

Impact of Macro-economic Environment on the Automotive Industry

ACMA

Jan 2021







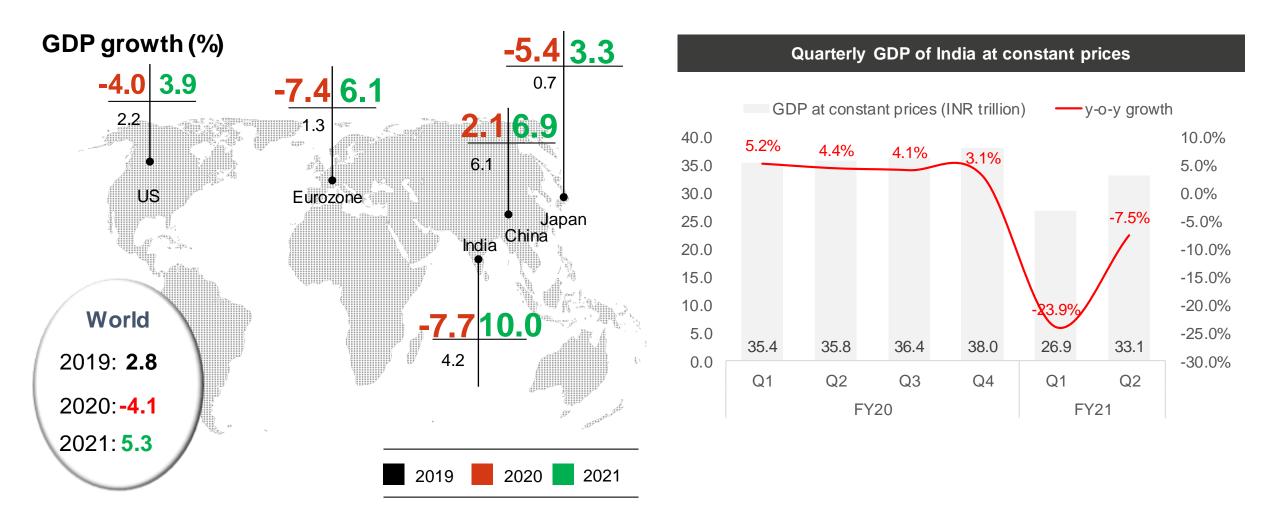
Research

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Executive Summary



A gradual recovery seen across the spectrum



Source: S&P Global, India outlook is for fiscal year e.g. 2020~FY21and 2021~FY22



Macroeconomic outlook

Segments (% Growth Y-o-Y)	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21 E	FY22 P
GDP (% Growth Y-o-Y)	7.4	8.0	8.3	7	6.1	4.2	(7.7)	10.0
GVAIndustry	7.0	9.6	7.7	6.3	4.9	1.8	(9)-(8)	13-15
GVA Services	9.8	9.4	8.5	6.9	7.7	7.0	(10)-(9)	9-11
GVA Agriculture	-0.2	0.6	6.8	5.9	2.4	3.7	3-4	2-4
CAD (as a % of GDP)	-1.3	-1.1	-0.6	-1.8	-2.1	-0.9	1.2	-
10-year G-sec yield (end- March)	7.7	7.5	6.8	7.6	7.5	6.2	6.5	-
PFCE	6.4	7.9	8.1	7	7.2	5.3	(8)-(6)	10-11
Crude oil (\$/barrel/CY)			44	54.4	71.2	64	42.3	50-55
Inflation (Consumer Price Index)	5.9	4.9	4.5	3.6	3.4	4.8	6.4	-

Source: CSO, RBI and CRISIL estimates



High frequency parameters point towards start of improvement since Q2FY21 end

Segments	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov -20	Dec-20
Core Sectors*																					
Coal	3%	2%	3%	-2%	-9%	-20%	-18%	-4%	6%	8%	11%	4%	-15%	-14%	-16%	-6%	4%	21%	12%	3%	
Crude Oil	-7%	-7%	-7%	-4%	-5%	-5%	-5%	-6%	-7%	-5%	-6%	-5%	-6%	-7%	-6%	-5%	-6%	-6%	-6%	-5%	
Natural Gas	-1%	0%	-2%	0%	-4%	-5%	-6%	-6%	-9%	-9%	-10%	-15%	-20%	-17%	-12%	-10%	-9%	-11%	-9%	-9%	
PetroleumRefinery Products	4%	-2%	-9%	-1%	3%	-7%	0%	3%	3%	2%	7%	0%	-24%	-21%	-9%	-14%	-19%	-9%	-17%	-5%	
Fertilizers	-4%	-1%	2%	2%	3%	5%	12%	14%	10%	0%	3%	-12%	-4%	7%	4%	7%	7%	0%	6%	2%	
Steel	13%	13%	11%	8%	4%	-1%	0%	7%	9%	2%	3%	-22%	-83%	-40%	-23%	-6%	-2%	3%	-3%	-4%	
Cement	2%	3%	-2%	8%	-5%	-2%	-8%	4%	5%	5%	8%	-25%	-85%	-21%	-7%	-13%	-15%	-4%	3%	-7%	
Electricity	6%	7%	9%	5%	-1%	-3%	-12%	-5%	0%	3%	12%	-8%	-23%	-15%	-10%	-2%	-2%	5%	10%	2%	
Auto																					
Two Wheelers	-16%	-7%	-12%	-17%	-22%	-22%	-14%	-14%	-17%	-16%	-20%	-40%	-100%	-84%	-39%	-15%	3%	12%	17%	17%	6%
Cars	-20%	-26%	-24%	-36%	-42%	-33%	-6%	-11%	-8%	-8%	-9%	-53%	-100%	-88%	-59%	-18%	11%	55%	39%	-14%	8%
Uvs + Vans	-11%	-10%	-4%	-21%	-8%	-4%	13%	20%	12%	-3%	-6%	-49%	-100%	-76%	-43%	1%	26%	38%	39%	3%	22%
Three Wheelers	-7%	-6%	-9%	-11%	-8%	0%	-4%	4%	22%	13%	-31%	-58%	-100%	-95%	-80%	-77%	-75%	-72%	-61%	-58%	-59%
Others																					
PMI Manufacturing	51.8	52.7	52.1	52.5	51.4	51.4	50.6	51.2	52.7	55.3	54.5	51.8	27.4	30.8	47.2	46	52	56.8	58.9	56.3	56.4
IIP Overall	3%	5%	1%	5%	-1%	-4%	-4%	2%	0%	2%	5%	-19%	-57%	-33%	-16%	-11%	-8%	0%	4%	-2%	
Diesel consumption	2%	3%	1%	3%	-1%	-3%	-7%	9%	0%	-2%	6%	-24%	-56%	-29%	-15%	-19%	-21%	-6%	8%	-7%	-3%
Rail freight (NTKM)	2%	1%	0%	-1%	-9%	-11%	-11%	-3%	0%	-3%	4%	-19%	-40%	-28%	-12%	-8%	1%	18%	11%	8%	

