Impact of macro-economic environment on the automotive industry

ACMA October 2021





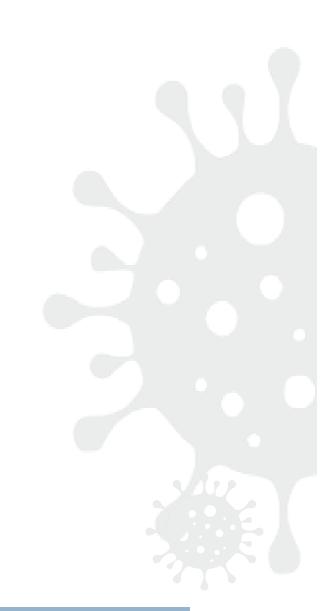
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Economy overview

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Economy overview



CRISIL estimates FY22 real GDP growth at 9.5%.

GDP Real (Growth Rate)

12% 9.5% 10% 8.3% 8.0% ₹ 7.4% 8% 6.8% 6.5% 6.4% 6% 4.0% YoY Growth (%) 4% 2% 0% FY22 P **FY14 FY15 FY16 FY17 FY18 FY19 FY20 FY21** -2% -4% -6% -8% -7.3% -10% -GDP Growth (%)

Capex:

Investment fell 15.2%, despite the government's continued capital expenditure (capex) support. Central government capex at Rs 1.11 lakh crore in Q1 FY22 was not very different from Rs 1.15 lakh crore in the previous quarter. This is suggestive of acute weakness in corporate and household sector investment during the guarter



India learning to live with virus:

Economic activity in India is improving gradually with the second wave of the Covid-19 pandemic abating. GDP growth for the first quarter of fiscal 2022 came in at 20.1%, a tad faster than previous forecast of 19%.

Sequentially, real GDP contracted a sharp 16.9% on-quarter in Q1 FY22, reflecting the impact of second Covid-19 wave impact

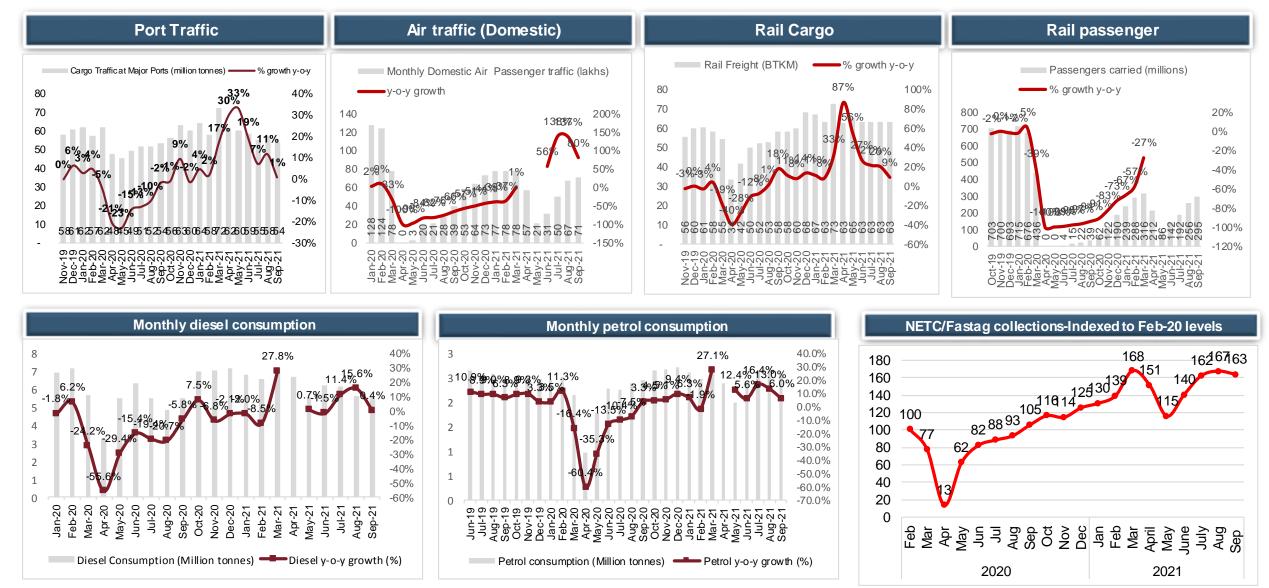
Consumer inflation dropped to a lower-thanexpected print of 5.3% in August, while industrial growth was guite strong in July.

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



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Overall mobility improving month on month gradually



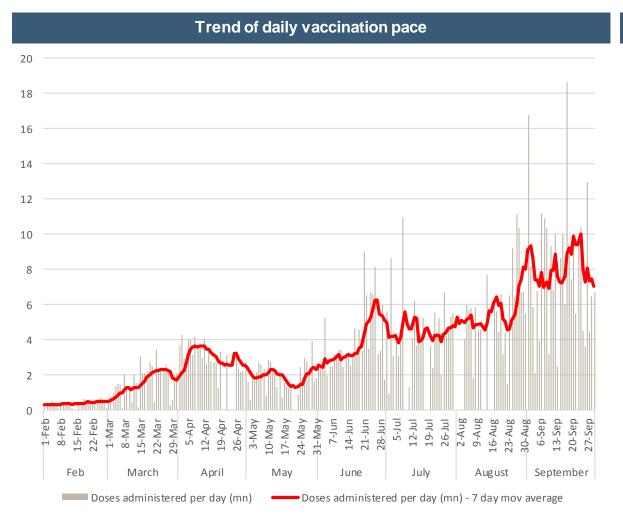


Research

Note: Sep Fastag data is provisional Source: IPA,DGCA, Indian Railways, PPAC,NPCI,RBI,CRISIL Research,

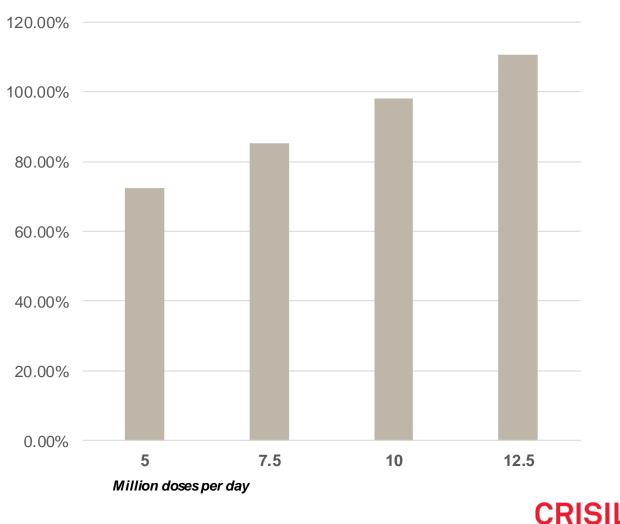
5

Vaccination: the need for speed



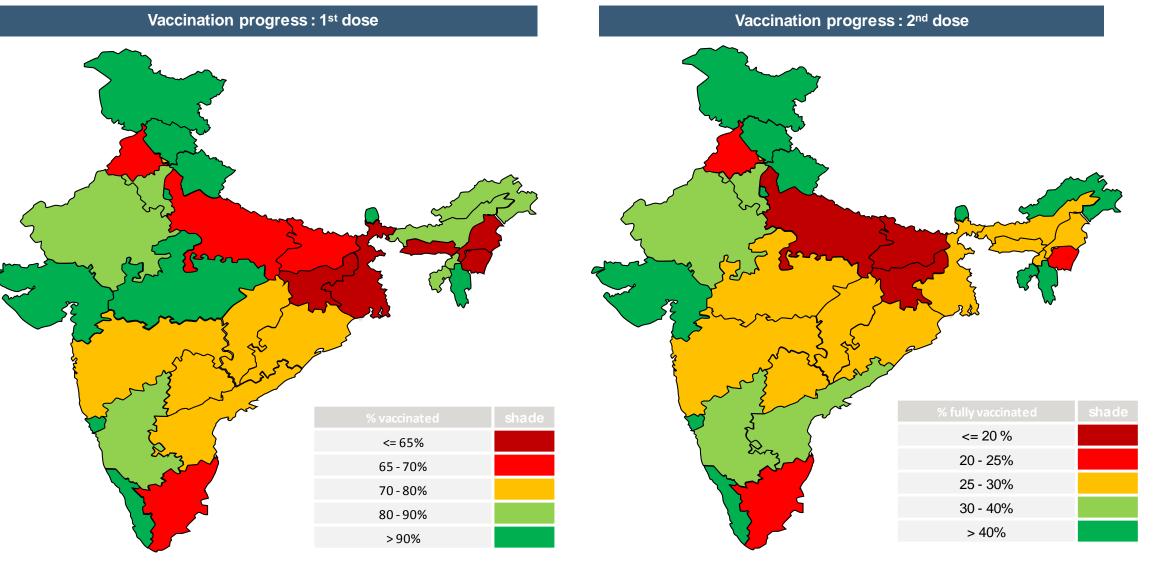
Vaccination doses per day required to meet specified target of adult population (mn doses per day)

% of adult vaccinated till 31st Dec 2021



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GJ, KL leading in terms of % of adult population inoculated



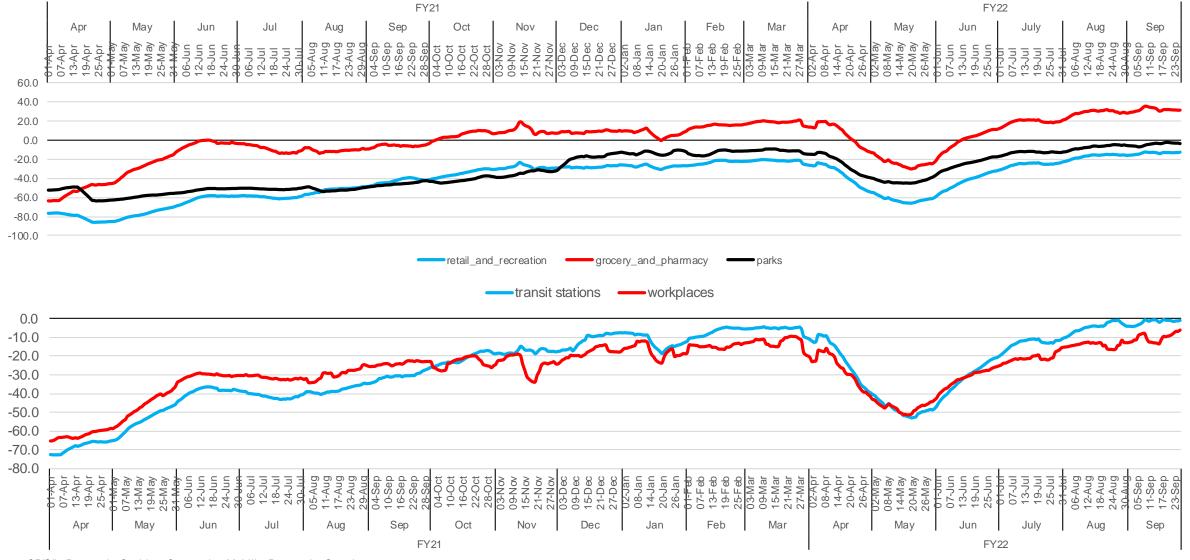
CRISIL An S&P Global Company

As of 4th Oct 2021 Source: MohFW,UIDAI,CRISIL Research

Mobility Trends



Mobility indicators-segmental

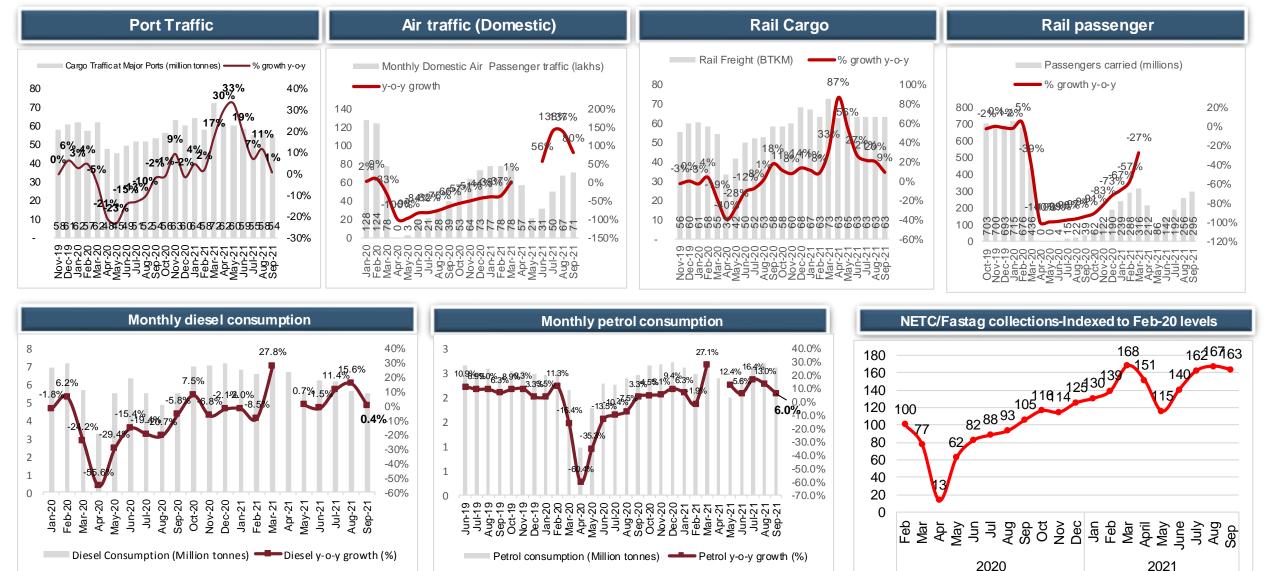


Source: CRISIL Research, Covid-19 Community Mobility Reports by Google, **Research**Note: Data is 7 day Moving Average data. Google's Community

Note: Data is 7 day Moving Average data. Google's Community Mobility Reports use smartphone location data to publish reports about people's movement in an area.



Overall mobility improving month on month gradually



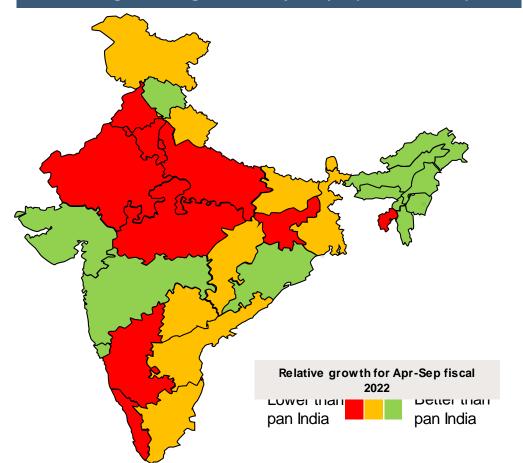


Research Note: Sep Fastag data is provisional Source: IPA, DGCA, Indian Railways, PPAC, NPCI, RBI, CRISIL Research,

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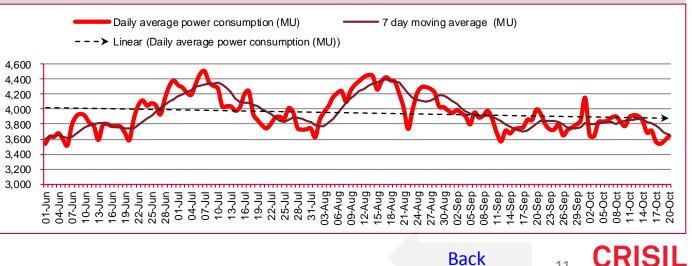
Power consumption poses flattish growth in Sep 2021; East and West region performs better than other regions in Apr–Sep FY22 period

Eastern region seeing a better trajectory in power consumption



Monthly trend for power consumption in India 140 50% 38% 40% 120 30% 100 -3%-2% 4% ^{11%} 4% 4% 5% _{0%} 8% 8% 11% 10% 20% 80 2% 10% 60 -16%11% 10% 0% 40 -10% 20 -20% 106 103 107 115 112 99 106 111 105 123 117 111 116 126 130 115 105 114 100 111 0 -30% Jan-20 Apr-20 May-20 Aug-20 Sep-20 Feb-20 Mar-20 Jun-20 Jul-20 Oct-20 Nov-20 Dec-20 Sep-21 Aug-21 Jan-21 Feb-21 Mar-2 Apr-2 May-2 Jun-2 Jul-2 Power consumption Pan India (Billion Units) -Growth rate Y-o-Y

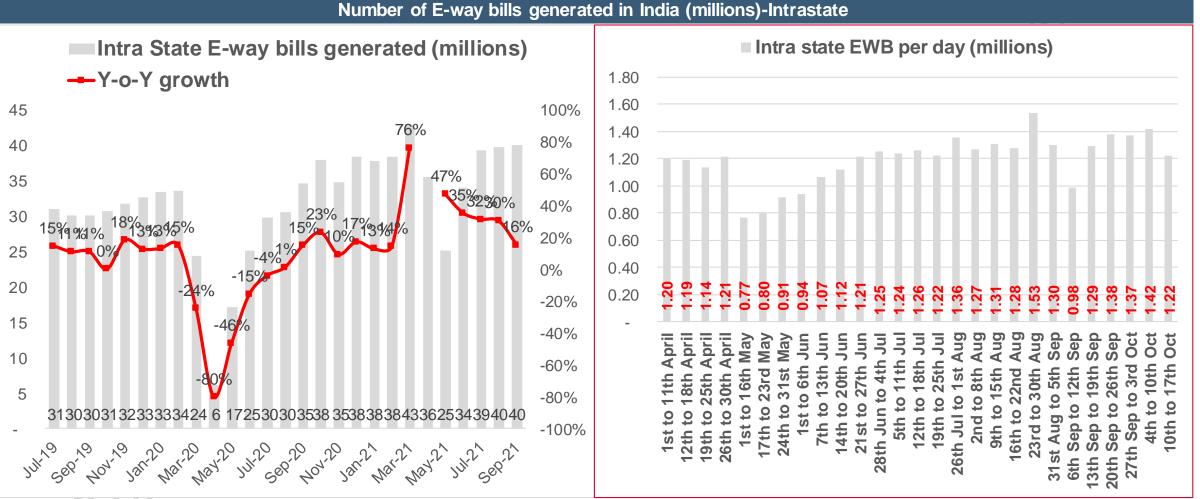
Daily trend for power consumption in India



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Research Source: Posoco, CRISIL Research,

Intra state E-waybill trend



Note:

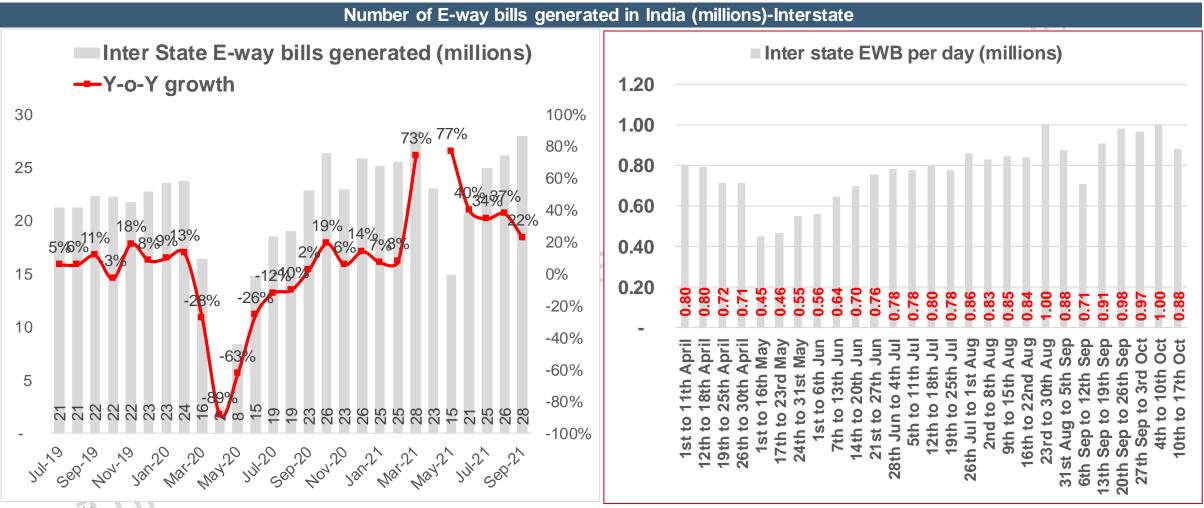
1. y-o-y growth not mentioned in Apr-21 as values are not meaningful due to low base effect of previous year caused by the nationwide lockdown Sep 21 number is extrapolated basis recent available data, 2.Agri, last mile distribution and market load operations do not come under ambit of E-way bill hence the E-way bills mentioned here may not represent the entire movement of goods in the country Source: GST Network, CRISIL Research,

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Inter state E-way bill trend



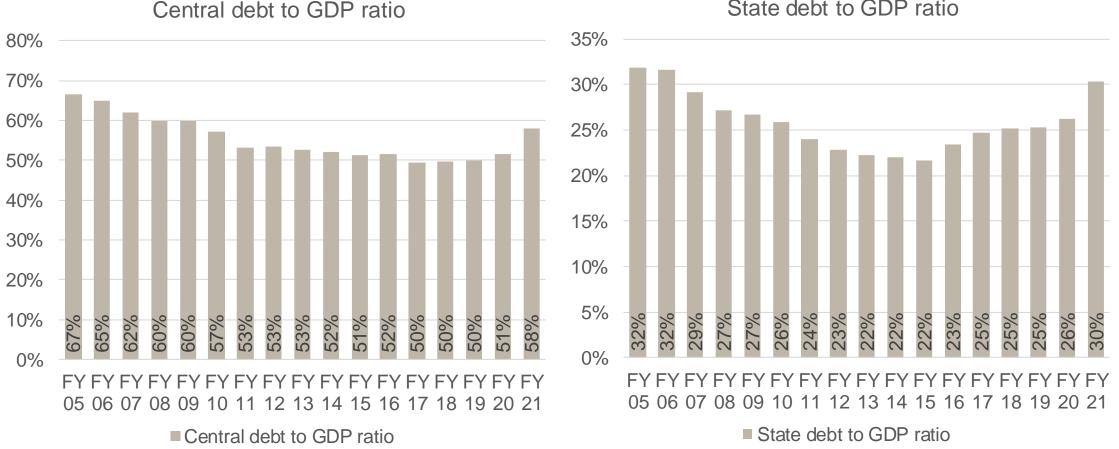
Note:

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 Sep 21 number is extrapolated basis recent available data, 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 Source: GST Network, CRISIL Research,

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Debt to GDP ratio considerably below past highs in case of centre, while on slightly higher side in case of states

