, and a higher equipment-intensive approach. Key factors that led to the phased development of Japan's tooling industry are shown in Figure 6.

Japanese tooling industry is driven by the local automotive industry. More than 60% of the tools produced find end usage in the automotive industry. It has a high level of automation and small/ medium tooling enterprises. More than 70% of enterprises have less than ten employees. A high

degree of innovation & complexity in tools due to the presence of highly qualified employees and accumulated work experience is an added advantage that drives the tooling industry of Japan.

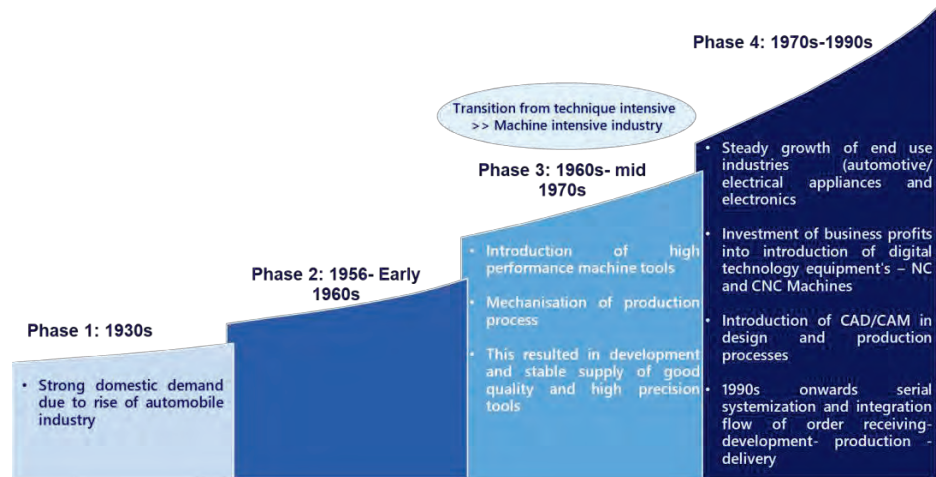


Fig6. Phases of Japanese tooling industry development

4. Way Forward

4.1 Collaboration within Indian tooling ecosystem

Deciding collaboration partners:

Tool rooms in India can collaborate to address the inherent challenges based on aspects of synergies across the value chain.

- **Demand Synergies:** In the case of complementary products, the collaboration can be carried out to address the demand synergies. e.g., Class B/C sheet metal tools
- **Geographical synergies:** To improve presence across geographical markets and resolve co-location issues
- **Customer expectation management:** To tackle the challenges of a similar customer segment. e.g., Share of PV, CV, 2W market
- **Balance of power:** To address challenges faced due to a similar scale of operations. Eg. Machining and tool-making capacity
- **Logistics synergies:** To improve the ability to co-transport / store
- **Process Synergies:** To improve shortcomings faced in a similar process. e.g., CAD / CAE, Project management, etc.

Collaboration framework:

The collaboration within the tooling industry can be based on three major categories:

- **Resources:** Member organizations can commit resources for cross-organizational project teams for joint CAPEX decisions, business case, market intelligence & demand aggregation

Indian Tool rooms can collaborate to overcome the challenges faced and augment capabilities in different parts of the value chain.

Collaboration within tooling players needs to be tightly stitched within a robust governance framework.

- **Capabilities:** Member organizations can share best practices & knowledge through various forums, joint publications, whitepapers, etc. e.g., high tensile material tooling practices
- **Funds:** Member organizations can contribute to common funds for CAPEX & business development activities. e.g.Co-investing in Heat Treatment facility or Trial presses

Collaboration needs to be stitched together by a robust governance framework to ensure fair power balance & benefits linked to investments/commitments by the member firms.



Fig7. Elements of the governance framework

4.2 Partnership with global players

Partnerships between global players and Indian toolmakers is a solution that has potential benefits for both.

Indian tool rooms can partner with Global players to improve the technical competence of local tool rooms. It would help Indian tool rooms in access to:

- Latest tooling technologies/techniques such as modular tooling
- Highly skilled workforce with years of experience of working on complex-shaped tools
- World-class R&D laboratories dedicated to the development of high quality & precision tools
- State-of-the-art machinery reducing tool trials and thereby minimizing 'Time to Market'

It would be beneficial to global players as well, as they would get a foothold in the world's fourth-largest automotive market and get access to existing clientele of local players. Global players would be able to understand the market scenario, product demand, and get an opportunity to leverage their existing state-of-the-art infrastructure to design customized tools for Indian OEMs.

