or Internal Use Only – Not For External Distribution

Impact of macro-economic environment on the automotive industry

ACMA
January 2022





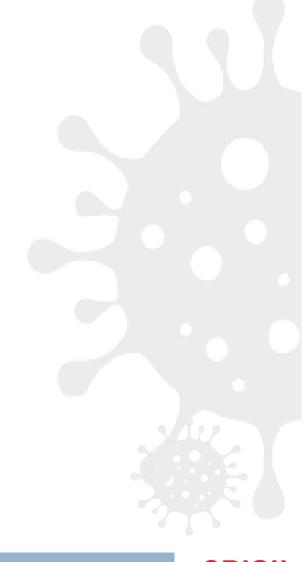
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Auto Components

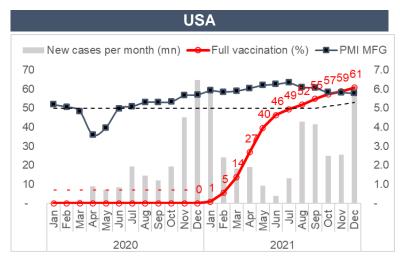


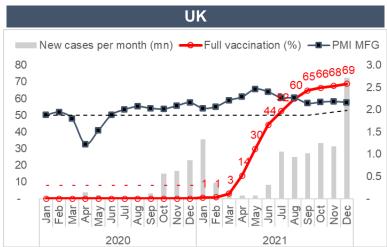
Economy overview

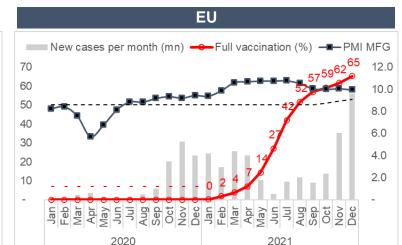


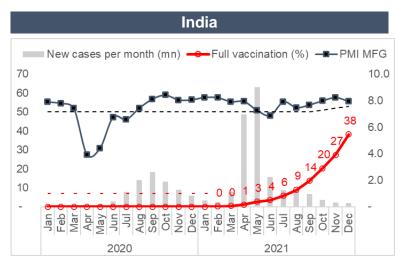


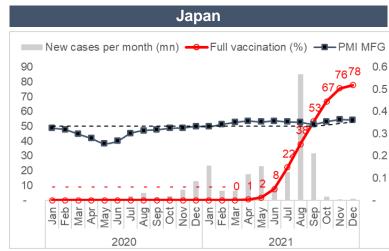
Covid-19 impacting economic activities even in countries where >60% population is fully vaccinated

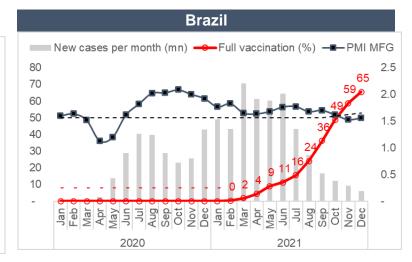






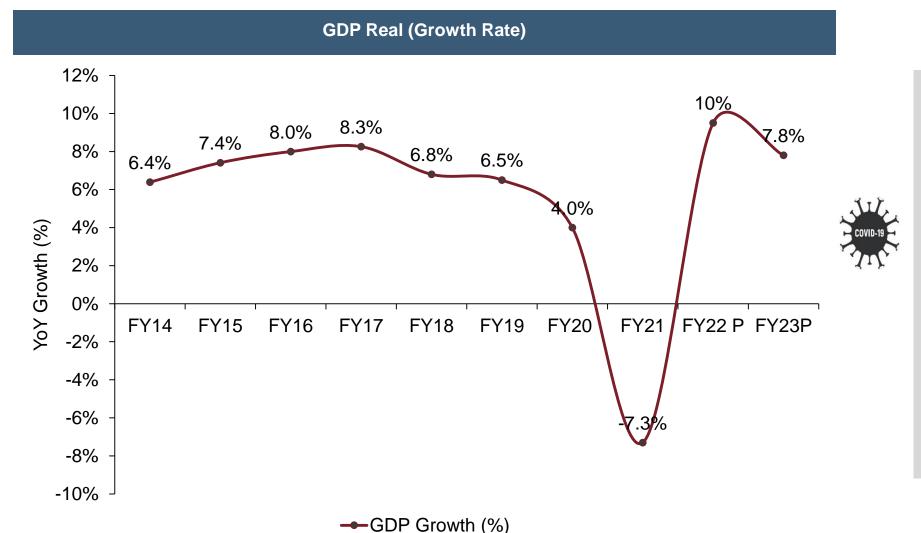








CRISIL estimates FY23 real GDP growth at 7.8%.



India learning to live with virus:

Real GDP grew 8.4% on-year in Q2 FY22, as the economy came out of the clutches of the second Covid-19 wave

Though the recovery is yet to become broad-based and continues to hinge on government investments and exports, with consumption remaining weak

With possible challenges to economic recovery on account of the Omicron variant, CRISIL's FY22 real GDP growth estimate of 9.5% may face marginal downside risks

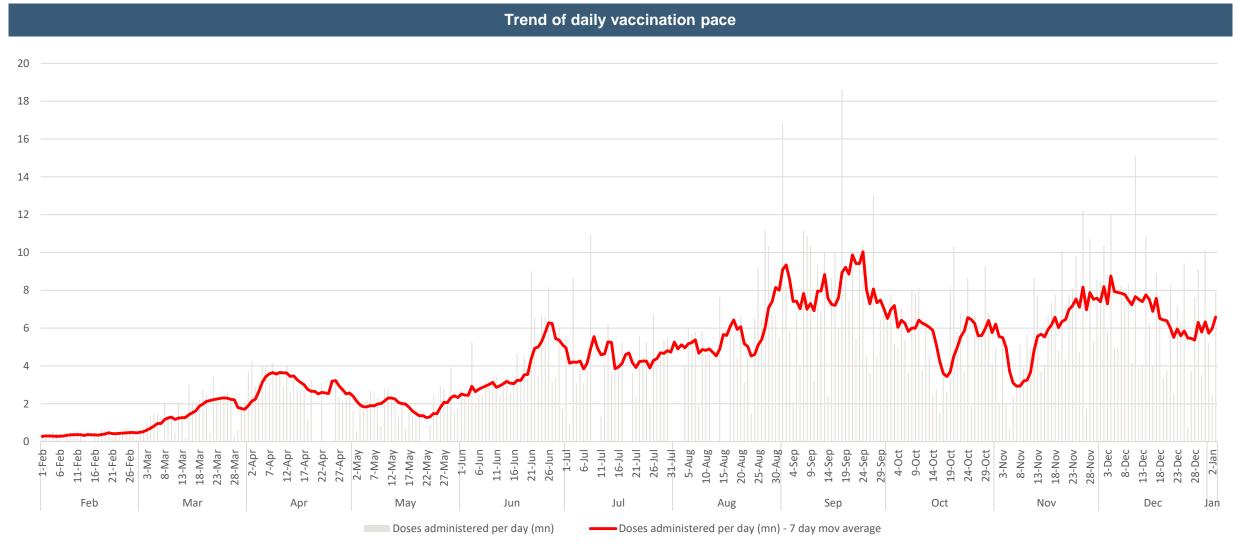
FY23 growth is currently forecast at 7.8%. The Covid trajectory and the upcoming budget will remain key monitorable.

GDP – Gross domestic product; Data on 2011-12 base, P=Projected Source: Central Statistical Office, MOSPI, CRISIL Research





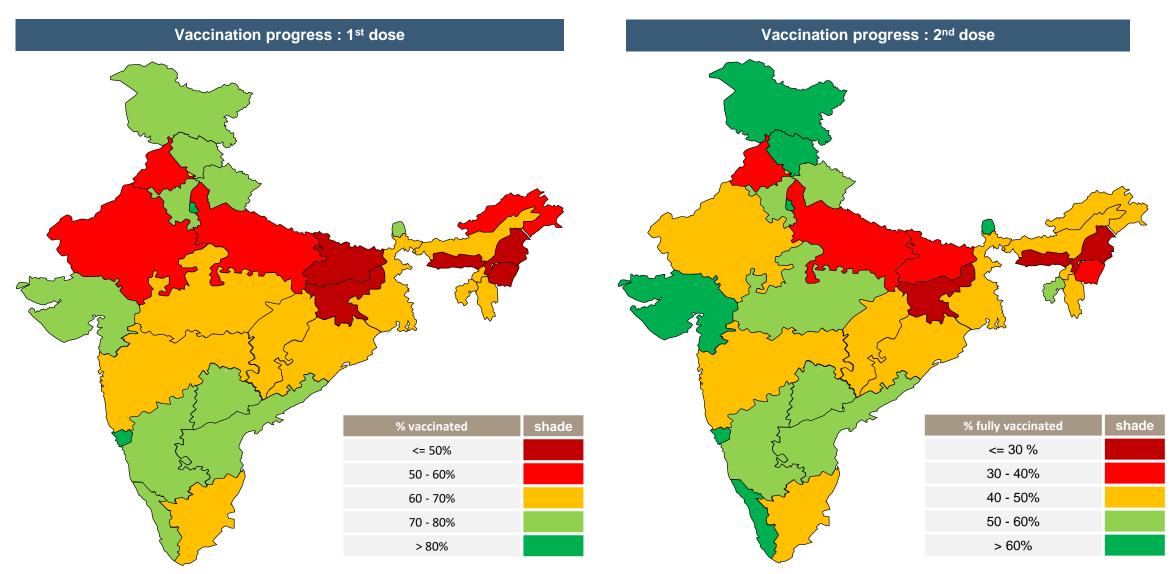
Vaccination: the need for speed



Million doses per day



GJ, AP, HP, KL leading in terms of % of total population inoculated





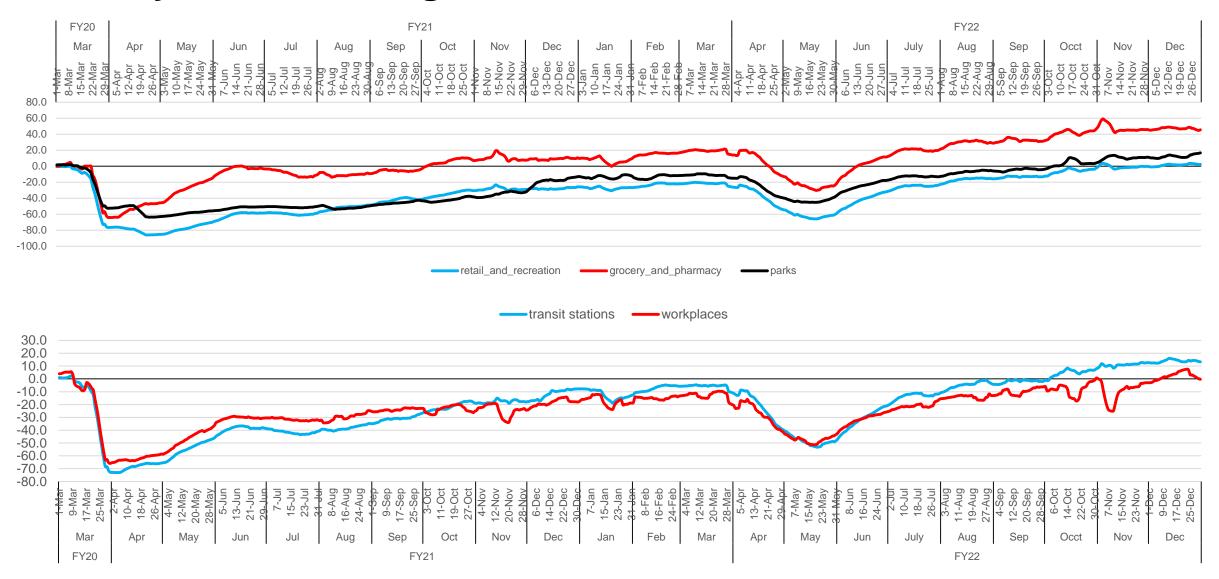
As of 5th Jan 2022 Source: MohFW,UIDAI,CRISIL Research



Mobility Trends



Mobility indicators-segmental



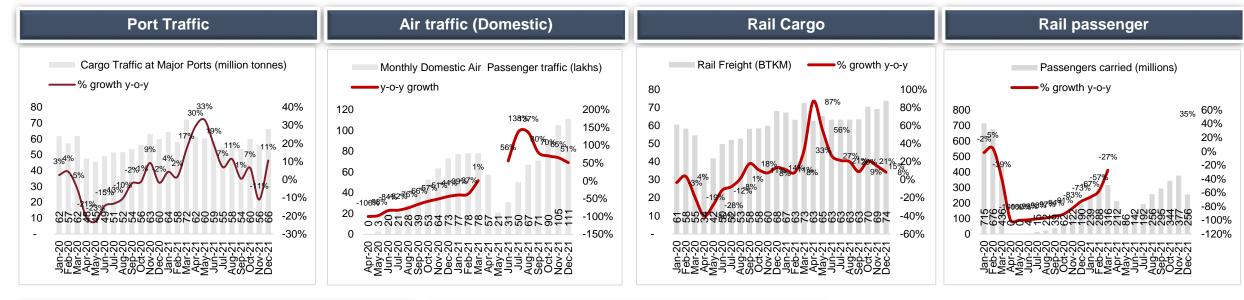
Source: CRISIL Research, Covid-19 Community Mobility Reports by Google,

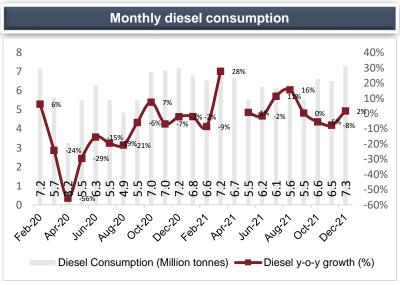


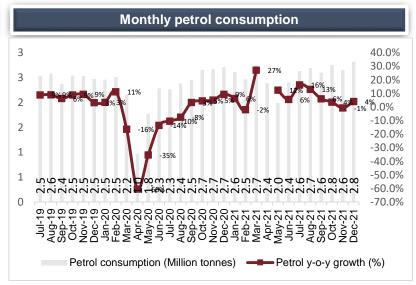
CRISIL

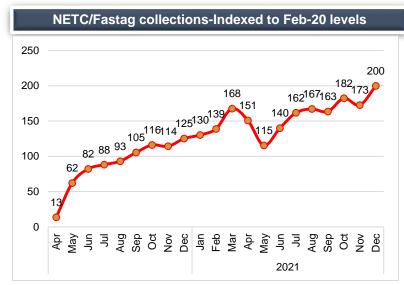
An S&P Global Company

Overall mobility showing mix trends month on month





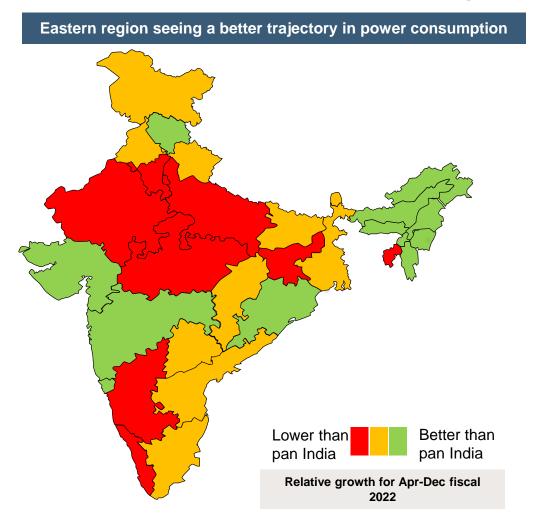


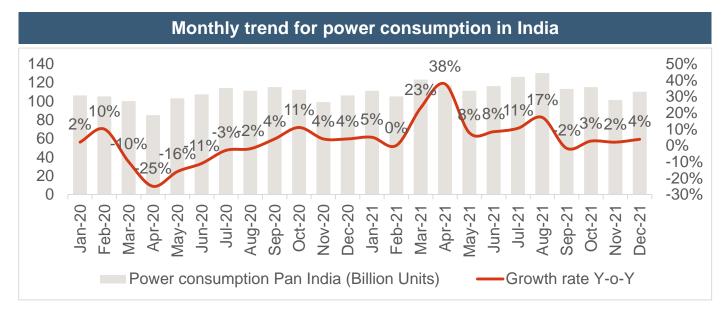






Power consumption poses lower single digit growth in Dec 2021; East region performs better than other regions in Apr-Dec FY22 period





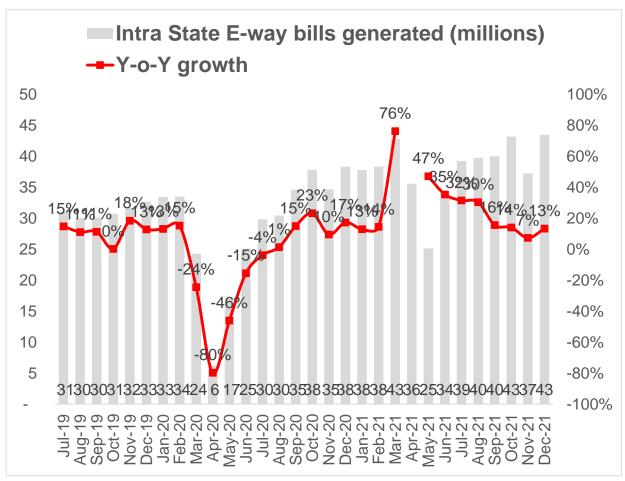
Daily trend for power consumption in India Daily average power consumption (MU) -7 day moving average (MU) 5,500 4,500 3,500 2.500 21-Sep 28-Sep 12-Oct 19-Oct 26-Oct 5-Oct

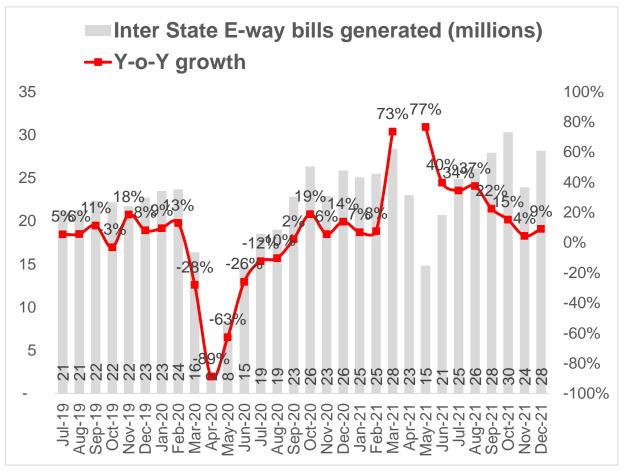


Research

E-waybill trend

Number of E-way bills generated in India (millions)-Intrastate





Note:

Source: GST Network, CRISIL Research,

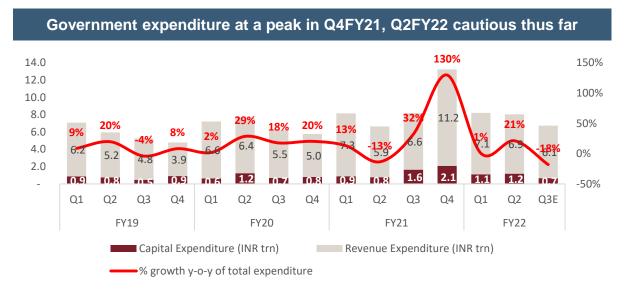
1. y-o-y growth not mentioned in Apr-21 as values are not meaningful due to low base effect of previous year caused by the nationwide lockdown.

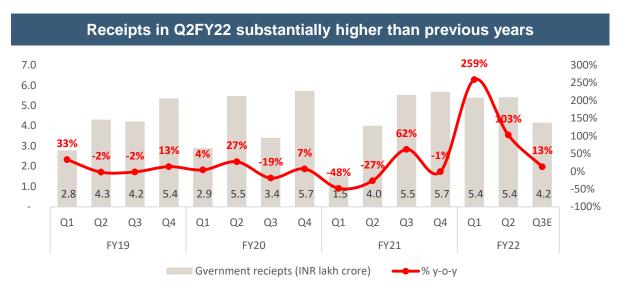
Research

2.Agri, last mile distribution and market load operations do not come under ambit of E-way bill hence the E-way bills mentioned here may not represent the entire movement of goods in the country

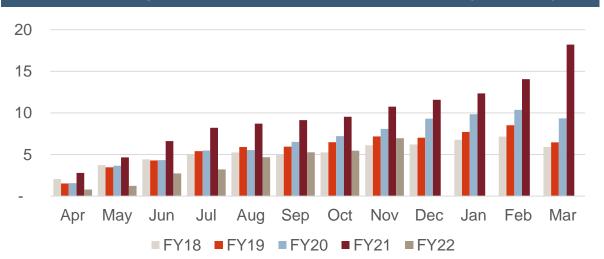


Central government finances in a relatively healthier position compared to last year

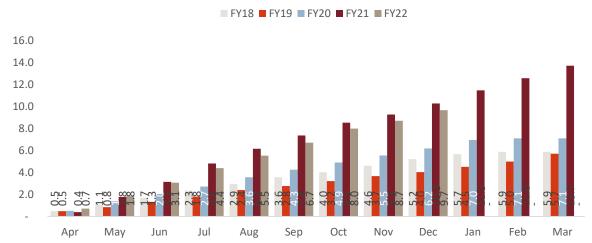




m-o-m build up of cumulative fiscal deficit in value terms (INR trillion)



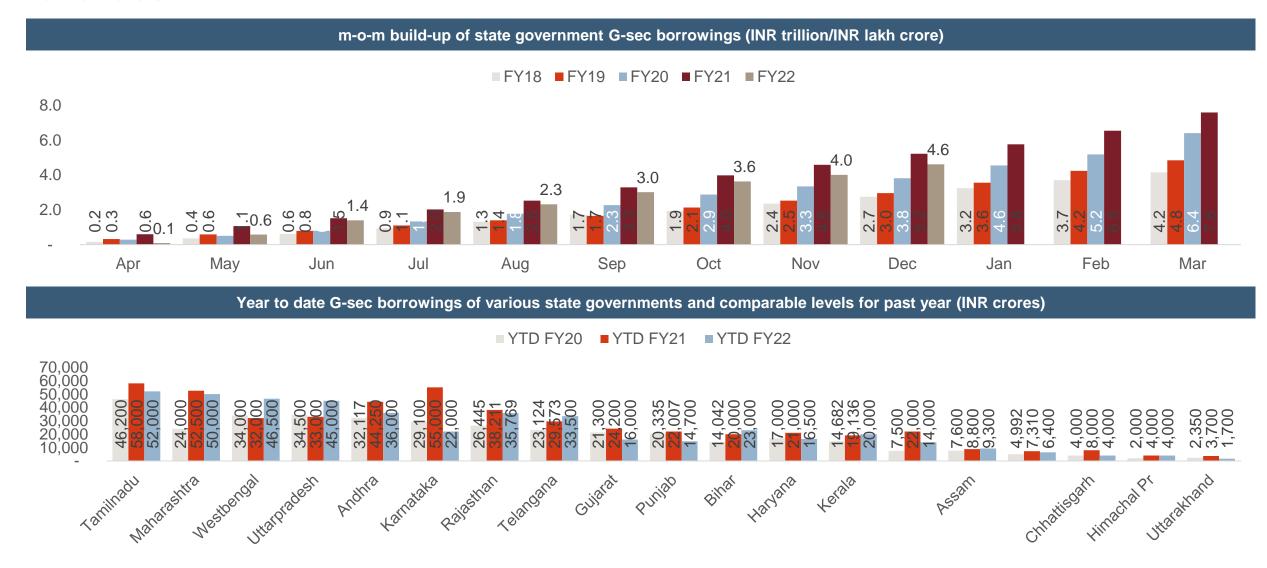
m-o-m build-up of cumulative market borrowings of the govt. (INR trillion)







State government borrowings similar to last year as partial lockdowns hurt state revenues