Government debt as a % of Nominal GDP







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

Segments	Apr-20	Mav-20	Jun-20	Jul-20	Aua-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	Mav-21	Jun-21	Jul-21	Aug-21
Core Sectors																	
Coal	-15%	-14%	-16%	-6%	4%	21%	12%	3%	2%	-2%	-4%	0%	9%	7%	7%	19%	21%
Crude Oil	-6%	-7%	-6%	-5%	-6%	-6%	-6%	-5%	-4%	-5%	-3%	-3%	-2%	-6%	-2%	-3%	-2%
Natural Gas	-20%	-17%	-12%	-10%	-9%	-11%	-9%	-9%	-7%	-2%	-1%	12%	25%	20%	21%	19%	21%
Petroleum Refinery Products	-24%	-21%	-9%	-14%	-19%	-9%	-17%	-5%	-3%	-3%	-11%	-1%	31%	15%	2%	7%	9%
Fertilizers	-4%	7%	4%	7%	7%	0%	6%	2%	-3%	3%	-4%	-7%	4%	-10%	2%	1%	-3%
Steel	-83%	-40%	-23%	-6%	-2%	3%	-3%	-4%	3%	3%	-2%	32%	494%	55%	25%	9%	5%
Cement	-85%	-21%	-7%	-13%	-15%	-4%	3%	-7%	-7%	-6%	-5%	41%	607%	12%	8%	22%	36%
Electricity	-23%	-15%	-10%	-2%	-2%	5%	10%	2%	5%	5%	0%	22%	39%	7%	8%	11%	15%
Auto-offtake																	
Two Wheelers	-100%	-84%	-39%	-15%	3%	12%	17%	13%	7%	7%	10%	73%	NM	26%	3%	-2%	-15%
Cars	-100%	-88%	-59%	-18%	11%	55%	39%	-14%	13%	-7%	-1%	108%	NM	113%	118%	45%	8%
Uvs + Vans	-100%	-76%	-43%	1%	26%	38%	39%	3%	23%	25%	33%	153%	NM	118%	11070	-1.5 /0	070
Three Wheelers	-100%	-95%	-80%	-77%	-75%	-72%	-5%	-22%	-6%	-6%	-3%	16%	NM	-49%	-9%	41%	60%
Auto-Vaahan																	
2W	-76%	-89%	-40%	-36%	-27%	-13%	-25%	-19%	12%	-7%	-16%	-35%	171%	155%	18%	28%	7%
Cars+Uvs	-91%	-86%	-37%	-23%	-4%	10%	-6%	7%	24%	-2%	13%	34%	913%	171%	43%	63%	39%
Others																	
PMI Manufacturing	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
IIP Overall	-57%	-33%	-17%	-11%	-7%	1%	5%	-2%	2%	-1%	-3%	24%	134%	29%	14%	11%	
Diesel consumption	-56%	-29%	-15%	-19%	-21%	-6%	8%	-7%	-2%	-2%	-8%	28%	106%	1%	-2%	11%	16%
Rail freight (NTKM)	-40%	-28%	-12%	-8%	1%	18%	11%	8%	14%	11%	8%	33%	87%	56%	27%	21%	20%
Bitumen consumption	-73%	-19%	37%	-4%	39%	38%	49%	18%	21%	-3%	-10%	45%	253%	-10%	-32%	4%	3%
Total credit	-73%	-19%	37%	-4%	39%	38%	49%	18%	21%	-3%	-10%	45%	253%	185%			
Industry credit	2%	2%	2%	1%	0%	0%	-2%	-1%	-1%	-1%	0%	0%					
-Micro and Small	-2%	-3%	-4%	-2%	-1%	0%	1%	0%	1%	1%	2%	1%					
-Medium	-6%	-5%	-9%	-3%	3%	14%	17%	21%	15%	19%	21%	29%					
-Large	3%	3%	4%	1%	1%	-1%	-3%	-2%	-2%	-3%	-2%	-1%					

Research

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Macroeconomic outlook

Segments (% Growth Y-o-Y)	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20 E	FY 21 E	FY22P
GDP (% Growth Y-o-Y)	7.4	8.0	8.8	7	6.1	4.8-5	(7.3)	9.5
CAD (as a % of GDP)	-1.3	-1.1	-0.7	-1.8	-2.1	-0.9	+0.9	-1.2
10-year G-sec yield (end-March)	7.7	7.5	6.8	7.6	7.5	6.2	6.2	6.5
PFCE	6.4	7.9	8.1	7	7.2	5.5	(9.1)	8-9
Crude oil (\$/barrel/CY)			44	54.5	71	64	42.3	65 - 70
Inflation (Consumer Price Index)	5.9	4.9	4.5	3.6	3.4	4.8	6.2	5.8

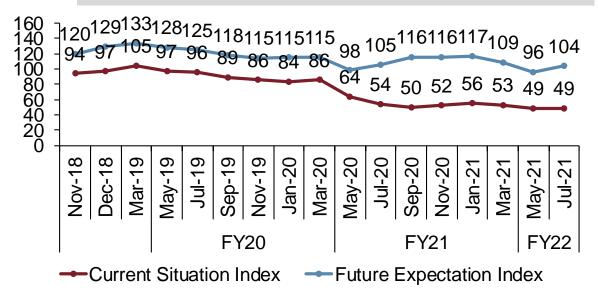


Future expectation index returned to optimistic territory

Consumer Confidence Index

Consumer confidence for the current period remained weak and the current situation index stood around the all-time low level recorded in the previous survey round as most households reported lower incomes and higher level of price as compared to a year ago

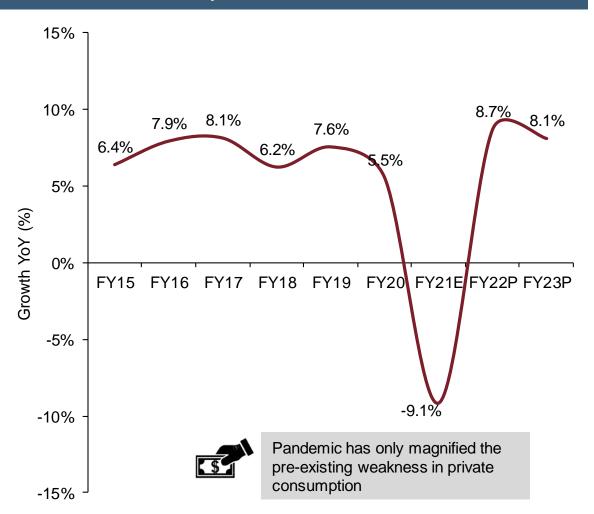
Driven by substantial improvements in the outlook for general economic situation and employment scenario after the waning of the second wave of the COVID-19 pandemic, the future expectations index (FEI) returned to optimistic territory; respondents placed higher confidence on household income going forward



Source: CRISIL Research, RBI, NCAER

Research

Private consumption to bounce back in fiscal 2022



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

Rural Scenario



Continued government support to keep rural demand resilient in FY22

Agri scenario lends support to a struggling economy Government support iiiii A total of 12 crore beneficiaries have been transferred money under PM Kissan Yojana in fiscal 2021 • Kharif CVI expected to improve by 1-3% in FY22 on PM Kissan • The government has given Rs 1.58 lakh crore to account of a normal monsoon and good crop output and PM Garib 11.37 crore farmers. Now the central government is Crop scenario Higher reservoir levels expected to support rabi output planning to release the next installment ie the 10th Kalyan Yojana for FY22. Hence, we expect the Rabi CVI for 2021-22 installment of Pradhan Mantri Kisan Samman Nidhi to be higher by 1-3% compared to last year Yojana (PM KISAN scheme) by 15 December 2021

MNREGA



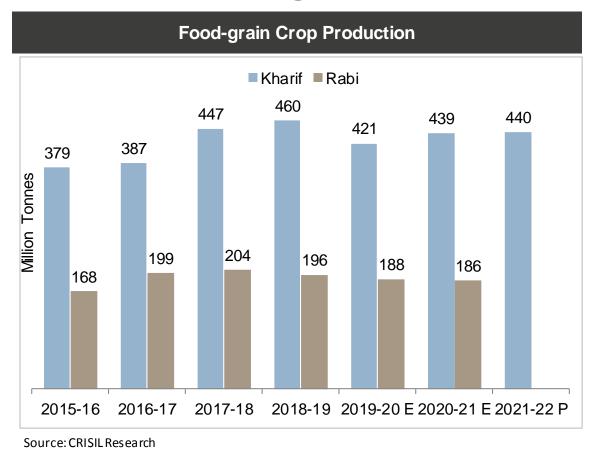
As on 30th September 2021, Rs. 63,924 cr has been spent out of Rs. 74,775 cr allocated
So far, around 57.7 million households have worked under the scheme in FY22, while the full-year number in last fiscal was 75 million

Source: Ministry of Rural Development

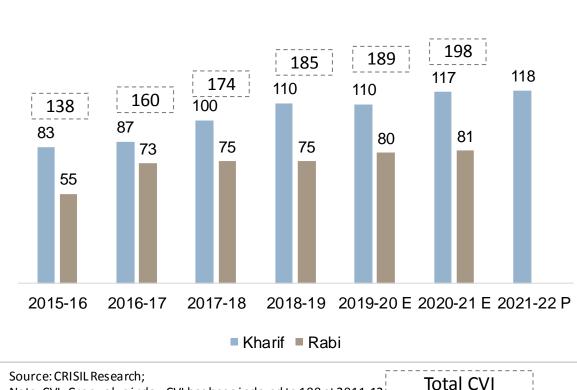
Source - Industry, CRISIL Research



Positive outlook for kharif season and better cash flow in the market to aid agri sector



Food-grain CVI (Crop Value Index)



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



Normal monsoon expectation to aid good kharif production in fiscal 2022 as well



Higher government procurement and timely payment to further boost farm sentiments



Indian automobile industry



Assumptions

- Infrastructure activities to continue with its pace and improve gradually
- Normal and well distributed monsoon in 2021
- Crude oil prices are expected to average \$65-70 per barrel in CY 2021. Retail fuel prices to remain elevated above Rs.100, expected to constraint demand.
- Rising commodity prices to remain a key monitorable. Further hike in vehicle prices possible.
- Financing scenario to remain accommodative; barring MSME and commercial segment
- Model launches like XUV 700, Celerio facelift to have considerable impact, Tata Punch expected to create healthy traction.

Base Case – Supply situation to improve in Q3/Q4, economy gradually picking up, supply issue to normalise
Economic situation to gradually improve
M-o-m improvement in supply during Q3
No further production cuts during Q4
Pending bookings to be served in Q3 & Q4
Near normal supply situation in FY23



Annual Forecast – Domestic (Base case)



SOURCE: SIAM, CRISIL Research

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Quarterly forecasts – Domestic

				ume		YoY growth (%)				
Vehicle	Subsegment		VOI	ume						
segment	3	Q1 FY 22	Q2 FY 22	Q3 FY 22 P	Q4 FY 22 P	Q1 FY 22	Q2 FY 22	Q3 FY 22 P	Q4 FY 22 P	
_	Cars ('000)	337	344	367-377	419-429	321	(19)	(28)-(26)	(18)-(16)	
Passenger vehicles	UVs & vans ('000)	308	397	383-393	405-415	319	32	2-4	(3)-(1)	
	PVs ('000)	645	741	755-765	833-843	320	2	(15)-(13)	(11)-(9)	
	Motorcycles (mn)	1.74	2.61	2.56-2.60	2.51-2.55	93	(17)	(19)-(17)	(11)-(9)	
Two-wheelers	Scooters (mn)	0.59	1.3	1.24-1.28	1.15-1.19	75	(1)	(11)-(9)	(15)-(13)	
	Mopeds ('000)	69	164	168-172	162-166	28	(17)	(20)-(18)	5-7	
	2W (mn)	2.4	4.1	4.00-4.05	3.85-3.90	86	(12)	(17)-(15)	(12)-(10)	
	LCV ('000)	71.9	108	120-123	134-137	173	3	(14)-(12)	8-10	
Commercial	MHCV ('000)	27.9	51.3	58-60	74-75	582	115	18-20	(3)-(1)	
vehicles	Buses ('000)	4.5	6.3	8.6-8.7	11-11.2	312	57	108-110	39-41	
	CVs ('000)	104.4	167	189-192	221-224	232	24	(3)-(1)	5-7	
Tracto	ors ('000)	229	212	224-229	210-215	39	(11)	(13)-(11)	(12)-(10)	
	Goods ('000)	8.6	23.5	25.4-25.9	29.2-29.7	48	17	(9)-(7)	3-5	
Three-wheelers	Passenger ('000)	15.8	47.4	48.4-49.4	58.8-59.8	128	79	11-13	3-5	
	3W ('000)	24.4	70.9	74.3-74.8	885-89.0	91	52	3-5	3-5	

SOURCE: SIAM, CRISIL Research

Annual forecasts – Exports

Vehicle	Subsegment		Vol	ume		YoY growth (%)				
segment	Subseyment	FY 19	FY 20	FY 21	FY22P	FY 19	FY 20	FY 21	FY22P	
_	Cars ('000)	514	475	262	330-340	(11)	(7)	(45)	27-29	
Passenger vehicles	UVs & vans ('000)	162	186	138	170-175	(4)	15	(26)	24-26	
	PVs ('000)	676	662	400	500-520	(10)	(2)	(40)	26-28	
	Motorcycles (mn)	2.87	3.14	3.03	3.35-3.45	15	9	(3)	11-13	
Two-wheelers	Scooters (mn)	0.40	0.37	0.23	0.25-0.35	27	(7)	(37)	34-36	
	Mopeds ('000)	17	14	8.3	13-18	(4)	(17)	(40)	80-85	
	2W (mn)	3.28	3.52	3.28	4.6-4.8	17	7	(7)	42-44	
	LCV ('000)	47.2	33.9	31.1	43-45	(3)	(28)	(8)	39-41	
Commercial	MHCV ('000)	40.4	14.9	13.5	20-22	27	(63)	(9)	59061	
vehicles	Buses ('000)	12.4	11.9	5.7	7-9	(24)	(3)	(52)	47-49	
	CVs ('000)	99.9	60.7	50.3	73-75	3	(39)	(17)	45-47	
Tracto	ors ('000)	92	76	88.6	90-92	7	(17)	17	3-4	
		I								
	Goods ('000)	6.2	6.3	5.6	7.5-8	47	2	(12)	39-41	
Three-wheelers	Passenger ('000)	561.5	495.9	387.4	493-498	49	(12)	(22)	27-29	
	3W ('000)	567.7	502.2	392.9	500-505	49	(12)	(22)	27-29	

Research

Note: We have assumed the Covid situation to gradually normalize going ahead, and we expect no further sizeable global resurgence of Covid cases Source: SIAM, CRISIL Research





Annual Forecast - Total Sales



SOURCE: SIAM, CRISIL Research



PV industry continues to grapple for stock

Vehicle segment	Normal inventory in days	Current inventory levels*	Inventory Units	Reasons
Passenger Vehicles	25-30	~15	120-150 thousand	High retail traction, new launches, slower production amid normalisation of second wave impact have kept the inventory levels low . Industry continues to face chip shortage.
Two Wheelers	30-35	48-53	1.8-2.3 million	Some pick up in demand in July and anticipation of a good festive season led to inventory build up during Q2, slowdown in retail momentum resulted in higher than anticipated stock level
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	40-45	93-98 thousand	Inventory levels, have further increased in Q2 due price increase that took place during end of July & anticipation of an all time high festive demand. Dealers have stocked up ahead of festive season due to expectation of better retail momentum and fear of any impact of third wave of the pandemic.
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

Research NOTE:* Inventory level as on end of June 2021, Inventory units have been calculated using last 12 months sales

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Passenger vehicles





Strong booking pipeline, new launches, continued need for personal vehicles to support industry revival in FY22

Variables	FY18	FY19	FY20	FY21	FY22 E
Income for discretionary spending	F	F	NF	NF	F
Variables	FY18	FY19	FY20	FY21	FY22 E
Cost of ownership	F	NF	N	N	N
Petrol / CNG Vehicles	F	NF	N	N	NF
Diesel vehicles	F	NF	N	NF	N
Interest rates	F	N	N	F	N
Variables	FY18	FY19	FY20	FY21	FY22 E
New model/ facelift launches	N	NF	F	N	F
Regulations – passenger vehicles	F	N	NF	Ν	N
Impact on Overall Sales Growth	F	N	NF	NF	F

E: Estimated SOURCE: Industry, CRISIL Research



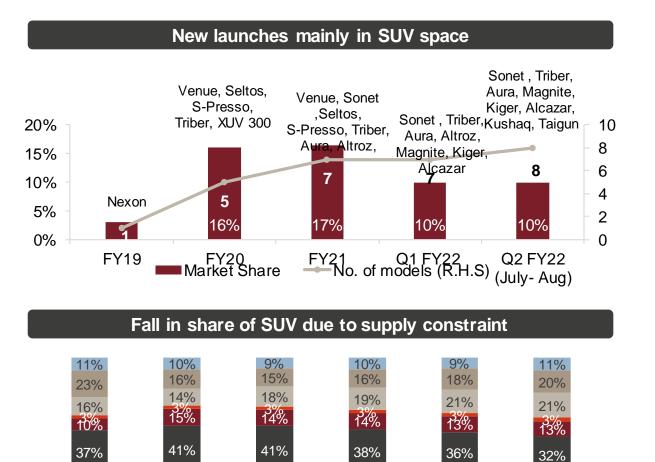
SUV segment further expands its presence in Q2 FY22

Q1

Vans and MPVs

Q2

FY22



Model Company Segment XUV 700 Other SUV Mahindra TUV3OO facelift Compact UV Tata Punch Compact UV MG Other SUV Astor **Premium Compact** Ceed Kia **Premium Compact** Rio Celerio facelift Maruti Lower compact Gurkha facelift Force Other SUV Volkswagen Vento facelift Large car

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Major upcoming launches (Q3 FY 2022)

Research NOTE: Vehicle is considered newly launched for 18 months, September SIAM modelwise data is not yet available Source: SIAM, MoRTH, CRISIL Research

Q4

Premium compact Large cars

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Q1

Q2

Lower compact

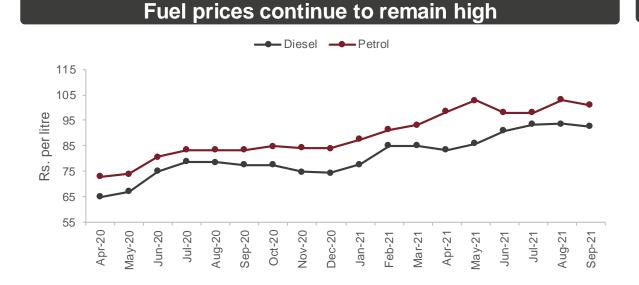
Compact UV

FY21

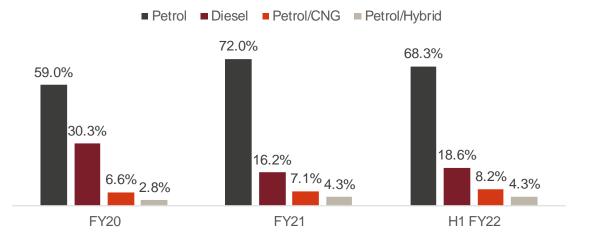
Q3

Other SUVs

Move towards alternative fuel due to higher fuel prices; low interest rates have augured well for the industry

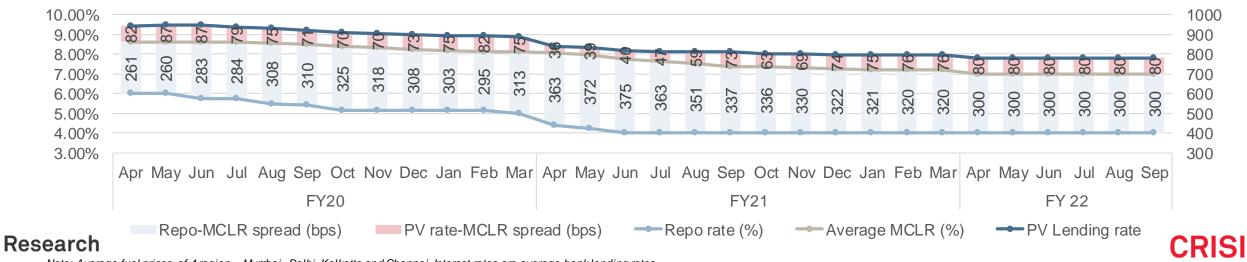


Rise in petrol & CNG variants post BS-VI



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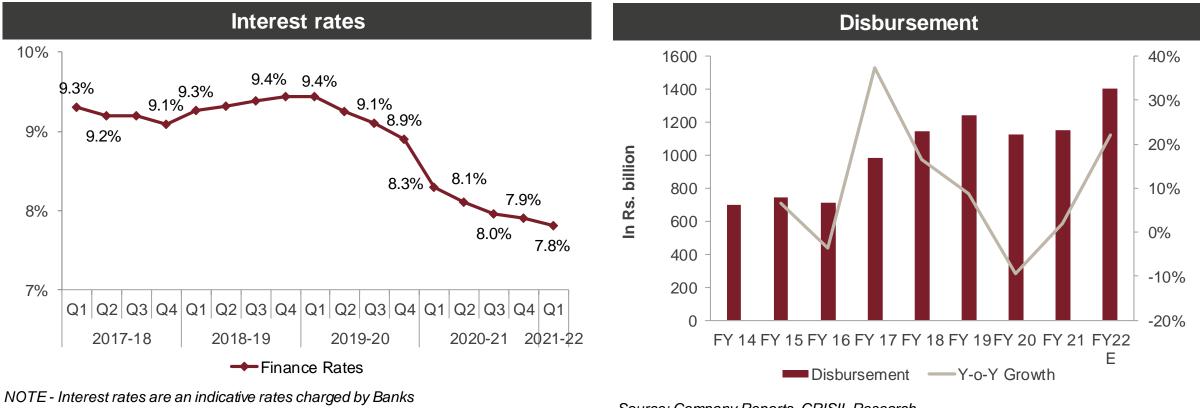
Difference between MCLR & lending rate narrows down further



Note: Average fuel prices of 4 region – Mumbai, Delhi, Kolkatta and Chennai, Interest rates are average bank lending rates

31 Source: Industry, MoRTH, CRISIL Research

Revival in demand, increased vehicle prices to boost disbursements in FY22



Source – CRISIL Research

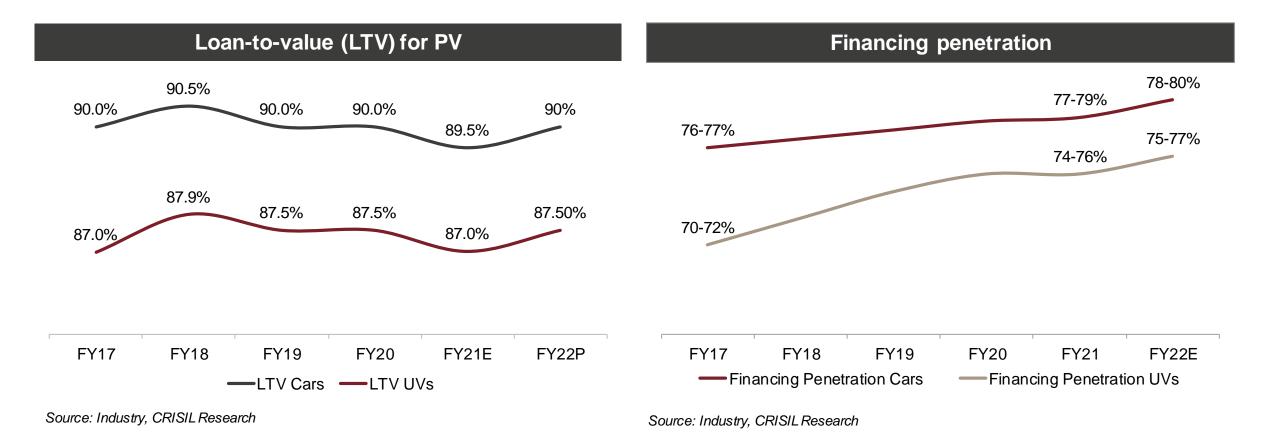
Source: Company Reports, CRISIL Research

- Higher reduction in interest rates (~70-90 bps) have been witnessed in PVs segment as income sentiments have not been as severely impacted for the buyer segment of these vehicles as compared to other vehicle segments, Interest rates have been sliding
- Continued y-o-y drop in underlying vehicle demand exerted pressure on disbursement levels in fiscal 2021
- In fiscal 2022, supported by the estimated pick up (20-22%) in PV demand, as well as the increased vehicle prices to support disbursements growth albeit on a lower base