Note* - based on MOSPI classification

Source: CSO, RBI and CRISIL estimates





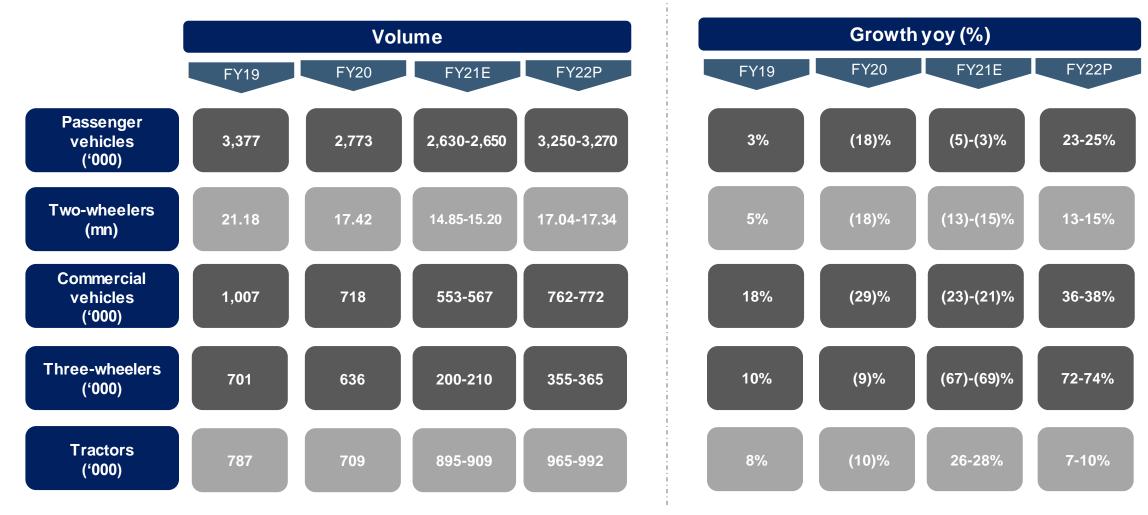
Assumptions for forecast

- Pandemic situation to improve; economic activities to revive further going forward; no expectations of a second wave of COVID19 or any new virus
- Positive sentiment on account of vaccine launch to help in demand momentum; however, efficacy of vaccine will be a key monitorable.
- •
- Schools, colleges and workplaces to resume in the later part of H1 fiscal 2022.
- No major announcement expected in **Budget 2021** related to automobile industry
- Gradual improvement in economic parameters globally.
- People starting to live with the pandemic and unlocking happening in the real sense in urban as well as rural centres.
- Normal monsoon in 2021
- Crude oil prices are expected to average \$50-55 per barrel in fiscal 2022
- Gradual, recovery in loan disbursals almost back to pre-Covid levels.
- Consistent support from government and RBI going forward too
- **Consumption** to lead recovery, private investment scenario to remain subdued; government to slowly gradually revive capital investments





Annual Forecast - Domestic



SOURCE: SIAM, CRISIL Research

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Annual forecasts – Exports

Vehicle	Subcoment		Vol	ume		YoY growth (%)				
segment	Subsegment	FY 19	FY 20	FY 21E	FY22P	FY 19	FY 20	FY 21E	FY22P	
_	Cars ('000)	514	491	281-297	457-469	(11)	(5)	(43)-(39)	58-62	
Passenger vehicles	UVs & vans ('000)	162	186	158-170	190-197	(4)	15	(15)-(9)	16-20	
	PVs ('000)	676	677	438-467	647-666	(10)	0	(35)-(31)	43-47	
	Motorcycles (mn)	2.87	3.14	2.95-3.04	3.29-3.44	15	9	(6)-(3)	10-15	
Two-wheelers	Scooters (mn)	0.40	0.37	0.23-0.24	0.31-0.32	27	(7)	(37)-(35)	30-35	
	Mopeds ('000)	17	14	10.71-11.34	14.54-14.87	(4)	(17)	(23)-(18)	32-35	
	2W (mn)	3.28	3.52	3.19-3.29	3.62-3.78	17	7	(9)-(6)	12-17	
	LCV ('000)	47.2	33.9	30.4-31.6	46.5-47.8	(3)	(28)	(10)-(7)	50-54	
Commercial	MHCV ('000)	40.4	14.9	11.9-12.9	20.9-21.4	27	(63)	(20)-(13)	68-72	
vehicles	Buses ('000)	12.4	11.9	5.8-6.2	12.4-12.7	(24)	(3)	(52)-(48)	108-112	
	CVs ('000)	99.9	60.7	48.0-50.7	79.8-81.8	3	(39)	(21)-(16)	62-66	
Tracto	ors ('000)	92	76	80-84	87-91	7	(17)	6-11	6-10	
	· · /	I							I	
	Goods ('000)	6.2	6.3	4.8-5.1	6.1-6.3	47	2	(25)-(20)	23-27	
Three-wheelers	Passenger ('000)	561.5	495.9	385.1-402.7	488.8-504.6	49	(12)	(22)-(19)	24-28	
	3W ('000)	567.7	502.2	389.9-407.8	494.9-510.8	49	(12)	(22)-(19)	24-28	
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SOURCE: SIAM, CRISIL Research

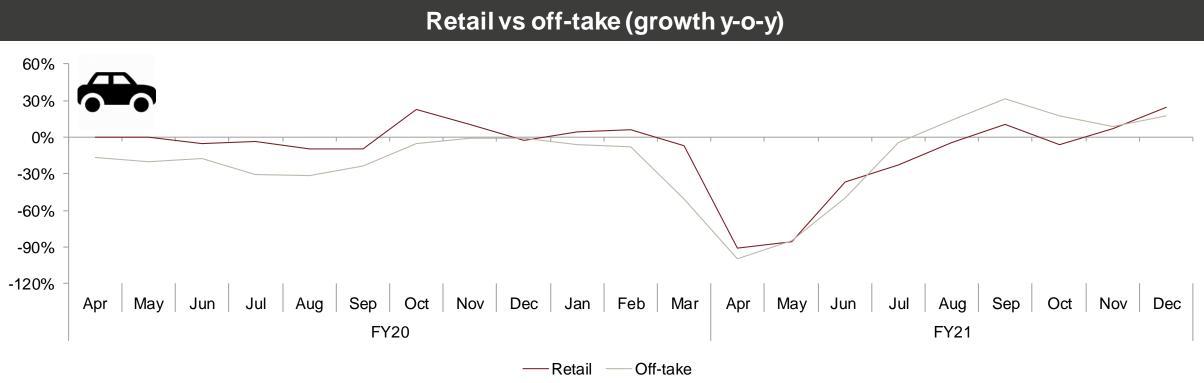
High festive demand, sustained demand post festive season to restrict the drop in FY21; Momentum expected to continue in FY22

Variables	FY18	FY19	FY20	FY21E	FY22P
Income for discretionary spending	F	F	NF	NF	F
Variables	FY18	FY19	FY20	FY21 E	FY22 E
Cost of ownership	F	NF	N	N	N
Petrol / CNG Vehicles	F	NF	N	N	N
Diesel vehicles	F	NF	N	NF	N
Interest rates	F	N	Ν	F	N
Variables	FY18	FY19	FY20	FY21 E	FY22 E
New model/ facelift launches	N	NF	F	N	F
Regulations – passenger vehicles	F	N	NF	N	N
Impact on Overall Sales Growth	F	N	NF	NF	F

E: Estimates P: Projected SOURCE: Industry, CRISIL Research



Retail sales continue their momentum after festive season; supply constraints restrain offtake growth



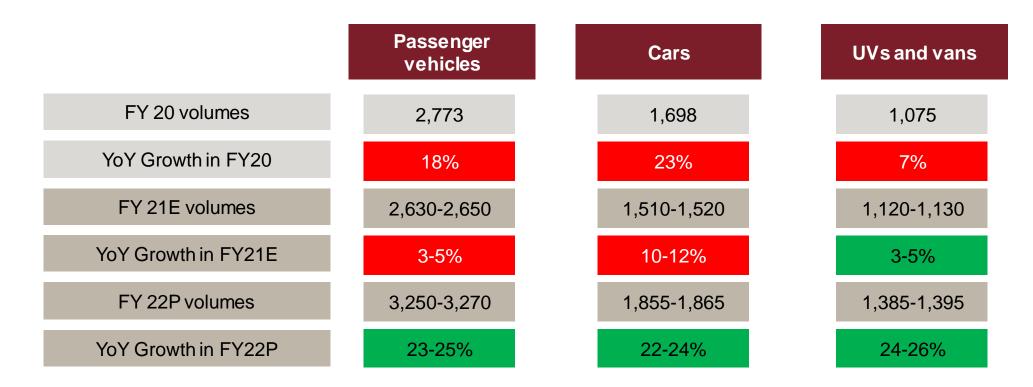
Source – MoRTH, SIAM, CRISIL Research

After a sharp drop in Q1 FY21 amidst lockdown, retails as well as off take sales bounced back in the next two quarters and posted really healthy 24% (retail) & 17% (off take) growth in December