High frequency parameters seeing growth on a very low base of last year

Segments	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-2
Core Sectors																						
Coal	4%	-15%	-14%	-16%	-6%	4%	21%	12%	3%	2%	-2%	-4%	0%	9%	7%	7%	19%	21%	8%	15%	8%	
Crude Oil	-5%	-6%	-7%	-6%	-5%	-6%	-6%	-6%	-5%	-4%	-5%	-3%	-3%	-2%	-6%	-2%	-3%	-2%	-2%	-2%	-2%	
Natural Gas	-15%	-20%	-17%	-12%	-10%	-9%	-11%	-9%	-9%	-7%	-2%	-1%	12%	25%	20%	21%	19%	21%	28%	26%	24%	
Petroleum Refinery Products	0%	-24%	-21%	-9%	-14%	-19%	-9%	-17%	-5%	-3%	-3%	-11%	-1%	31%	15%	2%	7%	9%	6%	14%	4%	
Fertilizers	-12%	-4%	7%	4%	7%	7%	0%	6%	2%	-3%	3%	-4%	-7%	4%	-10%	2%	1%	-3%	0%	0%	3%	
Steel	-22%	-83%	-40%	-23%	-6%	-2%	3%	-3%	-4%	3%	3%	-2%	32%	494%	55%	25%	9%	5%	3%	5%	1%	
Cement	-25%	-85%	-21%	-7%	-13%	-15%	-4%	3%	-7%	-7%	-6%	-5%	41%	607%	12%	8%	22%	36%	11%	15%	-3%	
Electricity	-8%	-23%	-15%	-10%	-2%	-2%	5%	10%	2%	5%	5%	0%	22%	39%	7%	8%	11%	15%	1%	3%	2%	
Auto-offtake																						
Two Wheelers	-40%	-100%	-84%	-39%	-15%	3%	12%	17%	13%	7%	7%	10%	73%	NM	26%	3%	-2%	-15%	-17%	-25%	-34%	
Cars	-53%	-100%	-88%	-59%	-18%	11%	55%	39%	-14%	13%	-7%	-1%	108%	NM	113%	118%	45%	8%	-41%	-27%	-19%	
Uvs + Vans	-49%	-100%	-76%	-43%	1%	26%	38%	39%	3%	23%	25%	33%	153%	NM	118%	11070	1070	070	1170	27,0	1070	
Three Wheelers	-58%	-100%	-95%	-80%	-77%	-75%	-72%	-5%	-22%	-6%	-6%	-3%	16%	NM	-49%	-9%	41%	60%	54%	19%	-7%	
Auto-Vaahan																						
2W	36%	-76%	-89%	-40%	-36%	-27%	-13%	-25%	-19%	12%	-7%	-16%	-35%	171%	155%	18%	28%	7%	-9%	-6%	0%	-19
Cars+Uvs	-5%	-91%	-86%	-37%	-23%	-4%	10%	-6%	7%	24%	-2%	13%	34%	913%	171%	43%	63%	39%	22%	-11%	-19%	-9
Others																						
PMI Manufacturing	51.8	27.4	30.8	47.2	46	52	56.8	58.9	56.3	56.4	57.7	57.5	55.4	55.5	50.8	48.1	55.3	52.3	53.7	55.9	55.5	57.6
IIP Overall	-19%	-57%	-33%	-17%	-11%	-7%	1%	5%	-2%	2%	-1%	-3%	24%	134%	29%	14%	11%	12%	3%	3%		
Diesel consumption	-24%	-56%	-29%	-15%	-19%	-21%	-6%	8%	-7%	-2%	-2%	-8%	28%	106%	1%	-2%	11%	16%	0%	-6%	-8%	
Rail freight (NTKM)	-19%	-40%	-28%	-12%	-8%	1%	18%	11%	8%	14%	11%	8%	33%	87%	56%	27%	21%	20%	9%	21%	15%	
Bitumen consumption	-30%	-73%	-19%	37%	-4%	39%	38%	49%	18%	21%	-3%	-10%	45%	343%	12%	-23%	5%	16%	-2%	5%	-22%	
Total credit	6%	7%	6%	6%	6%	6%	5%	6%	6%	6%	6%	7%	6%	6%	5%	6%	6%	7%	7%	7%	7%	7%
Industry credit	1%	2%	2%	2%	1%	0%	0%	-2%	-1%	-1%	-1%	0%	0%	0%	1%	0%	1%	2%	2%	4%		
-Micro and Small	2%	-2%	-3%	-4%	-2%	-1%	0%	1%	0%	1%	1%	2%	1%	4%	5%	6%	9%	10%	10%	12%		
-Medium	-1%	-6%	-5%	-9%	-3%	3%	14%	17%	21%	15%	19%	21%	29%	50%	52%	61%	66%	63%	49%	49%		
-Large	1%	3%	3%	4%	1%	1%	-1%	-3%	-2%	-2%	-3%	-2%	-1%	-2%	-2%	-3%	-3%	-1%	-1%	1%		

Research



Macroeconomic outlook

Segments (% Growth Y-o-Y)	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20 E	FY 21 E	FY22P	FY23P
GDP (% Growth Y-o-Y)	7.4	8.0	8.8	7	6.1	4.8-5	(7.3)	9.5	7.8
CAD (as a % of GDP)	-1.3	-1.1	-0.7	-1.8	-2.1	-0.9	+0.9	-1.2	-1,4
10-year G-sec yield (end-March)	7.7	7.5	6.8	7.6	7.5	6.2	6.2	6.5	6.7
PFCE	6.4	7.9	8.1	7	7.2	5.5	(9.1)	8-9	8-9
Crude oil (\$/barrel/CY)			44	54.5	71	64	42.3	68 - 73	68-73
Inflation (Consumer Price Index)	5.9	4.9	4.5	3.6	3.4	4.8	6.2	5.5	4-6



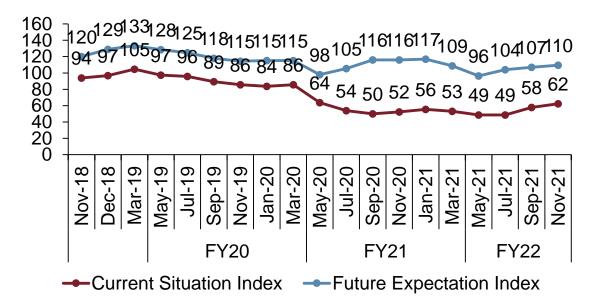
Perceptions and Expectations on the General Economic Situation

Consumer Confidence Index



Consumer confidence continued to improve from the historic low recorded in July 2021 though the assessment for the current period remained in pessimistic terrain; the current situation index increased to 62.3 in November 2021 from 57.7 in the previous survey round

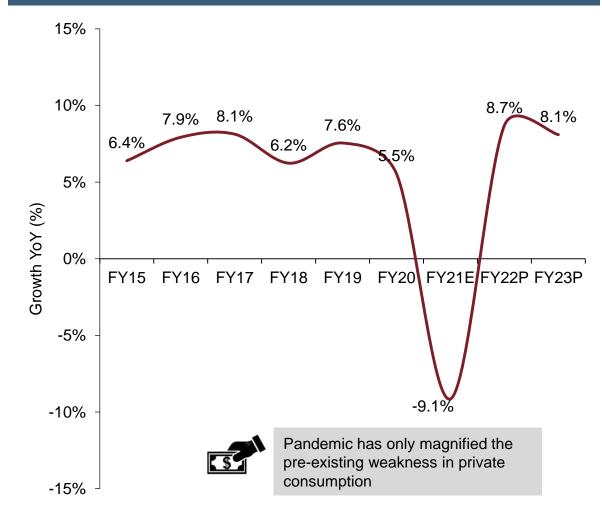
The perception for general economic situation, employment scenario and household income displayed signs of recovery. Households were more confident for the year ahead, which was reflected in the continued upward trajectory of the future expectations index (FEI), buoyed by higher optimism for household income and employment



Source: CRISIL Research, RBI, NCAER

Research

Private consumption to bounce back in fiscal 2022



NOTE: New series considered with a base year - 2011-12

Source: CRISIL Research



Rural Scenario





Low government support and higher input cost to impact farm sentiments in FY22

Agri scenario lends support to a struggling economy



Government support

Crop scenario



- Rabi CVI expected to improve by 1-3% in FY22 on account of healthy reservoir levels. However, there is a scare of unseasonal rainfall which might impact crop output.
- Higher input cost and low realizations to impact farm sentiments in the current fiscal

PM Kissan and PM Garib Kalyan Yojana



- A total of 12 crore beneficiaries have been transferred money under PM Kissan Yojana in fiscal 2021
- Prime Minister Narendra Modi to release the instalment of farmers under PM Kisan Samman Nidhi Yojana (PM-KSNY) on 1st January 2022 of about INR 20,000 crore to more than 10 crore farmers of the country.

MNREGA



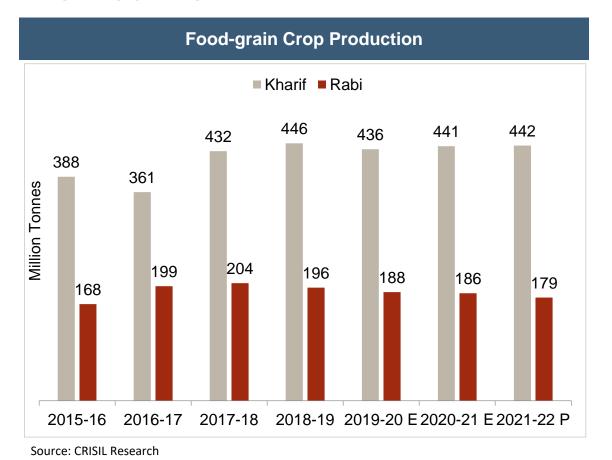
- As on 4thth January 2022, Rs. 87,857 cr has been spent out of Rs. 74,775 cr allocated
- So far, around 65.18.7 million households have worked under the scheme in FY22, while the full-year number in last fiscal was 75 million

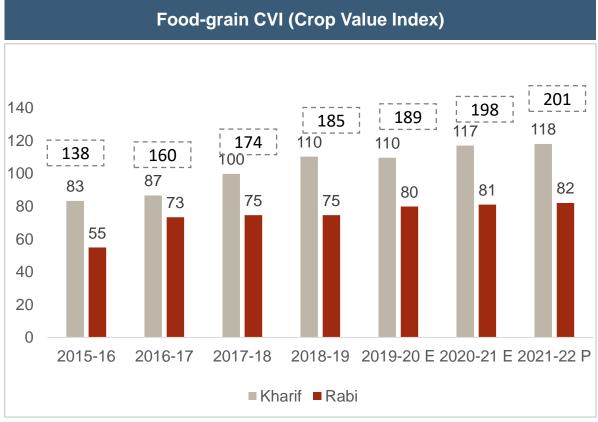
Source: Ministry of Rural Developmentx

Source - Industry, CRISIL Research



Higher input cost and low realisations to impact farm sentiments in the near term





Source: CRISIL Research;

Note: CVI- Crop value index, CVI has been indexed to 100 at 2011-12

Total CVI



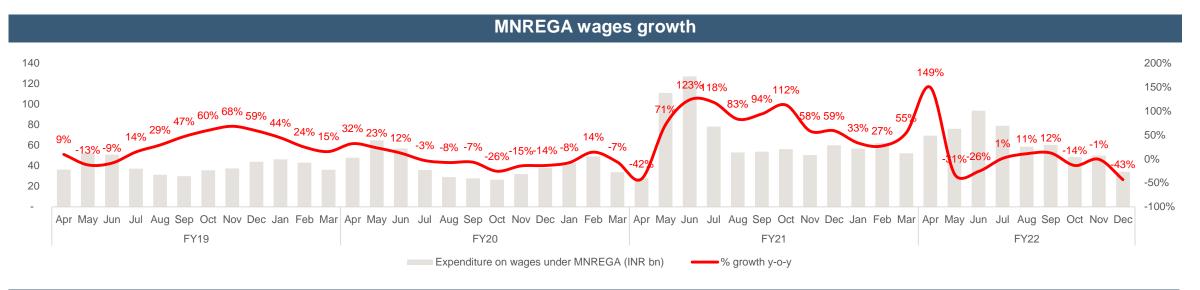
Low crop quality and impact on prices to result in lower profits for farmers

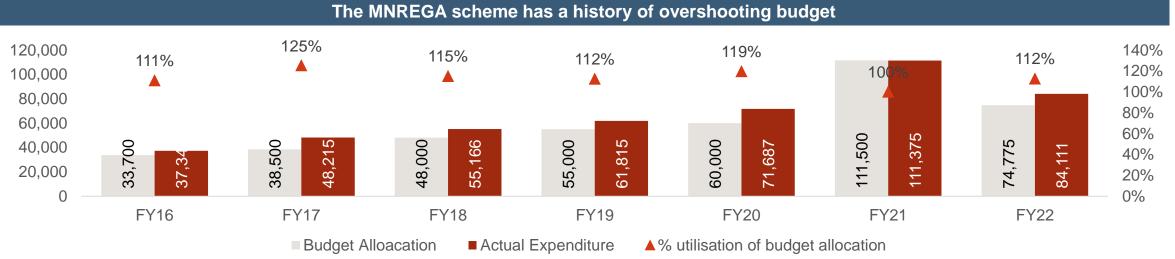


Lower government procurement to further impact farm income for the current fiscal



After a record spending in FY21, MNREGA scheme expenditure tapering down in **FY22**







Research



Indian automobile industry





Assumptions

- Economic situation to gradually improve
- No further lockdowns assumed due to Omicron or other waves
- Normal and well distributed monsoon in CY 2022
- Crude oil prices are expected to average \$68-73 per barrel in CY 2022. Retail fuel prices to remain elevated at Rs.100, expected to constraint demand.
- Rising commodity prices to remain a key monitorable. Further hike in vehicle prices possible.
- Supply constraints expected to improve gradually as OEMs along with Tier-I players are managing the supply bottlenecks. However, **semi-conductor shortage to subside post Q3 of fiscal 2023**
- Pending booking to be served in Q4 of fiscal 2022 and Q1 of fiscal 2023
- Financing scenario to remain accommodative; barring MSME and commercial segment
- Model launches like XUV 700, Celerio facelift, Tata Punch to have considerable impact
- Possibility of downside to our forecast if Covid situation worsens in India or globally



Annual Forecast – Domestic (Base case)





SOURCE: SIAM, CRISIL Research



Quarterly forecasts – Domestic

Vehicle	Subsegment		Volu	ıme		YoY growth (%)				
segment	Subsegment	Q2 FY 22	Q3 FY 22	Q4 FY 22 P	Q1 FY 23 P	Q2 FY 22	Q3 FY 22	Q4 FY 22 P	Q1 FY 23 P	
	Cars ('000)	344	349	385-395	368-378	(19)	(32)	(25)-(23)	10-12	
Passenger vehicles	UVs & vans ('000)	397	411	420-430	391-401	32	9	0-2	27-29	
	PVs ('000)	741	760	810-820	765-775	2	(15)	(13)-(11)	19-21	
	Motorcycles (mn)	2.61	2.4	2.60-2.65	2.63-2.68	(17)	(22)	(8)-(6)	54-56	
Two-wheelers	Scooters (mn)	1.3	1.0	0.97-1.2	1.02-1.07	(1)	(28)	(28)-(26)	76-78	
	Mopeds ('000)	164	160	140-145	135-140	(17)	(24)	(8)-(6)	99-101	
	2W (mn)	4.1	3.6	3.73-3.78	3.82-3.87	(12)	(12)	(15)-(13)	60-62	
	LCV ('000)	108	127.6	135-138	119-121	3	(8)	8-10	62-64	
Commercial	MHCV ('000)	51.3	60.4	75-76	61-62	115	21	(2)-0	124-126	
vehicles	Buses ('000)	6.3	6.9	11.6-11.8	9.5-9.6	57	67	46-48	78-80	
	CVs ('000)	167	196	222-226	190-193	24	1	6-8	79-81	
						l				
Tracto	ors ('000)	212	223	187-190	228-232	(11)	(13)	(22)-(20)	0-2	
	Goods ('000)	23.5	22.3	28.8-29.3	32.2-32.7	17	(21)	2-4	276-278	
Three-wheelers	Passenger ('000)	47.4	60.1	67.9-68.4	52.5-53.0	79	37	18-20	234-236	
	3W ('000)	70.9	82.4	97.0-97.5	85.0-85.5	52	14	13-15	249-251	

SOURCE: SIAM, CRISIL Research

Research



Annual forecasts – Exports

Vehicle	Subsegment		Volu	ıme		YoY growth (%)			
segment	oubsegment	FY 20	FY 21	FY22E	FY23P	FY 20	FY 21	FY22E	FY23P
D	Cars ('000)	475	262	330-340	360-370	(7)	(45)	27-29	7-9
Passenger vehicles	UVs & vans ('000)	186	138	170-175	190-200	15	(26)	24-26	12-14
v 0.1110.100	PVs ('000)	662	400	500-520	550-560	(2)	(40)	26-28	9-11
	Motorcycles (mn)	3.14	3.03	4.08-4.13	4.42-4.48	9	(3)	11-13	7-9
Two-wheelers	Scooters (mn)	0.37	0.23	0.28-0.33	0.35-0.45	(7)	(37)	34-36	22-24
	Mopeds ('000)	14	8.3	13-18	18-20	(17)	(40)	80-85	22-24
	2W (mn)	3.52	3.28	4.3-4.5	3.9-4.1	7	(7)	34-36	8-10
	LCV ('000)	33.9	31.1	43-45	46-48	(28)	(8)	39-41	7-9
Commercial	MHCV ('000)	14.9	13.5	20-22	22-24	(63)	(9)	59061	9-10
vehicles	Buses ('000)	11.9	5.7	7-9	8-9	(3)	(52)	47-49	11-13
	CVs ('000)	60.7	50.3	73-75	79-81	(39)	(17)	45-47	45-47
Tracto	ors ('000)	76	88.6	90-92	95-97	(17)	17	3-4	4-6
	Goods ('000)	6.3	5.6	7.5-8	8.9-9.1	2	(12)	39-41	14-16
Three-wheelers	Passenger ('000)	495.9	387.4	493-498	528-538	(12)	(22)	27-29	6-9
	3W ('000)	502.2	392.9	500-505	537-542	(12)	(22)	27-29	6-9







PV industry continues to grapple for stock

Vehicle segment	Normal inventory in days	Current inventory levels*	Inventory Units	Reasons
Passenger Vehicles	25-30	5-10	50-80 thousand	High retail traction, new launches, slower production have kept the inventory levels low. Industry continues to face chip shortage. Festive sales were lower on account of supply shortage.
Two Wheelers	30-35	43-48	1.6-2.0 million	Festive season was not as anticipated which led to high inventory in the market, slowdown in retail momentum resulted in stock correction in December which partially normalized inventory levels.
Commercial Vehicles	25-35	~30	55-60 thousand	Inventory levels are in the normal range for the MHCV segment. However, the SCV segment is facing problems and inventory levels are much lower than normal on account of shortage of semi conductor.
Tractors	30-35	43-48	93-98 thousand	Inventory levels, have further increased in Q3 due price increase that took place during end of Nov. Dealers have more stock than required on account of poor retail sentiments on ground.
Three-wheeler	20-25	40-45	~25-30 thousand	Retail demand has nosedived and dealers are left with enough stock to last more than a month for the retail demand





Passenger vehicles



Strong booking pipeline, new launches, continued need for personal vehicles to support industry revival in FY23

Variables	FY19	FY20	FY21	FY22 E	FY23 P
Income for discretionary spending	F	NF	NF	F	F
Variables	FY19	FY20	FY21	FY22 E	FY23 P
Cost of ownership	NF	N	N	N	N
Petrol / CNG Vehicles	NF	N	N	NF	NF
Diesel vehicles	NF	N	NF	NF	NF
Interest rates	N	N	F	N	N
Variables	FY19	FY20	FY21	FY22 E	FY23 P
New model/ facelift launches	NF	F	N	F	F
Regulations – passenger vehicles	N	NF	N	N	N
Impact on Overall Sales Growth	N	NF	NF	F	F

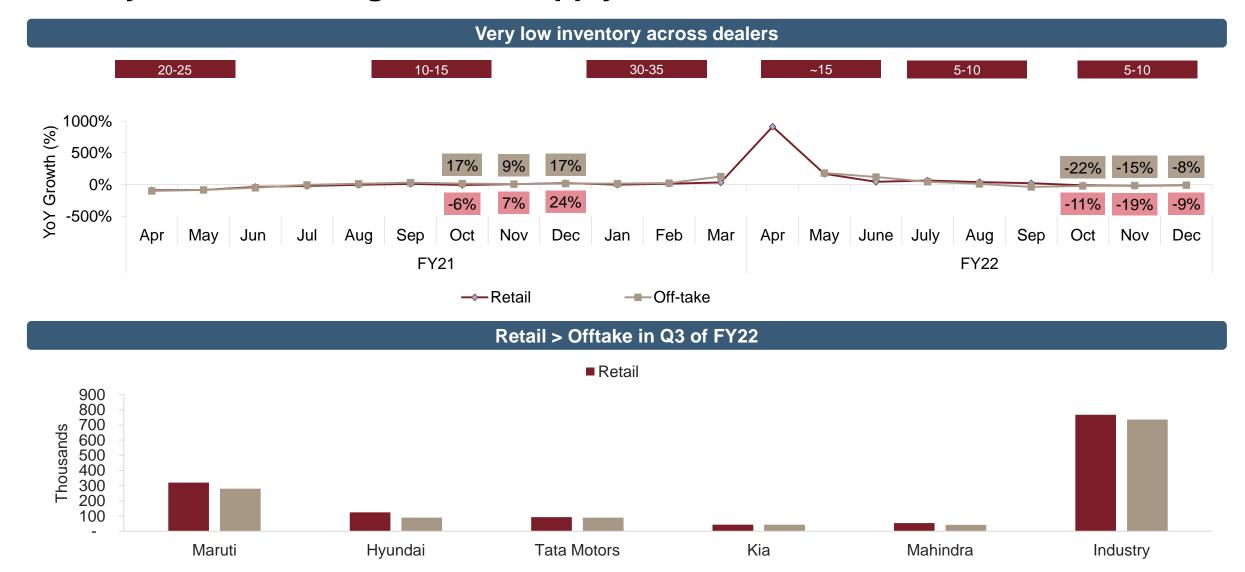
E: Estimated

SOURCE: Industry, CRISIL Research

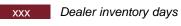




Healthy demand during festive; supply constraint continues

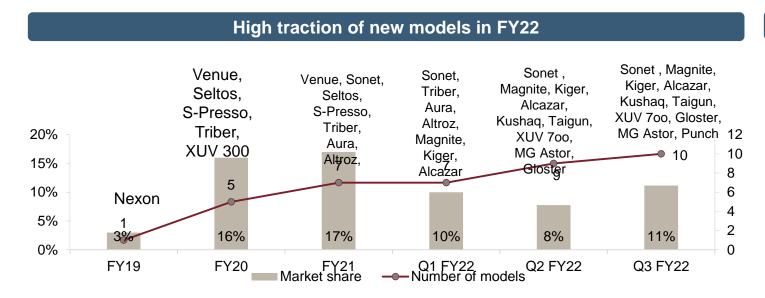








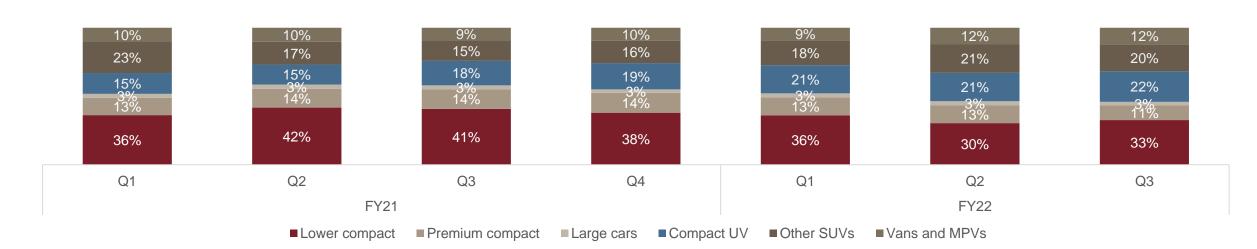
SUV segment continues to expand in this fiscal

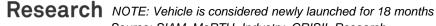


Major upcoming launches (Q4 FY 2022)

Company	Model	Segment		
Hwyndai	Elantra facelift	Large car		
Hyundai	Casper	Small car		
Maruti	Baleno facelift	Small car		
Mahindra	Scorpio facelift	Other SUV		
Volkswagen	Vento facelift	Large car		

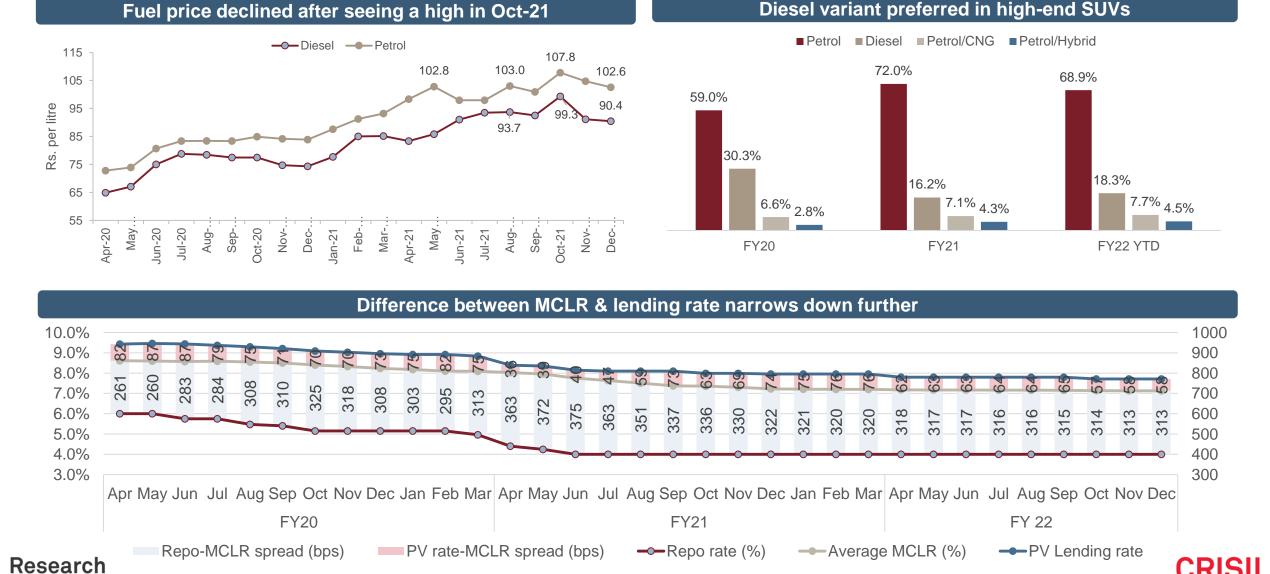
Fall in share of premium compact and Other SUV segment due to supply constraint



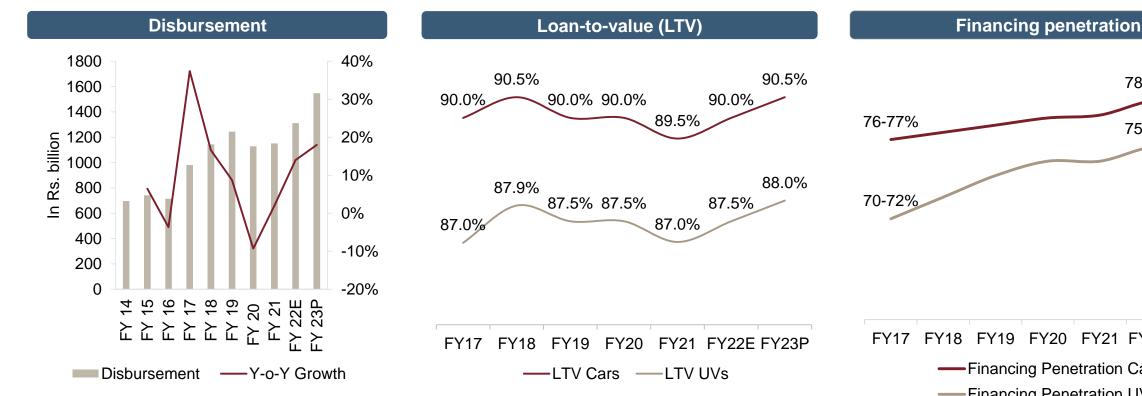


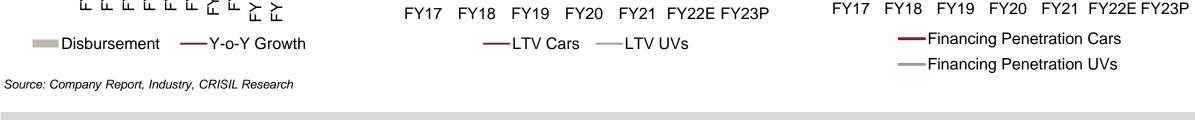
An S&P Global Company

SUV drives demand for diesel variant despite of increase in fuel prices; Interest rate remains subdued



On a lower base, disbursements to witness some growth in FY22





- Amidst the chip shortage and the subsequent supply crunch, we expect PV demand to grow at 10-12% pace during fiscal 2022. Disbursements are also expected to register some growth on a lower base. Increased prices to provide an additional support.
- Stance of financiers has remain accommodative (even post Covid wave-2) barring funding cab segment and MSME category customers.
- Some improvement expected in finance penetration with subdued interest rates and improvement in economic scenario.