LTV to reach pre Covid levels in fiscal 2022



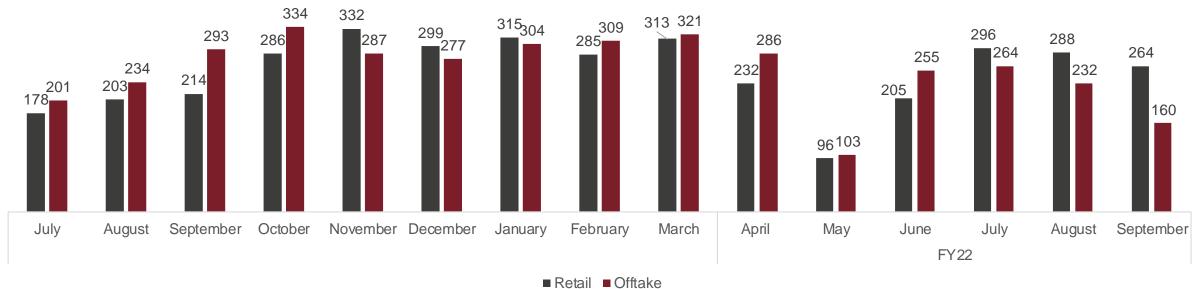
 Typical PV customers have healthy financial profile, hence despite the economic impact of pandemic there was no sizeable impact on either LTVs on penetration during fiscal 2021

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- Some improvement in expected in LTVs in fiscal 22 backed by estimated improvement in incomes, as well as pick up in disbursements
- · Finance penetration is expected to remain range bound

Some improvement in retail during Q2

Retail vs off-take FY21 & FY22

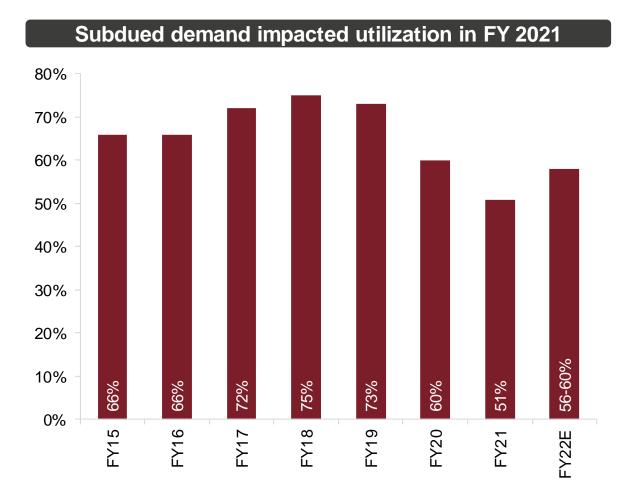


Note: Retail numbers are estimated, Offtake numbers include Tata Motors sales Source – MoRTH, SIAM, CRISIL Research

- 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
- Dealer stock levels continue to remain below normal; currently at 15-20 days
- Popular models like Creta, Magnite, Ertiga continue to command high waiting periods



Utilization to improve in FY22, to remain a little shy of FY20 levels



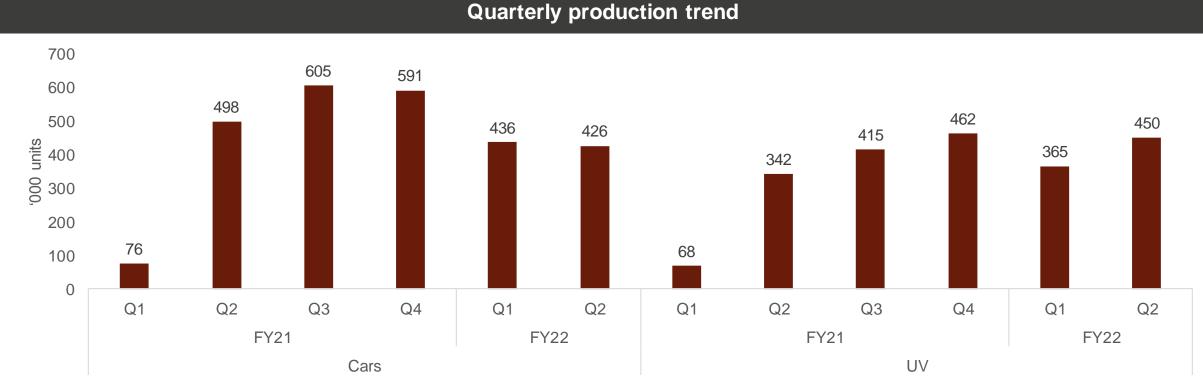
Capacity utilisation of key players								
Player	Effective Capacity (in '000) (on 31st Mar 2021)	Capacity utilisation in FY21	Capacity Utilisation in Apr-Sep FY22					
Maruti	2,050	69%	70%					
Hyundai	763	74%	80%					
Tata Motors	564	38%	54%					
Ford India	440	20%	18%					
Renault-Nissan	480	30%	39%					
Toyota	310	17%	21%					
Honda	180	48%	54%					
Volkswagen	179	28%	37%					
Kia Motors	300	64%	74%					

Source: SIAM, Industry, CRISIL Research

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Source: CRISIL Research Estimated

Production witnessed growth in Q2 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 14% in fiscal 2021 to 32% in Q2 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.

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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	2973-2983	1480-1490	1483-1493
YoY Growth in FY22E	9-11%	2-4%	26-28%

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

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Domestic – quarterly forecast

Period		Passenger vehicles		Ca	ars	UVs and vans		
		Volume (000)	YoY Growth	Volume ('000)	YoY Growth	Volume ('000)	YoY Growth	
	Q2	726	18%	426	18%	299	19%	
FY21	Q3	897	14%	516	8%	381	24%	
	Q4	934	43%	513	27%	420	67%	
	Q1	645	320%	337	321%	308	319%	
FY22E	Q2	741	2%	344	(19)%	397	32%	
	Q3	755-765	(15)-(13)%	367-377	(28)-(26)%	383-393	2-4%	
	Q4	833-843	(11)-(9)%	419-429	(18)-(16)%	405-415	(3)-(1)%	
FY23 P	Q1	775-785	23-25%	400-410	19-21%	387-397	26-28%	
TTZJF	Q2	840-850	14-16%	430-440	22-24%	410-420	8-10%	

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
- We expect sales to gradually normalize from Q2 backed by continued need for personal mobility, strong order pipeline, estimated improvement in economy & added push with new launches

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- Festive demand has not lived up to its anticipation and has been impacted highly which will further impact 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

- Customer demand continued to remain buoyant during Q2; high operating costs amidst the intermittent fuel hikes has accelerated the shift towards CNG vehicles
- Supply remains the primary hurdle for the industry
 - After a peak in Q2, additional cases are waning in Malaysia
 - Covid situation normalized in Taiwan during Q2
- Gradual improvement expected in supply situation going ahead
- Despite reduction in new Covid cases, preference for personal mobility is expected to continue going ahead; but if supply crunch continues for 6 odd months there could be some demand loss in FY23

Dealer

variants

healthy

 Demand continued to remain healthy during the guarter, Significant increase in customer

• Only 5-10 days inventory left compared to

popular models, even 8-9 months for CNG

enquiries for CNG models

a standard 30+ day inventory

discounts on popular models

variants to the customers

• High waiting periods, 4-5 months for

Marginal discounts (10-15k) in the form of

• OEMs are majorly providing base variants

only & dealers are forced to push base

 Festive season is expected to be lean compared to last year, Dealers expect

Q3FY22 to be comparable to Q2FY22

• Dealers are hopeful of some improvement

after December, and Q4 numbers to be

exchange bonus etc being offered, no



Financier

- Q-o-Q improvement in disbursement levels during Q2
- Supply situation restricted disbursement growth
- LTV levels remain healthy, competitive interest rates are being offered
- Cautious funding for MSME & commercial buyers

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Source – Industry, CRISIL Research

Global Energy Crisis: a key monitorable going ahead

China

- Nation wide power crunch amidst unavailability of coal (inventory at 10yr low)
- Coal production got impacted with extreme weather, increased exports demand post pandemic as well as government crackdown on coal mines amidst environmental & safety concerns and a national push to reduce carbon emissions
- Factories across the country have shifted to reduced schedules or been asked to halt operations
- Primary coal exporter to China, Indonesia, is also struggling for coal supplies due to longer rainfall, Covid disruptions
- Amidst Geo political & trade tensions with Australia, China stopped buying coal from Australia with unofficial ban on Australian coal since last Oct
- Chinese officials have started releasing some of the Australian coal stuck at their ports from September end, although many of those (cargoes) had already been diverted to markets like India
- Coal shortage and in turn the power crunch is expected to continue in H2FY22
- 2022 Winter Olympics (Beijing 2022) to be held in February 2022 to exacerbate the situation

Europe

- With countries lifting Covid restrictions & fully reopening of economies, there is a sudden spike in consumption demand
- Aggressive push towards the adoption of renewable energy may have led investors to under-invest in traditional energy sources, in turn leading to insufficient supplies to meet rising demand
- · Gas inventory is alarmingly low across European nations
- Dwindling gas supplies and record-high prices is leading to energy crisis in EU
- Increased gas demand in the upcoming winters is expected to worsen the situation
- Moreover, according to the Monday (4th Oct) briefing, OPEC+ will continue with the existing pact of only gradual increase in oil output and has not agreed for additional supply push sending crude prices to a high of \$81 this week
- High energy prices are expected to continue in Europe in the second half of the year
- This is expected to impact the industrial output in the coming months

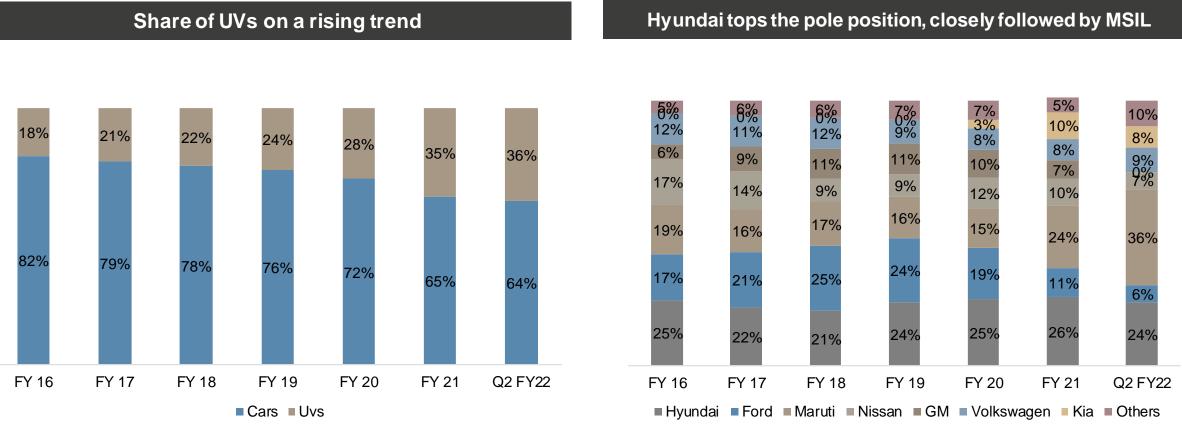


Source – Industry, CRISIL Research

PV exports



UVs continue their forward march, Maruti expands its presence further

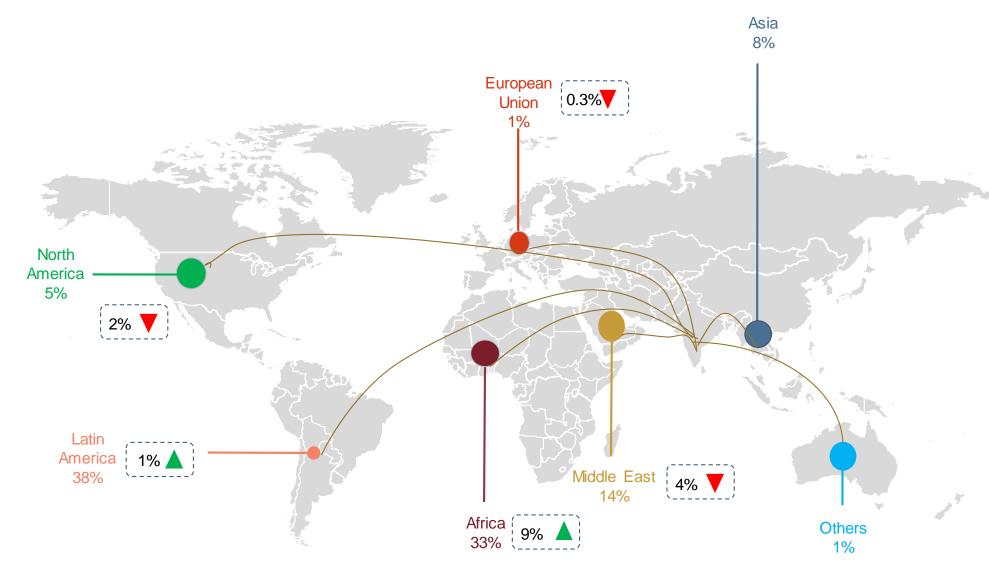


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Source: SIAM, CRISIL Research

- 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 in Q1 FY22
- UVs recorded 23% growth while cars clocked slower growth pace of 7% during the quarter
- Maruti, Hyundai, Nissan and recent entrant Kia continued to dominate the exports market
- Maruti has extended its presence from 24% in FY21 to 35% during Q1 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



Research

Note: Represents volume data for FY21 exports, % in dotted boxes indicates change in share from FY20 to FY 21 Source: DGFT, CRISIL Research

Two-wheelers



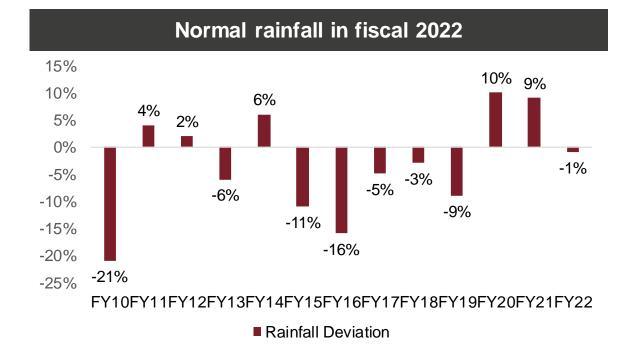


Gradual improvement expected in two wheeler industry

Variables	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022 E
Income for discretionary spending	F	F	NF	NF	NF
Variables	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022 E
Cost of ownership	F	NF	N	NF	NF
Interest rates	F	N	N	F	N
Variables				FY 2021	FY 2022 E
Fuel injector vehicle				NF	N
E- Carburetor vehicle				N	N
Variables	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022 E
Regulations – 2 wheelers	F	NF	N	NF	N
Impact on Overall Sales Growth	F	N	NF	NF	NF
NF: Not Favorable, F: Favorable; N: Neutral					

E: Estimates P: Projected

South West Monsoon is likely to be normal in fiscal 2022



Positive boost from high crop production Kharif Rabi 446 442 441 436 432 388 361 189 190 186 177 173 164 2015-16 2016-17 2017-18 2018-19 2019-20 E 2020-21 E 2021-22 P

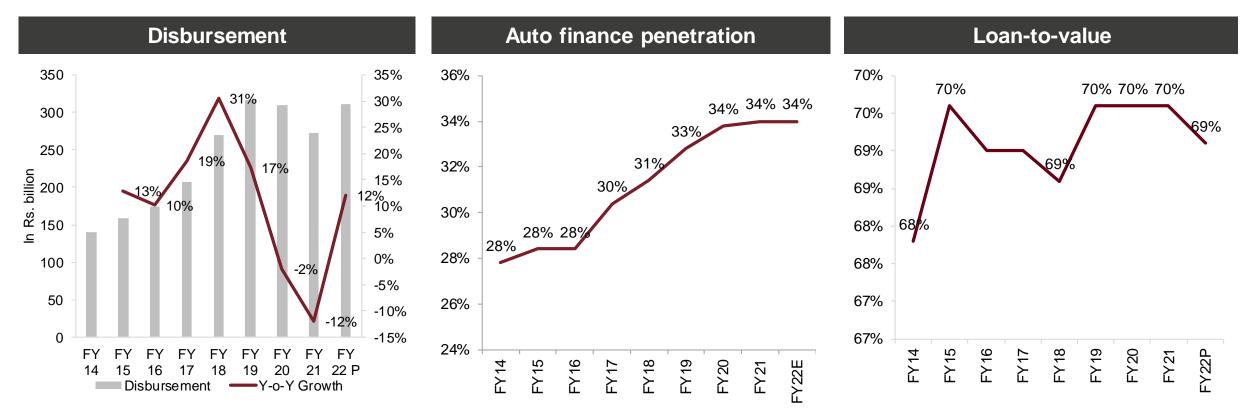
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NOTE: Rainfall deficiency in the range of -10% to 10% of the long period average is considered as normal as per IMD Source : IMD, CRISIL Research

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 monsoon lingering on in its final month and associated rainfall recorded over most parts of the country during the past few days has greatly contributed in bringing the all-India rainfall to 'normal' category.
- Positive farmer sentiments on the back of expected 6-7% increase in kharif profitability, higher government procurement, decline in social occasions
- Farmers fetching higher prices for oilseeds, pulses, cash crops

Improvement in economic conditions to support disbursements in two wheeler auto finance segment



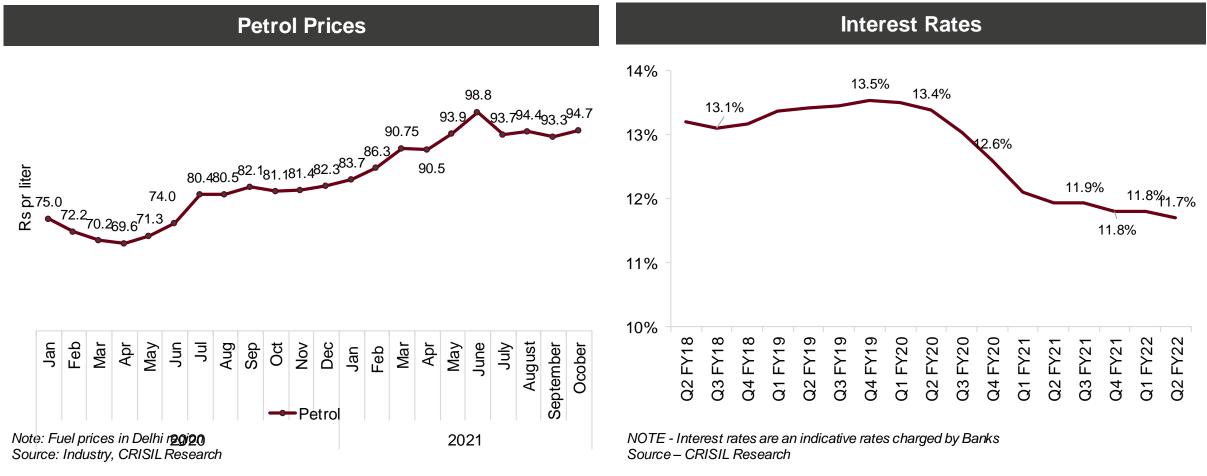
Source: Experian Credit Bureau, Company Reports, CRISIL Research

- With most states lifting lockdowns and easing curbs on business operations, dealerships have re-opened and sale of two-wheelers have gained traction.
- The normalization of the automotive supply chain and expected model launches in economy and executive segment of motorcycles and 125cc scooter segment is
 expected to support demand going forward and the disbursement is expected to increase in fiscal 2022, supported by increasing financial penetration.

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• LTV to temporarily decline in fiscal 2022 and then improve thereafter due to the increasing delinquency

Rising fuel prices continue to impact already sluggish two wheeler sales

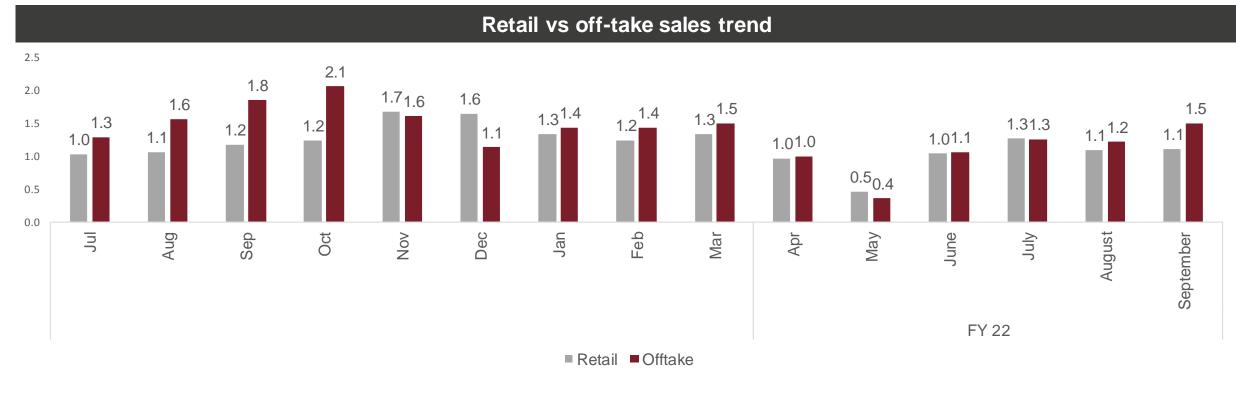


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- Fuel prices continued their upward march with petrol prices touching Rs 100
- Moreover, price hikes taken by OEMs in the current unlock phase has increased the cost of ownership for customers
- Interest rates continue to remain range bound

Two wheeler wholesale volumes show a decline in growth on year in August 2021



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

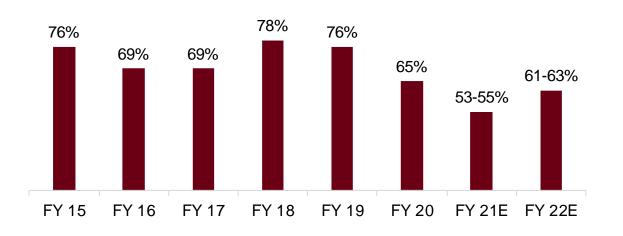
• Wholesale offtake declined on-year in September 2021. Whereas, demand improved sequentially in Q2 FY22 due to ease of covid restrictions and reopening continued with lowering of COVID cases.

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- In spite of low covid cases retail sales did not pick up as anticipated, wholesale dispatches remained under pressure as compared to the year-ago month due to high inventory levels at dealerships.
- Retail registration of two wheelers in September 2021 declined as consumer sentiments were low.. Further, promotional offers were also not available as such to increase demand.

Utilisation to improve in FY22, to reach little shy of FY20 levels

Utilisation rates to jump to pre-covid levels



Expected capacity additions

Player	Location	Capacity million units	Investment (in crore)	Commissioning
Okinawa	Bhiwadi, Rajasthan	1	150-200	Planning
HMSIA	Vithalpur, Gujarat	0.6	-	Completed

^HMSI built third line in Gujarat with a capacity of 6lac per annum. However, they have put a hold on when to start production on that line due to lower demand.