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- Industry is facing a severe shortage of microprocessors impacting the vehicle supply.
- Dealer inventory levels have nearly halved and waiting period for popular models like Creta, Ertiga have reached to 10-12 week levels
- This supply crunch has restricted the growth in offtake as well as retails sales

Domestic – passenger vehicle annual forecast



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



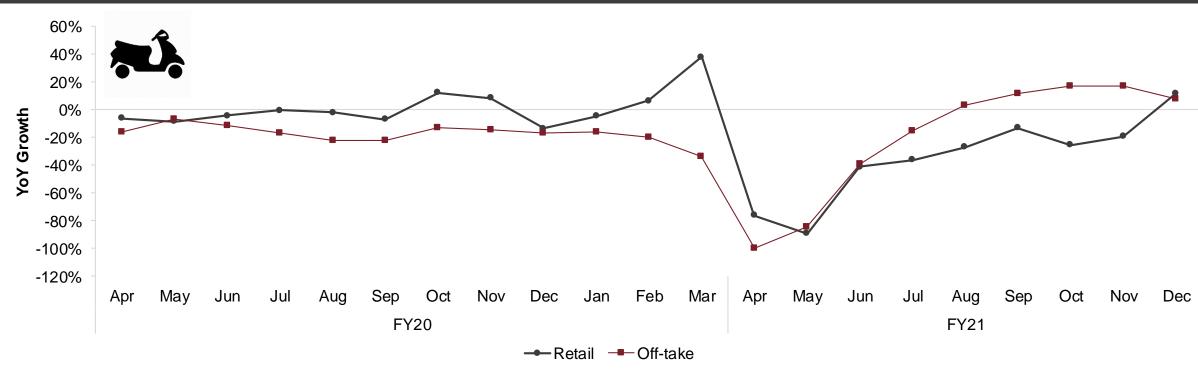
Normal monsoon, opening up of economy to drive twowheeler industry in FY22

Variables	FY 2018	FY 2019	FY 2020	FY 2021 E	FY 2022
Income for discretionary spending	F	F	NF	NF	F
Variables	FY 2018	FY 2019	FY 2020 E	FY 2021 F	FY 2022
Cost of ownership	F	NF	Ν	NF	N
Interest rates	F	N	Ν	F	N
Variables				FY 2021 F	FY 2022
Fuel injector vehicle				NF	N
E- Carburetor vehicle				N	N
Variables	FY 2018	FY 2019	FY 2020 E	FY 2021 F	FY 2022
Regulations - 2 wheelers	F	NF	Ν	NF	N
Impact on Overall Sales Growth	F	N	NF	NF	N

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NF: Not Favorable, F: Favorable; N: Neutral E: Estimates P: Projected

Off-take in positive zone for 5 consecutive months; retail registers a growth in Dec on a low base



Retail vs off-take (Growth yoy)

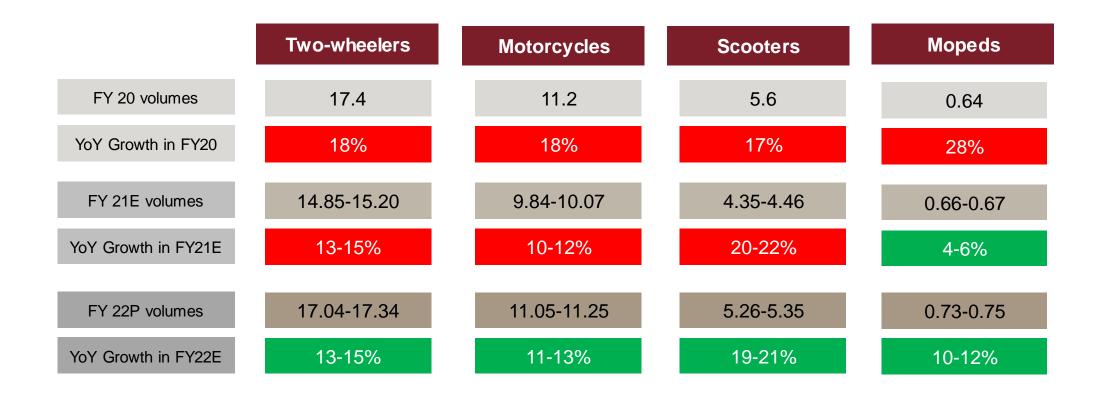
Source – MoRTH, SIAM, CRISIL Research

• Off-take has been in the positive trajectory since Aug 2020. Supply chains have normalized to great extend, however not yet completely. Festive built up led to inventory levels of 50-55 days with the two-wheeler dealers.

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- However, in Dec 2020, wholesale push from OEM was less to correct dealer inventory plus systematic plant closure in the last month of the year by various OEMs.
- Retails registered a positive growth for the first time in this year in Dec 2020, however in absolute volume terms lower than the festive sales

Domestic – two-wheeler 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

Overview of end-use segments – cargo

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	(9)-(7)	12-14	
Iron ore (production)	25	3	3	19	(21)-(19)	18-20	
Steel (consumption)	3.1	8	9	1	(11)-(9)	12-14	Core Sectors
Cement (consumption)	1.9	9	12	(2)	(5)-(3)	10-12	
Roads (Km constructed / day)	7	8	9	11	11	11-12	
Port (traffic)	5.6	6.5	4.5	1-2	(7)-(5)	6-9	
Two-wheelers (domestic sales)	6.9	14.8	5	(17)	(14)-(12)	14-16	
Passenger vehicles (domestic sales)	9.2	8	3	(18)	(4)-(6)	22-24	
Consumer durables (consumption)	6.6	5.8	7	5	(25)-(20)	30-35	Discretionary Products
E-retail	22	35	35-37	23	10-15	20-25	
RMG (market size)	17	5	8	(3)	(35)-(30)	40-45	

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



Overview of end-use segments

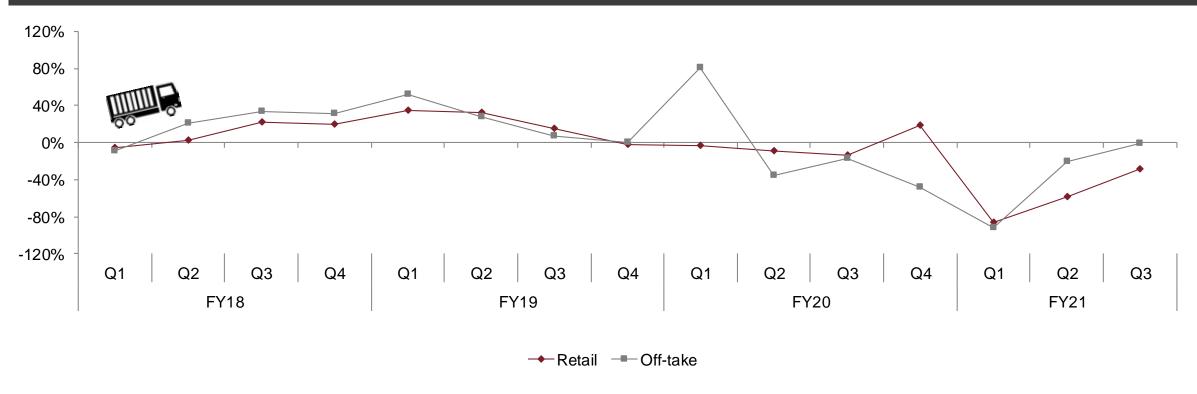
Segments (% growth Y-o-Y)	FY17	FY18	FY19	FY20	FY21E	FY22P	
Dairy (production)	5.8	6.7	6	(3)	7-9	6-8	- Non -
FMCG	5	8	12	5	0-1	13-15	 Discretionary Products
Pharmaceuticals (market size)	5	1	15	11	8-9	9-11	
Gross school enrollment							
K-12	77.5	74.3	73.2	73.5	73.8	74	
Above K-12	22.6	22.6	23.2	23.7	24.3	24.9	_
T employee base	4	3	4	4	(5)-(3)	2-4	Buses
Air passenger traffic	16	16	11	(2)	(65)-(60)	70-75	
Hotel room demand	7	5	5	3	(55)-(50)	50-55	_