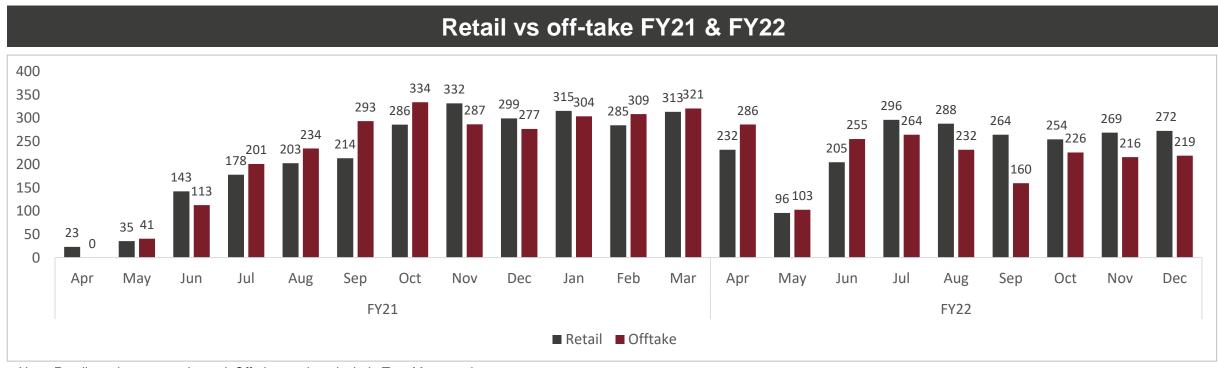




78-80%78-80%

75-77%75-77%

Some improvement in retail during Q2



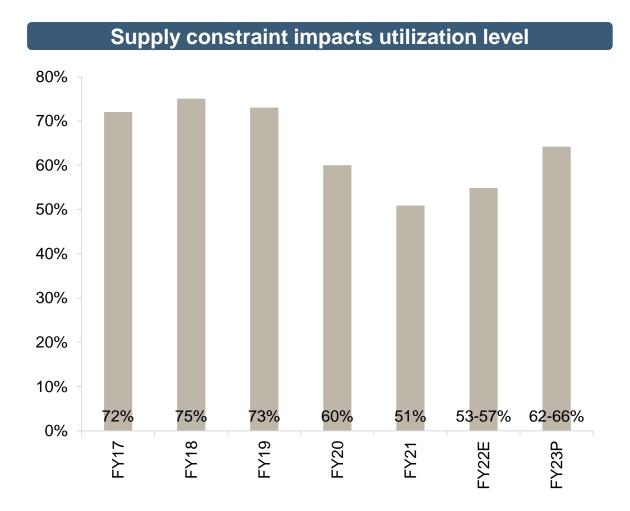
Note: Retail numbers are estimated, Offtake numbers include Tata Motors sales Source – MoRTH, SIAM, CRISIL Research

- Since the festive season of FY21, retail sales have been in line with the offtake numbers
- There was some improvement in offtake during the Q1 FY22 boosting dealer inventory, continued restrictions in few states like Kerala, WB limited the retail demand growth
- Moreover, amidst the restricted RTO operations, a retail demand witnessed some spillover to Q2
- Continued upply shortage resulted in a large difference between retail & offtake in Q3 FY22
- Dealer stock levels continue to remain below normal; currently at 5-10 days





Semi-conductor shortage to limit utilization in this fiscal



Source: CRISIL Research Estimated

Capacity utilisation of key players

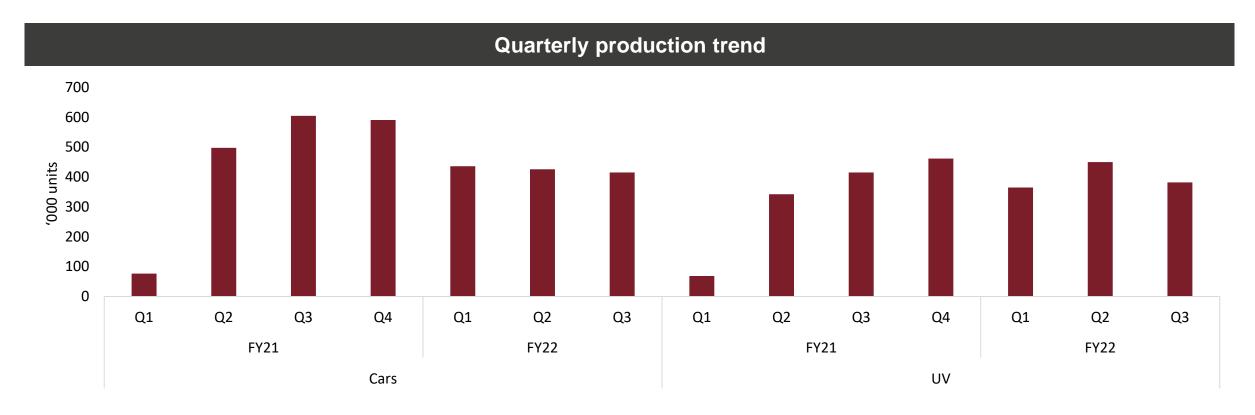
Player	Effective Capacity (in '000) (on 31st Mar 2021)	Capacity utilisation in FY21	Capacity Utilisation Q3 FY22 E
Maruti	2,050	69%	73%
Hyundai	763	74%	78%
Tata Motors	564	38%	63%
Renault-Nissan	480	30%	38%
Toyota	310	17%	24%
Honda	180	48%	54%
Volkswagen	179	28%	37%
Kia Motors	300	64%	74%

Source: SIAM, Industry, CRISIL Research





Production witnessed decline in Q3 Fiscal 2022



Source: SIAM, CRISIL Research

- Amidst the Covid wave 2& the induced lockdowns, production contracted in Q1 FY22
- Q-o-Q drop in production was slightly higher for cars, as OEMs continued to focus on high demand UV segment
- This further boosted share of UVs in total production; from 42% in fiscal 2021 to 48% in Q3 fiscal 2022
- Revival in production is witnessed from Q2, in line with the estimated demand growth and Covid situation normalizing
- Semi conductor shortage to impact production in fiscal 2022.



Domestic – annual forecast

	Passenger vehicles	Cars	UVs and vans
FY 20 volumes	2,773	1,698	1,075
YoY Growth in FY20	18%	23%	7%
FY 21 volumes	2712	1542	1170
YoY Growth in FY21	2%	9%	8%
FY 22E volumes	2930-2990	1400-1440	1590-1620
YoY Growth in FY22E	8-10%	7-9%	36-38%
FY 23P volumes	3372-3420	1590-1620	1755-1785
YoY Growth in FY23P	14-16%	12-14%	14-16%

NOTE: Volumes in thousand units, numbers in red boxes indicate y-o-y de-growth, numbers in green boxes represent y-o-y growth Source – SIAM, CRISIL Research





Domestic – quarterly forecast

David	. J	Passenge	Passenger vehicles		ars	UVs and vans		
Perio	oa	Volume (000)	YoY Growth	Volume ('000)	YoY Growth	Volume ('000)	YoY Growth	
EV04	Q3	897	14%	516	8%	381	24%	
FY21	Q4	934	43%	513	27%	420	67%	
	Q1	645	320%	337	321%	308	319%	
FY22 E	Q2	741	2%	344	(19)%	397	32%	
FIZZ L	Q3	760	(15)%	349	(32)%	411	9%	
	Q4	810-820	(13)-(11)%	385-395	(25)-(23)%	420-430	0-2%	
	Q1	765-775	19-21%	368-378	10-12%	391-401	27-29%	
FY23 P	Q2	840-850	14-16%	495-405	16-18%	438-448	11-13%	
	Q3	868-878	14-16%	410-420	18-20%	450-460	10-12%	

Source - SIAM, CRISIL Research

- From a high of Q4 FY21, sales contracted sharply (31% q-o-q) in Q1FY22 amidst the second wave and the subsequent restrictions
- Cars witnessed a higher drop of 34% while UVs contracted 26% q-o-q
- Sales gradually normalized from Q2 backed by continued need for personal mobility, strong order pipeline, estimated improvement in economy & added push with new launches
- Festive demand has not lived up to its anticipation and has been impacted highly which further impacted demand in Q3 FY22
- UVs are expected to continue to outpace cars given the changing consumer preference towards UVs as well as the UV dominated new vehicle pipeline of OEMs
- Annual FY22 sales are expected to cross FY20 levels
- We have not considered the resurgence of Covid and renewed restrictions in the forecast





Stakeholder interactions



OEM/ Tier-I suppliers

- Covid and supply shocks have led to OEMs streamlining their supply chain along with Tier-I manufacturers
- We might face further supply issues if chip producing nations such as Taiwan, China, etc get into lockdown or if chip manufacturers prioritize their supply towards consumer electronics such as laptops and mobile phones
- Despite reduction in new Covid cases, preference for personal mobility is expected to continue going ahead; but if supply crunch continues for other half of the year (which looks possible) there could be some demand loss in FY23
- Segmental shift seen from small car towards micro/compact SUV from first-time-buyers

Dealer



- · Healthy demand and enquiries seen during festive
- · Lower retail than expected due to supply shortage
- High fuel cost has led to further demand for CNG variants
- Many dealers expect a stock out situation by start of 2022. Only 5-10 days inventory left compared to a standard 30+ day inventory
- High waiting periods, 4-5 months for popular models, even 8-9 months for CNG variants
- For popular models, customers are willing to wait for long duration
- Waiting period for automatic variants remains high than manual transmission
- Gradual demand improvement seen from tour and travel segment is again seeing challenges due to worries about Omicron

Financier



- Low interest rates with tenure upto 7 years has led to increase in financing for PV portfolio
- PV portfolio being one of the least risky portfolio (even during covid times) amongst other vehicle asset classes, has led to financiers offering attractive schemes
- In fiscal 2022, preference towards personal mobility, demand coming from high ticket size cars (such as SUVs) and increase in vehicle prices has led to increase in disbursement
- Collection efficiencies which had fallen in April and May'21 have bounced back to pre-Covid levels. As compared to other segments, collections efficiencies in this segment are less vulnerable. This will support disbursements as well as LTVs in PV segment.
- Still cautious on funding to MSME & commercial buyers

Source - Industry, CRISIL Research





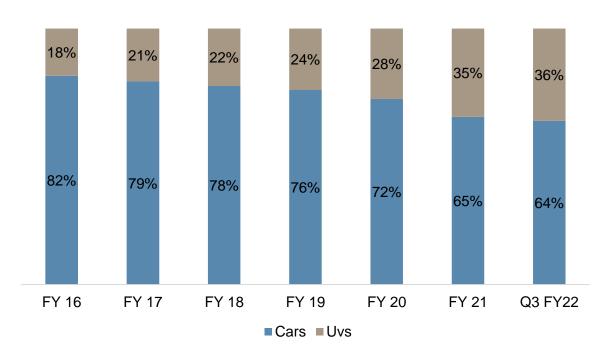
PV exports

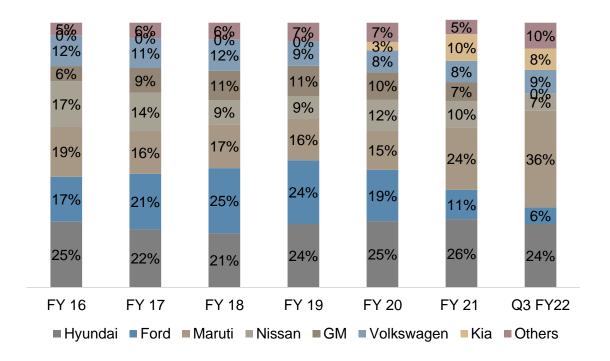


UVs continue their forward march, Maruti expands its presence further

Share of UVs on a rising trend

Hyundai tops the pole position, closely followed by MSIL





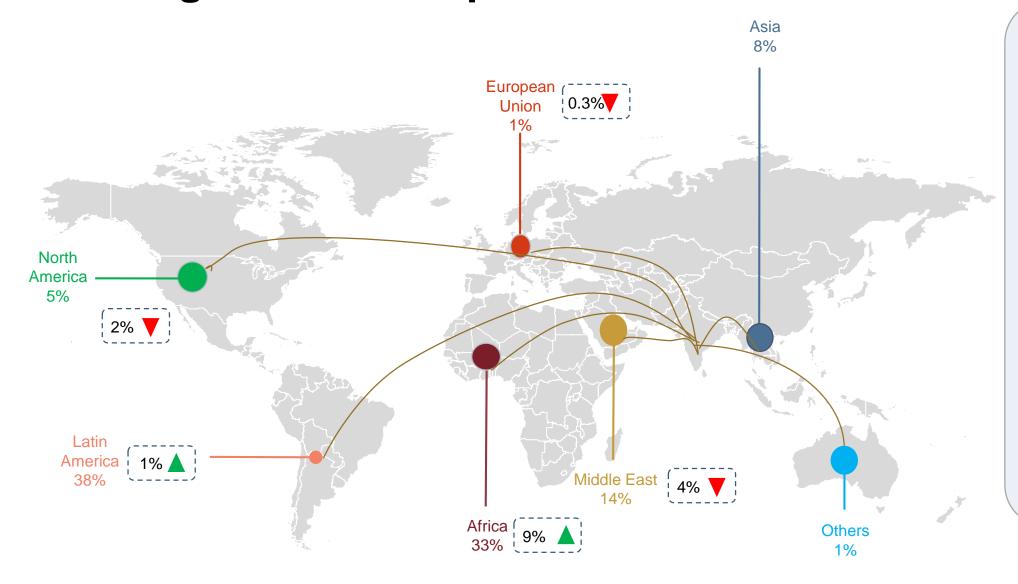
Source: SIAM, CRISIL Research

- Passenger vehicle exports registered a de-growth of 40% in FY21, after a significant drop in the first half, OEMs cut their losses in H2
- After q-o-q drop in Q4, exports witnessed growth from Q1 FY22
- Maruti, Hyundai, Nissan and recent entrant Kia continued to dominate the exports market
- Maruti has extended its presence from 24% in FY21 to 36% during Q3 FY22 backed by healthy rise in its Brezza exports





Passenger Vehicle Exports



- LATAM and Africa has aided the exports in the first half of FY22
- Preference towards Evs and stringent emission norms limited exports to EU
- Share of exports to North America sees marginal drop.
- Covid situation has improved across most geographies
- Pace of vaccination in developing countries remains a key monitorable
- Chip shortage continues to remain a hurdle for the industry
- Spread of Delta variant is a concern



Two-wheelers



Two wheeler sales to remain sluggish in fiscal 2023 too

Variables	FY 2019	FY 2020	FY 2021	FY 2022 E	FY 2023 P
Income for discretionary spending	F	NF	NF	N	N
Variables	FY 2019	FY 2020	FY 2021	FY 2022 E	FY 2023 P
Cost of ownership	NF	N	NF	NF	NF
Interest rates	N	N	F	N	N
Variables			FY 2021	FY 2022 E	FY 2023 P
Fuel injector vehicle			NF	N	N
E- Carburetor vehicle			N	N	N
Variables	FY 2019	FY 2020	FY 2021	FY 2022 E	FY 2023 P
Regulations – 2 wheelers	NF	N	NF	N	N
Impact on Overall Sales Growth	N	NF	NF	N	N

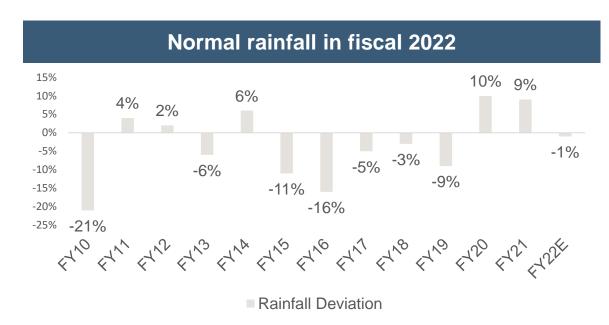
NF: Not Favorable, F: Favorable; N: Neutral

E: Estimates P: Projected



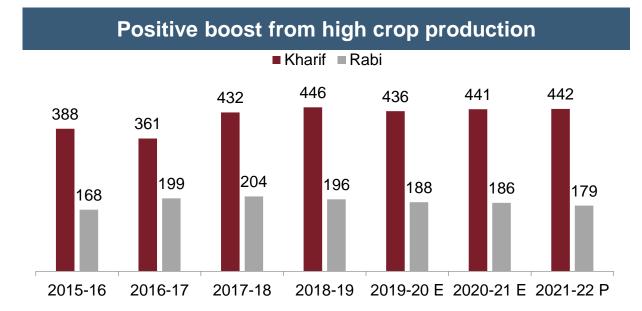


Southwest Monsoon has been normal in fiscal 2022



NOTE: Rainfall deficiency in the range of -10% to 10% of the long period average is considered as normal as per IMD

Source : IMD, CRISIL Research



MY: Marketing year, P: Projected

Notes: 1) Base of 100 for Index (kharif and rabi) taken in MY Jan-Dec 2015

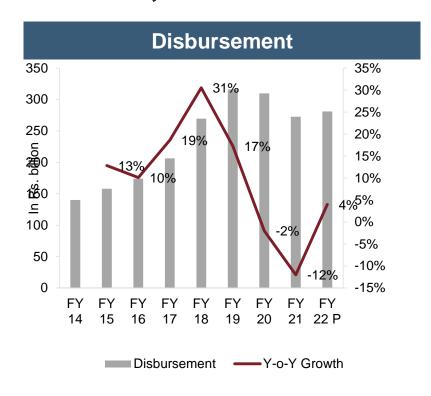
Source: Ministry of Agriculture, CRISIL Research

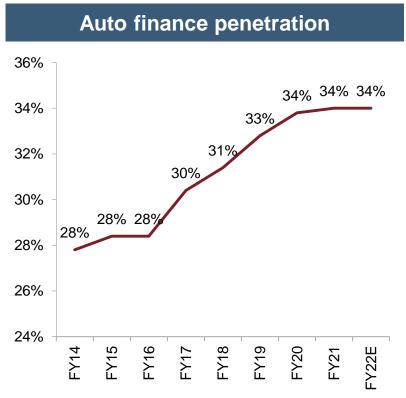
- The southwest monsoon seasonal rainfall during June to September for the country as a whole has been normal.
- After excess rainfall in June, deficit rainfall was recorded in July and August respectively. The monsoon started pouring like cats and dogs during September and refused to guit well into October.
- The wide fluctuations in the rainfall during this monsoon season had only marginal impact on the reservoir levels.
- Erratic rainfall in many states, delayed harvesting, lower cash in hands of the farmers coupled with lower commercial demand have impacted sales negatively.

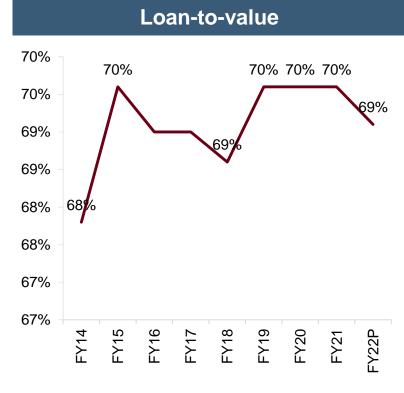




Pandemic slowed down the fast-paced growth of the two-wheeler finance; Festive demand remained muted







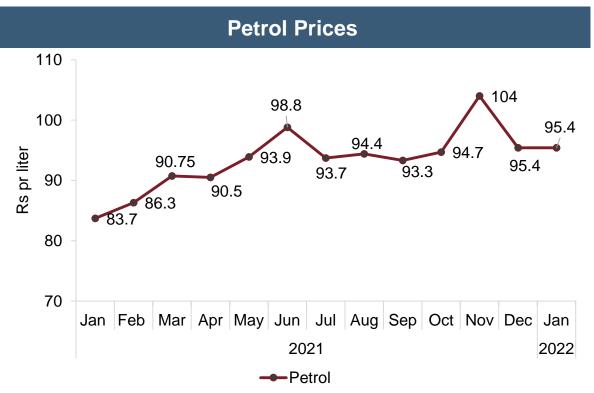
Source: Experian Credit Bureau, Company Reports, CRISIL Research

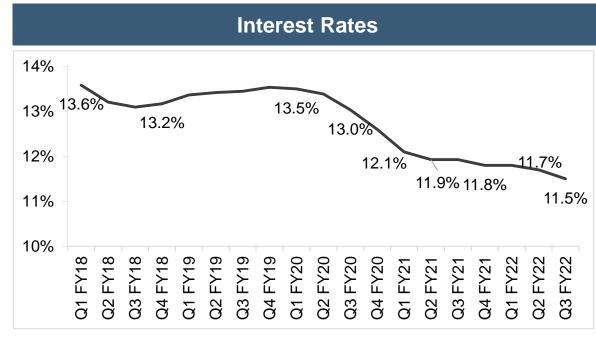
- With the onset of pandemic in fiscal 2021, economic activities slowed down which in return led to lower disbursements in two-wheeler segment
- The festive and especially in the months of October and November are where 2 wheelers clock the highest sales in the entire fiscal. However, this festive season and particularly in the month of October, the sales had dipped
- The second wave of covid has led to increased delinquency in two-wheeler segment, leading to temporary reduction in LTVs by the lenders. As the economic condition resumes to normalcy, the players will restore previous LTVs levels.