Utilisation levels improved sharply in H2 FY21

Player	Effective Capacity* in mn (as on 31st Mar 2021)	Production (in mn) FY21	Capacity utilization FY21	Capacity Utilization H2 FY21
Hero Motocorp	11.0	5.8	53%	62%
Bajaj Auto	5.4	3.6	67%	83%
HMSI	7	3.9	56%	72%
TVS Motor Company	4.5	2.9	65%	82%
India Yamaha Motors	1.6	0.7	46%	55%
Suzuki Motors	1.1	0.6	55%	73%
Royal Enfield	0.95	0.6	66%	85%
Industry Total	33.2	18.3	55%	68%

Note : * Estimate

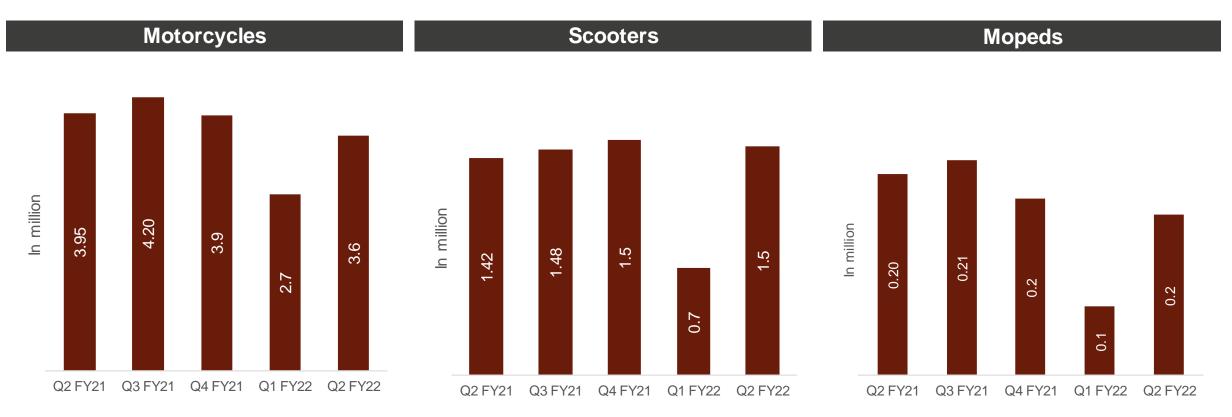
Capacity utilization estimates of Bajaj Auto and TVS Motor Co Ltd exclude three-wheelers



SOURCE: Industry, SIAM, CRISIL Research

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Production revived post second Covid wave, y-o-y decline for motorcycles in Q2

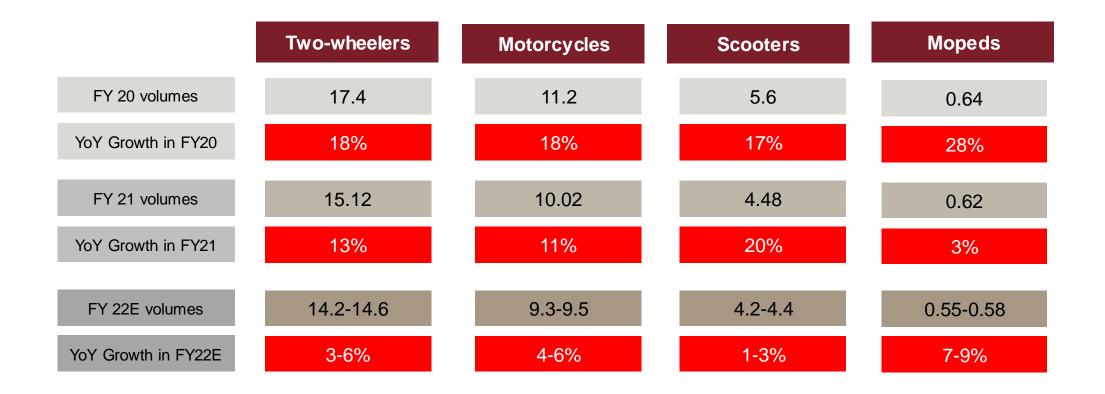


Source: SIAM, CRISIL Research

- Production in Q2 witnessed growth across segments except motorcycles, motorcycles witnessed a decline of 9% y-o-y.
- However, on a Q-o-Q basis, production of motorcycles has increased
- While in line with retail sales, production of scooters improved albeit marginally, production of mopeds was consistent in ~0.2 million range



Domestic – annual forecast



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

	Period		Two-wheeler		Motorcycles		Scooters		Mopeds	
Peri			YoY Growth	Volume (mn)	YoY Growth	Volume (mn)	YoY Growth	Volume ('000)	YoY Growth	
FY21	Q3	4.78	13%	3.15	16%	1.42	5%	211	29%	
FIZI	Q4	4.37	25%	2.83	25%	1.38	25%	162	15%	
	Q1	2.4	86%	1.7	93%	0.6	75%	69	28%	
FY22P	Q2	4.1	(12)%	2.6	(17)%	1.3	(1)%	164	(17)%	
11221	Q3	4.00-4.05	(17)-(15)%	2.56-2.60	(19)-(17)%	1.24-1.28	(11)-(9)%	168-172	(20)-(18)%	
	Q4	3.85-3.90	(12)-(10)%	2.51-2.55	(11)-(9)%	1.15-1.19	(15)-(13)%	162-166	5-7%	
EVOOD	Q1	4.03-4.08	68-70%	2.63-2.67	52-54%	1.21-1.25	108-110%	154-158	126-128%	
FY23P	Q2	4.28-4.33	4-6%	2.74-2.78	5-7%	1.34-1.38	1-3%	178-182	9-11%	

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 FY22, uncertainty revolves around poor sentiments during festive season, increasing fuel prices and excess rainfall dampening rural sentiments in certain states.



Stakeholder interactions

OEM

- Volumes in scooter segment picked up in the second half of FY21
- With reopening of schools, colleges & offices, a significant boost to scooters was earlier estimated for Q1 FY22
- However, the sudden rise in cases & the impending lockdown is expected to push the scooter segment recovery by 3-6 months
- Motorcycle segment is expected to be less impacted, given the high share of rural demand
- Continued stress on financials of blue collar workers will impact the economy segment more
- Inventory levels are above normal for most OEMs, however, no particular inventory correction is expected in Q3FY22
- Retail sales are expected to be impacted even in Q3 FY22 on account of declining rural sentiments backed by excess rainfall in certain states
- Rising fuel prices and further increase in vehicle prices also impacting demand

Source - Industry, CRISIL Research

Dealer

in the coming month

sales in Q3 FY22

lower than anticipated

motorcycle segment

OFM

electric vehicle segment



Despite covid impact, Q2 saw improvement in

retail sales during July but fizzled out thereafter

· Sharp rise in fuel prices to dampen retail demand

• Many customers showed interest towards electric

vehicles which has led to supply issues in the

• Price have increased 4-7% from April, this is the

third price rise in 2021 which will impact retail

Sales during Navratri festival have been much

• Inventory levels are above normal at 47-52 days

· Significant discounts are not being offered by any

· Footfalls has gone down during the festive

Supply constraints faced due to the semi

conductor shortage which will impact the

season, enquiries have dipped

Financier

- Despite repo rate cuts, benefit was not completely passed on to the customers as two wheeler portfolio is considered relatively riskier.
- However, the interest rates have been coming down steadily.
- Post the unlock phase, financiers were more stringent in lending, like reduction in LTV was seen. Now, the stringency is back to pre-Covid situation, however, higher emphasis is given to good **CIBIL** score.
- LTVs rates have improved by end of Q2 and are expected to continue in the same range during the festive season despite vehicle price rise



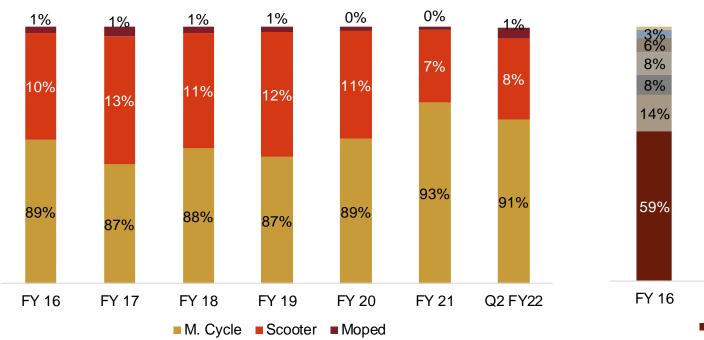
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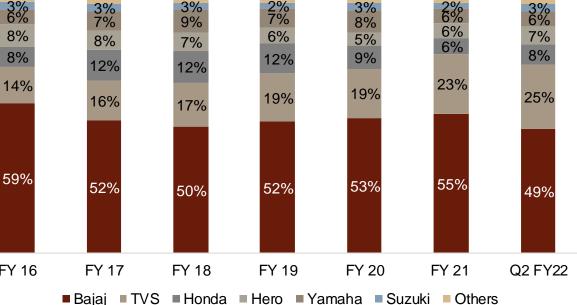
Two wheeler exports



Scooters regain some ground in Q2 FY22







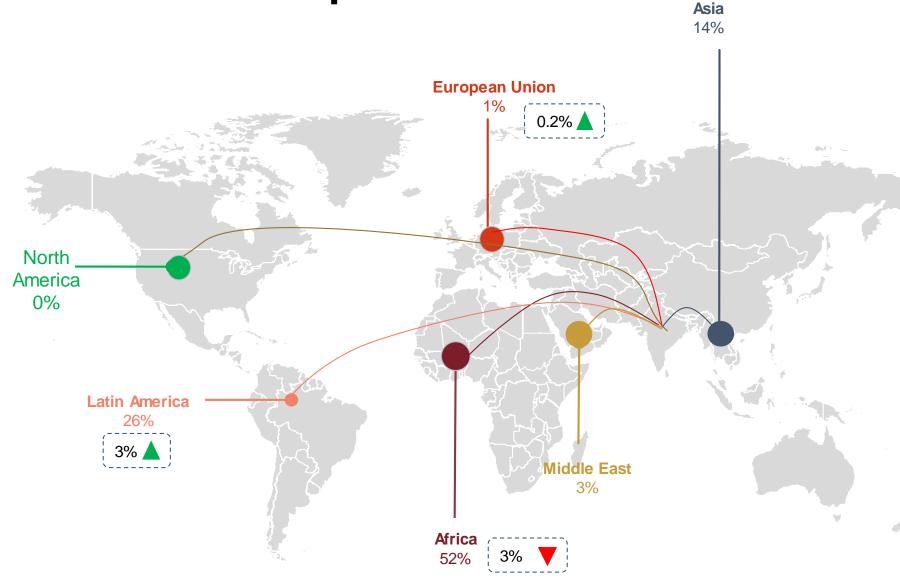
Source: SIAM, CRISIL Research

- In FY2021, exports dropped 7% y-o-y amidst the sluggish global demand due to Covid pandemic
- During Q1 FY22, exports witnessed some growth especially in scooter on a q-o-q levels with improvement in Covid conditions globally
- Scooters saw a high revival on a lower base pushing the exports share for HMSI, TVS





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 two-wheeler exports.
- Implementation of RCEP can have sizeable impact on Indian 2W exports. It needs to be monitored closely



Research

Note: Represents volume data for FY21 exports, % in dotted boxes indicates change in share from FY20 to FY 21 Source: DGFT, CRISIL Research

Commercial vehicles





Overview of end-use segments – cargo

						1	
Segments (% Growth Y-o-Y)	FY 17	FY 18	FY 19	FY 20	FY 21 P	FY 22 P	
Coal (production)	3.0	3.0	7	1	1	9-11	
Iron ore (production)	25	3	3	19	(17)	30-35	
Steel (consumption)	3.1	8	9	1	(6)	15-17	Core Sectors
Cement (consumption)	1.9	9	12	(2)	0.3	12-13	
Roads (Km constructed / day)	7	8	9	11	11	12-12.5	
Port (traffic)	5.6	6.5	4.5	2	(5)	7-8	
Two-wheelers (domestic sales)	6.9	14.8	5	(17)	(13)	l l (3)-(6)	
Passenger vehicles (domestic sales)	9.2	8	3	(18)	(2)	10-12	
Consumer durables (consumption)	6.6	5.8	7	5	(17)	15-20	Discretionary Products
E-retail	22	35	35-37	23	10	25-30	
RMG (market size)	17	5	8	(3)	(24)	15-20	

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

Overview of end-use segments

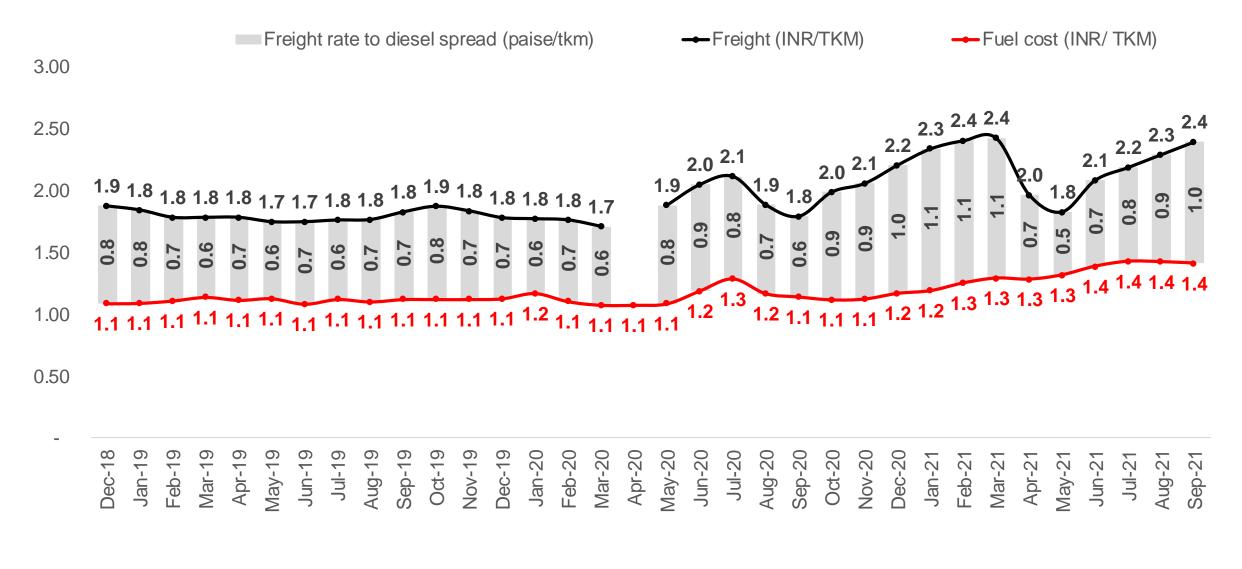
Segments (% growth Y-o-Y)	FY17	FY18	FY19	FY20	I FY21E	FY22P		
Dairy (production)	5.8	6.7	6	(3)	(3)-(5)	5-6	Non -	
FMCG	5	8	12	5	5-7	9-10	 Discretionary Products 	
Pharmaceuticals (market size)	5	1	15	11	13-15	40-45	-	
Gross school enrollment								
K-12	77.5	74.3	73.2	73.5	73.8	74.1		
Above K-12	22.6	22.6	23.2	23.7	23.6	24.2	-	
T employee base	4	3	4	4	9	9-11	Buses	
Air passenger traffic	16	16	11	(2)	63.9	95-100		
Hotel room demand	7	5	5	3	(51)	60-65		

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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

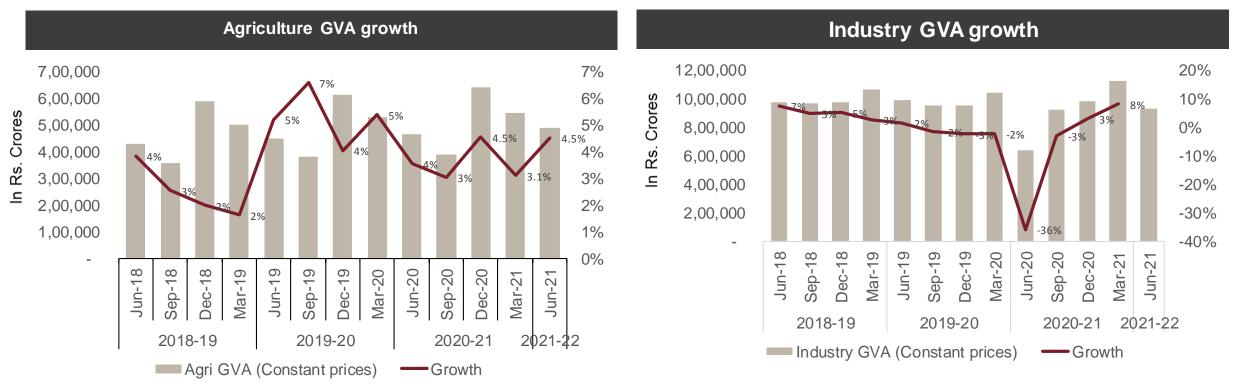
Freight and diesel on a continuous improvement



Research Source: IFTRT, PPAC, CRISIL Research

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Despite late pick-up in rains agricultural GDP to grow 3% in the current fiscal



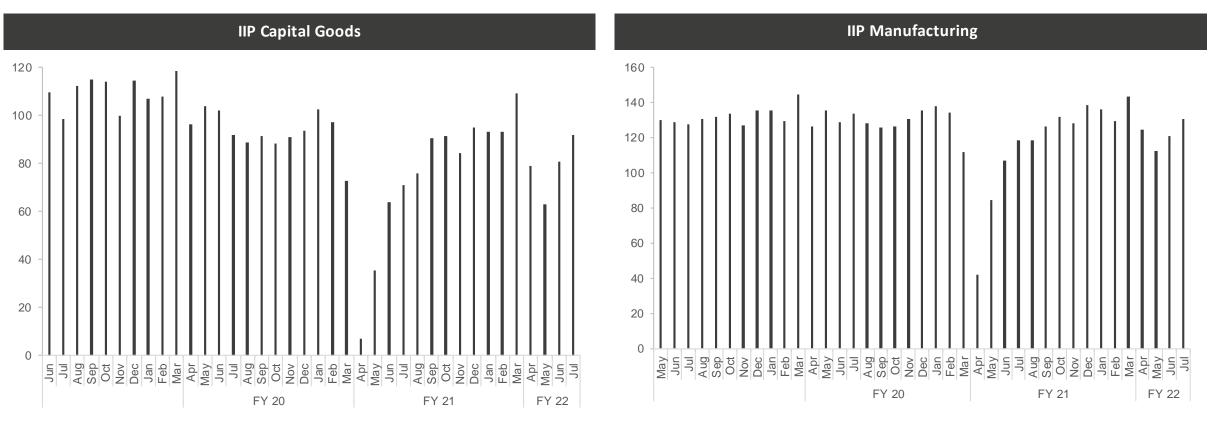
Source: MOSPI, CRISIL Research

Source: MOSPI, CRISIL Research

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- Agri GDP growth of Q1 FY 2022 grew at 4.5% on-year. It has been the best performing sector among the three broad categories.
- With the late pick-up in rains, the cumulative deficiency in this monsoon season has come down to 4% of the long-period average (LPA) from 10% a few weeks ago.
 Moreover, sowing is now 102% of the normal levels.
- Despite uneven spread, there is no indication of a major letdown in this season; we expect agricultural GDP to grow 3% in the current fiscal.
- Industry GVA witnessed growth in Q1 FY22 by 46% on a lower growth of -36% in Q1 FY21

IIP further up



Source: MOSPI, CRISIL Research

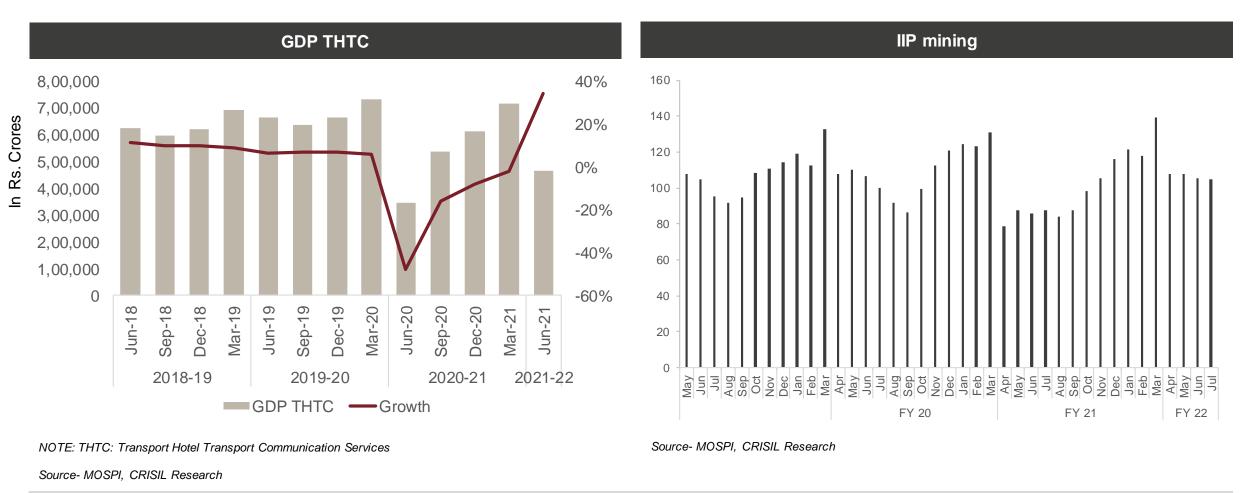
Source: MOSPI, CRISIL Research

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- IIP rose 11.5% on-year in July 2021. This entails 10.5% growth in the manufacturing sector the largest segment of IIP (with 77.6% weight). In June, manufacturing IIP grew 13.0% on-year. The mining sector (14.4% weight) grew 19.5% on-year (compared with 23.1% growth in June). The third and final sub-sector, electricity (7.9% weight) sector grew 11.1% over 8.3% growth in June.
- On use-based classification in seasonally adjusted terms, capital goods saw the maximum growth, at 18.3% on-month in July 2021. It was followed by consumer durable goods (17.6%), primary goods (6.8%), infrastructure/construction goods (5.9%), intermediate goods (5.7%) and consumer non-durables (3.3%).

GDP THTC & IIP-Mining



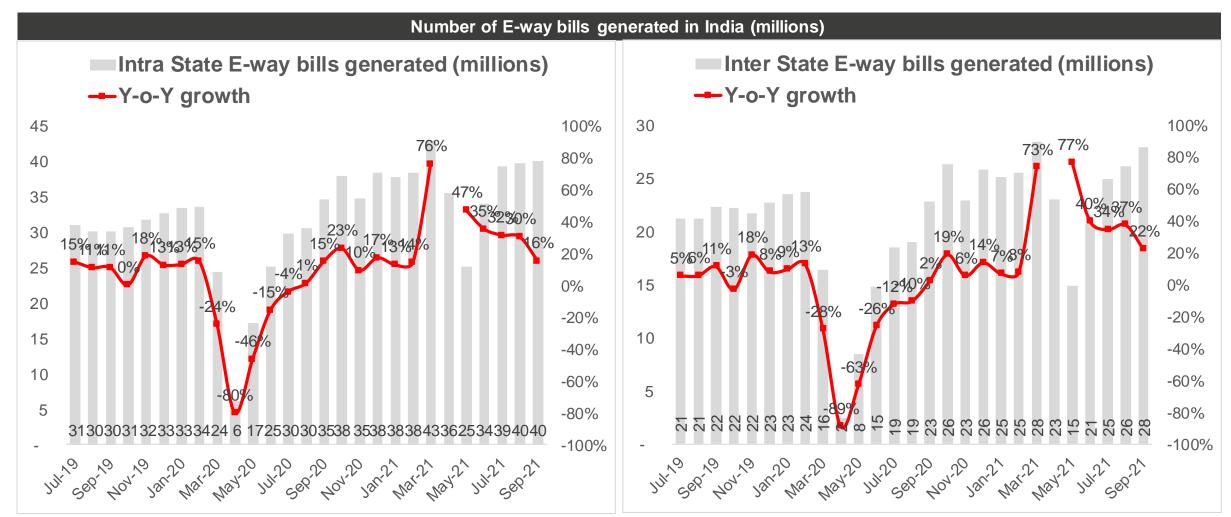
GDP THTC registered a double digit growth of 34% in first quarter over the lower base of Q1FY21 For entire fiscal, this segment has been affected due to fear of catching virus.

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• The mining sector (14.4% weight) grew 19.5% on-year (compared with 23.1% growth in June).