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

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Retail & offtake showing recovery on sequential basis

Retail vs off-take (Growth yoy)



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Source: SIAM, MoRTH, CRISIL Research

- OEM's facing huge supply issues due to semi conductor supply constraints. Production issues to be there in Q4 FY21.
- Among all segments- Pick-ups continue to see good traction in the economy especially in rural areas.
- This is followed by the ICV segment with good traction visible due to e-commerce

Domestic – commercial vehicle annual forecast

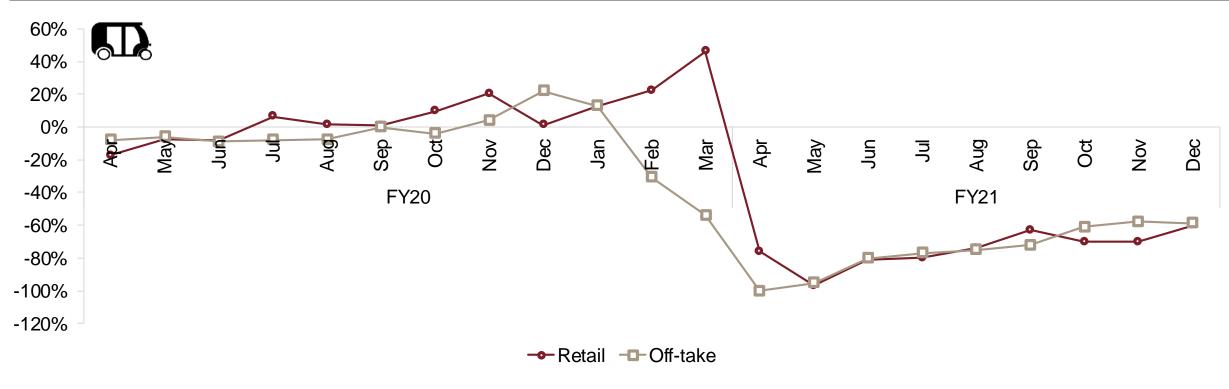
	CV	SCV	ULCV	MHCV	Buses
FY 20 volumes	718	411	36	185	86
YoY Growth in FY20	29%	20%	26%	47%	7%
FY 21E volumes	553-567	378-382	30-31	141-144	15-16
YoY Growth in FY21E	23-21%	7-8%	15-17%	24-22%	81-83%
FY 22P volumes	762-772	475-486	43.3-44.2	214-220	33-34
YoY Growth in FY22P	36-38%	25-28%	42-45%	51-55%	116-118%



Source – SIAM, CRISIL Research

Industry remains in red, however, m-o-m gradual improvement posted in Q3

Retail vs off-take (growth y-o-y)

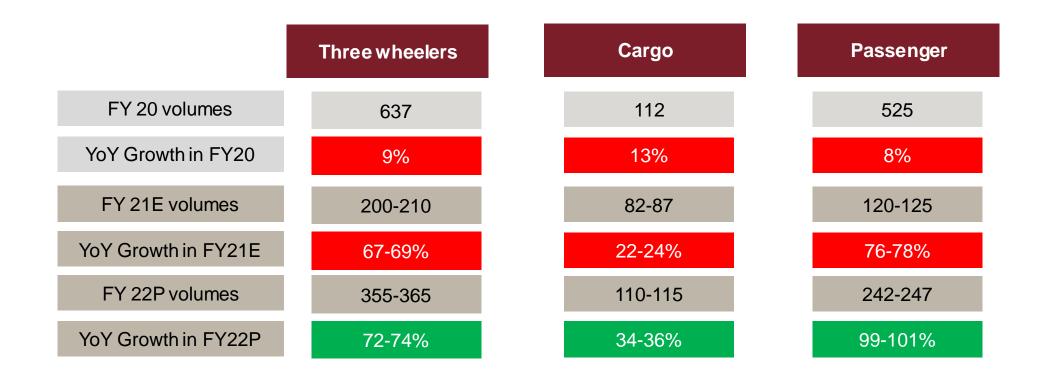


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Source: SIAM, MoRTH, CRISIL Research

- From the nadir reached in Q1, industry is showing gradual improvement
- This is primarily aided by traction in cargo segment, passenger segment remains in deep trouble
- Dealers have not done any major inventory built up in fiscal 2021 after BSIV stock clearing
- Stock levels are insignificant and orders are being placed only after the booking

Domestic – three-wheeler annual forecast





Tractor sales expected to soar in fiscal 2021 after a fall in fiscal 2020



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NOTE : ** Fiscal 2021 assumed neutral assuming normal monsoon, P: Projected Source: CRISIL Research

Domestic – tractor annual forecast



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

NOTE: Volumes in thousand units;

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

Source – CRISIL Research

Detailed Report



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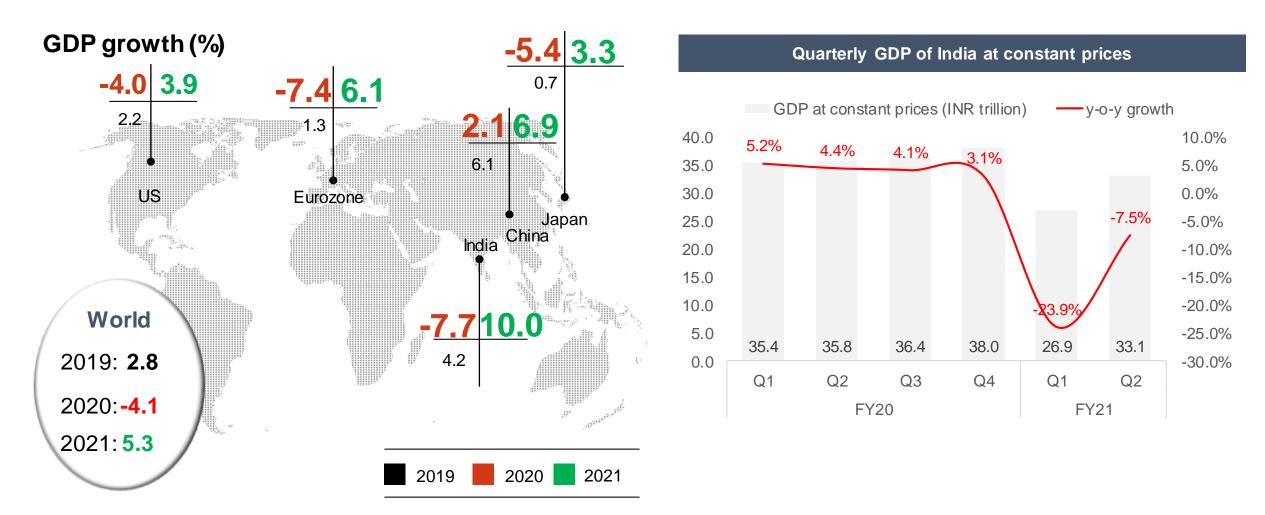
Research