High Fuel prices pushing up ownership costs results decline in sales





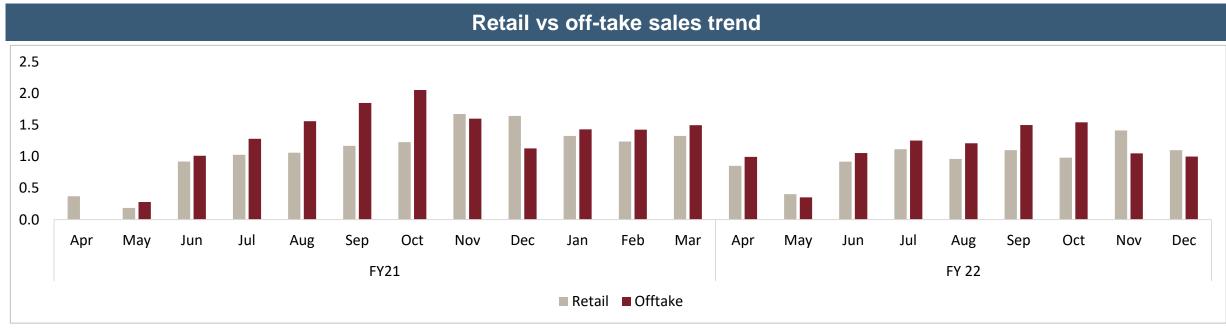
Note: Fuel prices in Delhi region Source: Industry, CRISIL Research NOTE - Interest rates are an indicative rates charged by Banks Source – CRISIL Research

- Fuel prices continued their upward march with petrol prices touching Rs 104 in November
- Resurgence of second wave and subsequent lockdown has led to rise in prices of commodities and components leading to increase in the vehicle prices.
- Interest rates continue to remain range bound





Two-wheeler retail volumes witnessed a huge decline on year in December 2021



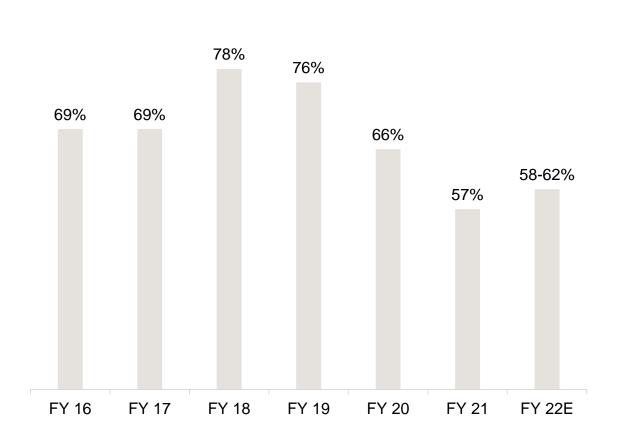
Note: Retail numbers are estimated Source – MoRTH, SIAM, CRISIL Research

- Wholesale offtake of leading two-wheeler manufacturers, declined in December 2021. Whereas sequential demand also witnessed a significant decline due to weak demand sentiments.
- Dealer level inventory stood higher during the month. This higher dealer inventory led to major OEMs announcing production cut in the month of December.
- Higher dealer inventory, production cuts by OEMs and semiconductor shortage kept the two-wheeler wholesales under pressure in the month of December.



Capacity utilization levels to improve marginally in FY22

Utilisation rates to jump to pre-covid levels



SOURCE: Industry, SIAM, CRISIL Research

Utilisation levels

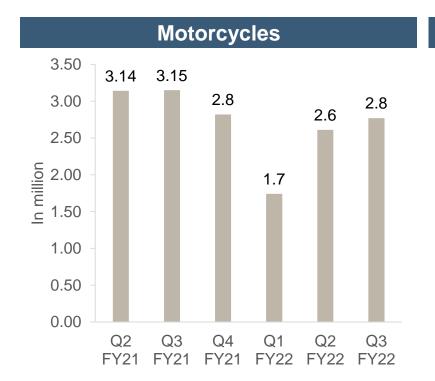
Player	Effective Capacity* in mn (as on 31st Mar 2021)	Production (in mn) FY21	Capacity utilization FY21	Capacity Utilization Q3 FY22 E
Hero Motocorp	11.0	5.8	53%	13%
Bajaj Auto	5.4	3.6	67%	14%
HMSI	7	3.9	56%	19%
TVS Motor Company	4.5	2.9	65%	20%
India Yamaha Motors	1.6	0.7	46%	13%
Suzuki Motors	1.1	0.6	55%	19%
Royal Enfield	0.95	0.6	66%	10%
Industry Total	33.2	18.3	55%	16%

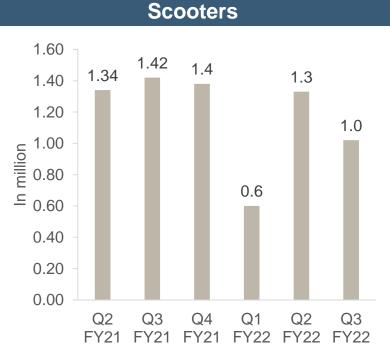
Capacity utilization estimates of Bajaj Auto and TVS Motor Co Ltd exclude three-wheelers

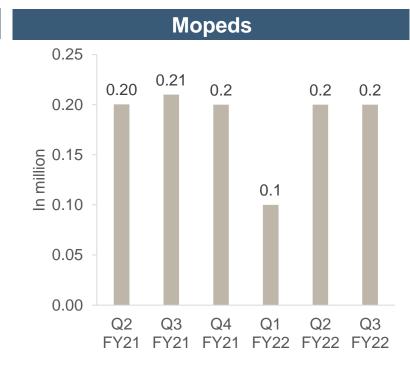




OEMs announced production cuts in Q3 due to high inventory







Source: SIAM, CRISIL Research

- Muted consumer sentiments have led to dealer inventory being above normal since Q2 FY21.
- Therefore, OEMs are highly unlikely to cause further build up of inventory in Q3 of fiscal 2022, considering the year end.
- This is the reason for certain OEMs announcing production cut in the month of November 2021.



Domestic – annual forecast

	Two-wheelers	Motorcycles	Scooters	Mopeds
FY 20 volumes	17.4	11.2	5.6	0.64
YoY Growth in FY20	18%	18%	17%	28%
FY 21 volumes	15.12	10.02	4.48	0.62
YoY Growth in FY21	13%	11%	20%	3%
FY 22E volumes	13.8-14.3	9.3-9.5	3.8-4.1	0.50-0.55
YoY Growth in FY22E	7-9%	5-7%	11-13%	12-14%
FY 23 volumes	14.7-15.2	10.0-10.5	3.8-4.3	0.53-0.58
YoY Growth in FY23P	5-7%	8-10%	4-6%	2-4%

NOTE: Volumes in million units;

YoY Growth in red indicates a negative growth YoY Growth in green indicates a positive growth

Source - SIAM, CRISIL Research





Domestic – quarterly forecast

		Two-w	heeler	Motor	cycles	Scoo	oters	Мор	peds
Perio	od	Volume (mn)	YoY Growth	Volume (mn)	YoY Growth	Volume (mn)	YoY Growth	Volume ('000)	YoY Growth
FY21	Q4	4.4	25%	2.8	25%	1.4	25%	162	15%
	Q1	2.4	86%	1.7	93%	0.6	75%	69	28%
FY22P	Q2	4.6	(12)%	2.6	(17)%	1.3	(1)%	164	(17)%
1 1 221	Q3	3.6	(12)%	2.4	(22)%	1.0	(28)%	160	(24)%
	Q4	3.73-3.78	(15)-(13)%	2.60-2.65	(8)-(6)%	0.97-1.2	(28)-(26)%	140-145	(8)-(6)%
	Q1	3.82-3.87	60-62%	2.63-2.68	52-54%	1.02-1.07	76-78%	135-140	99-101%
FY23P	Q2	3.99-4.04	(3)-(1)%	2.69-2.74	3-5%	1.13-1.18	(15)-(13)%	148-153	(8)-(6)%
	Q3	3.70-3.75	2-4%	2.50-2.55	3-4%	1.00-1.05	1-3%	143-148	(10_(8)%

Source - SIAM, CRISIL Research

- After clocking some traction in Q3, scooters segment registered near comparable numbers in Q4FY21; improvement in economy, pent up demand, opening up of few offices backed this demand
- However, the second Covid wave impacted the industry once again and restricted growth in Q1
- Economy started reviving marginally in Q2 with offices opening up, but increase in fuel prices is a major concern for growth going forward
- On the other hand, motorcycles demand dropped amidst decline in rural sentiments
- Going ahead in FY23, uncertainty revolves around another Covid-19 wave, increasing fuel prices, increasing vehicle prices and uneven rainfall spread dampening rural sentiments in certain states.





Stakeholder interactions



OEM

- Rural demand saw quick revival post lockdown, urban demand remains sluggish.
- Favourable rural demand pushing motorcycle sales
- · Economy and executive segments are more in demand
- Scooter segment still remains a worry, situation exacerbated by traction for EV scooters
- · Reopening of schools/ colleges/ offices to provide a push to scooter sales
- Inventory build up for festive has led to high stocks at dealership as retail demand during festive was not as high as anticipated.
- Another price hike before the festive season has negatively impacted sentiments in the industry
- Covid third wave remains a big concern



Dealer

- Festive sentiments were expected to be better this year as reopening of schools, colleges, offices would bring in new customers.
- · However, post festive the industry has been on downward trend.
- There is a fear in the market as the number of COVID and new variant cases has started increasing.
- · Schools, colleges and offices are being shut and there is speculations on lockdown and restrictions being announced anytime.
- · Scooter segment remains sluggish as most of the companies are still on work from home basis.
- · No supply constraints being faced.
- · Significant discounts are not being offered by any OEM.
- Enquiries for EV on the rise



- No major change in the LTVs or interest rates.
- Interest rates remain favorable
- Gradual improvement in demand expected
- Disbursement for the year expected to revive from a low base with demand improvement as well as increase in vehicle prices

Source - Industry, CRISIL Research



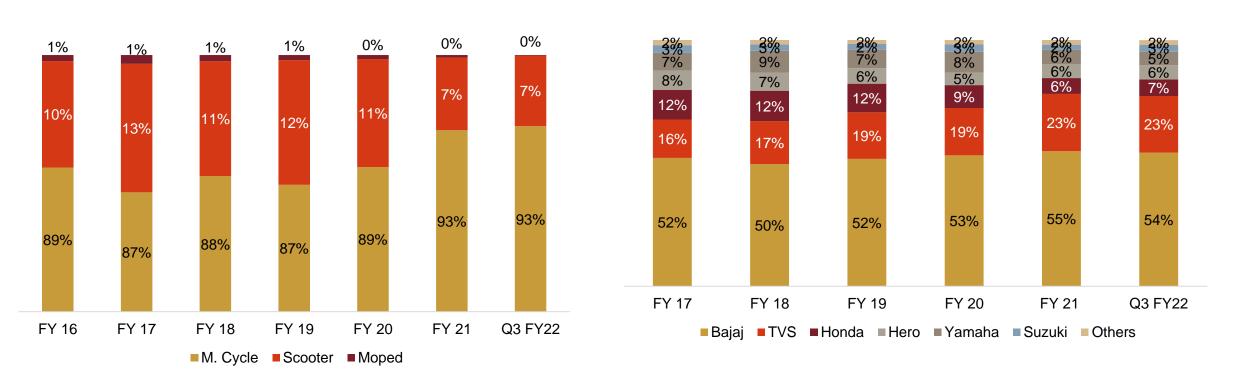


Two wheeler exports



Export demand to keep growing in FY22

Bajaj loses share to TVS, HMSI amidst the rise in scooter exports



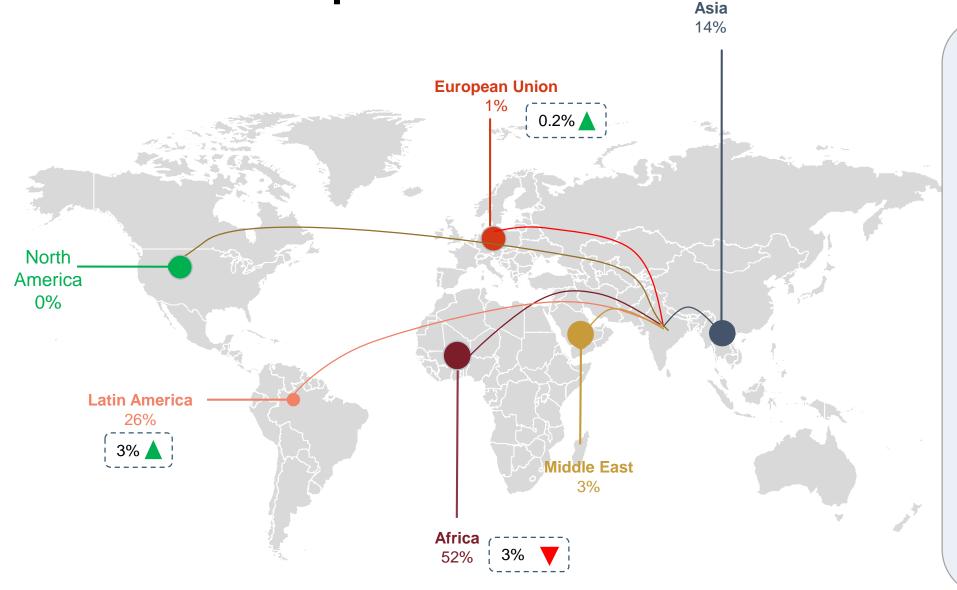
Source: SIAM, CRISIL Research

- Exports to Africa have been affected due to increasing covid cases and inadequate vaccination progress.
- Exports to key destinations like US and Europe remained robust over low base.
- There has been one price hike in July and another one in October driven by commodity prices.
- Overall demand has been growing in international markets.





Two-Wheeler Exports



- Lower spread of covid in African region has proved beneficial for motorcycle exports & is expected to support exports during FY22 as well
- Two-wheeler in LATAM is now used for personal commute due to social distancing requirement which is aiding exports from India.
- Covid impacted demand from Asian countries, however, some improvement is expected during FY22 and is visible in H1 FY22
- Firming up of crude oil prices is expected to provide impetus to twowheeler exports.
- Implementation of RCEP can have sizeable impact on Indian 2W exports. It needs to be monitored closely





Commercial Vehicles



Overview of end-use segments – cargo

Segments (% Growth Y-o-Y)	FY 18	FY 19	FY 20	FY 21	FY 22 P	FY 23 P
Coal (production)	3.0	7	1	1	8	5-7
Iron ore (production)	3	3	19	(17)	23-25	4-5
Steel (consumption)	8	9	2	(6)	11-13	5.5-6.5
Cement (consumption)	9	12	(2.4)	0.3	8-8.5	6-8
Roads (Km constructed / day)	8	9	11	11	12-12.5	11-12
Port (traffic)	6.5	4.5	2	(5)	7-8	3-5
Two-wheelers (domestic sales)	14.8	5	(17)	(13)	(6)-(4)	4-6
Passenger vehicles (domestic sales)	8	3	(18)	(2)	 8-10	14-16
Consumer durables (consumption)	5.8	7	5	(17)	1 12-17	10-11
E-retail	35	35-37	23	10	27	25-30
RMG (market size)	5	8	(3)	(24)	18-20	15-20

Core Sectors

Discretionary Products

Source: CSO, RBI, SIAM and CRISIL estimates E: Estimated; P: Projected





Overview of end-use segments

					<u> </u>	
Segments (% growth Y-o-Y)	FY 18	FY 19	FY 20	FY 21		FY 23 P
Dairy (production)	6.7	7	5	(3)-(5)	3	5-7
FMCG	8	12	5	5-7	9-11	5-7
Pharmaceuticals (market size)	1	15	9	14	43-48	18-20
Gross school enrollment						
K-12	78	78	78.3	79	79	79
Above K-12	22.6	22.5	23.1	23.6	24.2	24.8
IT employee base	3	4	4	9	12-14	5-7
Air passenger traffic	188	209	209	63.9	114	200
Hotel room demand	5	4	1	(51)	70-75	25-30

Note – Gross enrollment ratio (GER) is the ratio of the number of students enrolled to the population of those who qualify for the particular grade level. K-12 indicates classes 1st – 12th. Source: NASSCOM, AAI, CRISIL Research

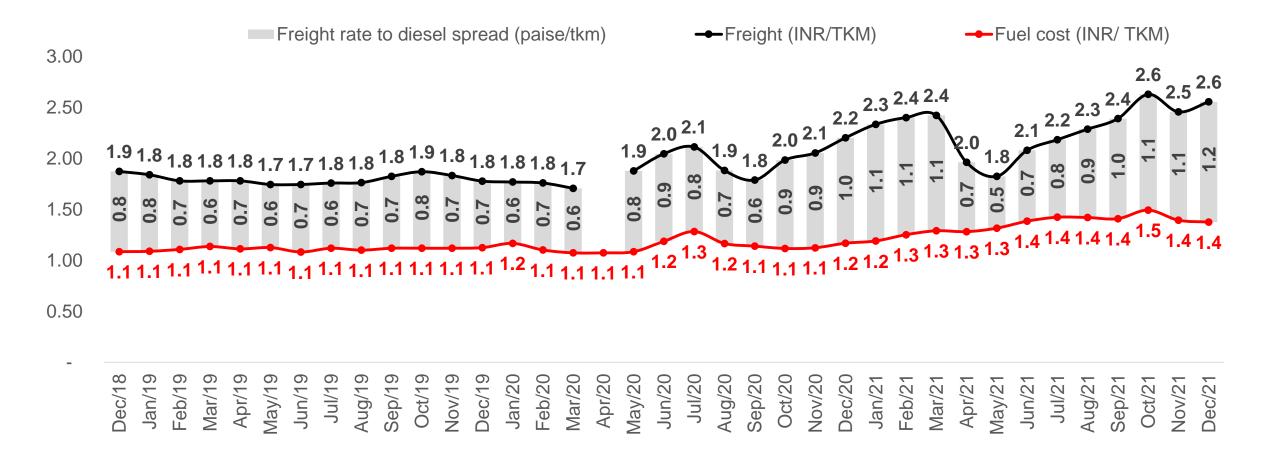




Non Discretionary
Products

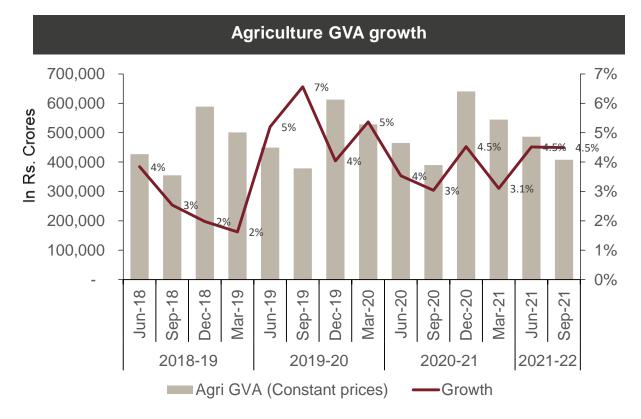
Buses

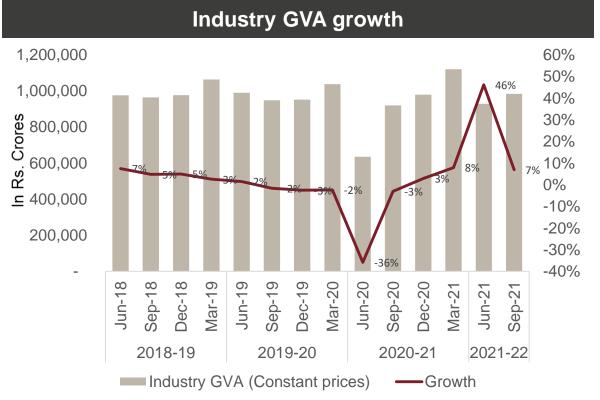
Freight and diesel on a continuous improvement





Despite extended monsoon agricultural GDP to grow 3% in the current fiscal





Source: MOSPI, CRISIL Research

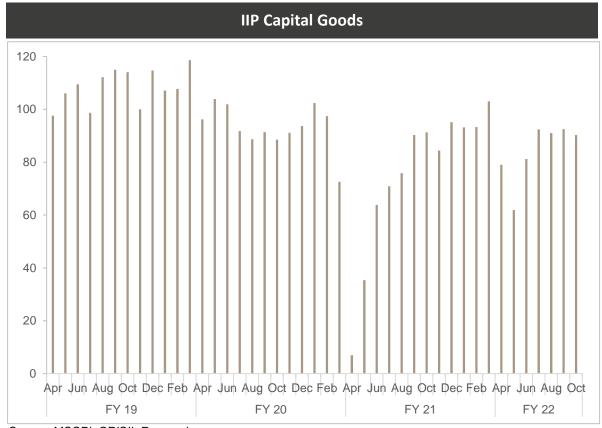
Source: MOSPI, CRISIL Research

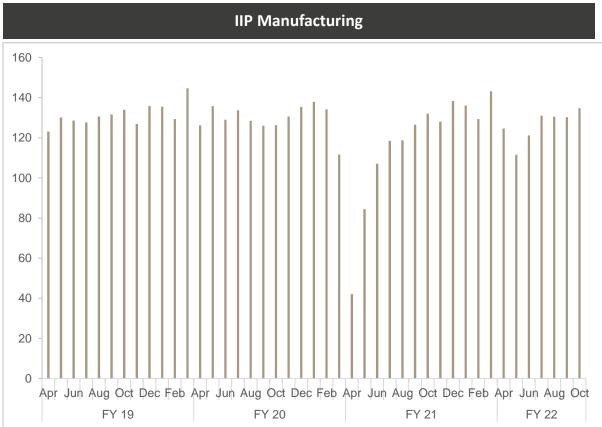
- Agri GDP growth of Q2 FY 2022 grew at 4.5% on-year. Growth in Q1 FY 2022 was also around 4.5%
- Overall agriculture growth this fiscal is expected to remain healthy at 3-3.5% in next fiscal as well, given the normal monsoon, expectation of record kharif
 production, and adequate reservoir levels which bode well for rabi production.
- Industry GVA witnessed growth in Q2 FY22 by 7% on a lower growth of -3% in Q2 FY21

Research



IIP further up





Source: MOSPI, CRISIL Research

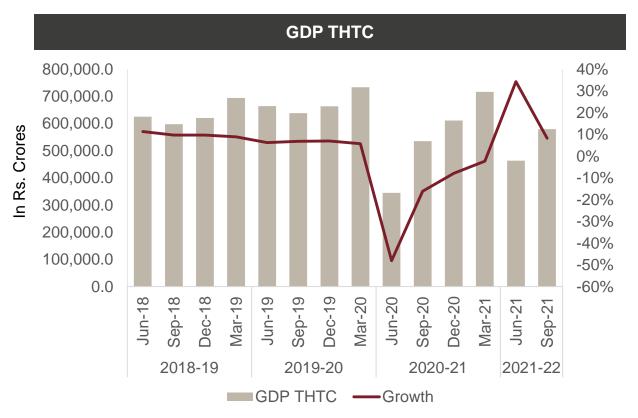
Source: MOSPI, CRISIL Research

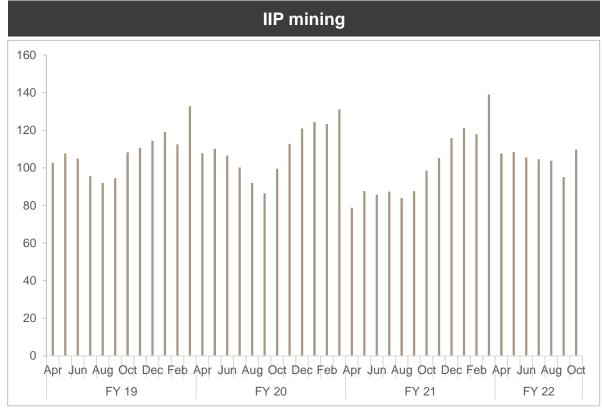
- The Index of Industrial Production (IIP) printed at 133.7 in October, up from 128.2 in September. This represents a 3.2% on-year growth in October, compared with September's 3.3%. Sequentially, both manufacturing and mining output rose whereas electricity saw a decline.
- On use-based classification in seasonally adjusted terms, infrastructure and construction goods saw the highest growth, at 4.2% on-month in October 2021, followed by primary goods (3.5%), capital and intermediate goods (3.4%) and consumer non-durables (1.2%). On the other hand, consumer durable goods (-2.8%) was the only segment that registered a sequential decline.