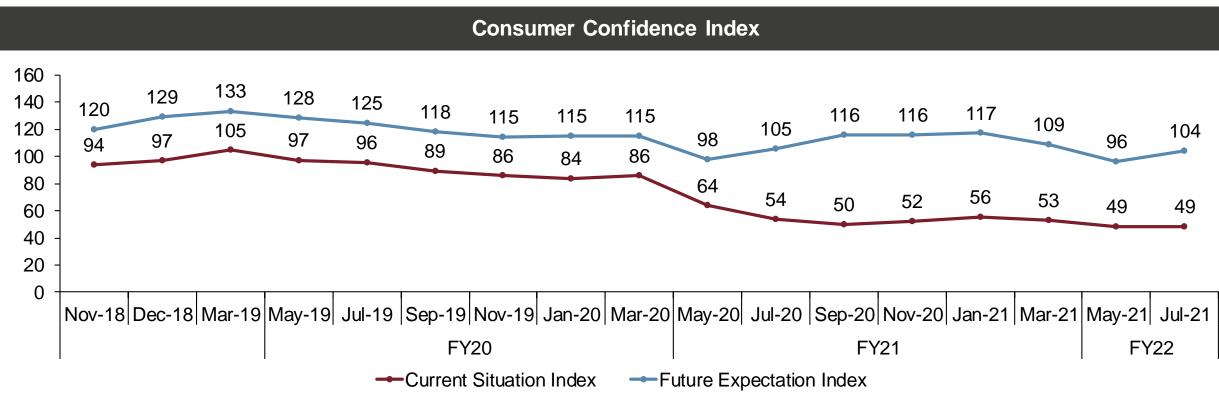
Intra state and Inter state E-waybill trend



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,



Future expectation index returned to optimistic territory



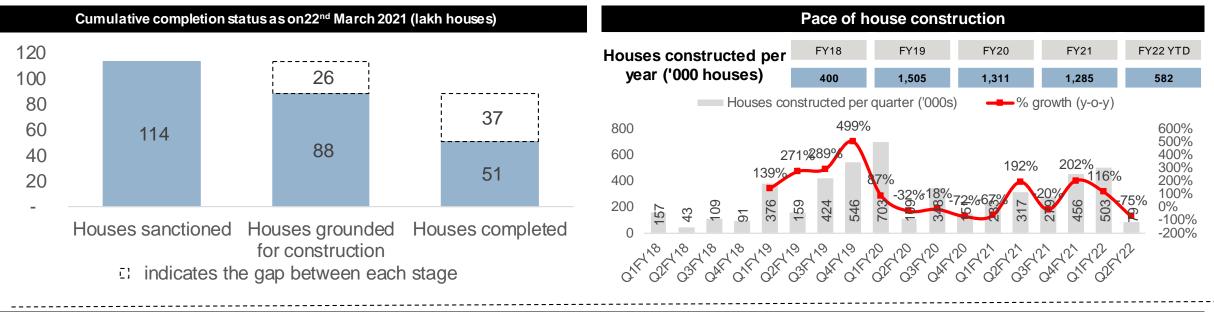
Source- RBI, CRISIL Research

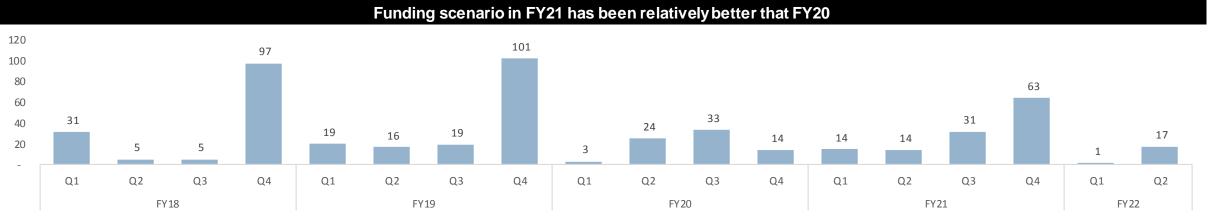
Consumer confidence for the current period remained weak and the current situation index stood around the all-time low level recorded in the previous survey round as most households reported lower incomes and higher level of price as compared to a year ago

Driven by substantial improvements in the outlook for general economic situation and employment scenario after the waning of the second wave of the COVID-19 pandemic, the future expectations index (FEI) returned to optimistic territory; respondents placed higher confidence on household income going forward

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PMAY(Urban): After a sluggish FY20 and a slow start to FY21, PMAY(U) gathering momentum as we head into FY22, however Q2 pace seems concerning



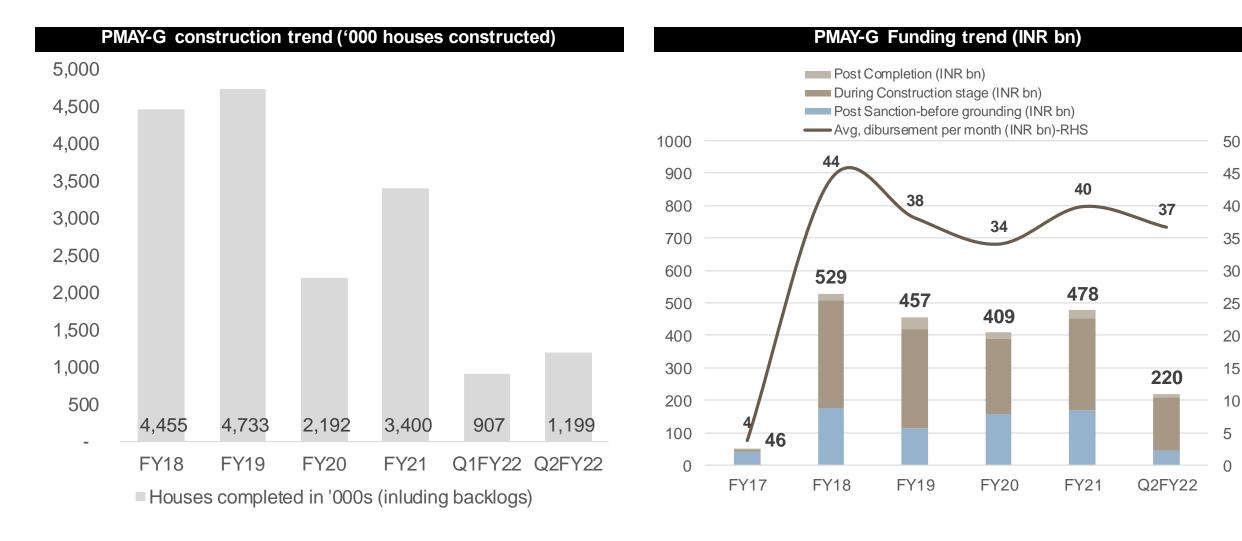


Amount released by central government (INR bn)



Research Source: Ministry of Housing and Urban Affairs, CRISIL Research

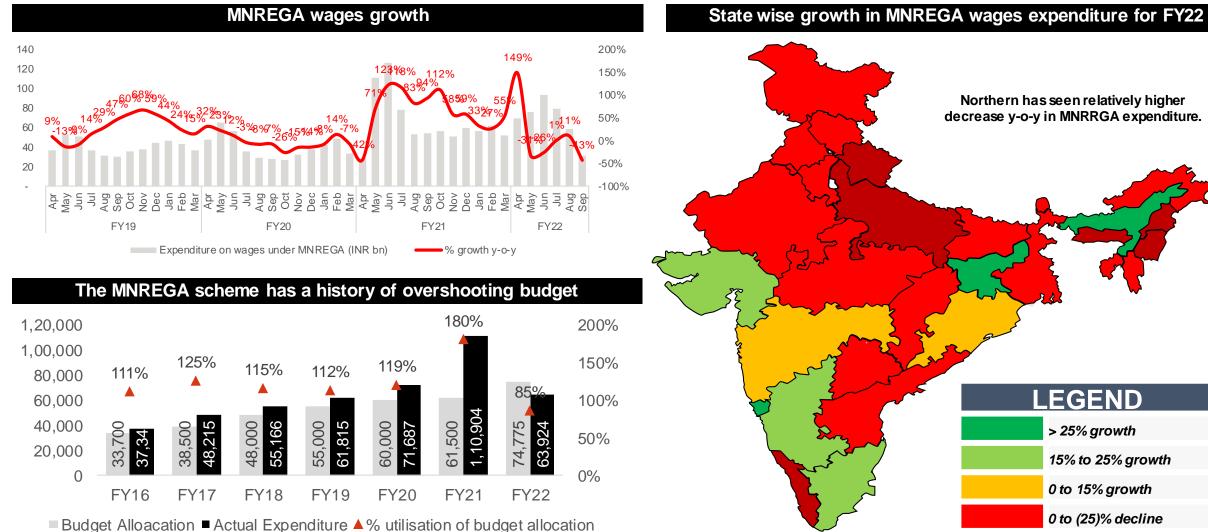
PMAY-G: Construction pace seeing improvement sequentially after seeing a lull in FY20 and H1FY21



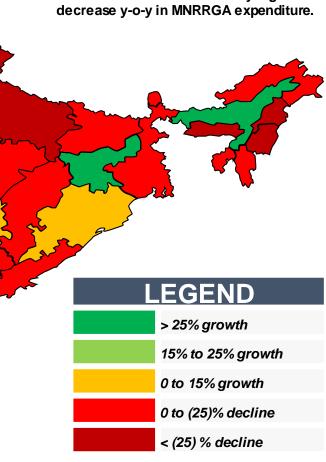


68

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



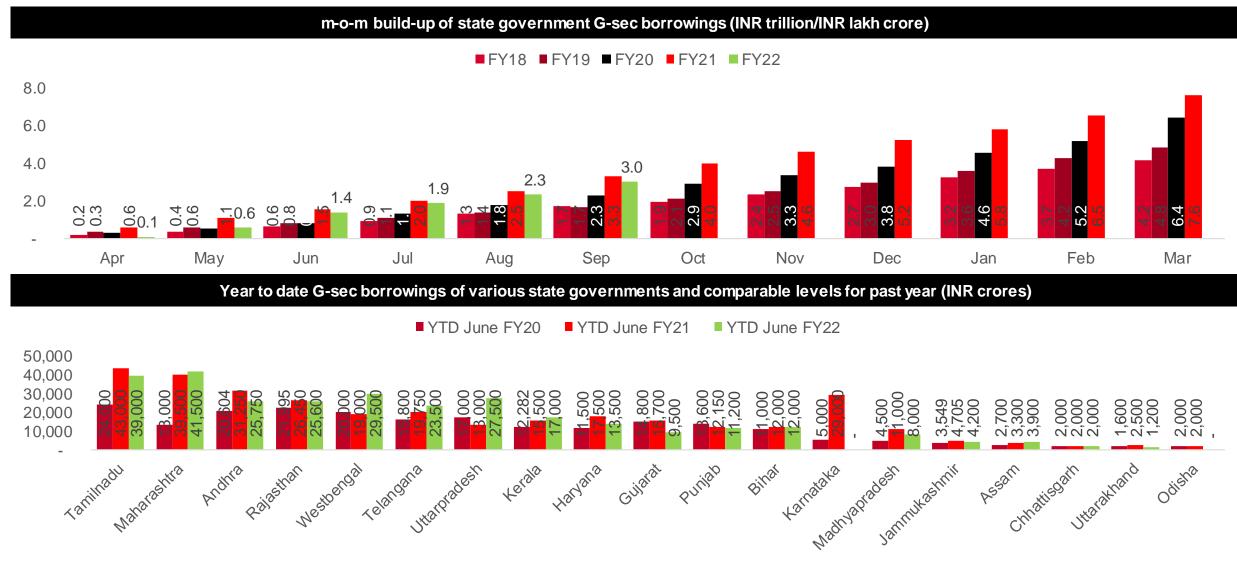




Northern has seen relatively higher



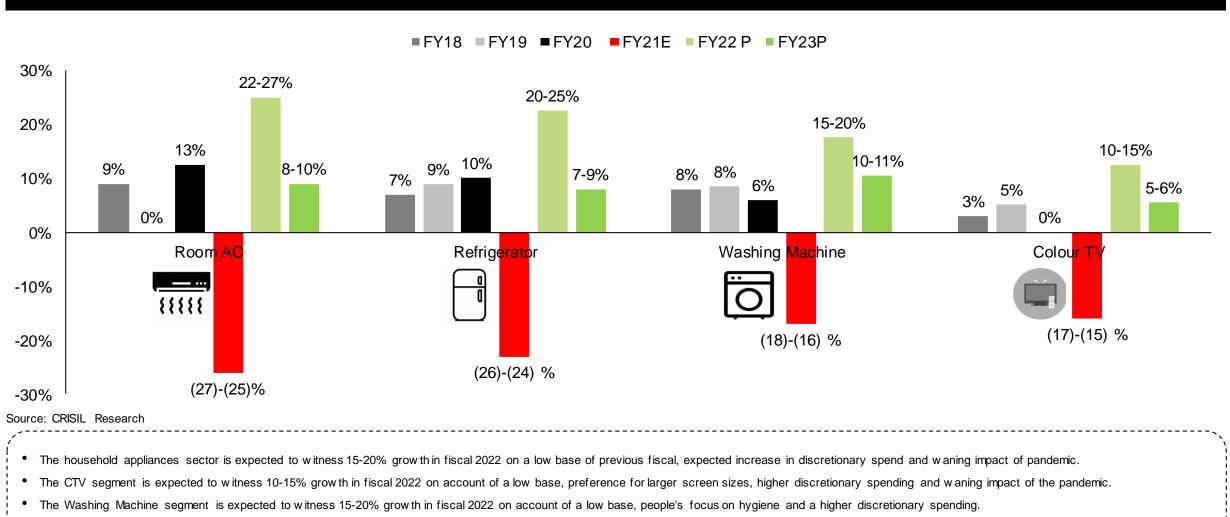
State government borrowings similar to last year as partial lockdowns hurt state revenues





Demand witness optical growth in first half; real rebound expected in second half of fiscal 2022

Trend in annual volume growth across consumer durables and automobiles



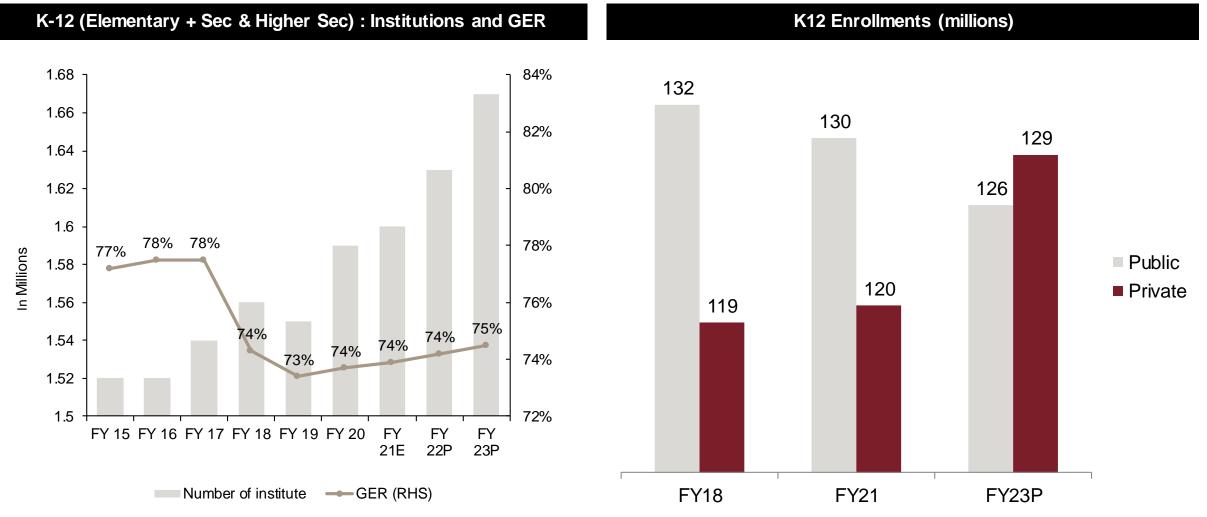
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Back

• A low base, higher discretionary spending, no rating revision and waning impact of the pandemic, will help refrigerator demand grow by 20-25% in fiscal 2022.

Covid 19 shifts education sector online; gradual shift to offline modes started in few States; school bus demand might come in fiscal 2023



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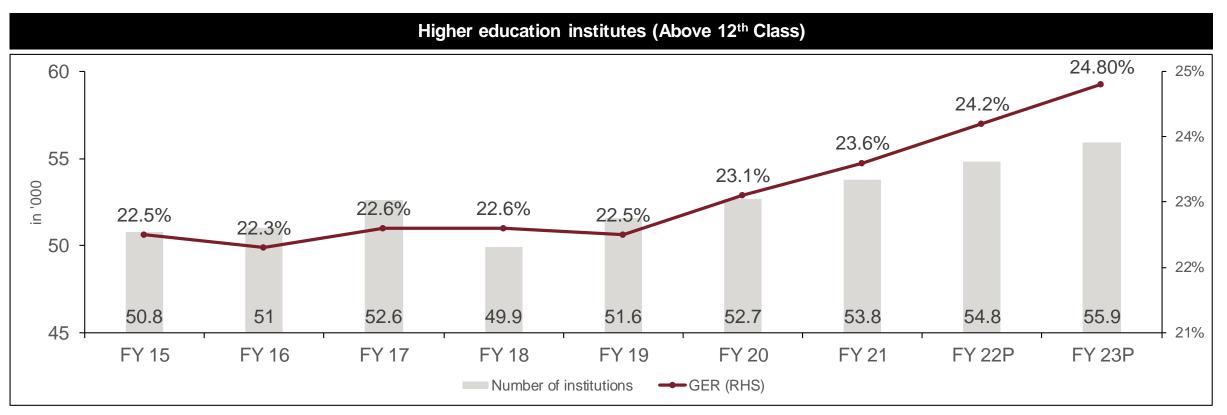
Back

Note – GER is e ratio of the number of students enrolled to the population of those who qualify for the particular grade level.

E : Estimated, P : Projected

Source: CRISIL Research, DISE, MHRD

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

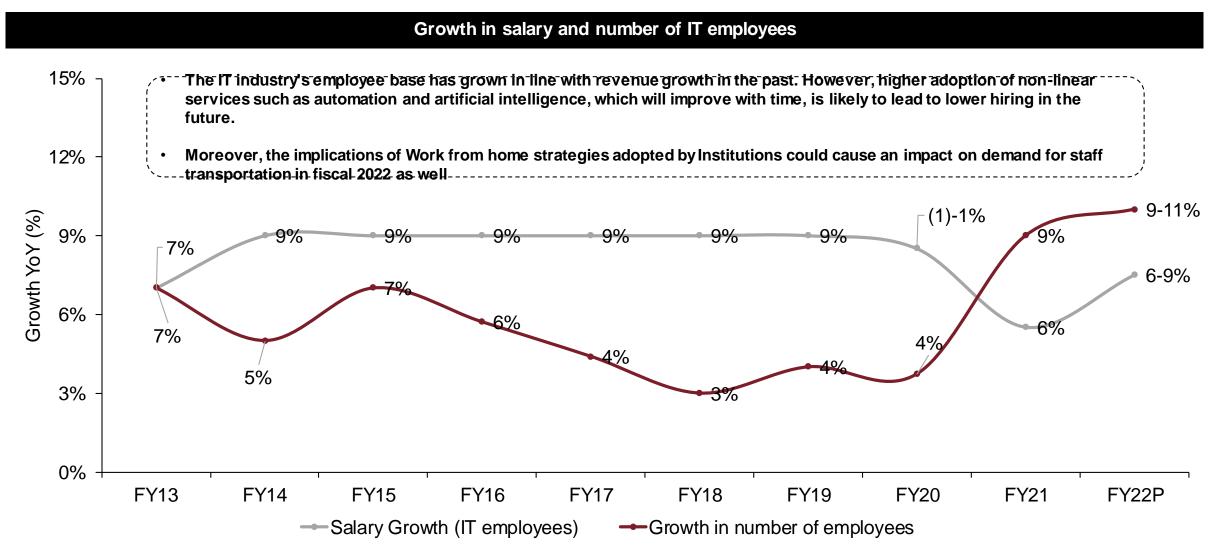
As a result demand from the School segment is to be subdued in fiscal 2022

Research

^^ based on Oxfam rapid survey of schools in Sep 2020
 NOTE: P - Projected
 Source: CRISIL Research, DISE

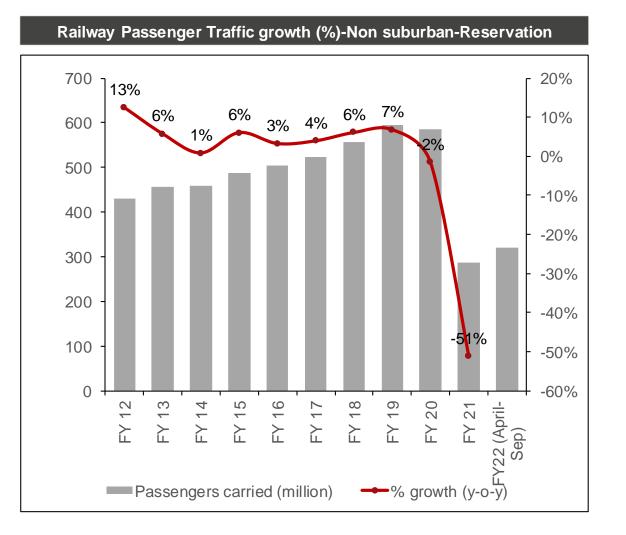


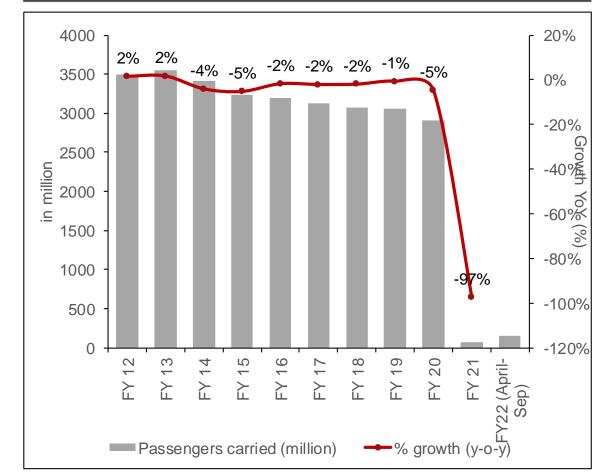
Employee base to expand in current fiscal, non-linearity to limit medium term employee additions; salary growth to be slightly better in fiscal 2022.