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Economy overview



A gradual recovery seen across the spectrum



Source: S&P Global, India outlook is for fiscal year e.g. 2020~FY21and 2021~FY22



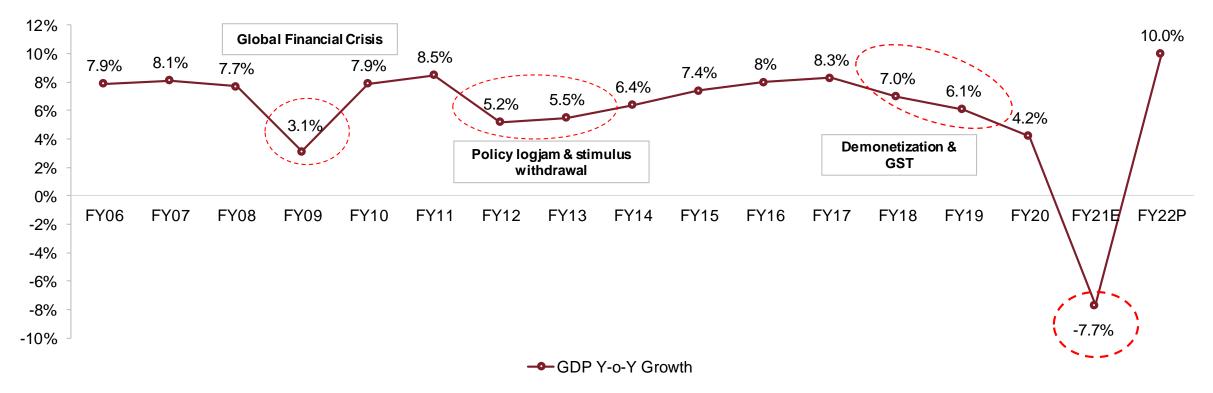
Macroeconomic outlook

Segments (% Growth Y-o-Y)	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21 E	FY22 P
GDP (% Growth Y-o-Y)	7.4	8.0	8.3	7	6.1	4.2	(7.7)	10.0
GVAIndustry	7.0	9.6	7.7	6.3	4.9	1.8	(9)-(8)	13-15
GVA Services	9.8	9.4	8.5	6.9	7.7	7.0	(10)-(9)	9-11
GVA Agriculture	-0.2	0.6	6.8	5.9	2.4	3.7	3-4	2-4
CAD (as a % of GDP)	-1.3	-1.1	-0.6	-1.8	-2.1	-0.9	1.2	-
10-year G-sec yield (end- March)	7.7	7.5	6.8	7.6	7.5	6.2	6.5	-
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Crude oil (\$/barrel/CY)			44	54.4	71.2	64	42.3	50-55
Inflation (Consumer Price Index)	5.9	4.9	4.5	3.6	3.4	4.8	6.4	-

Source: CSO, RBI and CRISIL estimates



GDP revised upwards for FY2021 due to faster than expected revival of economic activity



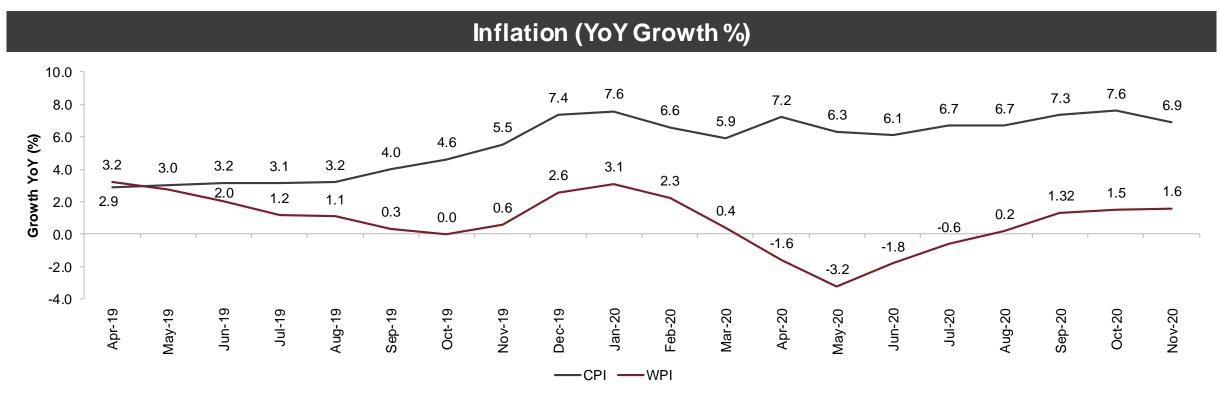
Note: GDP – Gross domestic product; Data on 2011-12 base, P=Projected Source: Central Statistical Office, MOSPI, CRISIL Research

- We now see India's real gross domestic product (GDP) for the current fiscal contracting 7.7%, compared with earlier forecast of contraction of 9%.
- A faster-than-expected revival of activity in the second quarter, which continued into the festive season, is one factor behind the revision. Consistent decline in overall Covid-19 cases is the other.

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- Manufacturing sector is expected to perform better than services.
- We expect India's real GDP growth to bounce back to 10% next fiscal, riding primarily on a low statistical base.

CPI softens in Nov post peaking in Oct; WPI continues its upward march

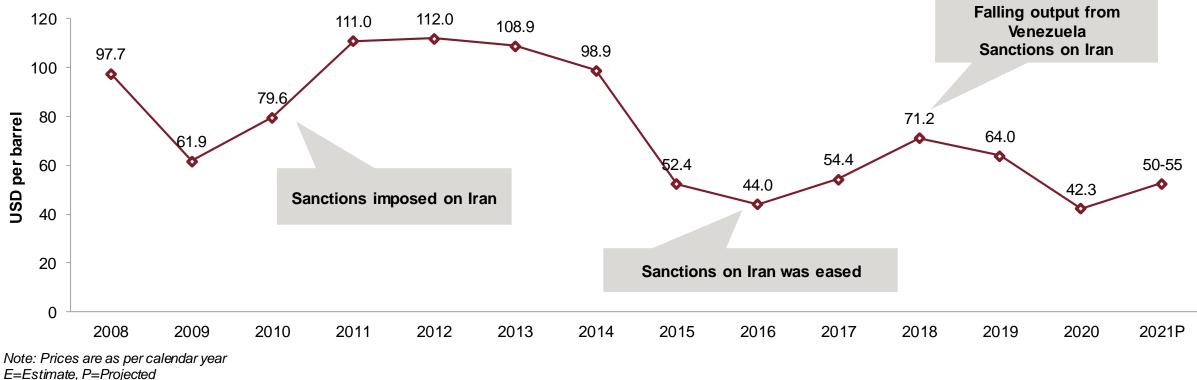


Source-National Statistics Office, CRISIL Research

- Inflation based on the Consumer Price Index (CPI), which was persistently high over the last few months, appears to have peaked for now. In November, it softened to 6.9% onyear, after having reached a 77-month high of 7.6% in October.
- Despite this, the headline inflation continues to be outside the upper limit of the Reserve Bank of India's (RBI's) band of 2-6% for the eighth consecutive month. Hence, the needle needs to be watched carefully.
- WPI increase in the past two months has been led by *core*, unlike in the previous months when it was *food*-driven. For instance, in November, core inflation rose to 2.3%, from 1.6% in October, whereas food inflation softened to 4.3% from 5.8%. Fuel inflation, on the other hand, remains in negative territory on account of lower on-year commodity prices.

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Crude oil prices at all time low due to lower mobility on account of pandemic

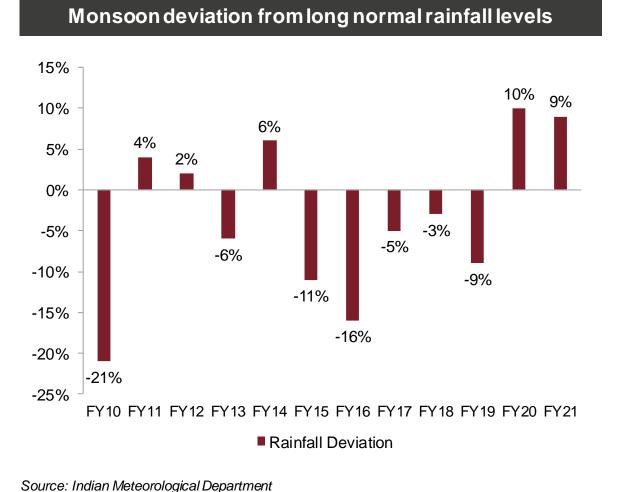


Source: CRISIL Research

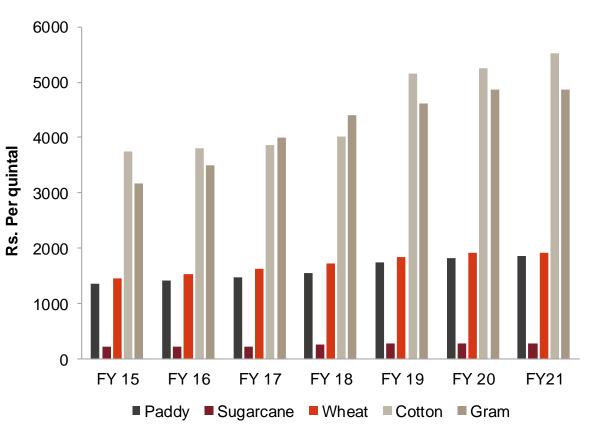
- Crude oil prices lowered to ~\$42 in 2020, considering the global oil demand contraction on account of Covid-19. The oil demand loss was substantial in Q2 of 2020. Normalcy is expected to kick-in in the economic activities post the containment of Covid-19.
- Crude oil demand was already under pressure owing to slowing economic growth in 2019 and was expected to recover in 2020 as a result of better prospects. However, with the complete shutdown of the airlines sector in major economies, limited road transportation activities, and sharper industrial output cuts accentuated by Covid-19, oil demand fell in the short term. This impacted the crude prices.
- In CY 2021, we expect the crude to inch up to \$50-55 per barrel.