GDP THTC & IIP-Mining





Source- MOSPI, CRISIL Research

NOTE: THTC: Transport Hotel Transport Communication Services

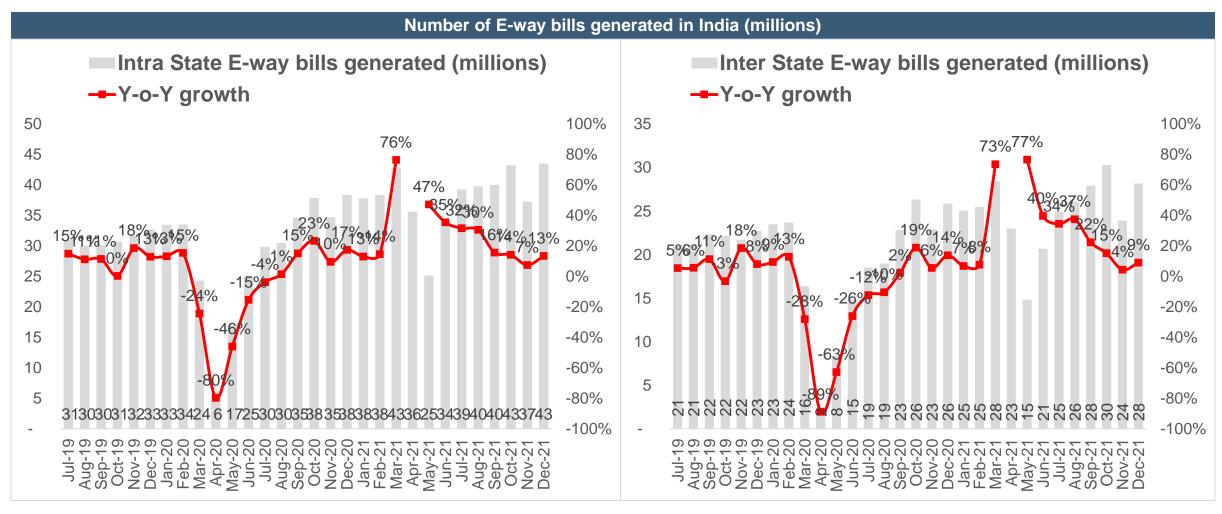
Source- MOSPI, CRISIL Research

- GDP THTC registered a growth of 8% in second quarter over Q2FY21 This segment has been grappling with the pandemic.
- The mining sector (14.4% weight) grew 11.4% on-year (compared with 8.6% growth in September).





Intra state and Inter state E-waybill trend



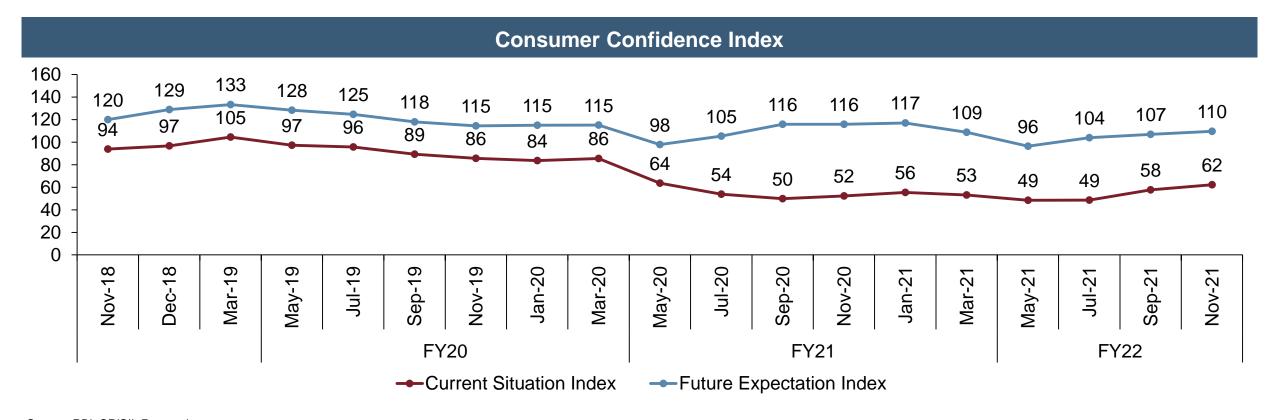
Agri, last mile distribution and market load operations do not come under ambit of E-way bill hence the E-way bills mentioned here may not represent the entire movement of goods in the country

Source: GST Network, CRISIL Research,





Perceptions and Expectations on the General Economic Situation



Source- RBI, CRISIL Research

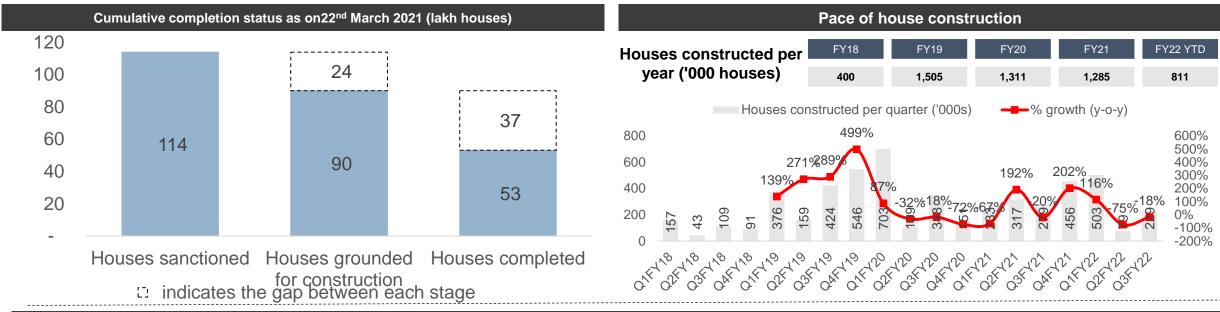
Consumer confidence continued to improve from the historic low recorded in July 2021 though the assessment for the current period remained in pessimistic terrain; the current situation index increased to 62.3 in November 2021 from 57.7 in the previous survey round

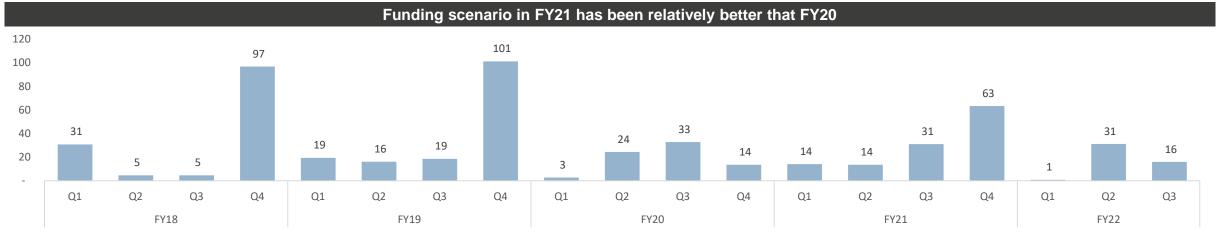
The perception for general economic situation, employment scenario and household income displayed signs of recovery. Households were more confident for the year ahead, which was reflected in the continued upward trajectory of the future expectations index (FEI), buoyed by higher optimism for household income and employment

Research



PMAY(Urban): After a sluggish FY20 and a slow start to FY21, PMAY(U) gathering momentum as we head into FY22



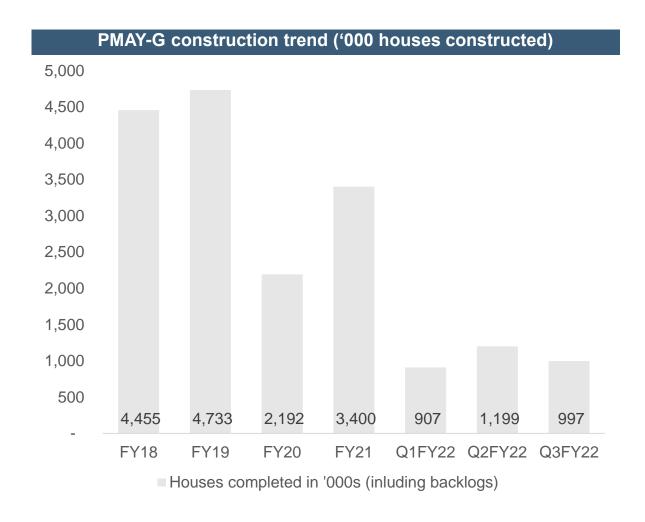


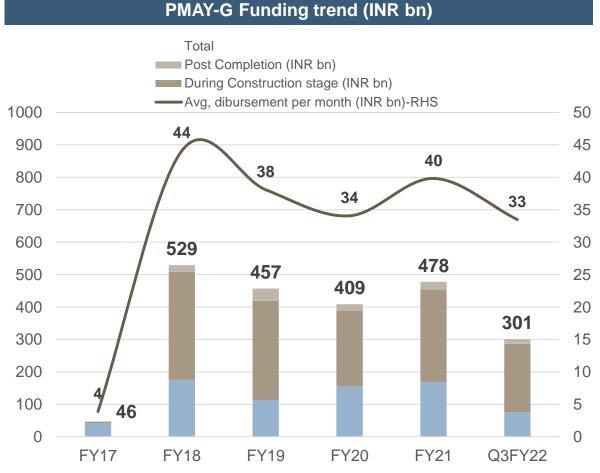
■ Amount released by central government (INR bn)



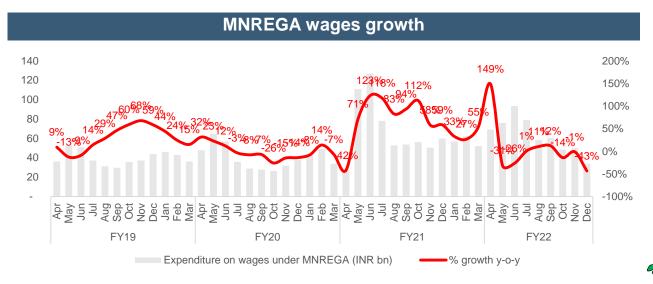


PMAY-G: Construction pace has improved after FY20, FY22 looks on a similar trajectory to FY21

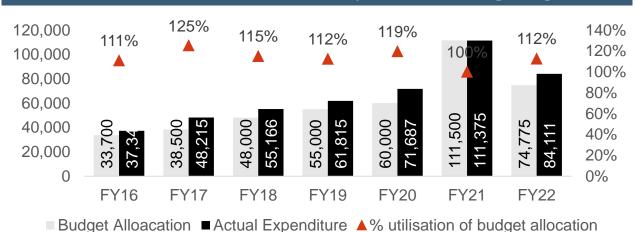




After a record spending in FY21, MNREGA scheme expenditure tapering down in **FY22**



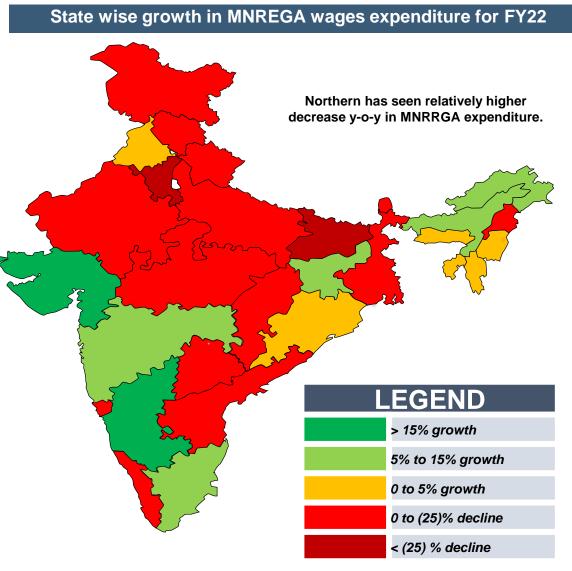




Research

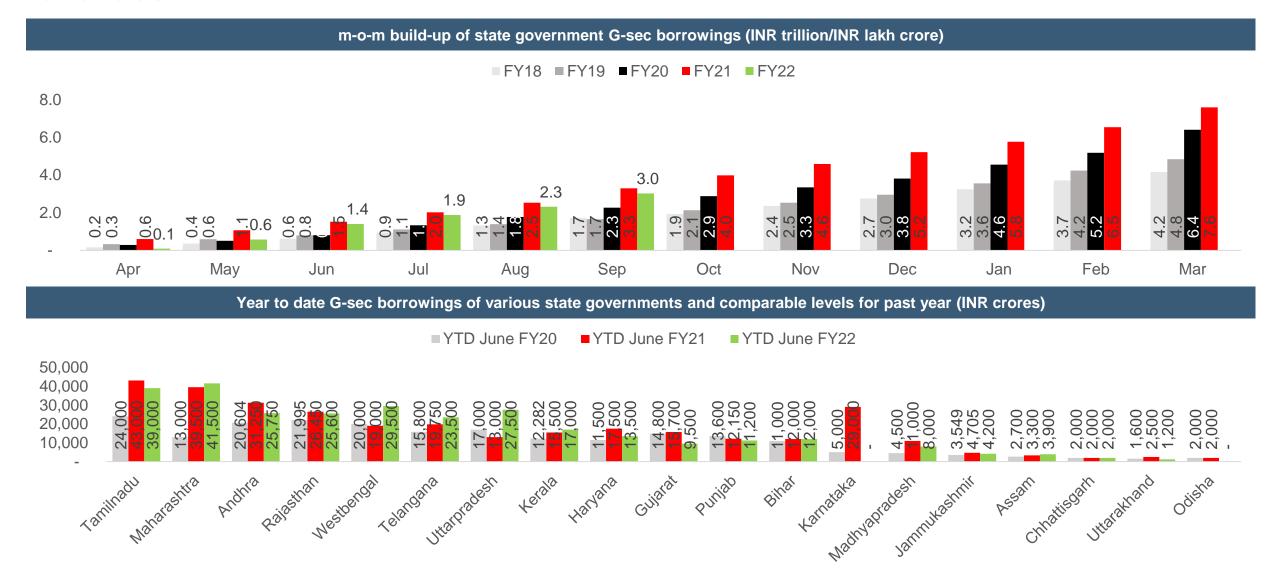
68

Dec data is provisional and maybe restated over the next few days Source: Budget documents, Ministry of Rural development, CRISIL Research



An S&P Global Company

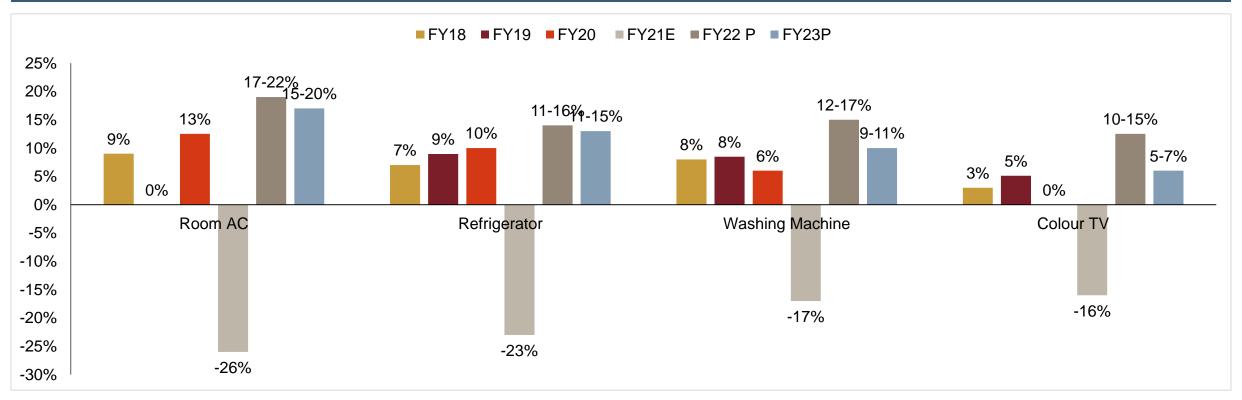
State government borrowings similar to last year as partial lockdowns hurt state revenues





Demand for household appliances industry to rise by 10-11% in FY23 to be propelled by low penetration and rising affordability

Trend in annual volume growth across consumer durables and automobiles



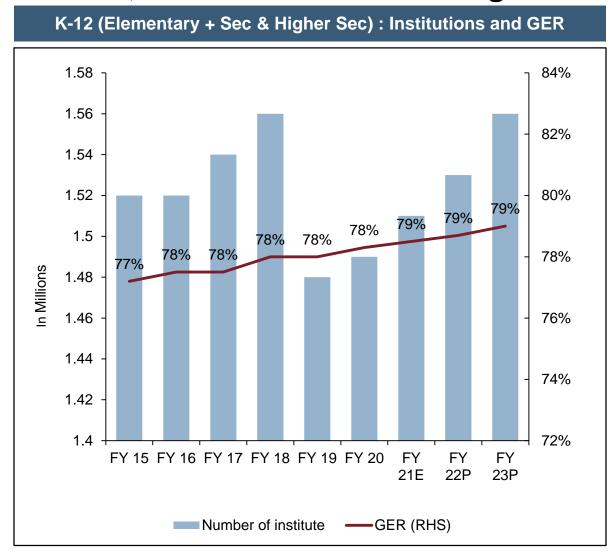
Source: CRISIL Research

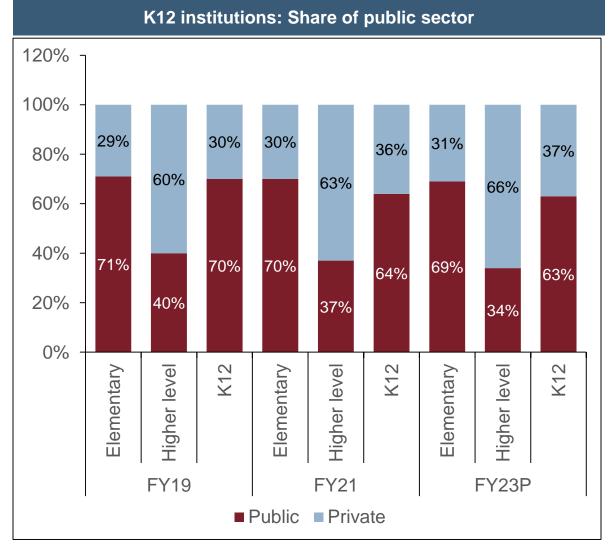
- The household appliances sector is expected to witness 12-17% growth in fiscal 2022 on a low base of previous fiscal, expected increase in discretionary spend and waning impact of pandemic.
- The CTV segment is expected to witness 10-15% growth in fiscal 2022 on account of a low base, preference for larger screen sizes, higher discretionary spending and waning impact of the pandemic.
- The Washing Machine segment is expected to witness 12-17% growth in fiscal 2022 on account of a low base, people's focus on hygiene and a higher discretionary spending.
- A low base, higher discretionary spending, no rating revision and waning impact of the pandemic, will help refrigerator demand grow by 11-16% in fiscal 2022.
- AC Demand is expected to improve during the second half of the fiscal with onset of festivals and with a low base of previous fiscal, demand is expected to rise by 17-22%.





Impact of Wave 2 and Omicron on school /college reopening for academic year 2021-22; School bus demand might come in fiscal 2023

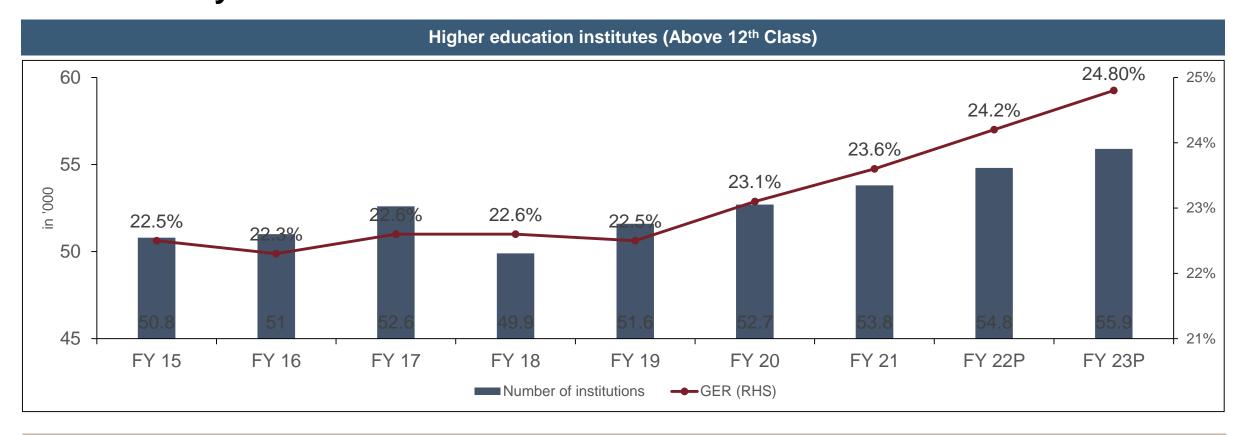








Higher education in India characterised by poor but improving GERs, bus demand likely to materialize in Q4 FY22



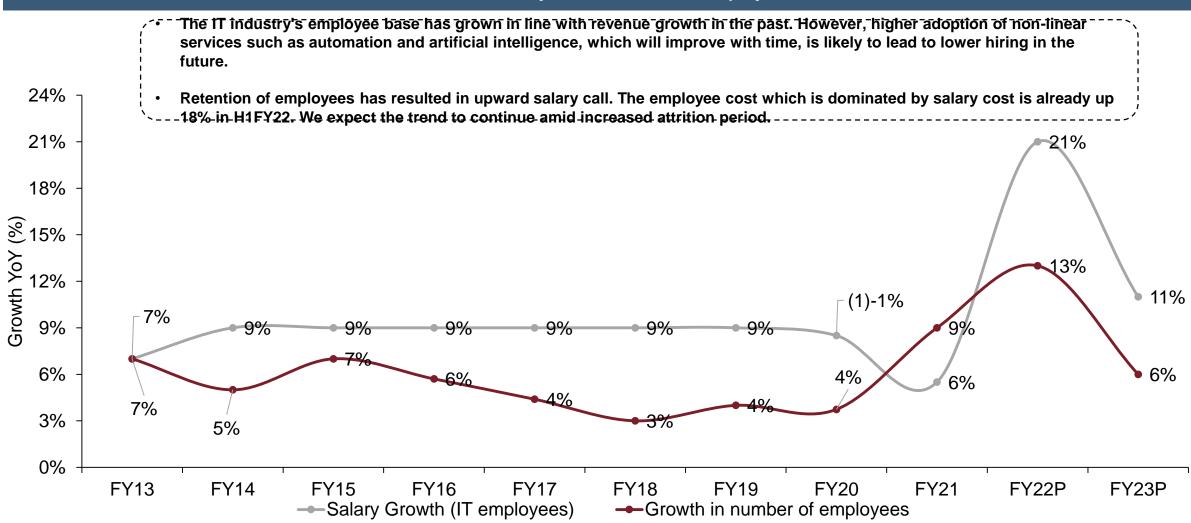
Both formal and non- formal segments have shifted to online mode and conducting the classes through online channels. The delay in opening of educational institutes as well as the expected social distancing and "virtual classroom" measures are severely expected to dent demand for buses

As a result demand from the School segment is to be subdued in fiscal 2022



Employee base to expand in current fiscal, non-linearity to limit medium term employee additions; Retention of employees has resulted in upward salary call

Growth in salary and number of IT employees

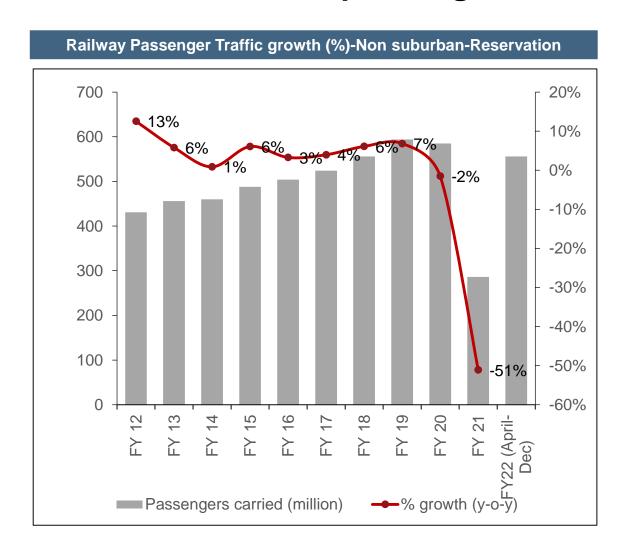


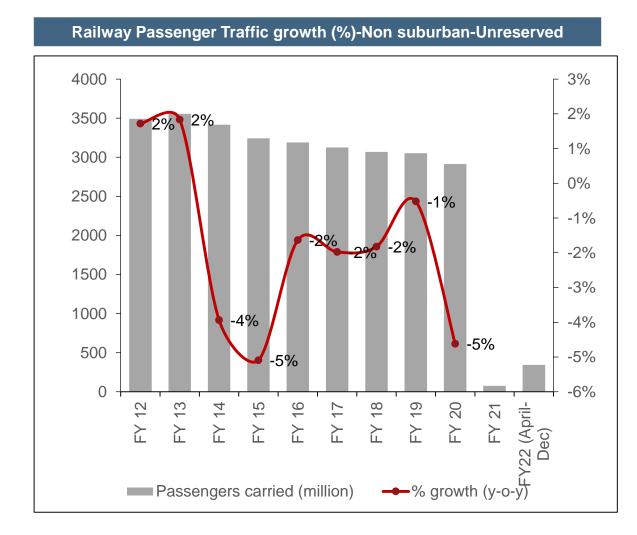
Research

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Back

While railways was losing share to road and air based modes earlier, with the advent of COVID-19 passenger movement across modes to suffer