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

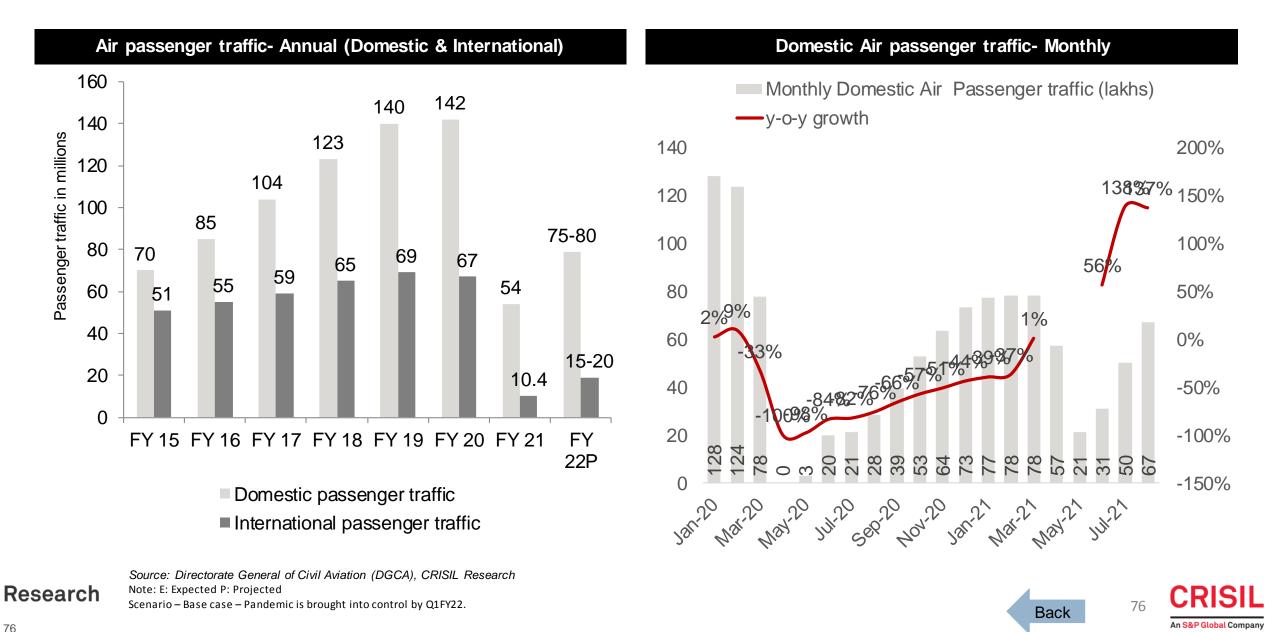




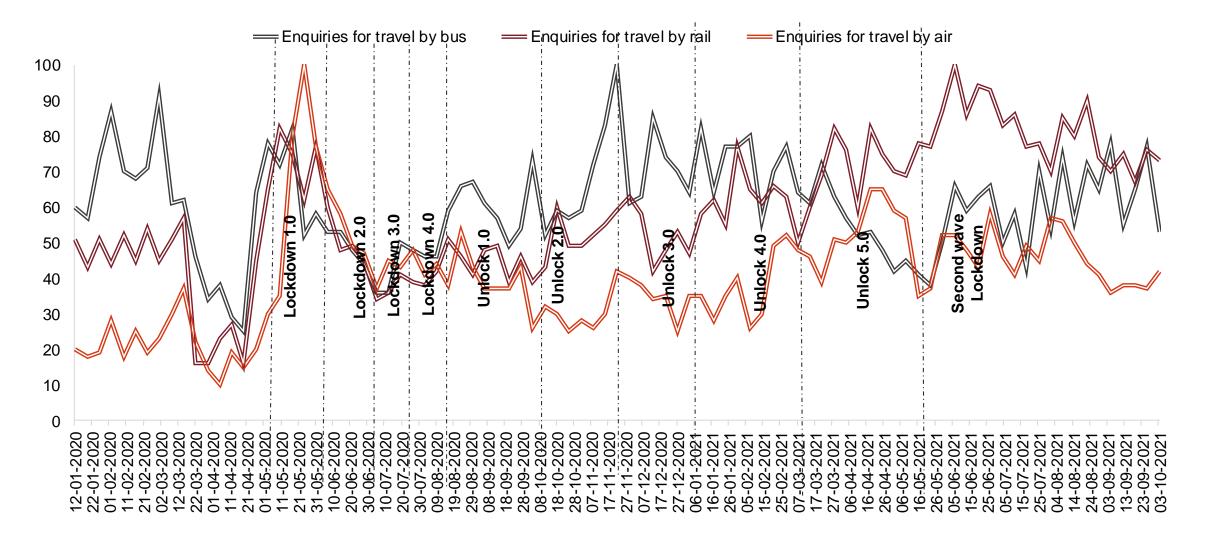
Railway Passenger Traffic growth (%)-Non suburban-Unreserved

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Domestic traffic in fiscal 2022 seen returning to fiscal 2015-16 levels

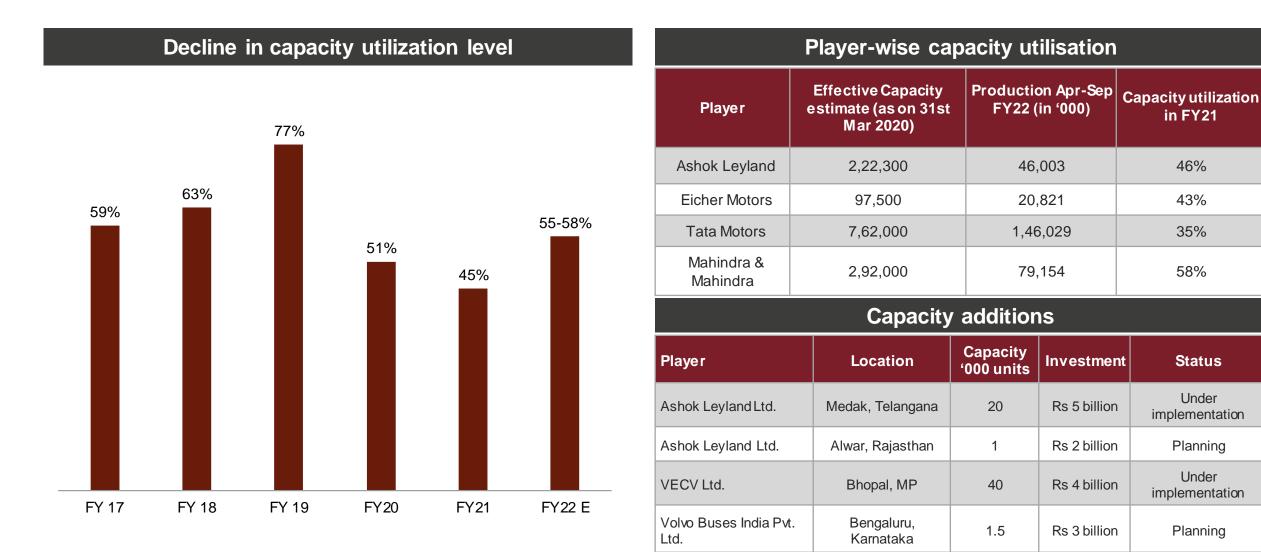


Train & bus travel remains range bound; lately air travel has seen a slight pickup





Capacity utilisation dropped in FY21, some improvement expected in FY22



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

Research

Source: Industry, CRISIL Research

Anantapur, Andhra

Pradesh

Veera Vahana Udyog

Pvt. Ltd.

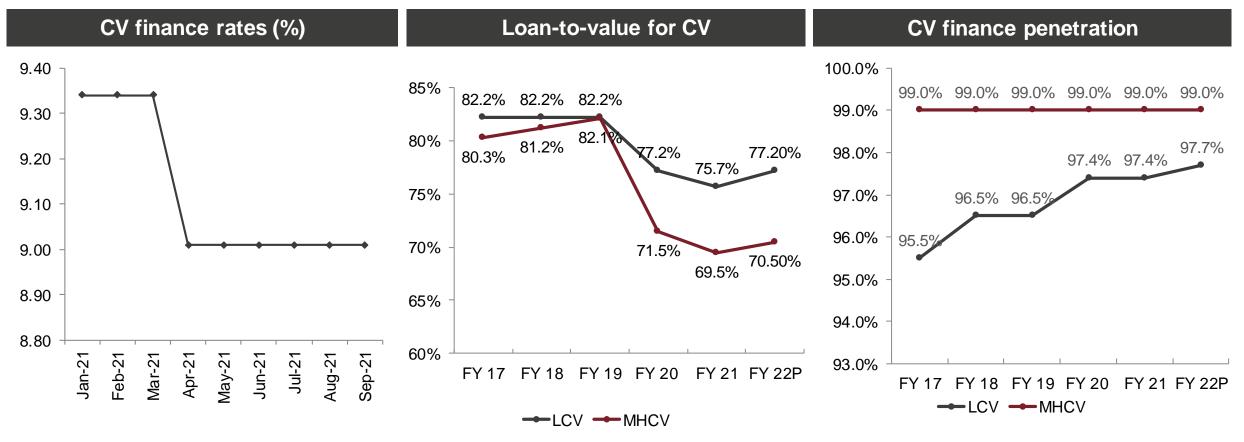


Planning

Rs 1 billion

3

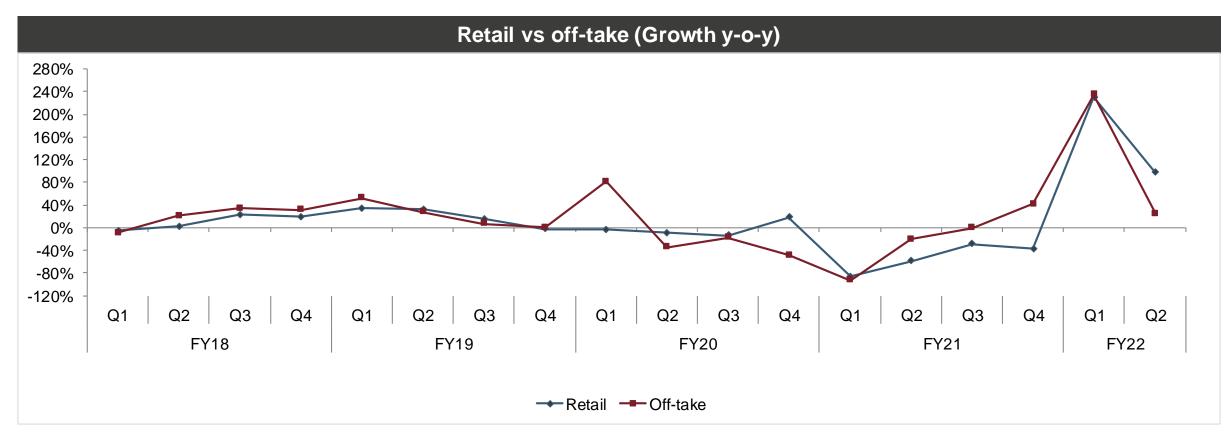
Cautious lending by banks; more focus on collections



NOTE - Interest rates are an indicative rates charged by Banks Source: Company Reports, Industry, Crisil Research



Retail & offtake showing recovery on sequential basis

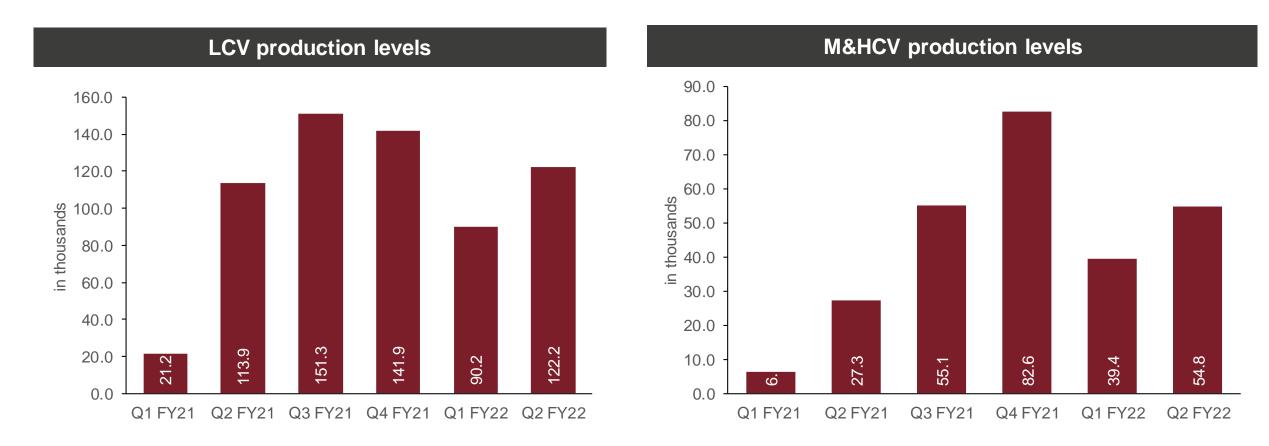


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Source: SIAM, MoRTH, CRISIL Research

- 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 MHCVs fared better than LCVs in Q2 FY22



LCV production witnessed growth of 7% yoy and MHCV of 101% yoy in Q2 FY22. Growth in LCV was aided by sub-one tonne and pick up category. Both category remain robust

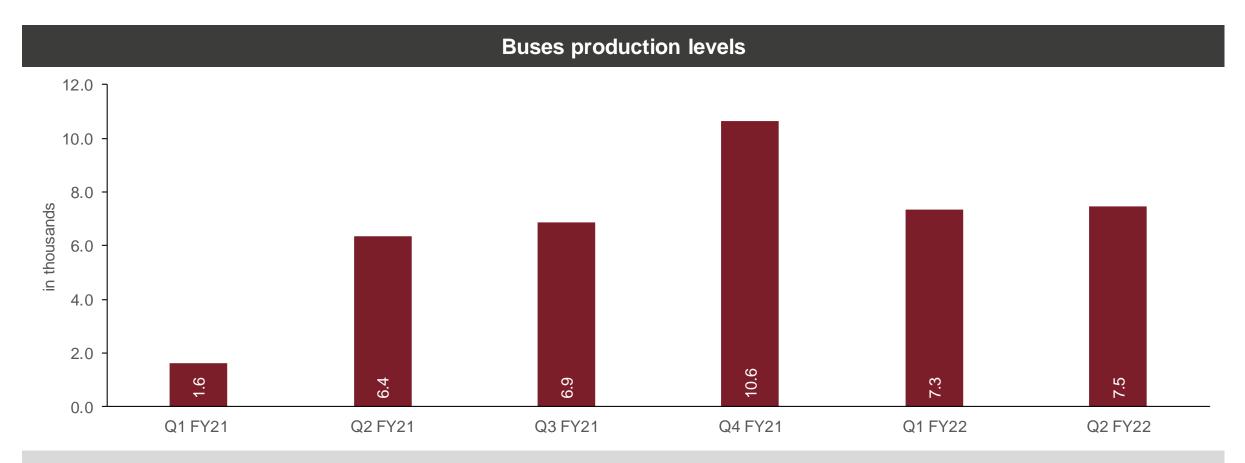
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• MHCV production growth due to gradual pick up in end use sectors after ease of lockdown.

NOTE: Figures in thousands Source: SIAM, CRISIL Research

Bus demand is still subdued

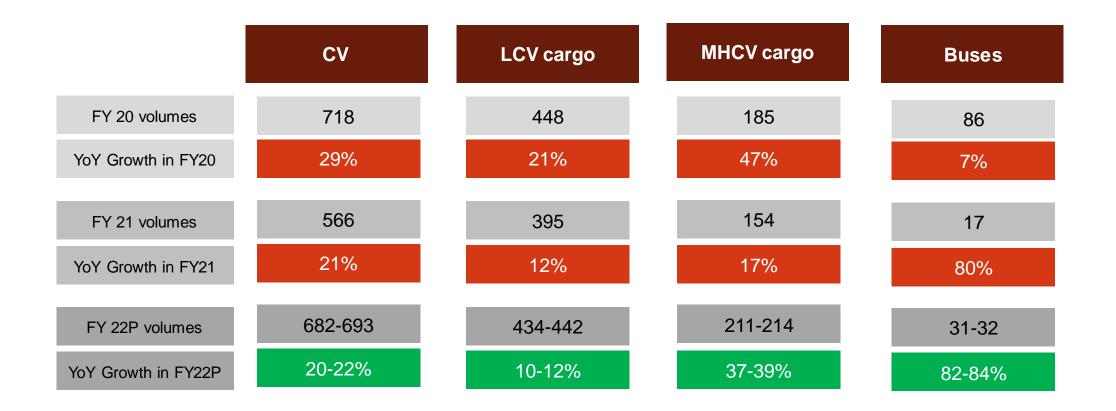


- Demand for buses has been depressed even in Q2 FY22. Though Production saw a growth of 18% in Q2 FY22 compared to same quarter last year.
 Demand on LCV bus side was mainly seen from ambulance segment and STL programment.
- Demand on LCV bus side was mainly seen from ambulance segment and STU procurement

NOTE: Figures in thousands Source: SIAM, CRISIL Research **Research**



Domestic – Annual Forecast



NOTE: Volumes in thousands units; YoY Growth in red indicates a negative growth YoY Growth in green indicates a positive growth



Source – SIAM, CRISIL Research

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Domestic – Quarterly Forecast

Period		CV		LCV Cargo		MHCV Cargo		Buses	
		Volume ('000)	YoY Growth						
FY21	Q3	193.1	(1)%	139	5%	50	15%	4.1	(78)%
	Q4	208.6	41%	124.8	41%	76	92%	7.9	(62)%
FY22P	Q1	107	2311%	73.5	173%	27.3	582%	5.4	312%
	Q2	167	24%	108	3%	51.3	115%	6.3	57%
	Q3	189-192	(3)-(1)%	120-123	(14)-(12)%	59-60	18-20%	8.6-8.7	108-110%
	Q4	221-224	5-7%	134-137	8-10%	74-75	(3)-(1)%	11-11.2	39-41%
FY23P	Q1	190-192	77-79%	114-116	55-57%	60-61	120-122%	13.5-13.7	153-155%
	Q2	201-204	20-22%	125-127	16-18%	62.5-63.5	22-24%	11.4-11.6	83-85%

- SCV & ULCV: E-commerce, FMCG and Agri to see continuation of the traction as seen in FY21 Healthy sentiments on the Agri crop for 2021-22 Kharif season may help volumes. OEMs across might bring attractive schemes in upcoming festive with discounts and easy financing to attract customers and push volumes to regain volumes lost in in last few months but chip shortage situation needs to be monitored. Supply side issues from a semiconductor shortage perspective are expected to last throughout Q3FY22 and some part of Q4 FY22. Hence the industry is expected to defined by the ability of OEMs to supply as fundamental demand is strong here
- MHCV: Upcoming sales and festive offers on E-commerce portals, pent-up demand of consumer durables to drive the segment grow thin the coming quarters Auto component demand to pick up as OEM would try to recover lost volumes in festive season in Q3 FY22 but the inventory levels held by dealers have seen a reduction post-covid. Replacement is also due in this segment since long and could bring some demand in this segment. How ever retail finance participation remains a major monitorable.
- Buses: Schools most likely to resume full fledged operations from Q1 FY23. How ever vaccination for below 18 age group need to be w atch out for and possibly complete operation may commence starting Q2 or Q3 FY23 as vaccination drives reach advanced levels. Staff transport which was earlier focused only towards MFG might see some demand as IT/ITES and service based companies may start resuming office in a

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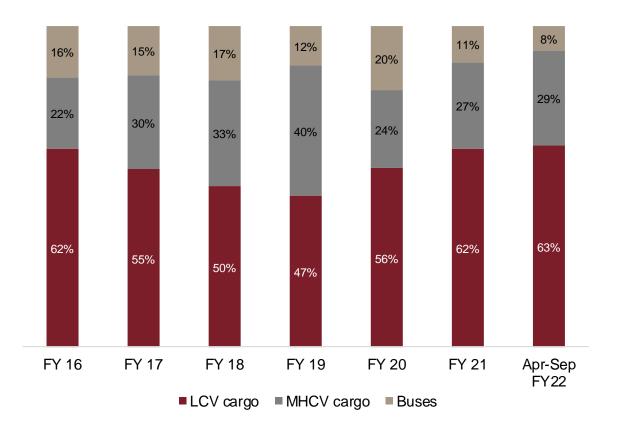
phased manner

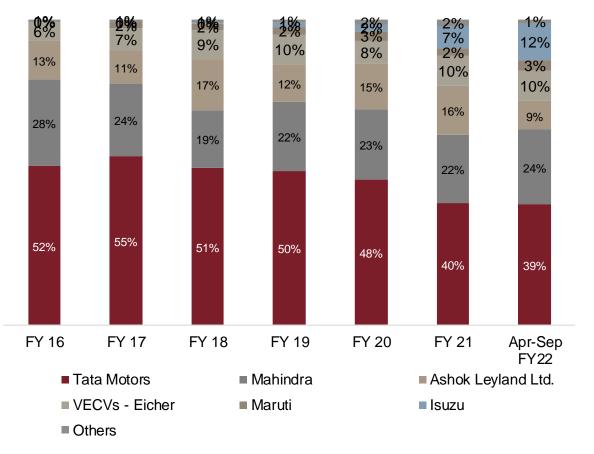
Res

Share of LCV cargo on an uptrend

LCV occupies ~2/3rd share







Source: SIAM, CRISIL Research

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Stakeholder interactions

OEM

- Supply constraints most acute in the pickup space. May take Q1FY23 to get completely resolved.
- Tipper segments could reach FY18 volumes if infra activities pace up
- Availability of finance in MHCVs for FTU/ FTB segment still a challenge, However funding for KAM and large customers has started from Banks
- Buyers of deals in pipeline are indicating they want to wait till festive season before committing to a purchase
- Replacement participation currently very limited to LFOs and strategic customers. Need based purchases happening in Q2FY22
- Discounting levels continue at INR 6-10 lakh discounts on offer, even for 2-3 vehicle deals in case of strategic customers

Dealer

Demand Story

- SCV Demand continues to be resilient compared to MHCVs but chip shortage is impacting the supply situation. All major OEMs are affected.
- CNG vehicles have gained a good attraction especially in <12T segment
- In case of ILCV E-commerce, FMCG and FMCD are actively contributing in terms of freight demand
- MHCV haulage seeing lack of demand. Only LFO participation is what is affecting this segment. Replacement in full swing might start from Q3 or Q4 FY22
- Tipper demand focused towards road construction, metro projects and infrastructure activities is seeing good traction in North and some states of North East and South

Discounts and Financing

 Discounts of 6-7 lakhs in 2-3 vehicle deals still continuing for some OEM's. In some cases also going up to 8-10 lakhs



Financier

LTVs and participation levels

- Retail customer funding in MHCV cargo and tippers is still an challenge. Most deals being closed are either LFO's or strategic customers.
- Few captive financiers are funding retail customers in some cases.
- Buses segment continues to laggards in funding. Banks still very pessimistic about participation here
- 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.