Amid this gloom and doom, the one sector that holds out hope is agriculture



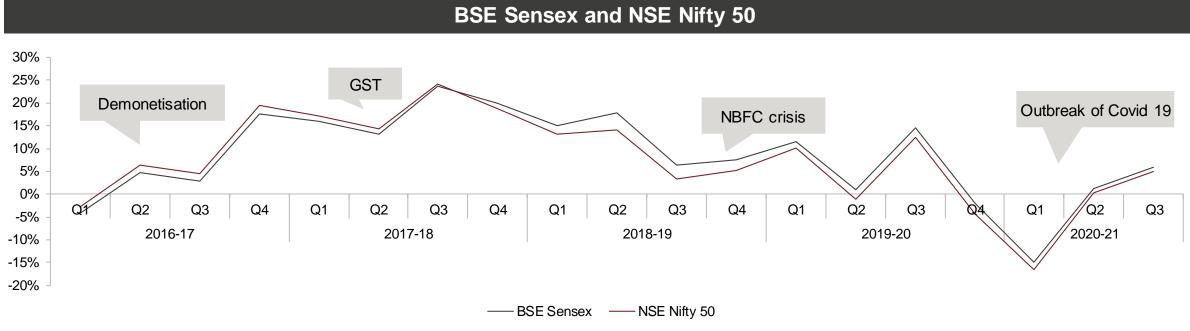
MSP of major crops in the last 5 years



Source: Ministry of Agriculture & Farmers Welfare



Indices continues its upward rally



Source: BSE, NSE, CRISIL Research

Index	Q1 FY20	Q2 FY20	Q3 FY20	Q4 FY20	Q1 FY21	Q2 FY21	Q3 FY21
BSE Sensex	39,380	37,827	40,725	36,163	33,476	38,255	43,101
NSE Nifty 50	11,819	11,205	12,033	10,587	9,861	11,236	12,644

• Indices reached its all time high in Q3. It registered a growth of ~5% on year basis, on a already high base of last year.

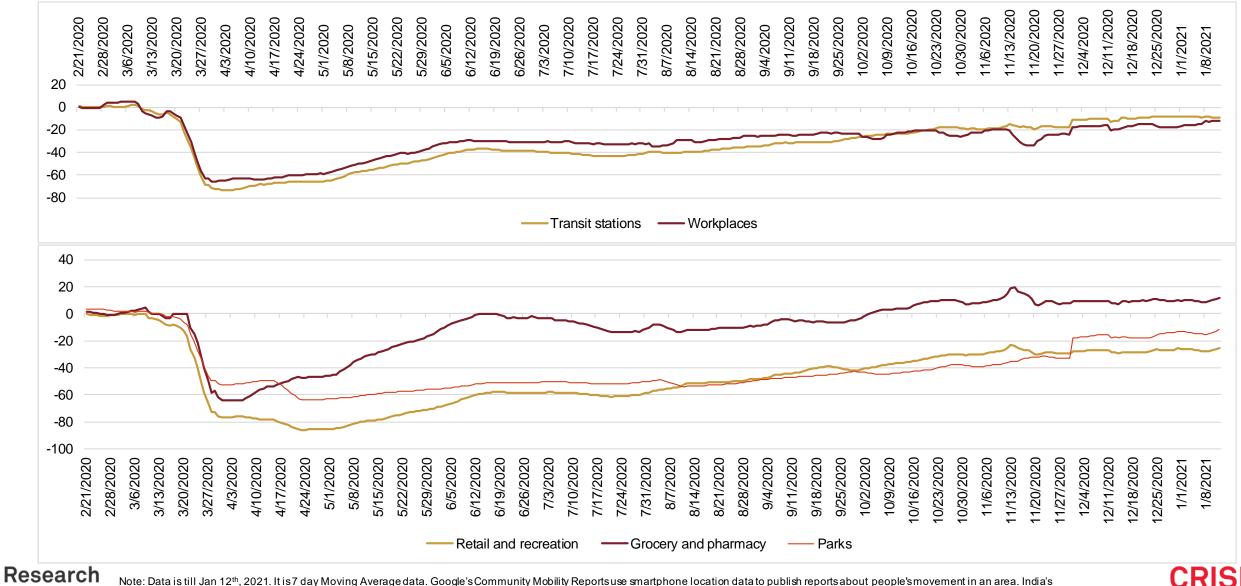
However, the volatility in the index remained high. Panic selling was observed when new lockdown was announced in Europe. The fall was triggered amid fears of a
resurgence of coronavirus following a new strain in the infection in the United Kingdom (UK).

On ground sentiments





Workplace mobility inches up post festive; discretionary spending remains stable after seeing a blip during festive

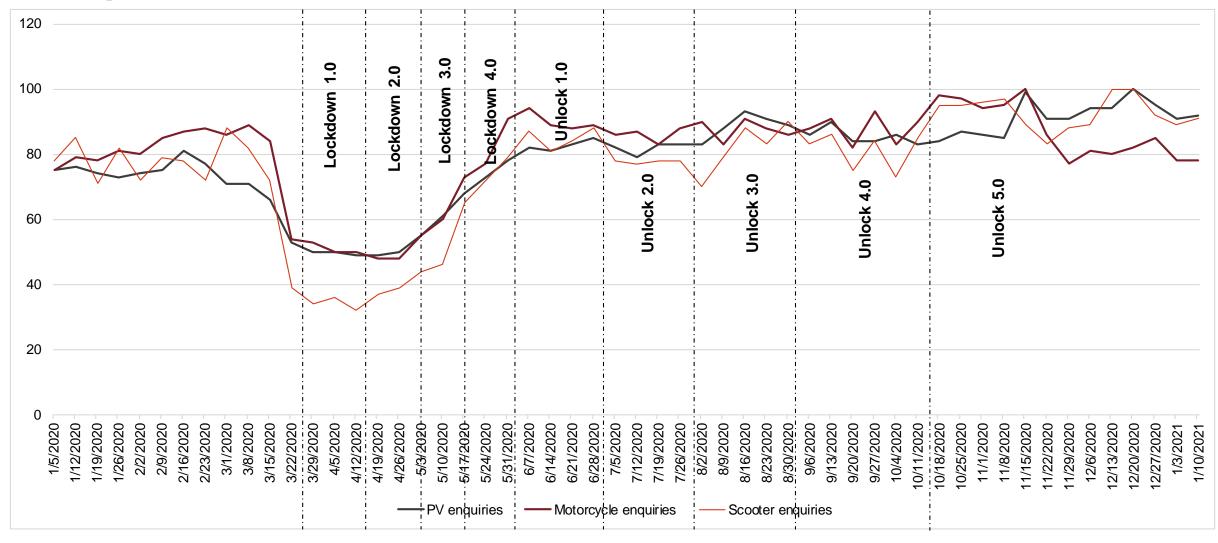


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smartphone penetration is 25-30%