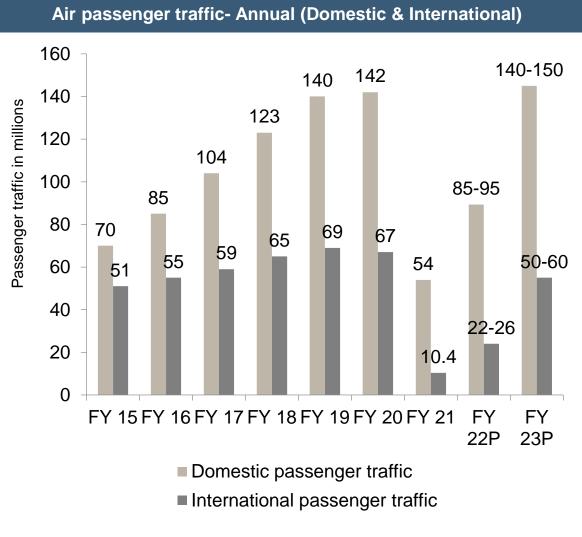


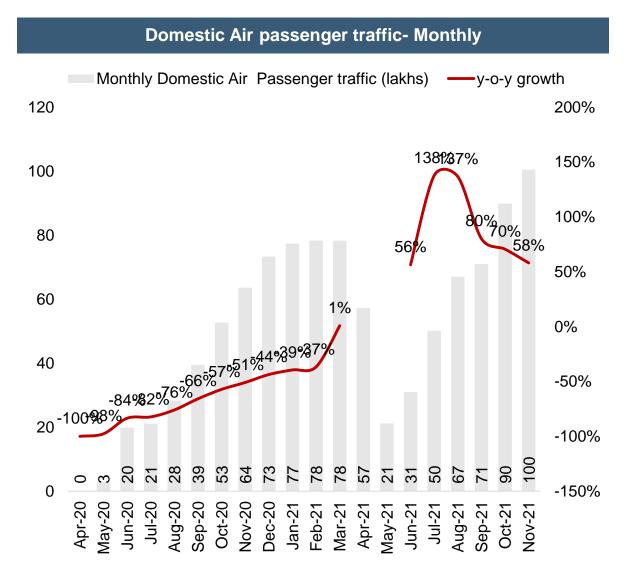






Domestic traffic recovery to pre-Covid levels not seen in FY2022





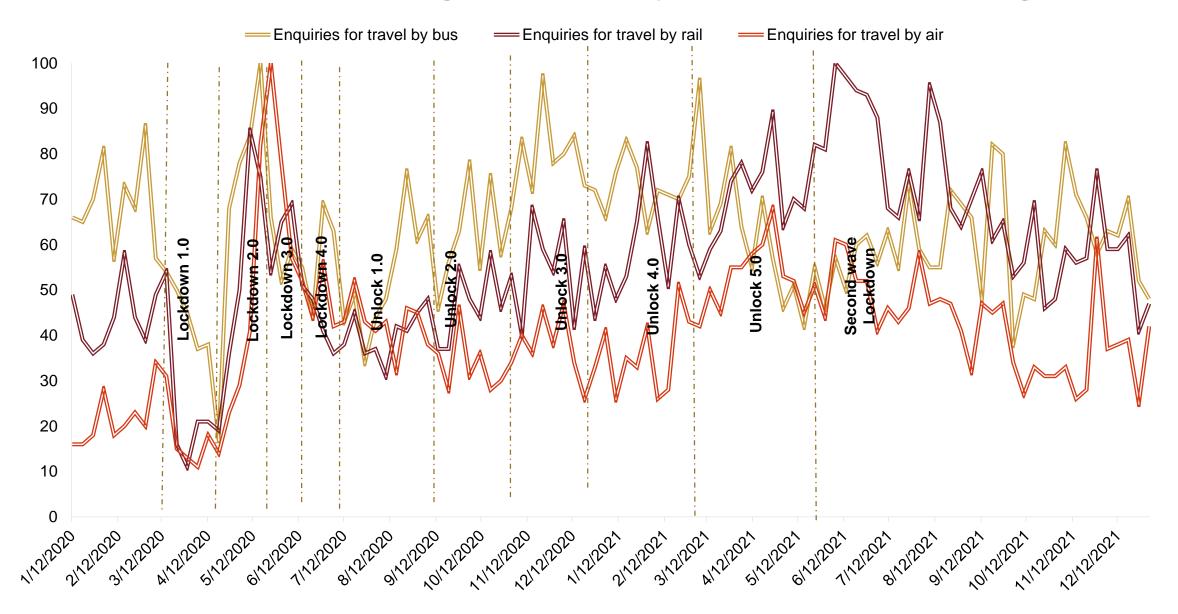
Research

Source: Directorate General of Civil Aviation (DGCA), CRISIL Research

Note: E: Expected P: Projected

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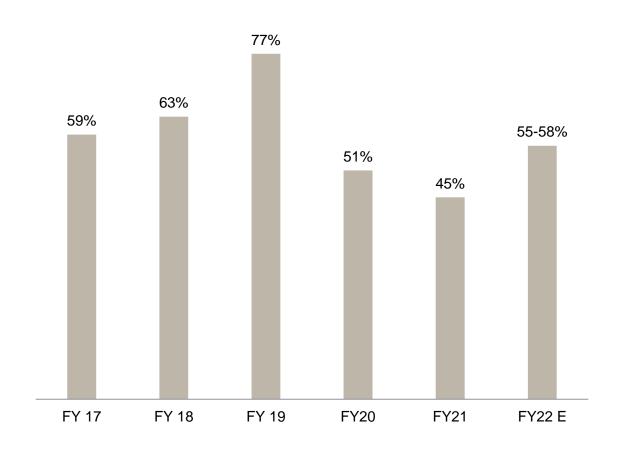
Train & bus travel remains range bound; lately air travel has seen a slight pickup





Capacity utilisation dropped in FY21, some improvement expected in FY22

Decline in capacity utilization level



Note: Capacity utilization is that of Tata Motors, Ashok Leyland, Eicher Motors and Mahindra & Mahindra representing ~ 90% of domestic sales

Source: CRISIL Research

Research

Player-wise cap	acity utilisation
-----------------	-------------------

Player	Effective Capacity estimate (as on 31st Mar 2020)	Production Apr-Dec FY22 (in '000)	Capacity utilization in FY21	
Ashok Leyland	2,22,300	80,355	46%	
Eicher Motors	97,500	36,689	43%	
Tata Motors	7,62,000	2,46,515	35%	
Mahindra & Mahindra	2,92,000	1,20,997	58%	

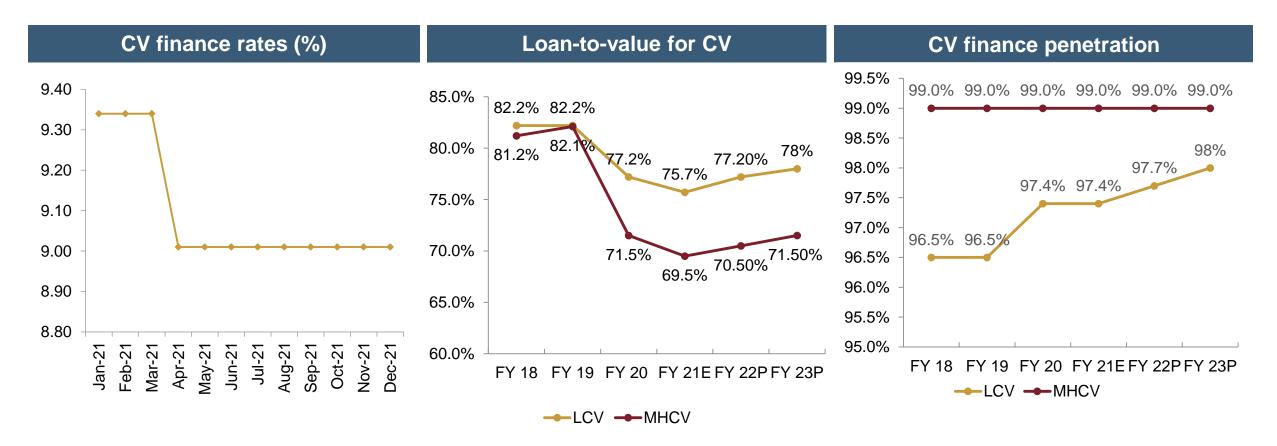
Capacity additions

Player	Location		Investment	Status	
Ashok Leyland Ltd.	Medak, Telangana	20	Rs 5 billion	Under implementation	
Ashok Leyland Ltd.	Alwar, Rajasthan	1	Rs 2 billion	Planning	
VECV Ltd.	Bhopal, MP	40	Rs 4 billion	Under implementation	
Volvo Buses India Pvt. Ltd.	Bengaluru, Karnataka	1.5	Rs 3 billion	Planning	
Veera Vahana Udyog Pvt. Ltd.	Anantapur, Andhra Pradesh	3	Rs 1 billion	Planning	

Source: Industry, CRISIL Research



Cautious lending by banks; more focus on collections



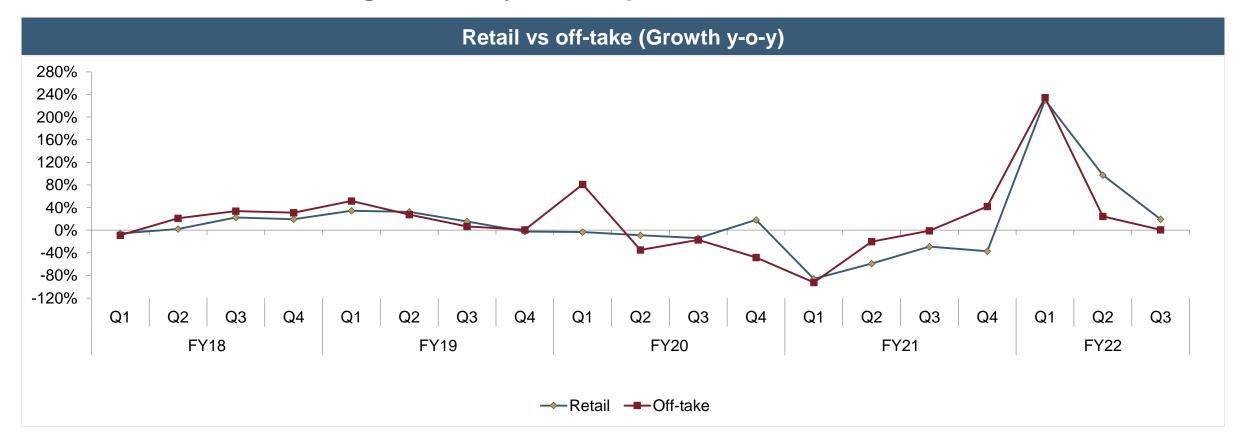
NOTE - Interest rates are an indicative rates charged by Banks

Source: Company Reports, Industry, Crisil Research





Retail & offtake showing recovery on sequential basis



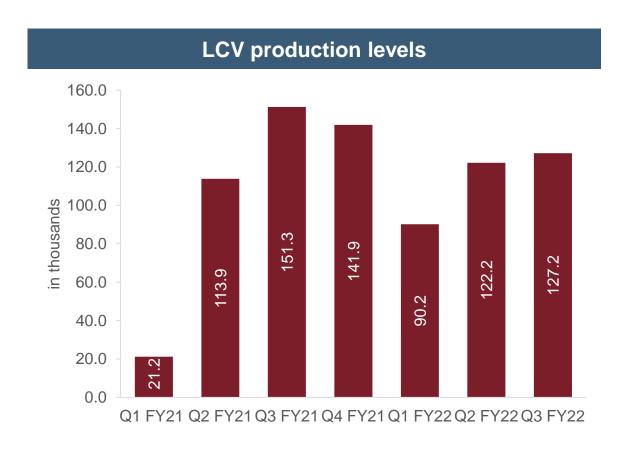
Source: SIAM, MoRTH, CRISIL Research

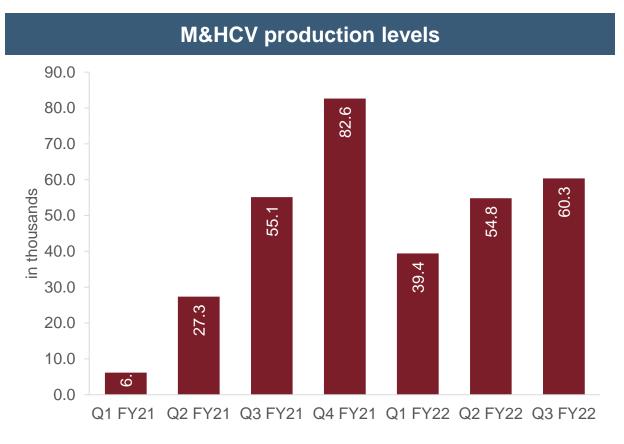
- Some OEM's facing supply issues due to semi conductor supply constraints. Production issues to continue in FY22.
- Among all segments- Pick-ups and SCV continue to see good traction in the economy especially in rural areas.
- This is followed by the tippers segment with good traction visible due to construction activities





Production of LCV and MHCVs in Q3 FY22





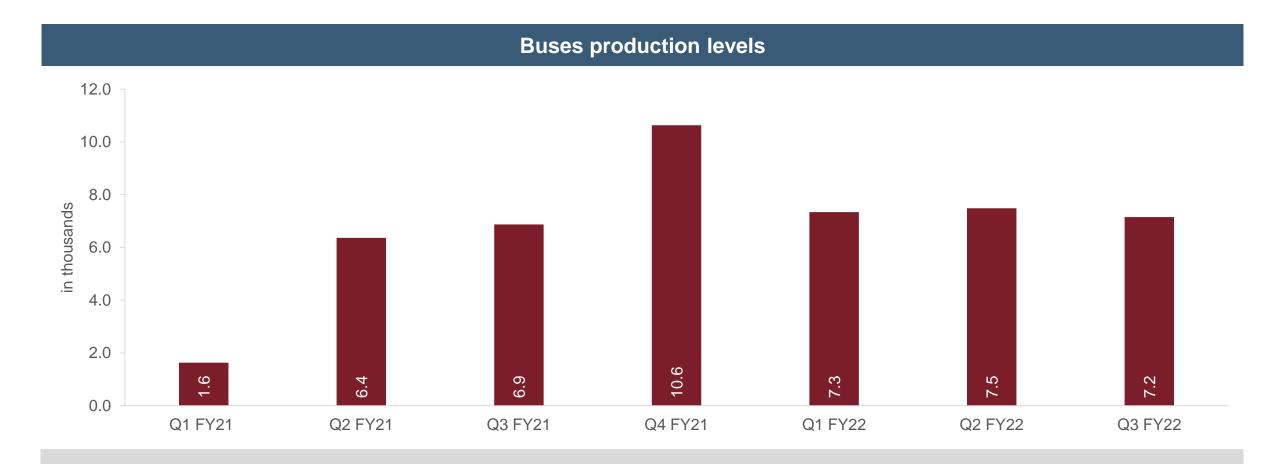
• LCV production witnessed growth of -16% yoy and MHCV of 9% yoy in Q3 FY22. Growth in MHCV was aided by Tippers.

NOTE: Figures in thousands Source: SIAM, CRISIL Research





Bus demand is still subdued



• Demand for buses has been depressed even in Q3 FY22. Though Production saw a growth of 4% in Q3 FY22 compared to same quarter last year.

NOTE: Figures in thousands Source: SIAM, CRISIL Research

Research

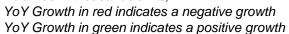


Domestic – Annual Forecast (Base case)

	CV	LCV cargo	MHCV cargo	Buses
FY 21 volumes	566	395	154	17
YoY Growth in FY21	21%	12%	17%	80%
FY 22P volumes	685-696	442-450	213-216	30-30.5
YoY Growth in FY22P	21-23%	12-14%	38-40%	75-77%
FY 23 volumes	795-810	499-508	256-261	40-40.5
YoY Growth in FY23P	15-17%	12-14%	20-22%	32-34%

NOTE: Volumes in thousands units;







Domestic – Quarterly Forecast (Base case)

		CV		LCV Cargo		MHCV Cargo		Buses	
Perio	Period		YoY Growth	Volume ('000)	YoY Growth	Volume ('000)	YoY Growth	Volume ('000)	YoY Growth
FY21	Q4	208.6	41%	124.8	41%	76	92%	7.9	(62)%
	Q1	107	238%	73.5	179%	27.3	567%	5.4	389%
EVOOD	Q2	167	24%	108	3%	51.3	115%	6.3	57%
FY22P	Q3	196	1%	127.6	(8)%	60.4	21%	6.9	67%
	Q4	222-226	6-8%	135-138	8-10%	75-76	(2)-0%	11.6-11.8	46-48%
	Q1	190-193	79-81%	119-121	62-64%	61-62	124-126%	9.5-9.6	78-80%
FY23P	Q2	208-211	25-27%	132-134	22-24%	67-68	30-32%	8.6-8.7	37-39%
	Q3	228-232	17-19%	146-148	14-16%	72-73	19-21%	10.5-10.6	51-53%

- SCV & ULCV: Healthy sentiments on the Agri crop for Kharif season may help volumes. E-commerce, FMCG and Agri to see continuation of the traction. Supply constraints has been improving from some OEM's and CNG demand to gain good attraction. SFO and MLO participation will continue to be remain muted because of the fear of new variant. OEMs across might bring attractive schemes with discounts and easy financing to attract customers to offset the price hike and push volumes but chip shortage situation and omicron situation needs to be monitored
- MHCV: Replacement demand will spur growth which will be aided by construction projects resumed after delayed and prolonged monsoon. NIP projects to continue freight demand for goods such as cement and steel, production of these goods in turn, is expected to drive freight demand for minerals such as coal, iron ore, limestone/dolomite, etc. Only need based purchase happening right now from the captive customers while retail participation is low Segment witnessing more demand from the higher tonnage vehicles which could dampen the overall numbers
- Buses: Schools which were most likely to resume full fledged operations from Q1 FY23 could see some challenge as omicron remains a key monitorable. Some states have already ordered closure of schools till mid February. Staff transport which was earlier focused only towards MFG and saw some demand from IT/ITES and service based companies may again be affected because of restrictions for private offices.

 FY22 and FY23 may see a continuation of the high dependence on STU-PPP orders seen in FY21 especially from the southern states.

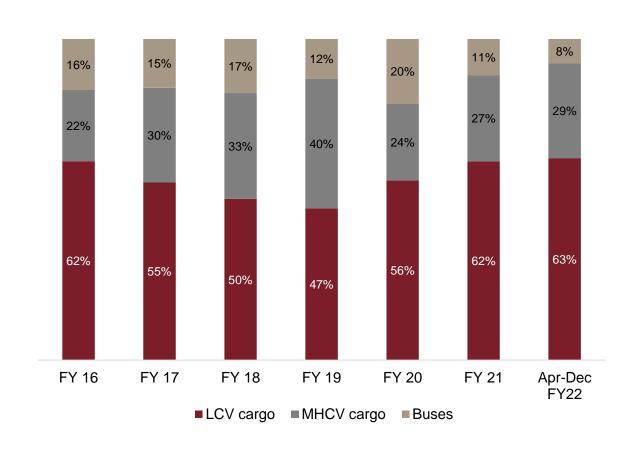


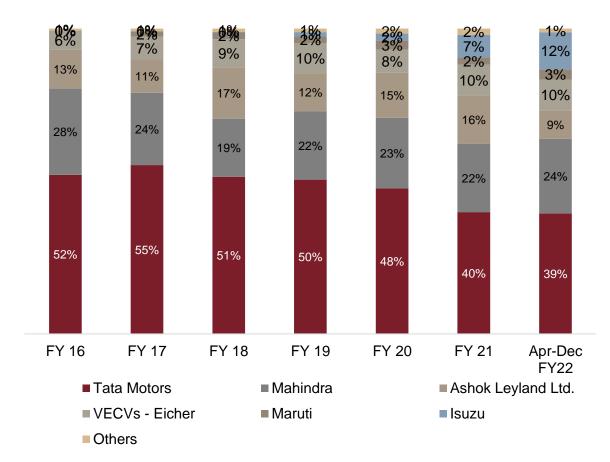


Share of LCV cargo on an uptrend

LCV occupies ~2/3rd share

Share of leading players declines





Source: SIAM, CRISIL Research





Stakeholder interactions

OEM

OEM

- SCV segment seeing supply glut, most severe in the pickup segment but things much better than past quarter now.
- ICVs being driven by CNG availability on the Gujarat and Lucknow corridor, financers also relatively comfortable to fund these models
- MAV and TT demand is driven by captive customers and that too majorly driven now by construction activities for transportation of cement, steel, stone chips. Sluggish auto demand and chip shortage has resulted in poor auto transportation demand
- Tipper segments witnessing more demand towards higher tonnage
- Availability of finance in MHCVs for FTU/FTB segment improved. Funding for KAM and large customers has started from Banks

Dealer

Demand Story

- SCV Demand continues to be resilient except in some states where delayed rainfall resulted in muted demand in rural areas. Chip shortage still continues but situation far better than it used to be.
- CNG vehicles have gained a good attraction especially in both sub-1 tonne segment and 7.5 to 2T segment. Agri, FMCG and E-commerce continues to be actively contributing in freight demand. Supply issues for SCV CNG vehicles seen in some states
- In case of ILCV E-commerce, FMCG and FMCD are now actively contributing in terms of freight demand after remaining muted for 30 to 45 days post festive season
- MHCV haulage seeing lack of demand on the retail side but LFO participation is there. Demand gradually picking up for steel, cement sectors. Trailer demand still not in full swing as auto segment witnessing sluggish demand in 2W and tractors and PV segment facing chip issues
- Tipper demand focused towards road construction, metro projects and infrastructure activities is back and is seeing good traction in Northern states such as UP, Chattisgarh and southern states such as Kerala and Tamil Nadu



Financier

LTVs and participation levels

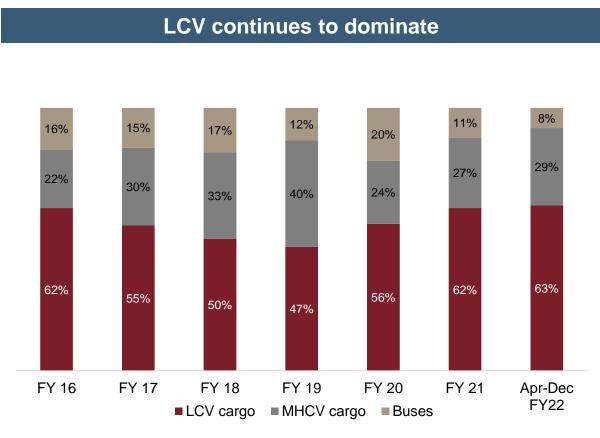
- · Retail customer funding in MHCV cargo and tippers has improved compared to previous but not much funding requirement coming from retail side. Most deals being closed are either LFO's or strategic customers.
- Few NBFC's and banks have become aggressive in CV funding while some are being cautious
- Buses segment continues to laggards in funding. After Omicron impacting school and staff demand banks again are hesitant in funding this space
- Financiers have been cautious and have increased number of checks in getting a loan approved. LFOs who have not availed moratorium or paying instalments on time are getting better response and better interest rates than the SFOs who have availed moratorium.