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Source - Industry, CRISIL Research

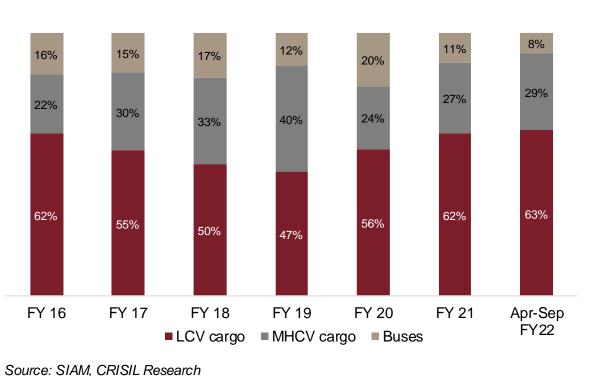
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Commercial Vehicle exports



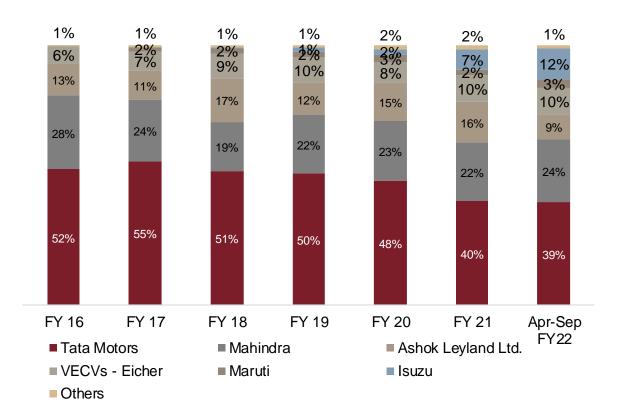


MHCV regain some ground in Q2 FY22



LCV continues to dominate

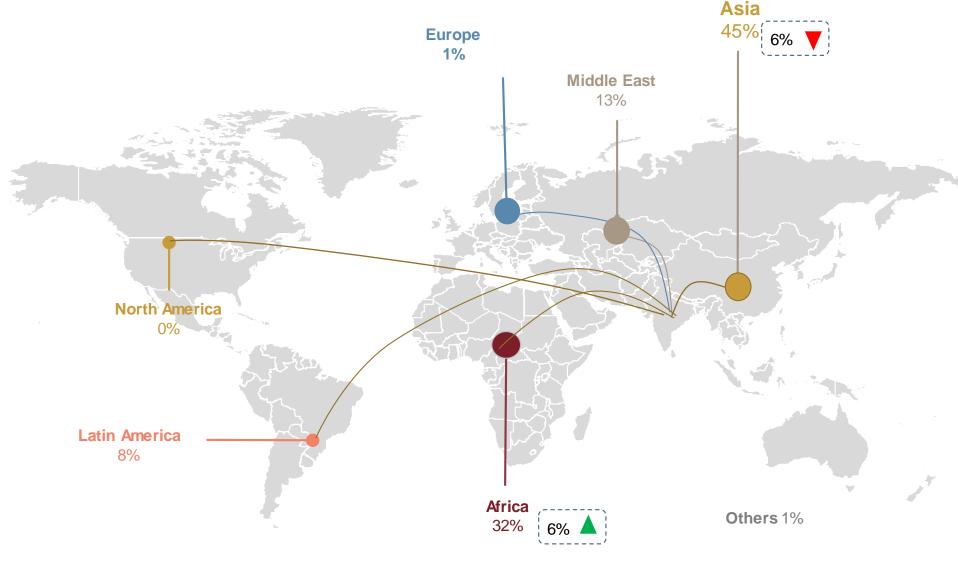
Tata / Mahindra expand share



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- Source. STAIN, ONISIE Nesearch
- From some improvement in Q4, sales dropped in Q1 FY22 on a q-o-q basis, hpwever again have picked up in Q2 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 46% in FY21
- Nepal has taken the lead during the year
- Saudi Arabia has expanded its presence in FY21

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- Asia is severely impacted due to the Covid wave & its impact on the demand remains a key monitorable
- Impact of Covid on Africa was relatively limited and has gained share during the year
- Spread of Delta variant globally remains a concern

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Research

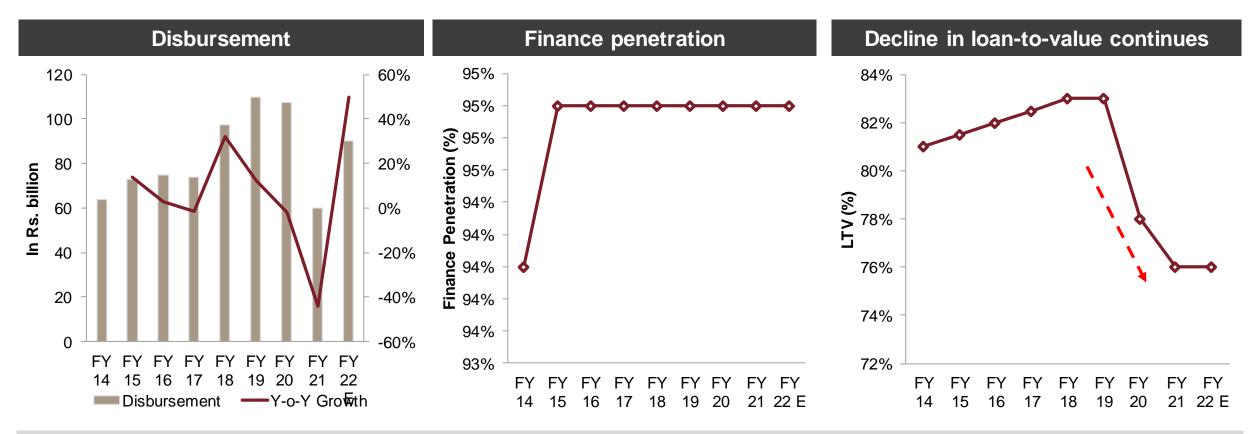
Note: : Represents volume data for FY21 exports, % in dotted boxes indicates change in market share from FY20 to FY21 Source: DGFT, CRISIL Research

Three-wheelers





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



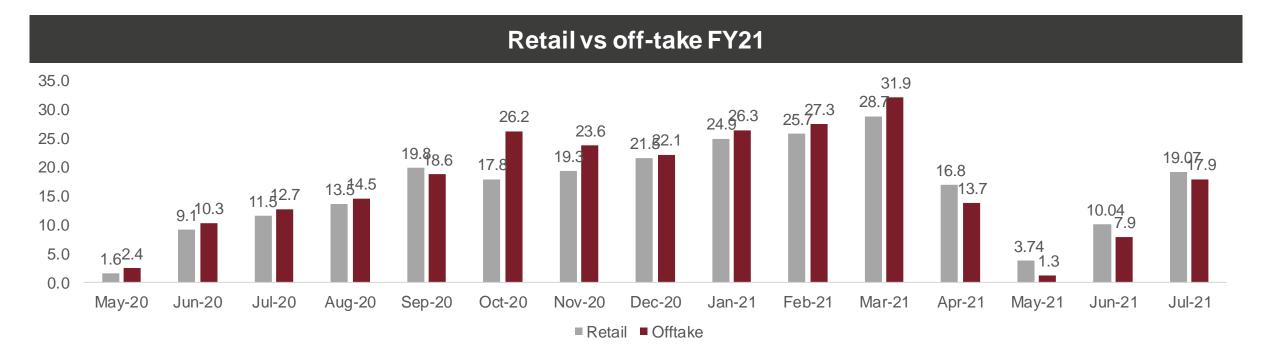
- Amidst the steep sales contraction, financing parameters also took a hit, disbursements reached a historic low during FY21
- Moreover, given the modest financial profile of the customers coupled with the drop in earning, most financers turned extremely cautiously and focused more on recovery during 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

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Research

Source: Experian Credit Bureau, Company Reports, CRISIL Research

Three wheeler industry loses its growth tempo in Q1 FY22



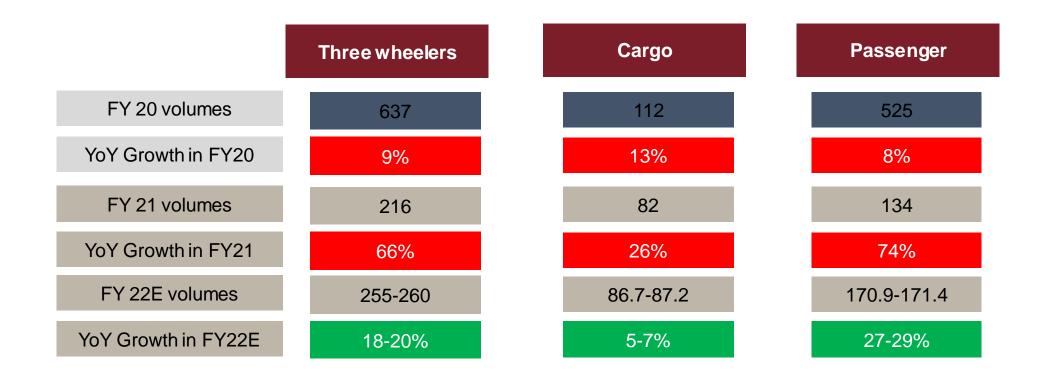
Note: Retail numbers are estimated Source: SIAM, Vahan, CRISIL Research

- Three wheeler industry is going through a very rough period, lockdown due to covid wave-2 led to lower mobility and increase in preference towards personal mobility exacerbating the situation for three wheeler industry in May; Sales reached 12 months low
- July month witnessed some improvement.
- · Retail sales outpaced off take as dealers are unwilling to order given the uncertain times for the industry

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Domestic – annual forecast





Domestic – quarterly forecast

Period		Three-wheeler		Ca	rgo	Passenger	
		Volume ('000)	YoY Growth	Volume ('000)	YoY Growth	Volume ('000)	YoY Growth
FY21	Q1	12.8	(91)%	5.8	(90)%	6.9	(94)%
	Q2	46.7	(75)%	20.1	(27)%	26.5	(83)%
	Q3	72.7	(59)%	29.1	(2)%	43.6	(70)%
	Q4	85.6	(66)%	28.3	15%	57.2	(46)%
FY22E	Q1	24.4	91%	8.6	48%	15.8	128%
	Q2	70.9	52%	23.5	17%	47.4	79%
	Q3	74.3-74.8	3-5%	25.4-25.9	(9)-(7)%	48.4-49.4	11-13%
	Q4	88.5-89.0	3-5%	29.2-29.7	3-5%	58.8-59.8	3-5%
FY23P	Q1	98.7-99.2	305-307%	28.8-29.3	236-238%	69.7-70.2	333-335%
	Q2	110-111	56-58%	25.3-25.8	10-12%	84.8-85.3	79-81%

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 72% drop in Q1 FY22 on a q-o-q basis, it was slightly lower for cargo at 70%
- Passenger segment is expected to get a push in Q3FY22 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

- Gradual recovery in Q2, with the numbers Covid cases coming down and ease in restrictions of lockdown.
- Delivery momentum has picked for the current month due to the festival of Navratri.
- It is further expected to be better till Diwali.
- Enquiries and conversion rate has improved on m-o-m basis
- However, Increased prices, higher fuel costs, is still a conccern
- Gradual improvement expected in cargo.
- Passenger vehicles to get a push after the reopening of schools/colleges/ offices



Financier

- Given the relatively humble financial profile of the customers coupled with the impact on customer financials in last one and a half years, financers are very cautious while funding
- 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



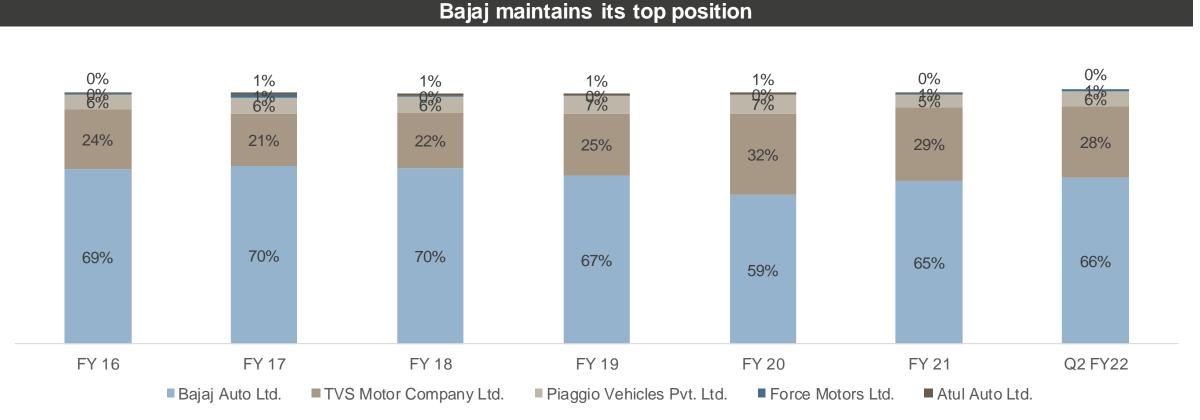
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Source – Industry, CRISIL Research

Three wheeler exports



Cargo segment gains some share, Bajaj expands its lead further in Q2 FY22



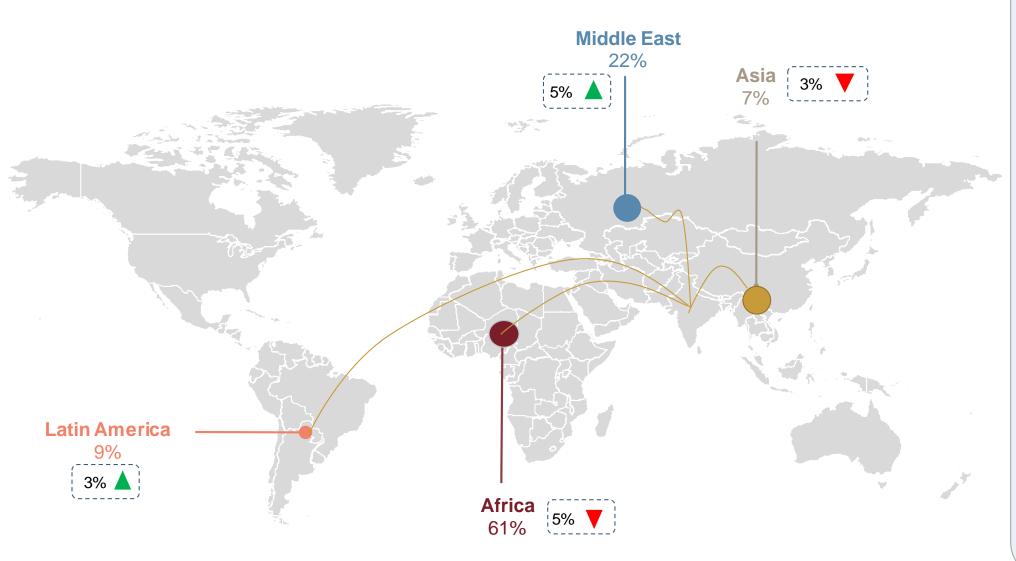
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Source: SIAM, CRISIL Research

- Q2 FY22 witnessed some improvement in exports, exports grew 18% y-o-y, with passenger carrier segment driving growth
- Bajaj continues to dominate the 3W exports
- It extended its lead further during Q3
- 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



Research

Note: : Represents volume data for FY21 exports, % in dotted boxes indicates change in market share from FY20 to FY21 Source: DGFT, CRISIL Research

Tractors





Tractor industry to grow further in FY22, even from the high base of FY21

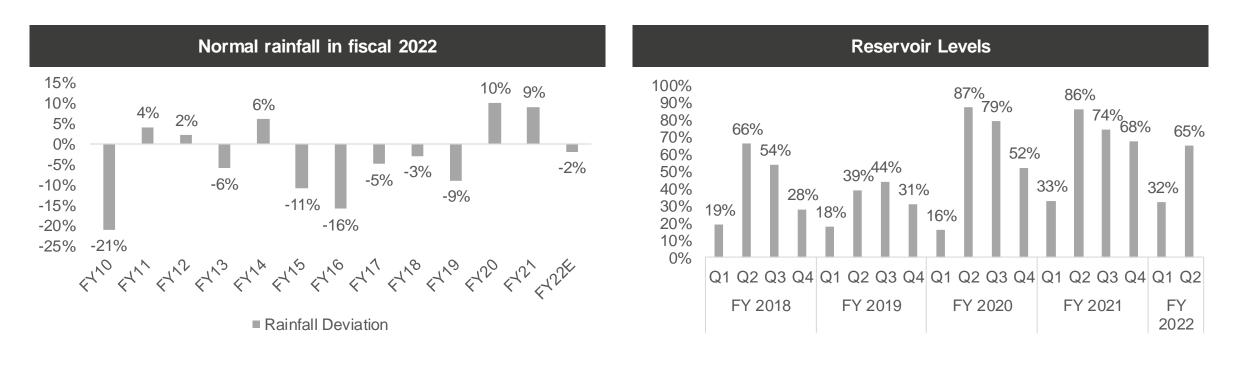


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NOTE : ** FY22 assumed neutral assuming normal monsoon, Source: CRISIL Research

South West Monsoon is likely to be normal in fiscal 2022



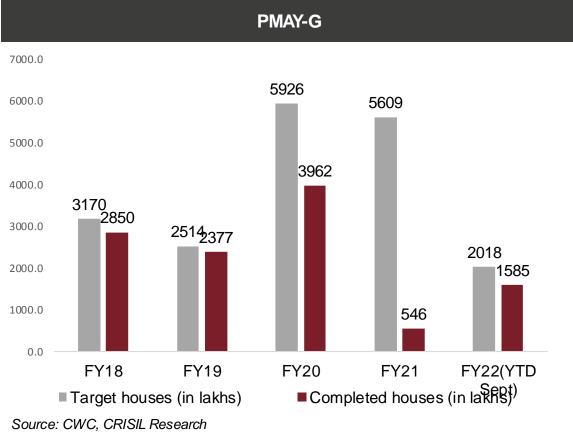
NOTE: Rainfall deficiency in the range of -10% to 10% of the long period average is considered as normal as per IMD. P: Projected Source : IMD, CRISIL Research

Notes: Storage Status of 120 Reservoirs of the Country

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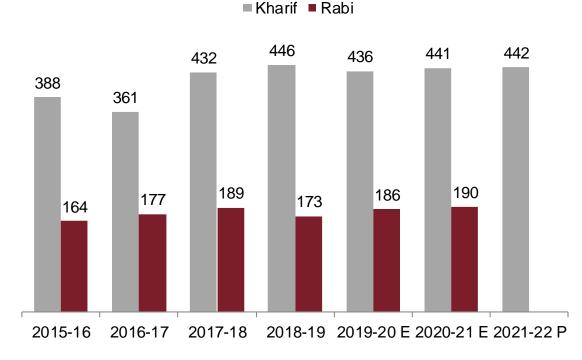
- The monsoon lingering on in its final month and associated rainfall recorded over most parts of the country during the past few days has greatly contributed in bringing the all-India rainfall to 'normal' category.
- The overall volume of water in India's major reservoirs from August 26-September 2, 2021 was less than the corresponding period last year and the 10-year.
- States with water storage less than last year for corresponding period were Himachal Pradesh, Punjab, Rajasthan, Odisha, Maharashtra, Uttar Pradesh, Tripura, Uttarakhand, Madhya Pradesh, Nagaland, Gujarat, West Bengal, Chhattisgarh and Tamil Nadu.

Favorable crop mix to aid farm profitability in FY22



SOURCE: Ministry of Rural Development, CRISIL Research

Crop production growth higher for MY20



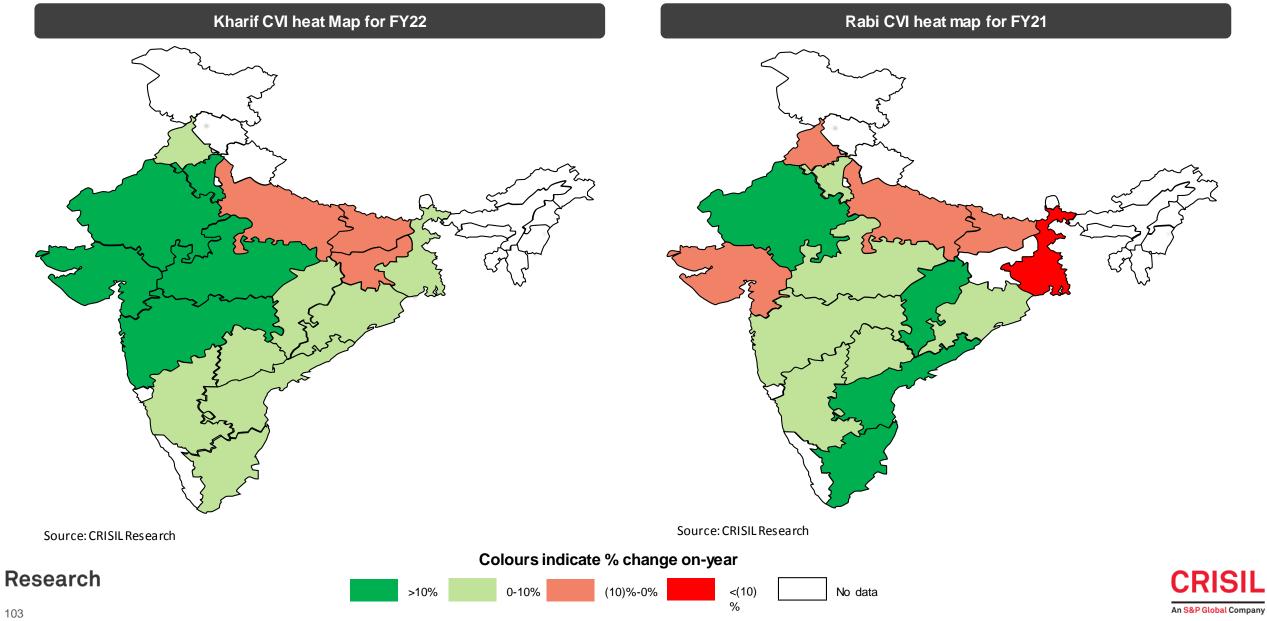
MY: Marketing year, P: Projected Notes: 1) Base of 100 for Index (k harif and rabi) taken in MY Jan-Dec 2015 Source: Ministry of Agriculture, CRISIL Research

- Construction pace seeing improvement sequentially after seeing a lull in FY21.
- Commercial demand from sand mining is expected to pick up as sand prices have been on a rising trend (increased by 30-40% on-year), thus encouraging illegal
 mining and preventing further drop in the fiscal
- Positive farmer sentiments on the back of expected 6-7% increase in kharif profitability, higher government procurement, decline in social occasions
- Farmers fetching higher prices for oilseeds, pulses, cash crops

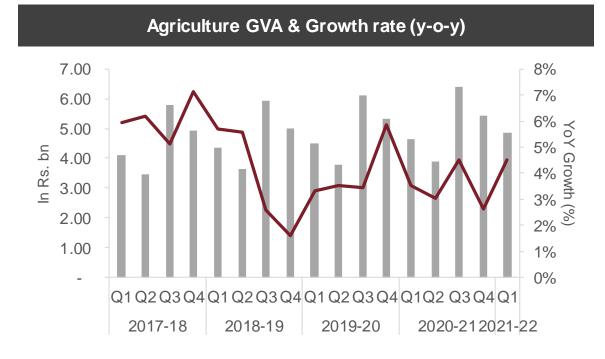
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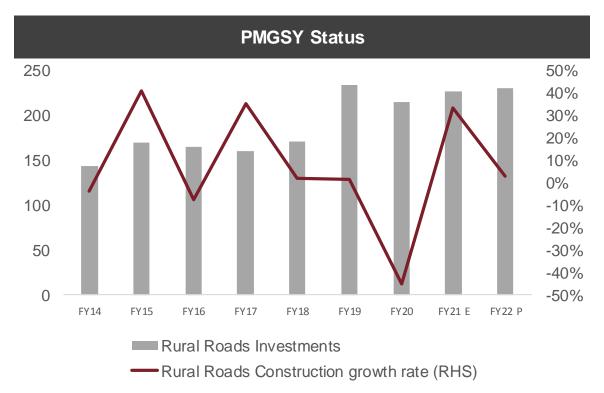
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State wise Crop Value Index



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





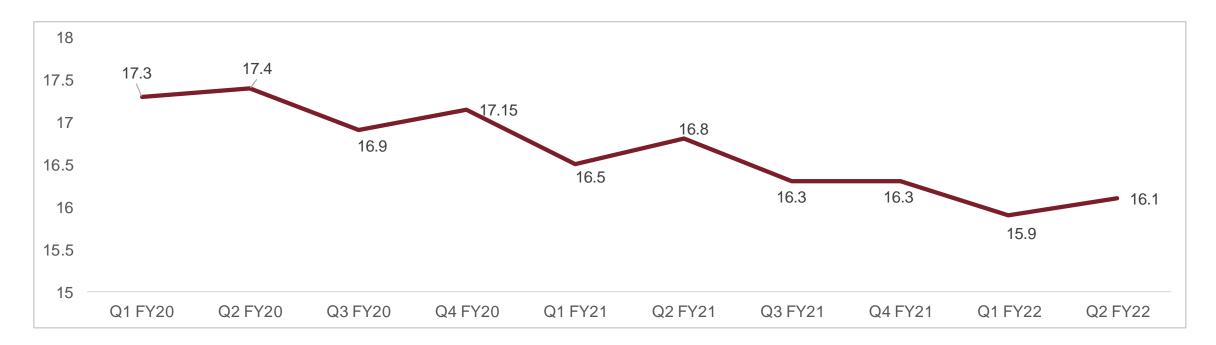
Note: GVA at basic prices (constant 2011-12) Source: Ministry of Statistics and Programme Implementation, CRISIL Research Source: OMMS (Online management, Monitoring and Accounting System), CRISIL Research

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- While the real GDP grew 20.1% on-year in Q1 FY22, it was purely base effect driven.
- Agriculture helped anchor, as it was one of the sectors that registered positive sequential growth 4.0%.
- The encouraging news is that the progress of monsoons, which have been patchy so far, has not yet raised any red flags yet, as key agricultural states have either received healthy rains or have good irrigation cover. Overall kharif sowing continues to improve

Interest rates remains reduced. Credit availability and affordable rates of finance is further aiding tractor demand

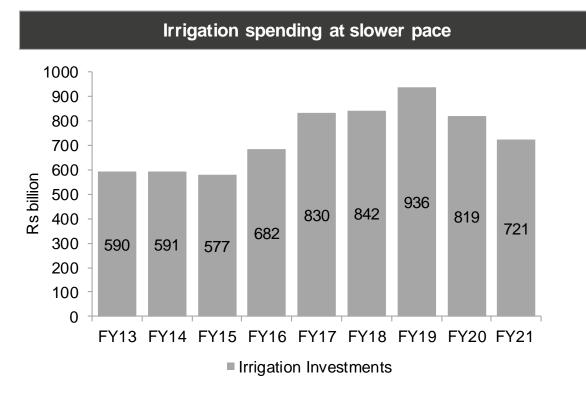
Repo rate cuts from RBI can lead to marginal decline in the interest rates

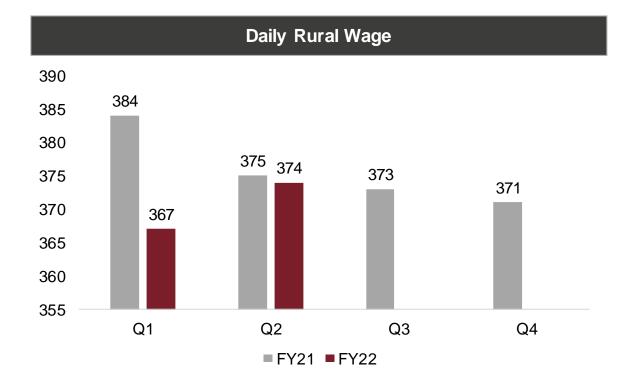


NOTE: Interest rates for Q1FY21 is not yet released by leading financiers Source: CRISIL Research

- 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





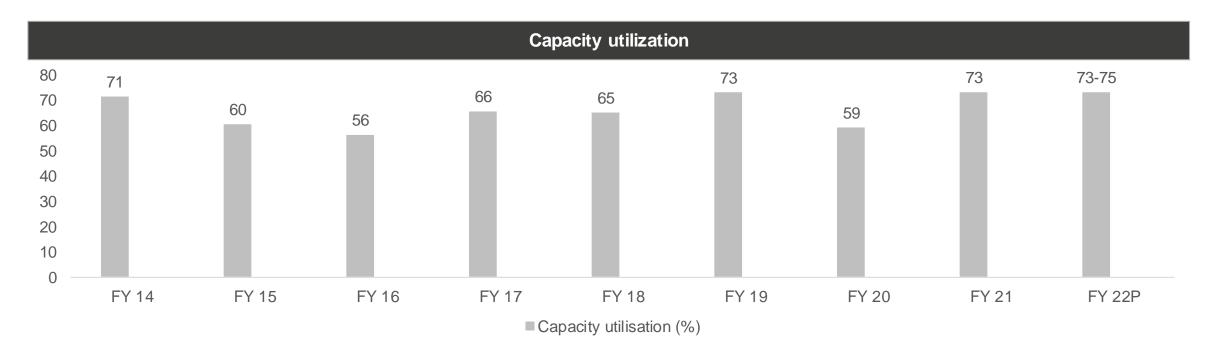
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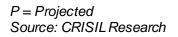
Source: Department of Agriculture, Cooperation & Farmers Welfare, CRISIL Research P: Projected

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

- The government's renewed thrust on enhancing irrigation intensity and making the nation more drought-proof is expected to support agriculture growth and increase mechanization.
- 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
- Government's focus on improving farm incomes through various schemes, promoting farm mechanization; and investments to improve rural infrastructure will aid better sentiments.