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

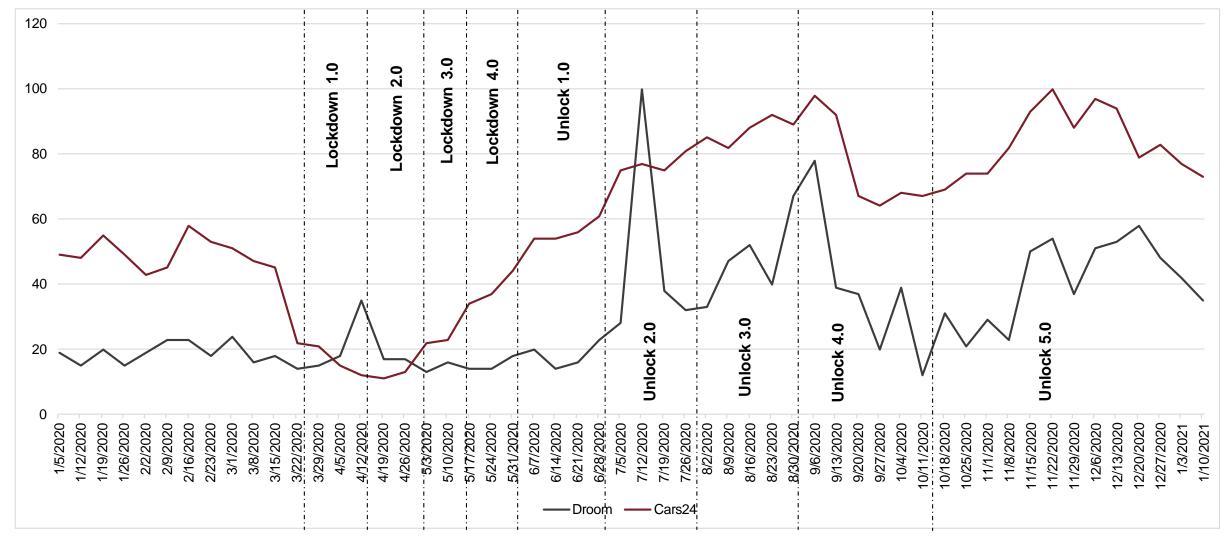
Personal mobility vehicles moving in tandem; popularity of scooter rises post urban unlock



Source: CRISIL Research, Google analytics **Research**



Enquiries for used cars sees some tapering post festive; however supply side constraints downplaying demand too



Source: CRISIL Research, Google analytics

High frequency parameters point towards start of improvement since Q2FY21 end

Segments	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
Core Sectors*																					
Coal	3%	2%	3%	-2%	-9%	-20%	-18%	-4%	6%	8%	11%	4%	-15%	-14%	-16%	-6%	4%	21%	12%	3%	
Crude Oil	-7%	-7%	-7%	-4%	-5%	-5%	-5%	-6%	-7%	-5%	-6%	-5%	-6%	-7%	-6%	-5%	-6%	-6%	-6%	-5%	
Natural Gas	-1%	0%	-2%	0%	-4%	-5%	-6%	-6%	-9%	-9%	-10%	-15%	-20%	-17%	-12%	-10%	-9%	-11%	-9%	-9%	
PetroleumRefinery Products	4%	-2%	-9%	-1%	3%	-7%	0%	3%	3%	2%	7%	0%	-24%	-21%	-9%	-14%	-19%	-9%	-17%	-5%	
Fertilizers	-4%	-1%	2%	2%	3%	5%	12%	14%	10%	0%	3%	-12%	-4%	7%	4%	7%	7%	0%	6%	2%	
Steel	13%	13%	11%	8%	4%	-1%	0%	7%	9%	2%	3%	-22%	-83%	-40%	-23%	-6%	-2%	3%	-3%	-4%	
Cement	2%	3%	-2%	8%	-5%	-2%	-8%	4%	5%	5%	8%	-25%	-85%	-21%	-7%	-13%	-15%	-4%	3%	-7%	
Electricity	6%	7%	9%	5%	-1%	-3%	-12%	-5%	0%	3%	12%	-8%	-23%	-15%	-10%	-2%	-2%	5%	10%	2%	
Auto																					
Two Wheelers	-16%	-7%	-12%	-17%	-22%	-22%	-14%	-14%	-17%	-16%	-20%	-40%	-100%	-84%	-39%	-15%	3%	12%	17%	17%	6%
Cars	-20%	-26%	-24%	-36%	-42%	-33%	-6%	-11%	-8%	-8%	-9%	-53%	-100%	-88%	-59%	-18%	11%	55%	39%	-14%	8%
Uvs + Vans	-11%	-10%	-4%	-21%	-8%	-4%	13%	20%	12%	-3%	-6%	-49%	-100%	-76%	-43%	1%	26%	38%	39%	3%	22%
Three Wheelers	-7%	-6%	-9%	-11%	-8%	0%	-4%	4%	22%	13%	-31%	-58%	-100%	-95%	-80%	-77%	-75%	-72%	-61%	-58%	-59%
Others																					
PMI Manufacturing	51.8	52.7	52.1	52.5	51.4	51.4	50.6	51.2	52.7	55.3	54.5	51.8	27.4	30.8	47.2	46	52	56.8	58.9	56.3	56.4
IIP Overall	3%	5%	1%	5%	-1%	-4%	-4%	2%	0%	2%	5%	-19%	-57%	-33%	-16%	-11%	-8%	0%	4%	-2%	
Diesel consumption	2%	3%	1%	3%	-1%	-3%	-7%	9%	0%	-2%	6%	-24%	-56%	-29%	-15%	-19%	-21%	-6%	8%	-7%	-3%
Rail freight (NTKM)	2%	1%	0%	-1%	-9%	-11%	-11%	-3%	0%	-3%	4%	-19%	-40%	-28%	-12%	-8%	1%	18%	11%	8%	

Note* - based on MOSPI classification

Source: CSO, RBI and CRISIL estimates





Indian automobile industry

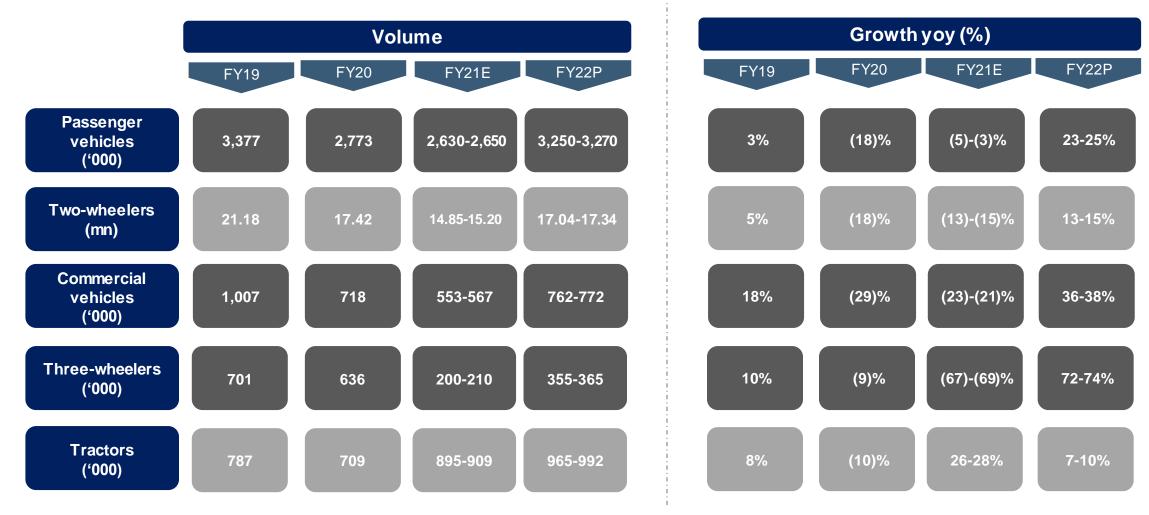


Assumptions for forecast

- Pandemic situation to improve; economic activities to revive further going forward; no expectations of a second wave of COVID19 or any new virus
- Positive sentiment on account of vaccine launch to help in demand momentum; however, efficacy of vaccine will be a key monitorable.
- •
- Schools, colleges and workplaces to resume in the later part of H1 fiscal 2022.
- No major announcement expected in **Budget 2021** related to automobile industry
- Gradual improvement in economic parameters globally.
- People starting to live with the pandemic and unlocking happening in the real sense in urban as well as rural centres.
- Normal monsoon in 2021
- Crude oil prices are expected to average \$50-55 per barrel in fiscal 2022
- Gradual, recovery in loan disbursals almost back to pre-Covid levels.
- Consistent support from government and RBI going forward too
- Consumption to lead recovery, private investment scenario to remain subdued; government to slowly gradually revive capital investments