Recently, a Japanese tool room in association with JICA collaborated with CIPET training institute to provide skill development on modular dies. Under the program, JICA introduced a technical training program at CIPET, Lucknow for the first batch of 17 students in collaboration with Japanese toolmaker, Gifu Tadaseiki. NRI-India supported the program as the consulting partner.

4.3 Investment in capability expansion & technologies adoption

Tool rooms must invest in capability expansion and technology adoption to facilitate a future wave of growth.

Indian tool rooms must invest in capacity planning tools for planning tool room capacity before taking up orders. Indian Tool rooms should expand capabilities to work on technologies like Hot stamping, Hydroforming, and Hot Forming along with developing capabilities to manufacture tools using new-age materials such as hardened steel and ultra high tensile steel.

Tool rooms should focus on upskilling their workforce and retaining talent through focussed initiatives.

ITRs must also invest in advanced technologies to enhance their efficiency and improve precision. Some of these technologies are:

- **Simulation and CAM software:** To explore the full range of features in CNC machines and achieve a higher degree of control. This will help in improving the die simulation and analysis and provide suggestions for counter-measures for defects.
- **Machine upgradation:** Higher RPM, five-axis CNC machines, Series Injection machines, High-Speed Cutting Tools, Micro Cutter machines (Dia 1, Dia 2)
- **Surface coating technologies:** Mould Ion Nitriding to enhance tool life
- Improving capability in **Die Spotting and Try-outs**

4.4 Workforce Upskilling and Retention

Indian tool rooms should focus on upskilling their workforce to match global standards. The workforce needs to be updated with the latest upcoming technology or innovation in the tooling industry available globally. Following are some measures that tool rooms can carry out to achieve the same:

- Develop an annual training curriculum for upskilling of experienced workforce
- Toolmakers and designers should be nominated for attending global conferences/training on a regular basis
- Senior management should have regular mentorship discussions with the workforce to sensitize them on the importance of tooling industry in overall manufacturing economy and encourage long stay in company with some awards/incentives and recognition
- Long term training roadmap should be devised, keeping track of new processes and technologies like Hot Forming, Hot Stamping.
- The hiring of skilled personnel from abroad for acquiring knowledge with regards to critical tools

A well-rounded focus on these four areas along with the mentorship and handholding from the OEMs/ Tier 1 suppliers and support from the government could help the Indian Tooling industry leverage the growth drivers for tooling in India and come at par with some of the leading tooling industries in the world by developing scale and technological innovation. This will also ensure that the automotive industry is able to scale the next big frontier in localization and contribute even more towards the country's GDP growth and job creation objectives.

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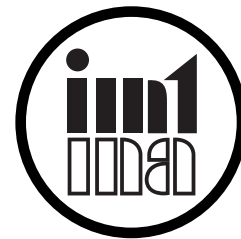
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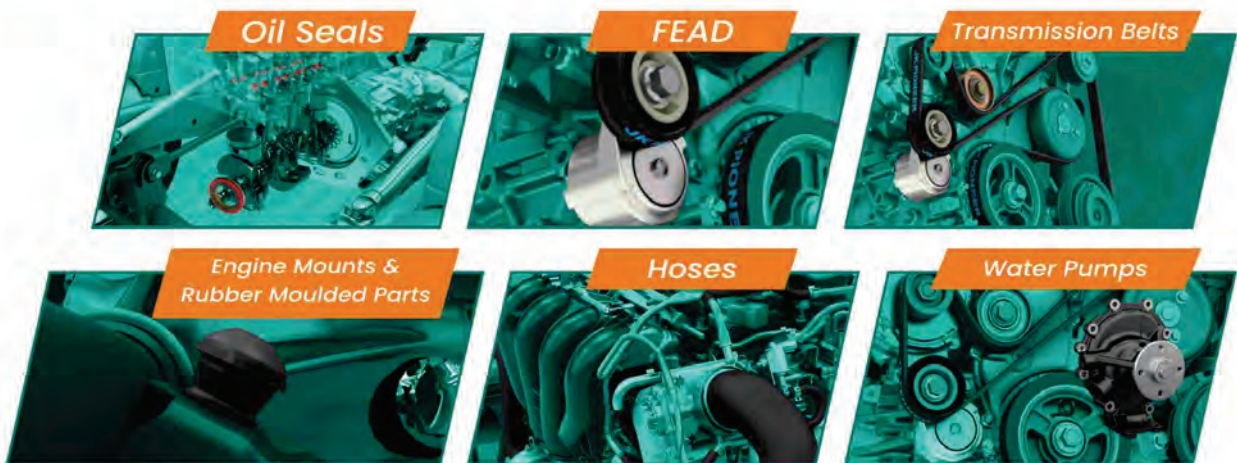
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