Capacity utilization is expected to stabilize





- 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.



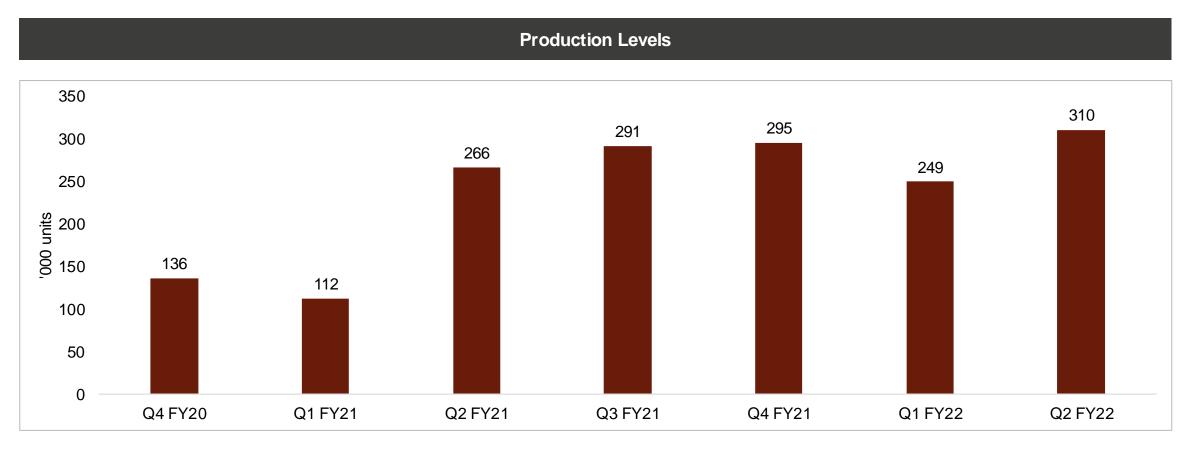
Implementation of Trem IV norms in Oct 2021

Emission standard stage	Engine Power		Data	CO	HC+Nox	PM		
	HP	Market share	Date	g/kWh				
Trem Stage III A	11 to 25HP	9%	1st April 2010	5.5	8.5	0.8		
	25 to 50HP	84%	1st April 2010	5.5	7.5	0.6		
	50 to 75 HP	7%	1st April 2010	5	4.7	0.4		
Trem Stage IV	11 to 25HP	8%	No obango					
	25 to 50HP	84%	No change					
	50 to 75 HP	8%	1st October 2021	5	4.7	0.025		

Source: Industry, CRISIL Research

- The new emission norms which are expected to be set in place will require Agricultural machinery including agricultural tractors, power tillers and combined harvesters.
- To simplify and avoid any confusion with other vehicle norms with "BS" or "Bharat Stage" prefix, Agricultural tractors and other farm equipment vehicles will fall under the TREM Stage-IV and TREM Stage-V.
- The TREM-IV regulations effective from October 2021 (due to which the price for >50 hp tractors is expected to increase by 10-12%) will aid in increasing realizations marginally.
- As tractor with more than 50HP contribute only 8% to overall tractor sales, we expect limited impact on tractor industry.

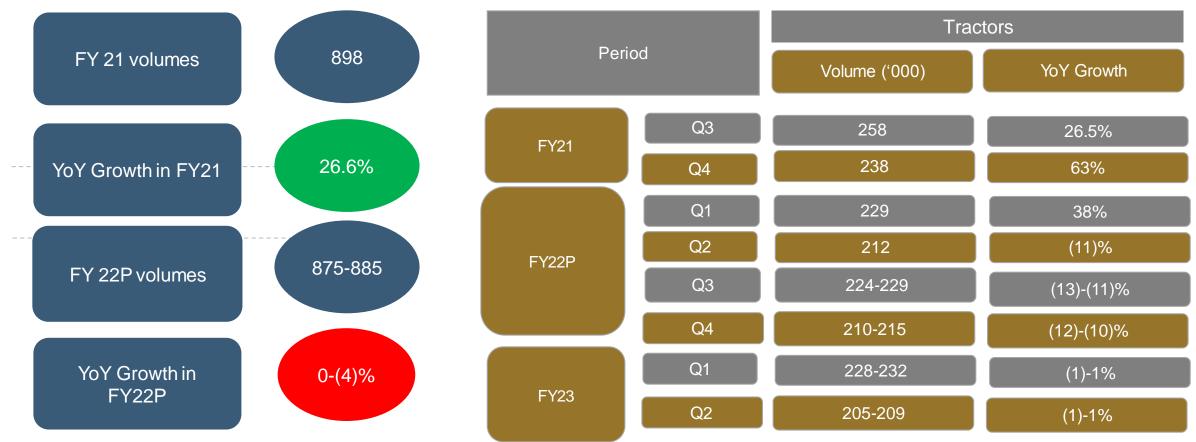
Production levels are high as the demand continues



Figures in thousands 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.



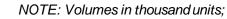


NOTE : ** Fiscal 2022 assumed neutral assuming normal monsoon, P: Projected

Source – CRISIL Research

- Tractor industry marginally decline in FY22 after growing at a robust pace in fiscal 2021.
- Healthy reservoir levels, high farm profitability, sustained government support in terms of procurement of food grain, expected pick-up in commercial demand and normal monsoon prediction for the year.

Research



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

Stakeholder interactions



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Dealer

- Monsoon 2021 has been uneven and affected certain states in the country. However, the overall departure from 1st June to 24th September has been normal.
- Thus, it is not highly concerning for the coming cropping cycle but is expected to hamper current cropping cycle.
- The reservoir levels are lower as compared to the previous year, however higher than the 10 year average levels.
- Festive demand is expected to be lower than anticipated earlier on account of decline in rural sentiments.
- This has resulted in higher inventory levels across states.
- · Supply is expected to be adequate

Inventory at dealer's end has largely normalized

Northern states because of rainfall deficit in the

However it is gradually improving due to good

season and OEMS pushed it more this time

· Harvesting might get delayed as there has been

some re sowing because of patchy rainfall

Navratri has been lower than anticipated.

· Retail momentum in the first few days of

Dealers have stocked up ahead of festive

anticipating a good festive demand.

· Delivery momentum had declined in the

first weeks of the season.

rainfall in last week of August.

DEALER

- Financier
- Financers have now come up with digital processes.
- There is cash flow in market as farmers have received better crop realizations
- This year there has been good collection. Collection is at 75% till now and if it continues to be good for coming months financers will also be aggressive for the next quarter.
- LTVs are expected to remain at a similar level at 70-75% amid risk averse investors.

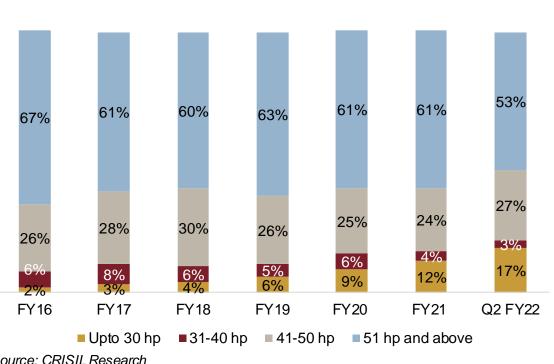


Tractor exports



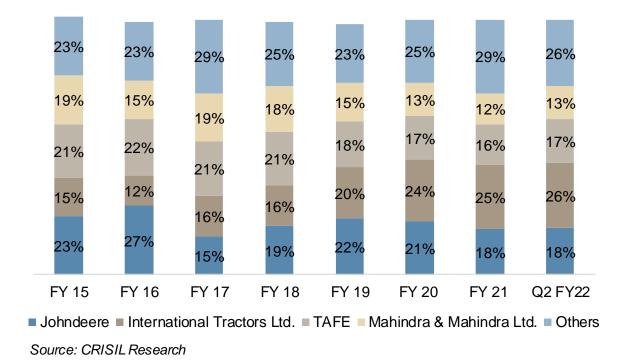


Growth in exports expected to continue in FY22



Segment wise market share of exports

Player wise market share of exports

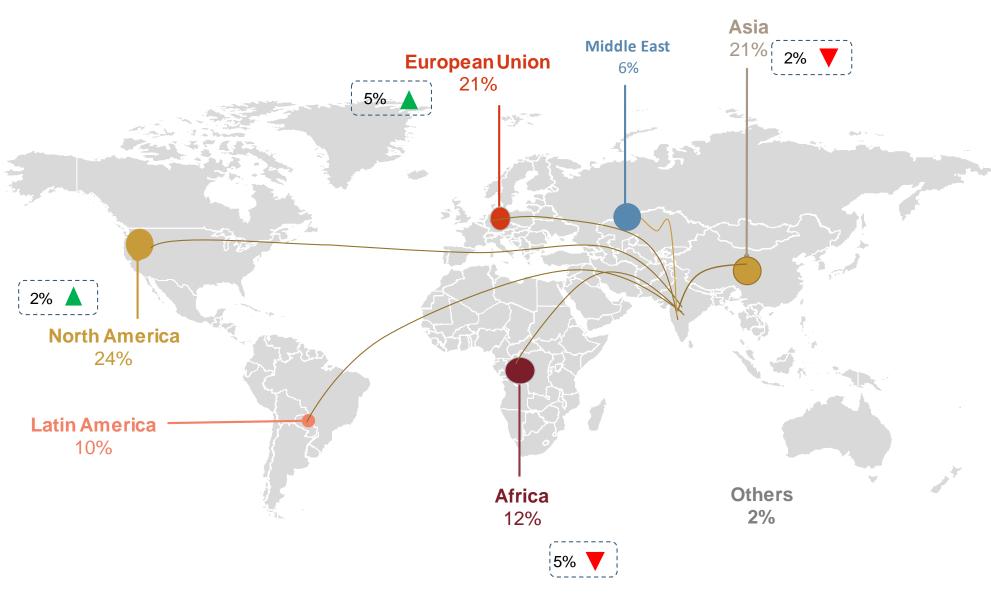


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Source: CRISIL Research

- Tractor industry clocked record exports with 17% growth during FY21 backed by increased demand from major importers such as Europe and Latin America coupled with strategic partnerships developed by players such as Escorts.
- On a q-o-q basis, exports increase 34% during Q2 FY22
- · Share of 51HP & above tractors drooped during the quarter while 41-50 HP & upto 30 HP tractors expanded their presence
- On a high base of FY21, exports are expected to grow with continued support from major markets like US & EU while Asian markets are expected to remain muted

Tractor Exports



- In FY21, US & Europe continued to support Indian Tractor exports
- Exports to Asian countries dropped amidst the continued Covid impact
- Increased exports to Turkey during the year helped expand exports to Middle East
- EU & US expected to back tractor exports in FY22 on account of faster recovery and higher pace of vaccination improving sentiments
- Improvement in Asian markets is expected to be gradual



Research

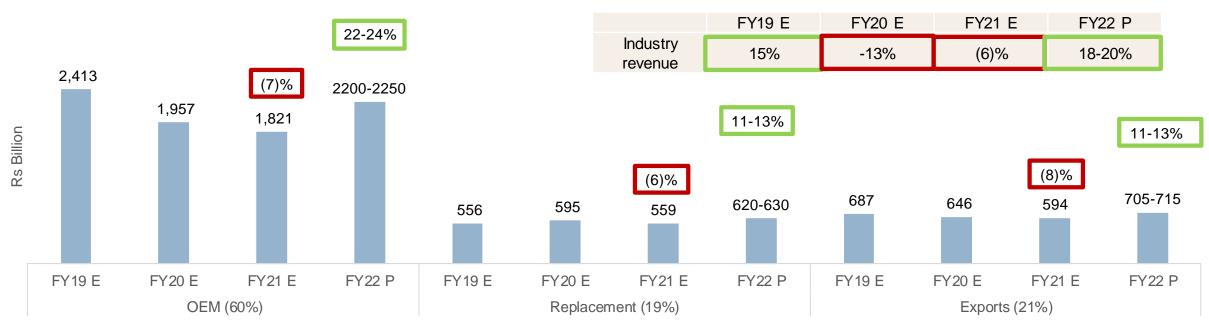
Note: : Represents volume data for FY21 exports, % in dotted boxes indicates change in market share from FY20 to FY21 Source: DGFT, CRISIL Research

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

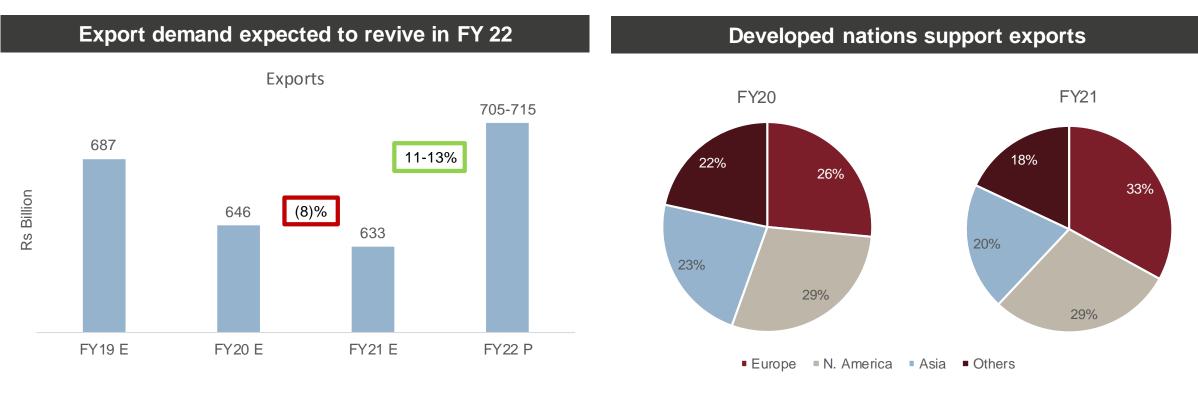


Note: Coloured brackets represent y-o-y growth; Numbers in the bracket in the axis represent share in production for FY21 Source: CRISIL Research

- Subdued demand across all automobile asset classes in the first half of fiscal 2021 dampened auto component production revenues
- Outbreak of second wave of COVID in the domestic market since March 2021 and the resultant state-wide lockdown is estimated to take a toll on the industry's revenues in Q1FY22
- Going ahead in FY 22, we expect the revenue to grow at relatively lower pace of 22-24% from the low base of FY21.
- The growth in FY22 would be aided by recovery in economy buoyant demand from key export destinations and increased demand from replacement market led by pent-up demand



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



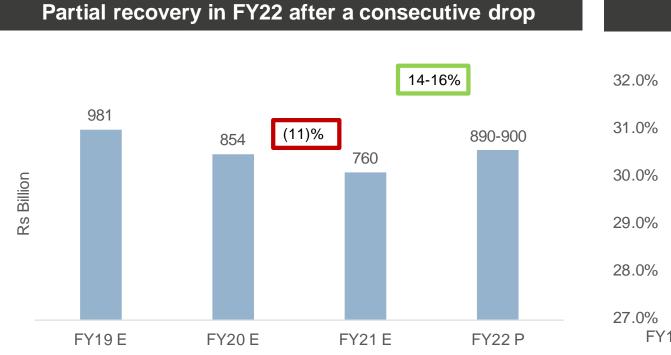
Note: Brackets represent y-o-y growth; Source: CRISIL Research

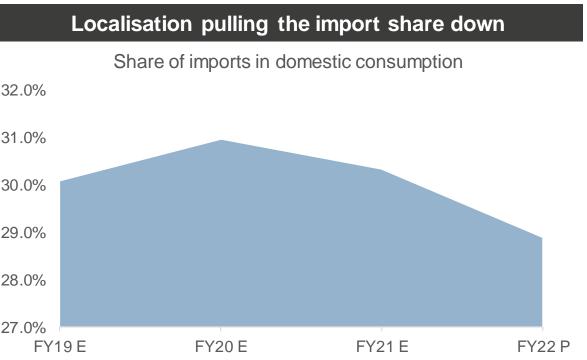
Source: DGFT, CRISIL Research

- Exports are estimated to have dropped 8% during FY21 amidst the global slowdown due to Covid pandemic, continued demand from US/ EU restricted the fall
- On this lower base, exports are estimated to bounce back in FY22 supported by demand from Europe and US with normalizing Covid situation as well as increasing vacinations
- Asia and Middle East lost share in India's auto component market in FY21.



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





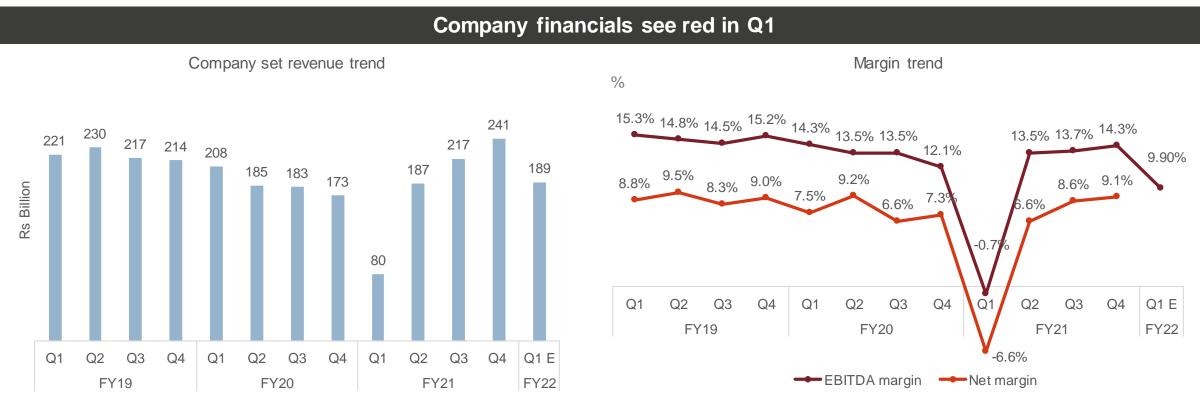
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Source – DGFT, CRISIL Research

Source: DGFT, CRISIL Research

- India imports mainly from China, Korea, Germany, Japan and the USA
- In FY21, imports are expected to have declined 11% owing to subdued demand from OEMs and aftermarket.
- In FY22, imports to recover from the low base with some improvement in domestic auto demand, further impact of pandemic remains a key monitorable.

Second wave drags down revenue levels in Q1FY22, margins saw significant contraction



Source: Company financials, CRISIL Research

 With improvement in production, revenue of the auto component companies rose further in Q4, second Covid wave brought the demand/ production levels down in Q1FY22

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- Operating margins are expected to have contracted amidst the decline in production levels coupled with continued increase in raw material prices,
- Amidst the sluggish demand companies could not pass on the rise in raw material prices to the end customer

Annual Forecasts



Annual Forecast – Domestic (Base case)



SOURCE: SIAM, CRISIL Research

Research

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Annual forecasts – Exports

Vehicle segment	Subsegment	Volume				YoY growth (%)			
		FY 19	FY 20	FY 21	FY22P	FY 19	FY 20	FY 21	FY22P
Passenger vehicles	Cars ('000)	514	475	262	330-340	(11)	(7)	(45)	27-29
	UVs & vans ('000)	162	186	138	170-175	(4)	15	(26)	24-26
	PVs ('000)	676	662	400	500-520	(10)	(2)	(40)	26-28
Two-wheelers	Motorcycles (mn)	2.87	3.14	3.03	3.35-3.45	15	9	(3)	11-13
	Scooters (mn)	0.40	0.37	0.23	0.25-0.35	27	(7)	(37)	34-36
	Mopeds ('000)	17	14	8.3	13-18	(4)	(17)	(40)	80-85
	2W (mn)	3.28	3.52	3.28	4.6-4.8	17	7	(7)	42-44
Commercial vehicles	LCV ('000)	47.2	33.9	31.1	43-45	(3)	(28)	(8)	39-41
	MHCV ('000)	40.4	14.9	13.5	20-22	27	(63)	(9)	59061
	Buses ('000)	12.4	11.9	5.7	7-9	(24)	(3)	(52)	47-49
	CVs ('000)	99.9	60.7	50.3	73-75	3	(39)	(17)	45-47
Tractors ('000)		92	76	88.6	90-92	7	(17)	17	3-4
Three-wheelers	Goods ('000)	6.2	6.3	5.6	7.5-8	47	2	(12)	39-41
	Passenger ('000)	561.5	495.9	387.4	493-498	49	(12)	(22)	27-29
	3W ('000)	567.7	502.2	392.9	500-505	49	(12)	(22)	27-29

Research

Note: We have assumed the Covid situation to gradually normalize going ahead, and we expect no further sizeable global resurgence of Covid cases Source: SIAM, CRISIL Research





Thank You





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