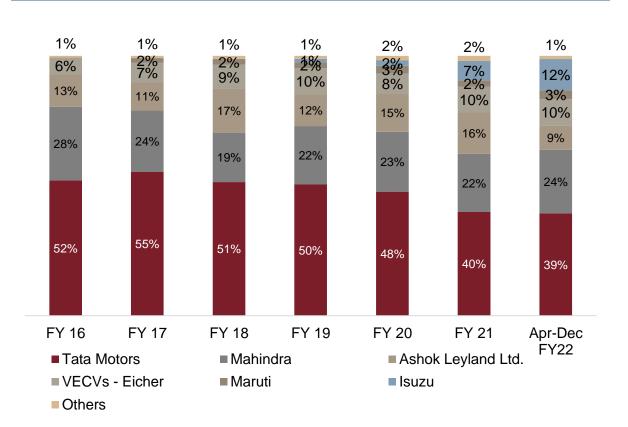
Commercial Vehicle exports



MHCV regain some ground in Q3 FY22







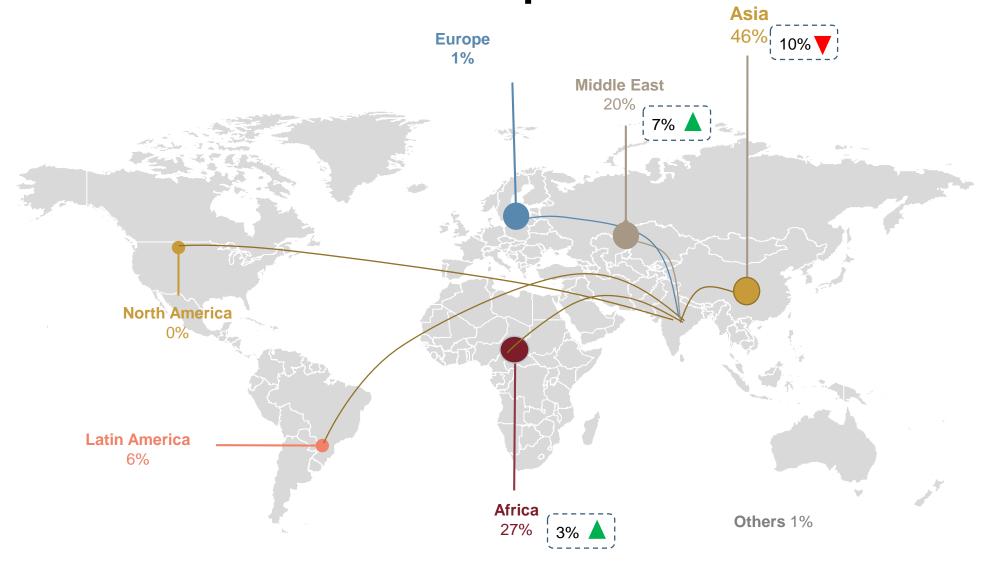
Source: SIAM, CRISIL Research

- From some improvement in Q4, sales dropped in Q1 FY22 on a q-o-q basis, however again have picked up in Q3 FY22
- Compared to FY21, LCV gained some ground, while MHCV expanded its presence, buses share continues on a shrinking path
- ALL saw a significant loss in exports share to Mahindra and market leader Tata





Commercial vehicles exports



- Neighboring countries Nepal & Bangladesh continue to dominate Indian exports contributing 35% in FY22 (Apr-Oct)
- Bangladesh has taken the lead during the year
- Europe and Africa are impacted due to the Covid wave & its impact on the demand remains a key monitorable
- Africa contributes to 8% of India's exports
- Spread of Omicron variant globally remains a concern

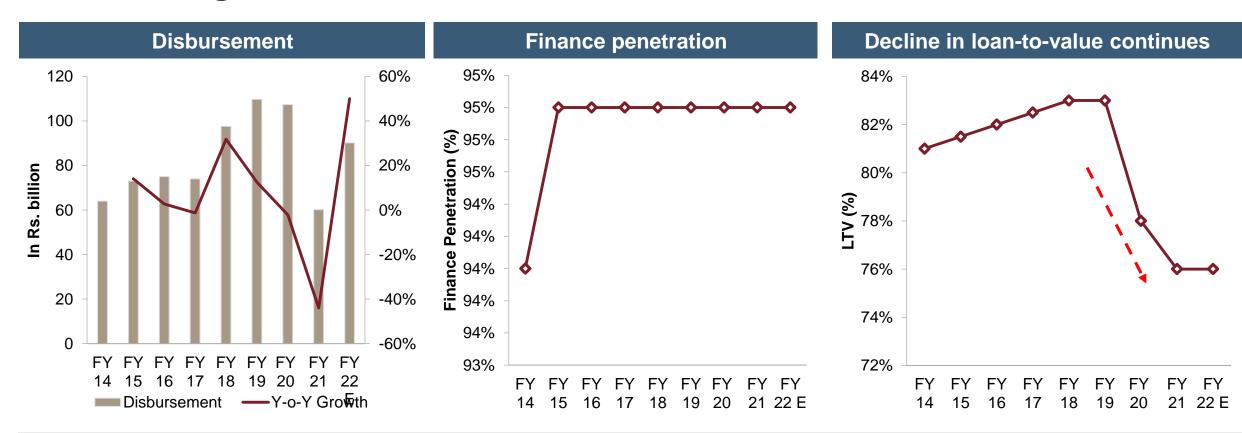
Research



Three-wheelers



Some recovery expected in disbursement during FY22, LTV to remain range bound

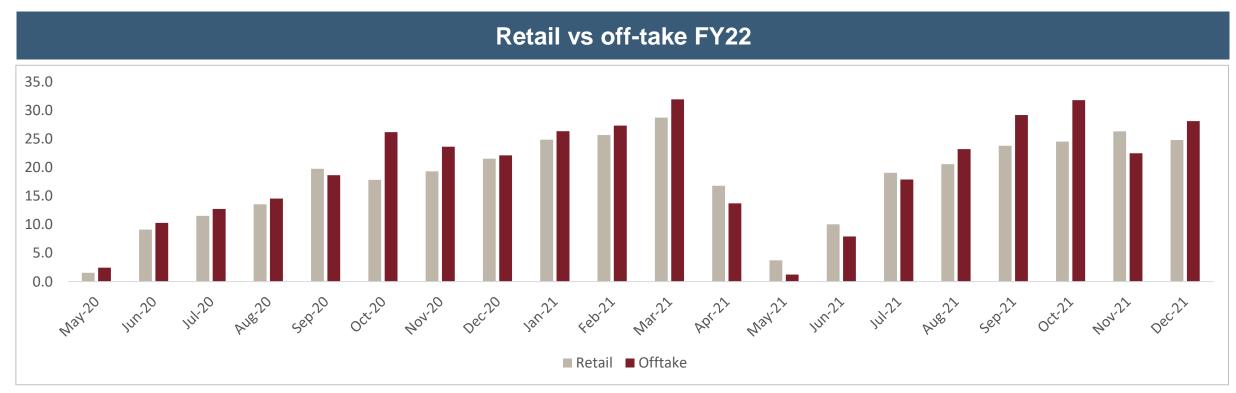


- Amidst the steep sales contraction, financing parameters also took a hit, disbursements reached a historic low during FY21
- Moreover, given the modest financial profile of the customers coupled with the drop in earning, most financers turned extremely cautiously and focused more on recovery during the year
- LTV levels were dropped despite rise in vehicle prices
- Going ahead, some improvement is expected in disbursement levels in line with demand growth, however, financers are expected to remain cautious, and LTVs to remain under pressure





Three-wheeler industry sees q-o-q growth in Q3 FY22



Note: Retail numbers are estimated Source: SIAM, Vahan, CRISIL Research

- Three wheeler industry was going through hardships, for last two years. Covid induced lockdown has led to lower mobility and increase in preference towards personal mobility. Sales reached 12 months low during May 2021.
- There was gradual pickup in the sales from July and industry witnessed further growth during Q3
- September month onwards industry started witnessing positive trend on back of decline in covid cases reopening of economy, opening of school, colleges and offices
- There was some wholesale traction in October in anticipation for the festive demand.





Domestic – annual forecast

	Three wheelers	Cargo	Passenger
FY 20 volumes	637	112	525
YoY Growth in FY20	9%	13%	8%
FY 21 volumes	216	82	134
YoY Growth in FY21	66%	26%	74%
FY 22E volumes	255-260	86.7-87.2	170.9-171.4
YoY Growth in FY22E	18-20%	5-7%	27-29%
FY 23P volumes	377-382	125.0-125.5	253.7-262.2
YoY Growth in FY23P	46-48%	50-52%	32-34%





Domestic – quarterly forecast

B. C. I		Three-wheeler		Cargo		Passenger	
Perio	Period Volume ('000)		YoY Growth	Volume ('000)	YoY Growth	Volume ('000)	YoY Growth
	Q2	46.7	(75)%	20.1	(27)%	26.5	(83)%
FY21	Q3	72.7	(59)%	29.1	(2)%	43.6	(70)%
	Q4	85.6	(66)%	28.3	15%	57.2	(46)%
	Q1	24.4	91%	8.6	48%	15.8	128%
FY22E	Q2	70.9	52%	23.5	17%	47.4	79%
FIZZE	Q3	82.4	14%	22.3	(21)%	60.1	37%
	Q4	97.0-97.5	13-15%	28.8-29.3	2-4%	67.9-68.4	18-20%
	Q1	85.0-85.5	249-251%	32.2-32.7	276-278%	52.5-53.0	234-236%
FY23 P	Q2	94.5-95.0	34-36%	33.0-33.5	43-45%	61.2-61.8	30-32%
	Q3	92.0-92.5	11-13%	27.4-27.9	23-25%	64.3-64.8	7-9%

Source - SIAM, CRISIL Research

- After a long hiatus, passenger vehicle segment showed some improvement during Q2 quarter of FY22 & clocked ~80% growth on a y-o-y basis
- However, in Q1 FY22, second wave of covid & the resulting curbs impacted the passenger segment demand, especially in May; although some m-o-m revival was
 registered in June
- Passenger segment saw a sharp 37% rise in Q3 FY22 on a y-o-y basis, whereas cargo declined by 21% on-year
- Passenger segment is expected to get a push in Q4FY22 with reopening of schools offices & colleges and in turn the increased demand for last mile connectivity



Stakeholder interactions



OEM

- Second wave brought the industry back to square one during the first quarter
- Customer earnings have taken a big hit, it will take some time before they are ready to invest
- Moreover, support from financers is very limited currently, somewhat better than last year, still not comparable to pre covid levels
- Improvement in retails expected from August September
- Given the impact on dealer financials, OEMs are not pushing vehicles to dealers
- Industry expected to normalize only in FY23, only gradual recovery expected,
- · Primary passenger segment to remain in red
- Resurgence of Covid will push the revival further
- Emergence of third wave remains a key monitorable

Dealer

- Healthy recovery in Q3, with the numbers Covid cases coming down and ease in restrictions of lockdown.
- Passenger segment witnessed better growth with reopening of schools/colleges/ offices
- Emergence of new covid variant impacted sales in December
- Moreover, Increased prices, higher fuel costs, worsened the situation
- Decline in retail demand impacted wholesale demand in December as well
- Current Inventory levels are normal at around 30 days
- However, CNG vehicle continue to enjoy good traction amidst high fuel price
- Preference for electric vehicles is rising



DEALER



- Financiers are being very cautious for lending due to higher delinquency
- · Focus is still on recovery
- Many repossessions are happening especially in passenger segment
- No major improvement in LTV expected in the medium term
- · Financers are currently wait and watch mode
- However, financers are willing to find strong profiles

Source - Industry, CRISIL Research

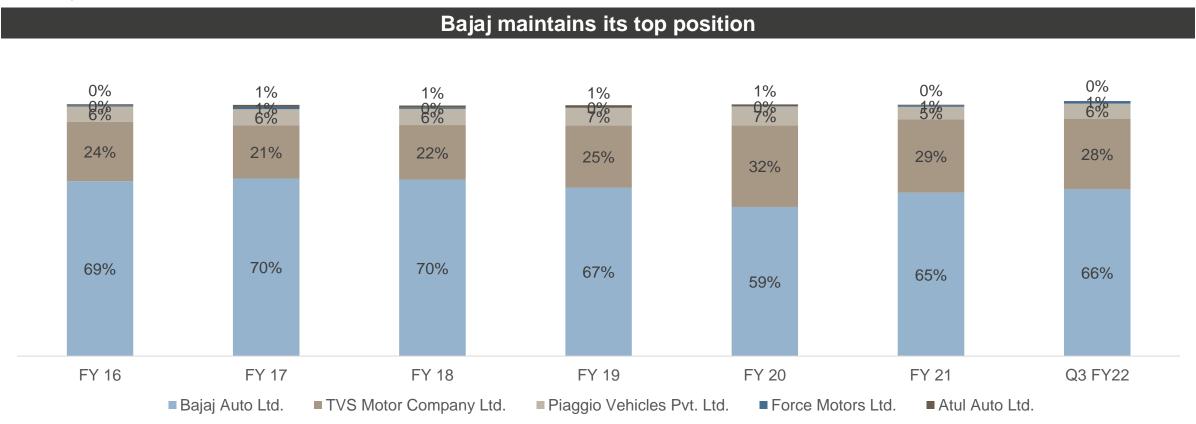


Research

Three wheeler exports



Cargo segment gains some share, Bajaj expands its lead further in Q3 FY22



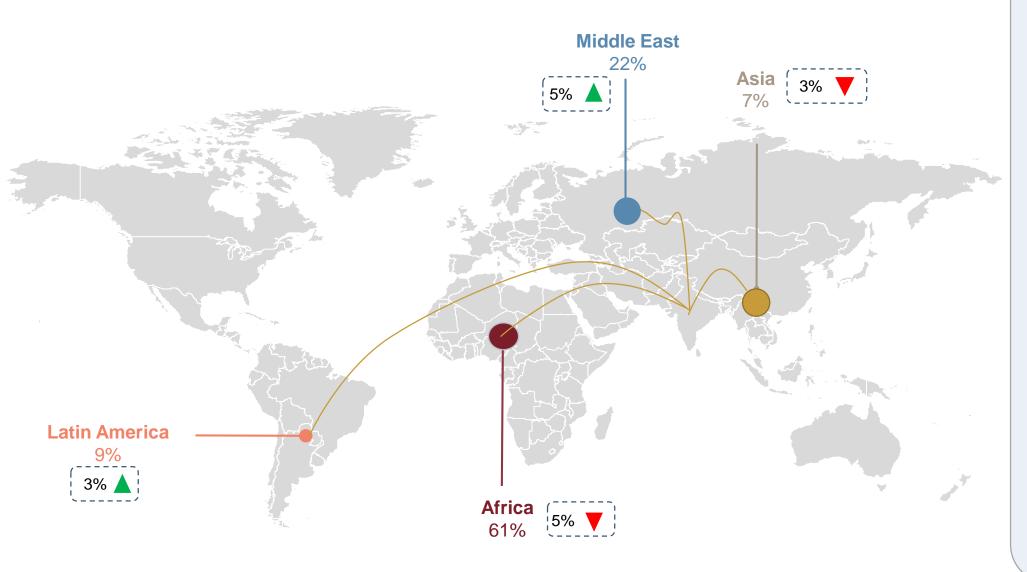
Source: SIAM, CRISIL Research

- Q3 FY22 witnessed some improvement in exports, with passenger carrier segment driving growth
- · Bajaj continues to dominate the 3W exports
- With domestic market in red, OEMs are focusing on exports which is expected to aid exports during FY22





Three-wheeler exports



- Covid has impacted demand from Asia & only gradual recovery is expected
- Exports share of Middle East countries increased aided by limited covid spread and crude prices firming up
- Substantial recovery is seen in exports to Egypt after the ban of auto-rickshaw was lifted which has aided exports growth.
- Demand from Iraq has supported expansion of Middle East share
- The impact on the demand due to the resurgence of Covid remains a key monitorable

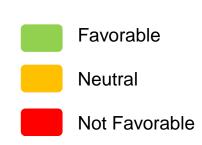




Tractors

Tractor industry to de-grow marginally in FY22, due the the high base of FY21

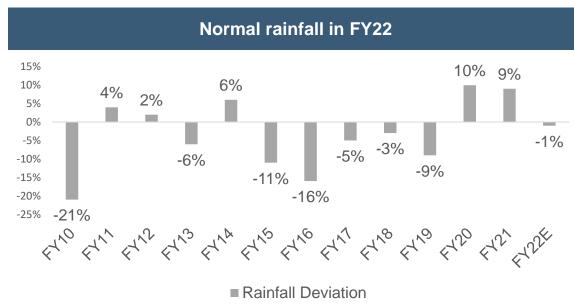
Parameters				
	FY 20	FY21	FY22E	FY23P
Farm Income**				
Crop Prices				
Crop Output				
Kharif Output				
Rabi Output				
Demand Indicators				
Infrastructure Development				
Sand Mining				
Supply side variables & financing				
Finance Availability				
Channel Inventory				
Player Action				







Southwest Monsoon has been normal in fiscal 2022



NOTE: Rainfall deficiency in the range of -10% to 10% of the long period average is considered as normal as per IMD. P: Projected

Source: IMD, CRISIL Research

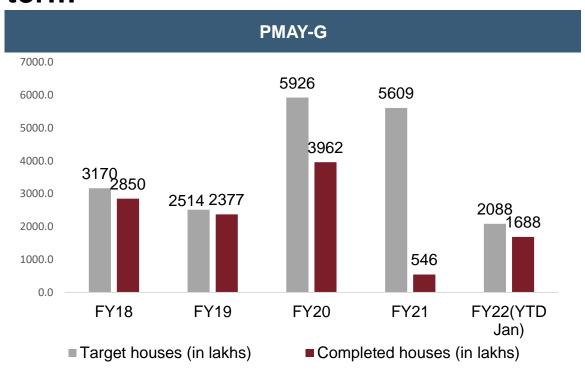


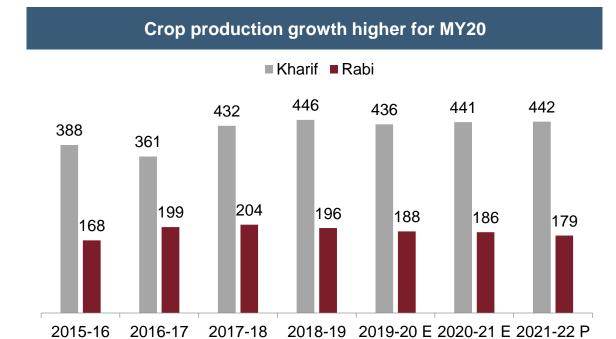
Notes: Storage Status of 120 Reservoirs of the Country

- The southwest monsoon seasonal rainfall during June to September for the country as a whole has been normal.
- Considering month to month rainfall variation over India as a whole, the season is very uniquely placed in the historical record for its distinct and contrasting month to month variation
- After excess rainfall in June, deficit rainfall was recorded in July and August respectively. The monsoon started pouring like cats and dogs during September and refused to quit well into October.
- The wide fluctuations in the rainfall during this monsoon season had only marginal impact on the reservoir levels.
- Bountiful rain in September and October has ensured that the water levels in India's main reservoirs are into their optimum levels.



Higher input cost and low realizations to impact farm sentiments in the near term





Source: Ministry of Rural Development, CRISIL Research

MY: Marketing year, P: Projected

Notes: 1) Base of 100 for Index (kharif and rabi) taken in MY Jan-Dec 2015

Source: Ministry of Agriculture, CRISIL Research

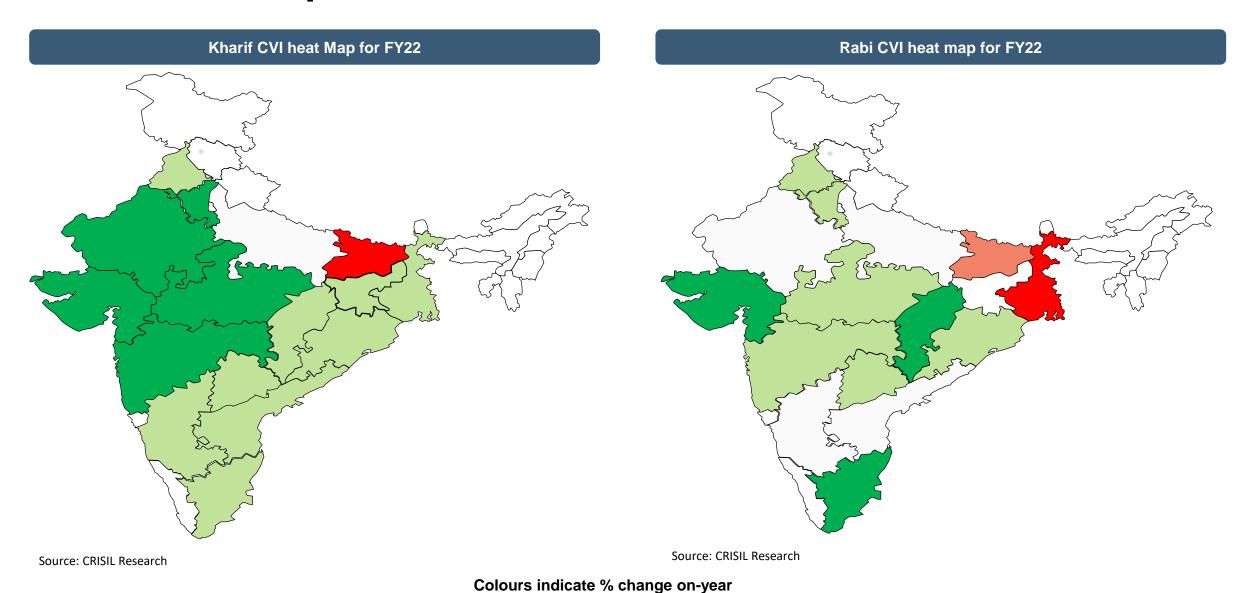
- Erratic rainfall in many states, delayed harvesting, lower cash in hands of the farmers coupled with lower commercial demand have impacted sales negatively.
- Negative farmer sentiments due to rising cost of cultivation, low fertilizer availability, increase in other expenditure (such as marriages and other social occasions) to hamper demand.
- Lower government procurement to further impact farm income for the current fiscal.
- Illegal mining activities are at a standstill in states such as Bihar, Jharkhand and Uttar Pradesh which is expected to impact commercial demand negatively

Research



State wise Crop Value Index

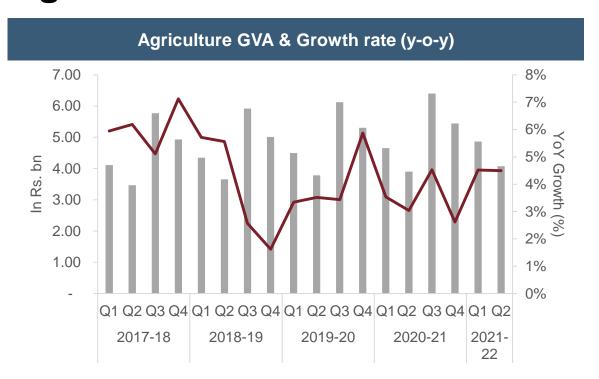
>10%

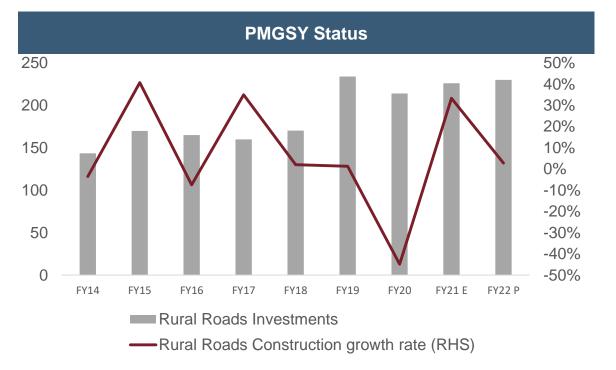


No data

Research

Despite uneven spread, there is no indication of a major letdown in Agri GVA this season





Note: GVA at basic prices (constant 2011-12) Source: Ministry of Statistics and Programme Implementation, CRISIL Research

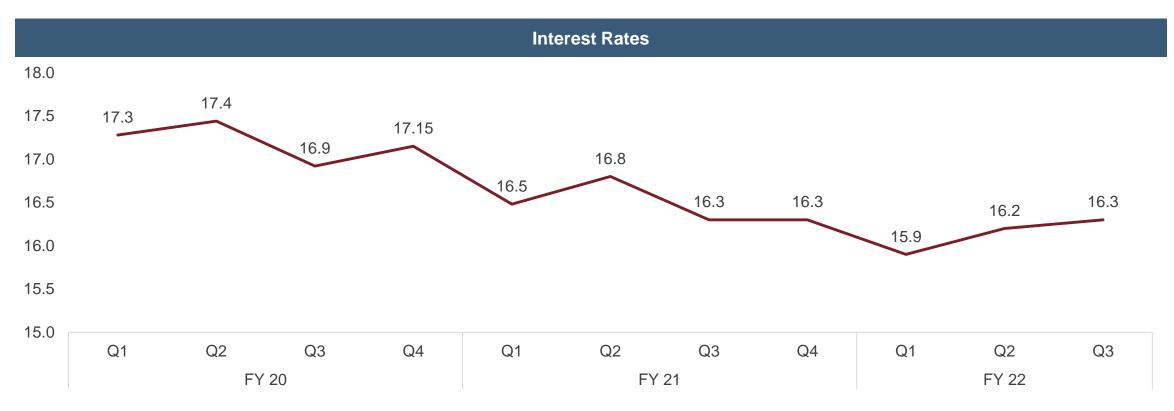
Source: OMMS (Online management, Monitoring and Accounting System), CRISIL Research

- Real GDP grew 8.4% on-year in Q2 FY22, as the economy came out of the clutches of the second Covid-19 wave
- Agriculture helped anchor, as it was one of the sectors that registered positive sequential growth 4.0%.
- With possible challenges to economic recovery on account of the Omicron variant, CRISIL's FY22 real GDP growth estimate of 9.5% may face marginal downside risks
- After excess rainfall in June, deficit rainfall was recorded in July and August respectively. The monsoon started pouring like cats and dogs during September and refused to quit well into October





Disbursements to increase at a moderate pace in FY22 on a high base



NOTE: Interest rates for Q3FY22 is not yet released by leading financiers

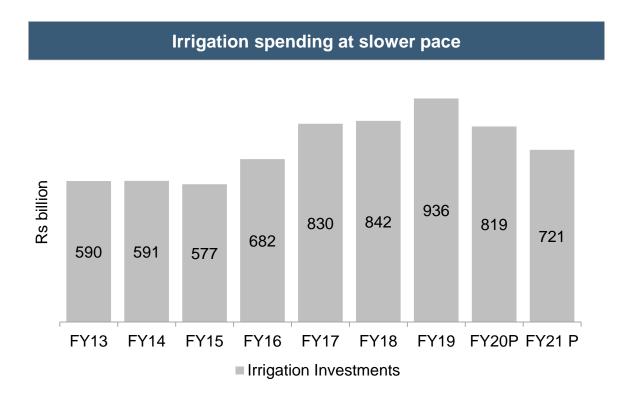
Source: CRISIL Research

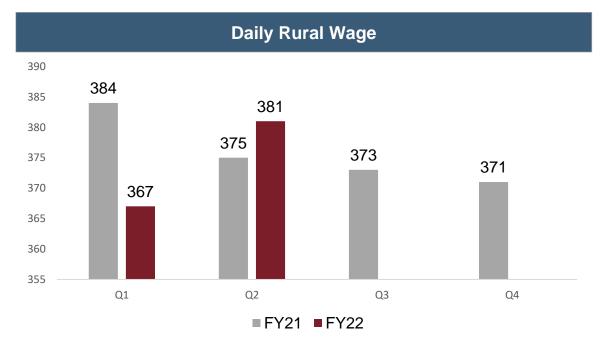
- With 70-75% of tractors purchased on credit, credit availability is a key demand driver, and indirectly boosts tractor sales.
- Tractor NPAs are estimated to be at a stable level in fiscal 2022.
- LTVs are estimated to have remained at a similar level of ~75.5% amid risk averse investors.





Irrigation investments expected to get back to pre-Covid levels in FY22





Source: Department of Agriculture, Cooperation & Farmers Welfare, CRISIL Research P: Projected

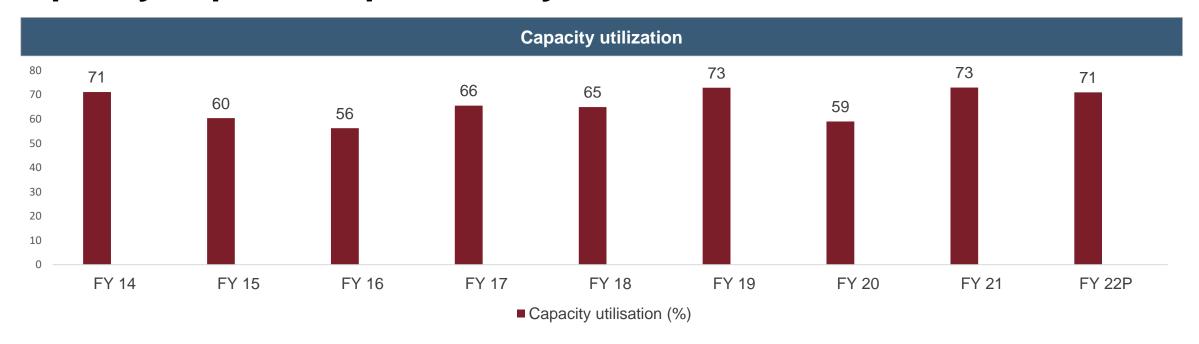
Rural wages includes general non-agricultural labour. Source: RBI, CRISIL Research

- State funds will continue to play an outsized role in Irrigation investments
- Irrigation intensity is expected to improve the most in Tamil Nadu, Uttar Pradesh, Madhya Pradesh, Rajasthan and Karnataka. Irrigation intensity is highest in northern region, followed by the southern and eastern regions
- Mechanization has increased in western and southern states, viz., Gujarat, certain areas of Tamil Nadu, and Andhra Pradesh, with an increase in the area under irrigation and growing awareness among farmers





Amid drop in demand, capacity utilization to fall in FY21 due to capacity expansion planned by OEMs



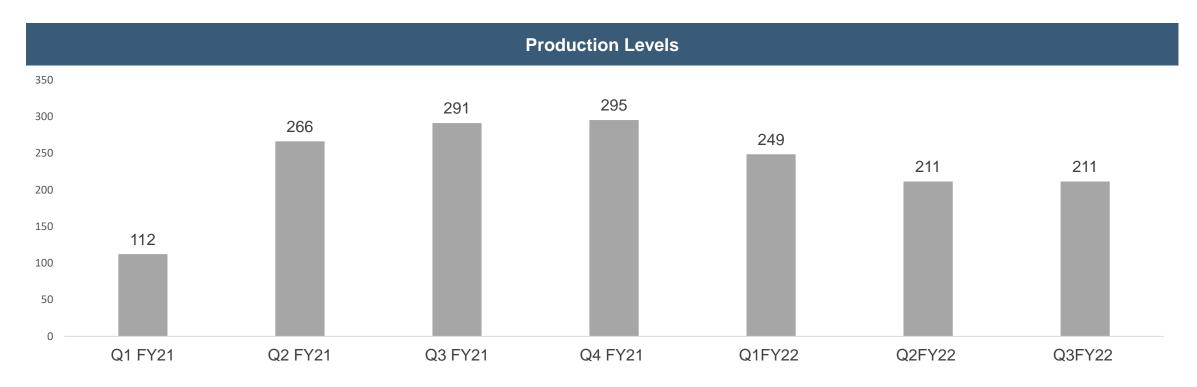
E: Estimated Source: CRISIL Research

- Overall capacity utilization for the tractor industry is estimated to have reached 73% in fiscal 2021, mainly due to higher production as the domestic tractor demand rose in the fiscal.
- Production capacity of Escorts Ltd is expected to reach 156,000 units in fiscal 2022 (including capacity addition due to joint venture with Kubota).
- Swaraj has also announced capacity addition in fiscal 2022 amid strong demand.





Production levels are high as the demand continues

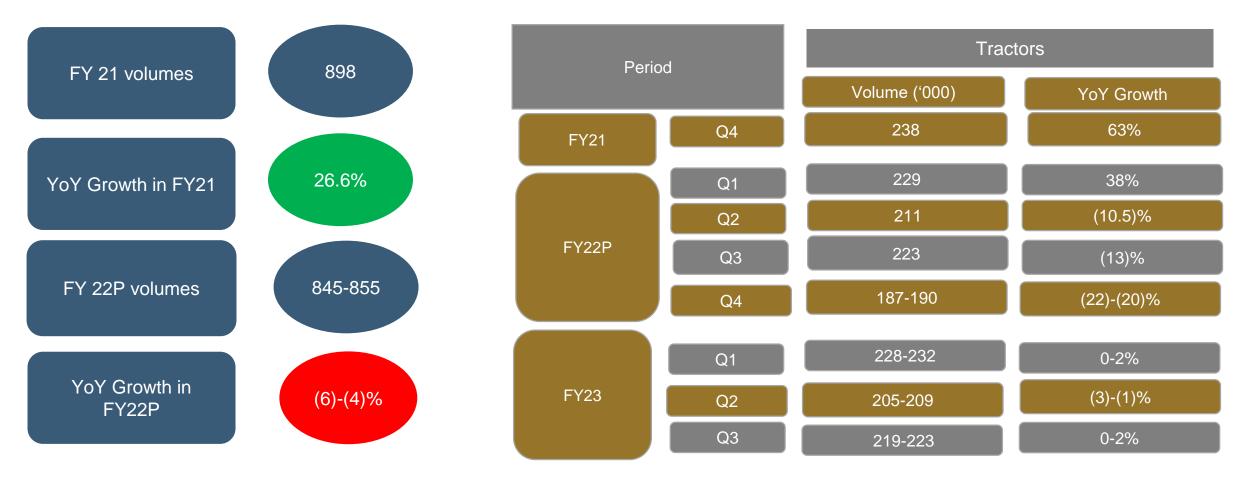


Source: CRISIL Research

- While several OEMs have streamlined supply issues. Production levels are at optimum levels in order to cater to the demand.
- FY21 saw a production growth by 117% y-o-y.



Domestic – Annual & Quarterly Forecast



Source - CRISIL Research

- Tractor demand to decline in FY22 over a high base of last year
- Rising tractor prices amid price hikes taken by OEMs, higher inventory at dealer's end, lower commercial demand, negative farmer sentiments due to rising cost of cultivation, low fertilizer availability, increase in other expenditure (such as marriages and other social occasions) to hamper demand.





Stakeholder interactions

OEM



- Retail momentum in the festive months has been slower than expectations.
- Heavy and erratic rainfall has affected crop yields and damaged crops as well.
- Farmers are facing cash crunch due to delayed season, increase in fuel and fodder prices.
- Harvest has been completed and Rabi sowing is also complete.
- · Commercial side also nothing much is happening.
- Rabi crop outlook is very good owing to the good rainfall and reservoir levels this year.
- Supply issues have eased. Demand for used tractors has picked up

Dealer



- Delivery momentum has slowed down.
- There has been some standing crop damage due to unseasonal rainfall.
- Horticulture crops have been affected due to rains
- Sowing is almost complete.
- · There has been good amount of damage in cotton, prices are good, but farmers are finding it expensive as the input cost for cotton has also gone up
- · Fertilizer prices have also increased.
- Dealers are taking a hit on their margins as tractor price has been increased and customers expect good discounts

Financier



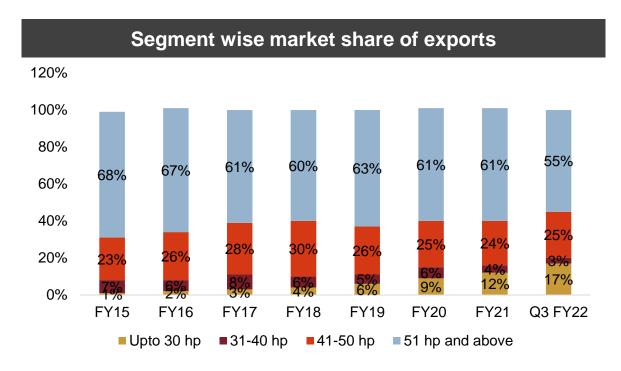
- Procurement money is very slow. After Sankranti there may be some positivity.
- Collections are expected to be slower as cash flows have been impacted.
- LTVs are expected to remain at a similar level at 70-75% amid risk averse investors.
- Interest rates have slightly increased

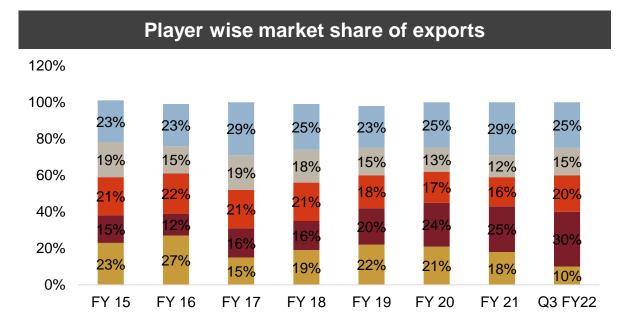


Tractor exports



Growth in exports expected to continue in FY22





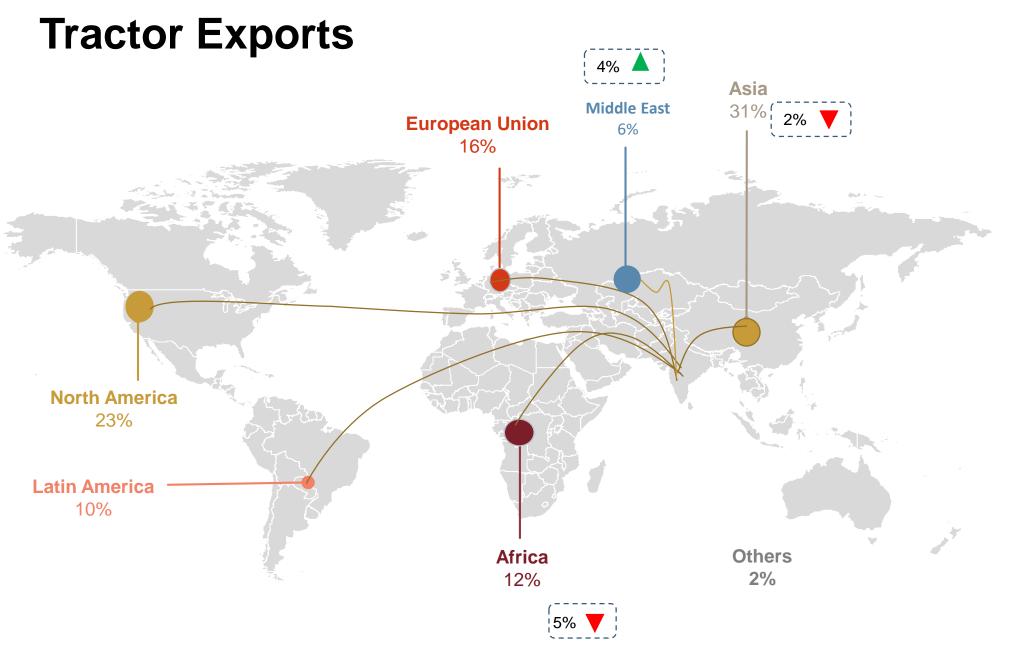
■ Johndeere ■ International Tractors Ltd. ■ TAFE ■ Mahindra & Mahindra Ltd. ■ Others

Source: CRISIL Research
Source: CRISIL Research

- Demand for Indian tractors has been higher in the US, Bangladesh and European countries.
- ITL and Escorts have been focusing on growing exports to insulate themselves from the cyclic domestic market demand.
- Escorts reduced exports from its Poland factory and has started exporting from India.
- Mahindra is a dominant player in exports to the United States and Asian nations.
- ITL's Solis brand has also been gaining popularity in the European markets







- Exports, accounting for about 10% of the overall tractor sales, are estimated to rise in fiscal 2022 after registering a 16% growth in fiscal 2021.
- Demand for Indian tractors has been higher in the US, Bangladesh and European countries
- Favorable diplomatic relationship with Bangladesh and logistical ease between both countries has led to rise in exports to the nation
- Strategic push, such as setting up base in foreign countries, by players to cater to the global demand is also expected to push export sales..





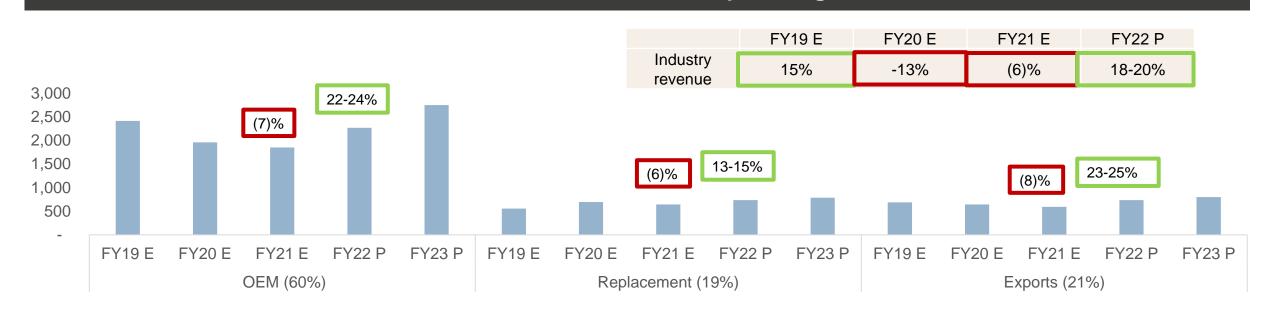
Auto Components





Auto components demand expected to recover as demand from OEM, exports and replacement increase

Demand from OEMs to drive auto component growth in FY22



Note: Coloured brackets represent y-o-y growth; Numbers in the bracket in the axis represent share in production for FY21 Source: CRISIL Research

- OEM production revenue is estimated to be restricted to 22-24%, higher than previously estimated owing to recovery post second wave of COVID.
- Exports and replacement demand is expected to clock a 23-25% and 13-15%% growth driven by global recovery and increased vehicular movement
- In fiscal 2022, domestic demand from all automobile asset classes is likely to recover as the economy recovers>
- However, production growth across OEM segments is estimated to have been affected by persistent semiconductor shortages, which hit production of select high-end models of utility vehicles, premium motorcycles and light commercial vehicle

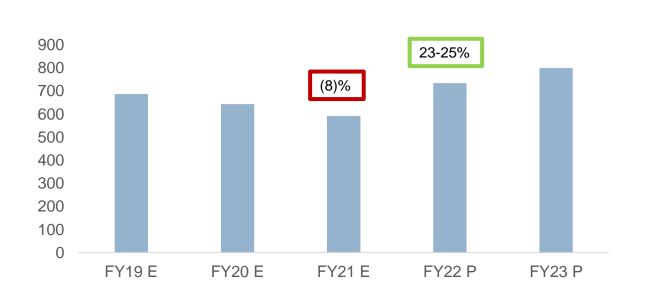


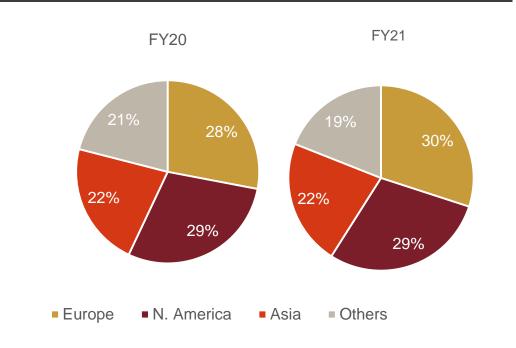


Exports to revive in FY22 on the back of recovery in global automotive market and increase in realizations

Export demand expected to revive in FY 22

Developed nations support exports





Note: Brackets represent y-o-y growth;

Source: CRISIL Research

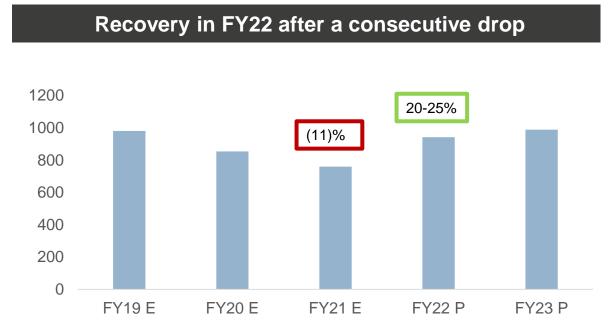
Source: DGFT, CRISIL Research

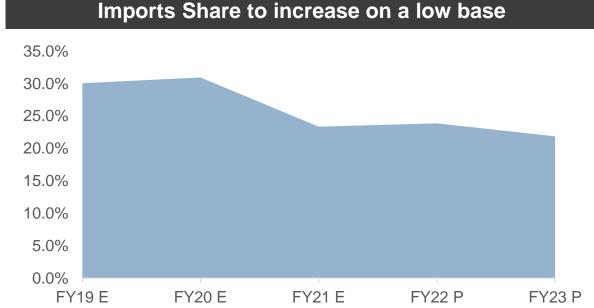
- Auto component exports (accounting for 20% of the overall demand in FY21) are projected to increase by a double-digit growth in FY22.
- The growth would be on the back of healthy demand from North America and Europe.
- Moreover, export revenues are also expected to be supported by increasing realization.
- Besides, with subdued demand sentiments in the domestic markets, auto component players are likely to bank on export demand.





Auto component imports to bounce back in FY22 with improving domestic production





Source - DGFT, CRISIL Research

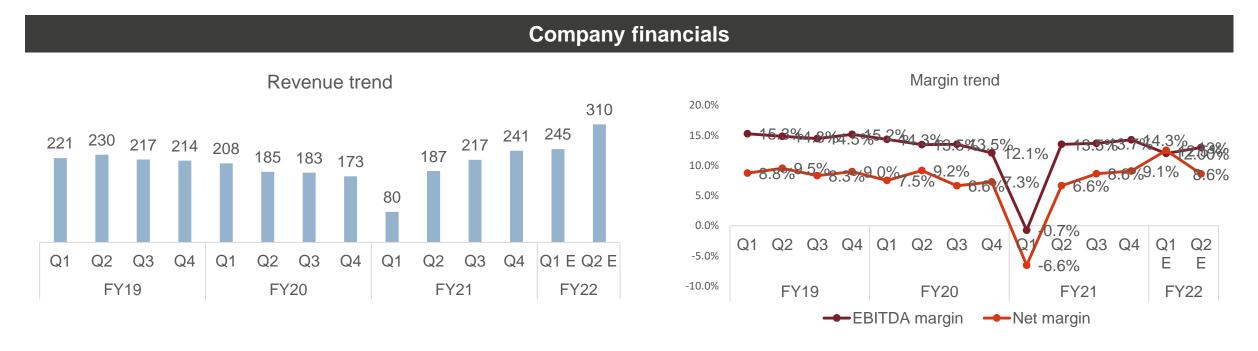
Source: DGFT, CRISIL Research

- Utilization levels of domestic OEMs and aftermarket players have also been impacted since the beginning of fiscal 2022 on account of state-wide lockdown and restrictions and persisting semiconductor shortage issue.
- Going ahead, import demand is likely to grow led by a recovery in domestic market.





Profitability to improve in Q2 fiscal 2022, led by a recovery in demand



Source: Company financials, CRISIL Research

- Margins are expected to improve in FY22.
- This can be attributed to improved demand from all segments and recovery in utilization levels of automotive component players in fiscal 2022. Utilization levels of players had dropped to an all-time low in fiscal 2021. This coupled with higher input costs took a toll on profitability during the year.
- In fiscal 2022, raw material costs have been on upward trend which is expected to put pressure on overall margin expansion, but some margin expansion is expected to be seen on lower base of fiscal 2021.

Research

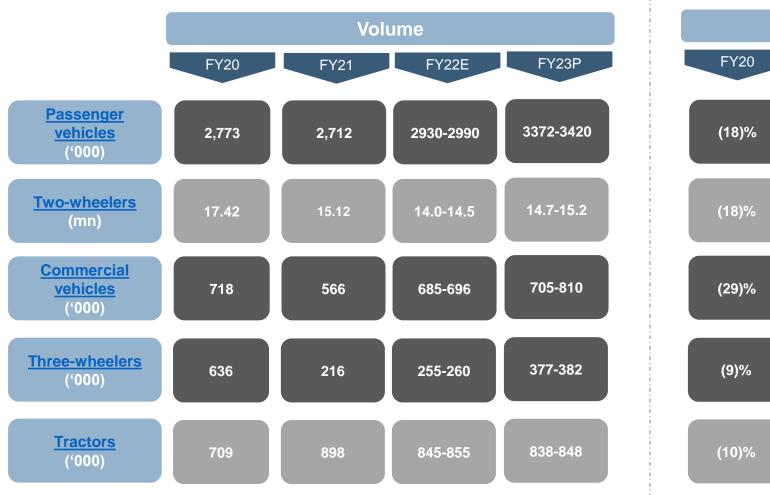


Annual Forecasts





Annual Forecast – Domestic (Base case)





SOURCE: SIAM, CRISIL Research



Quarterly forecasts – Domestic

Vehicle segment	Subsegment	Volume				YoY growth (%)			
		Q2 FY 22	Q3 FY 22	Q4 FY 22 P	Q1 FY 23 P	Q2 FY 22	Q3 FY 22	Q4 FY 22 P	Q1 FY 23 P
Passenger vehicles	Cars ('000)	344	349	385-395	368-378	(19)	(32)	(25)-(23)	10-12
	UVs & vans ('000)	397	411	420-430	391-401	32	9	0-2	27-29
	PVs ('000)	741	760	810-820	765-775	2	(15)	(13)-(11)	19-21
Two-wheelers	Motorcycles (mn)	2.61	2.8	2.60-2.65	2.63-2.68	(17)	(12)	(8)-(6)	54-56
	Scooters (mn)	1.3	1.0	0.97-1.2	1.02-1.07	(1)	(28)	(28)-(26)	76-78
	Mopeds ('000)	164	160	140-145	135-140	(17)	(24)	(8)-(6)	99-101
	2W (mn)	4.1	4.0	3.75-3.80	3.82-3.87	(12)	(17)	(14)-(12)	52-54
Commercial vehicles	LCV ('000)	108	127.6	135-138	119-121	3	(8)	8-10	62-64
	MHCV ('000)	51.3	60.4	75-76	61-62	115	21	(2)-0	124-126
	Buses ('000)	6.3	6.9	11.6-11.8	9.5-9.6	57	67	46-48	78-80
	CVs ('000)	167	196	222-226	190-193	24	1	6-8	79-81
Tractors ('000)		l l 212	223	187-190	228-232	(11)	(13)	(22)-(20)	0-2
,		<u> </u>							
Three-wheelers	Goods ('000)	23.5	22.3	28.8-29.3	32.2-32.7	17	(21)	2-4	276-278
	Passenger ('000)	47.4	60.1	67.9-68.4	52.5-53.0	79	37	18-20	234-236
	3W ('000)	70.9	82.4	97.0-97.5	85.0-85.5	52	14	13-15	249-251

SOURCE: SIAM, CRISIL Research

Research



Thank You





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