Annual Forecast - Domestic



SOURCE: SIAM, CRISIL Research

Research

CRISIL

Quarterly forecasts – Domestic

Vehicle	Subsegment		Volu	ume			YoY gro	owth(%)	
segment	oubsegnent	Q4 FY 21	Q1 FY 22	Q2 FY 22	Q3 FY 22	Q4 FY 21	Q1 FY 22	Q2 FY 22	Q3 FY 22
_	Cars ('000)	505-515	455-465	470-480	455-465	24-26	470-475	16-18	(12)-(10)
Passenger vehicles	UVs & vans ('000)	380-390	340-350	350-360	345-355	52-54	367-369	23-25	(10)-(8)
	PVs ('000)	890-910	800-820	820-840	800-820	36-38	420-430	19-21	(11)-(9)
	Motorcycles (mn)	2.73-2.78	2.75-2.76	2.86-2.92	2.77-2.84	21-23	205-207	(9)-(7)	(12)-(10)
Two-wheelers	Scooters (mn)	1.29-1.31	1.30-1.31	1.41-1.44	1.29-1.31	17-19	283-285	5-7	(9)-(7)
	Mopeds ('000)	202-205	178-179	194-197	179-183	43-45	231-233	(2)-0	(15)-(13)
	2W (mn)	4.23-4.30	4.22-4.25	4.47-4.56	4.24-4.34	21-23	227-229	(5)-(3)	(11)-(9)
	SCV ('000)	127.5-130.7	99.5-101.6	119-122	129.3-131.8	57-61	295-303	21-24	1-3
	ULCV ('000)	11.7-11.9	8.8-9.0	10.8-11.0	11.2-11.5	65-68	698-715	59-63	5-7
Commercial vehicles	MHCV ('000)	60.9-61.9	42.5-43.4	48.9-49.9	53.5-54.5	61-64	913-933	105-109	8-10
Venicies	Buses ('000)	5.8-6.3	6.1-6.3	6.8-6.9	8.2-8.3	(72)-(70)	474-476	55-57	82-84
	CVs ('000)	207-210	164.5-165.1	188.2-190.9	202.3-206.2	41-43	414-416	41-43	5-7
Tracto	ors ('000)	240-243	258-261	227-232	245-250	64-66	56-58	(4)-(2)	(5)-(3)
			200 201		210 200			(+) (+)	
	Goods ('000)	29-29.5	26.9-27.4	29.2-29.7	25.8-26.3	18-20	367-369	48-50	(11)-(9)
Three-wheelers	Passenger ('000)	44.9-45.4	48.5-49	58.2-58.7	65.7-66.2	(58)-(56)	605-607	123-125	50-52
	3W ('000)	74.3-74.8	75.7-76.2	87.8-88.3	91.7-92.2	(44)-(42)	496-498	91-93	25-27

SOURCE: SIAM, CRISIL Research



Annual forecasts – Exports

Vehicle	Subsegment		Vol	ume			YoY gro	owth(%)	
segment	oubsegment	FY 19	FY 20	FY 21E	FY22P	FY 19	FY 20	FY 21E	FY22P
_	Cars ('000)	514	491	281-297	457-469	(11)	(5)	(43)-(39)	58-62
Passenger vehicles	UVs & vans ('000)	162	186	158-170	190-197	(4)	15	(15)-(9)	16-20
	PVs ('000)	676	677	438-467	647-666	(10)	0	(35)-(31)	43-47
	Motorcycles (mn)	2.87	3.14	2.95-3.04	3.29-3.44	15	9	(6)-(3)	10-15
Two-wheelers	Scooters (mn)	0.40	0.37	0.23-0.24	0.31-0.32	27	(7)	(37)-(35)	30-35
	Mopeds ('000)	17	14	10.71-11.34	14.54-14.87	(4)	(17)	(23)-(18)	32-35
	2W (mn)	3.28	3.52	3.19-3.29	3.62-3.78	17	7	(9)-(6)	12-17
	LCV ('000)	47.2	33.9	30.4-31.6	46.5-47.8	(3)	(28)	(10)-(7)	50-54
Commercial	MHCV ('000)	40.4	14.9	11.9-12.9	20.9-21.4	27	(63)	(20)-(13)	68-72
vehicles	Buses ('000)	12.4	11.9	5.8-6.2	12.4-12.7	(24)	(3)	(52)-(48)	108-112
	CVs ('000)	99.9	60.7	48.0-50.7	79.8-81.8	3	(39)	(21)-(16)	62-66
Tracto	ors ('000)	92	76	80-84	87-91	7	(17)	6-11	6-10
	· · /	I							I
	Goods ('000)	6.2	6.3	4.8-5.1	6.1-6.3	47	2	(25)-(20)	23-27
Three-wheelers	Passenger ('000)	561.5	495.9	385.1-402.7	488.8-504.6	49	(12)	(22)-(19)	24-28
	3W ('000)	567.7	502.2	389.9-407.8	494.9-510.8	49	(12)	(22)-(19)	24-28
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SOURCE: SIAM, CRISIL Research

Passenger vehicles

Research

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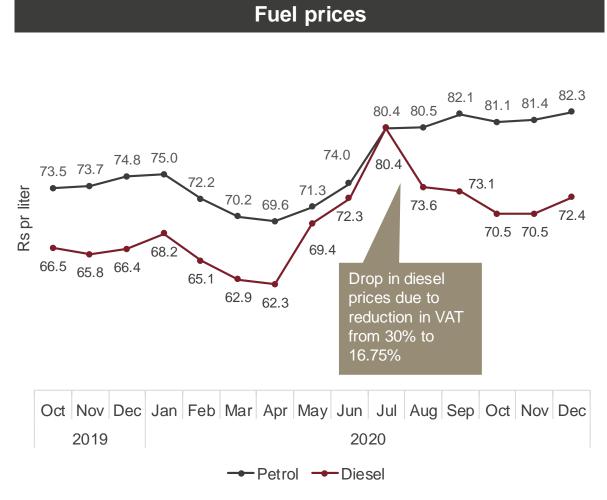
High festive demand, sustained demand post festive season to restrict the drop in FY21; Momentum expected to continue in FY22

Variables	FY18	FY19	FY20	FY21E	FY22P
Income for discretionary spending	F	F	NF	NF	F
Variables	FY18	FY19	FY20	FY21 E	FY22 E
Cost of ownership	F	NF	N	N	N
Petrol / CNG Vehicles	F	NF	N	N	N
Diesel vehicles	F	NF	N	NF	N
Interest rates	F	N	N	F	N
Variables	FY18	FY19	FY20	FY21 E	FY22 E
New model/ facelift launches	N	NF	F	N	F
Regulations – passenger vehicles	F	N	NF	N	N
Impact on Overall Sales Growth	F	N	NF	NF	F

E: Estimates P: Projected SOURCE: Industry, CRISIL Research



More launches in the UV segment to aid its faster growth



Note: Fuel prices in Delhi region Source: Industry, CRISIL Research

Major upcoming launches Company Model Segment Swift 2021 facelift Small Car Maruti Suzuki Small Car XL 5 C5 UV Citroen UV XUV 500 facelift Mahindra Scorpio facelift UV **TUV3OO** facelift UV Small Car HBX Tata Safari UV Hyundai Sonata facelift Large Car MG UV Hector facelift

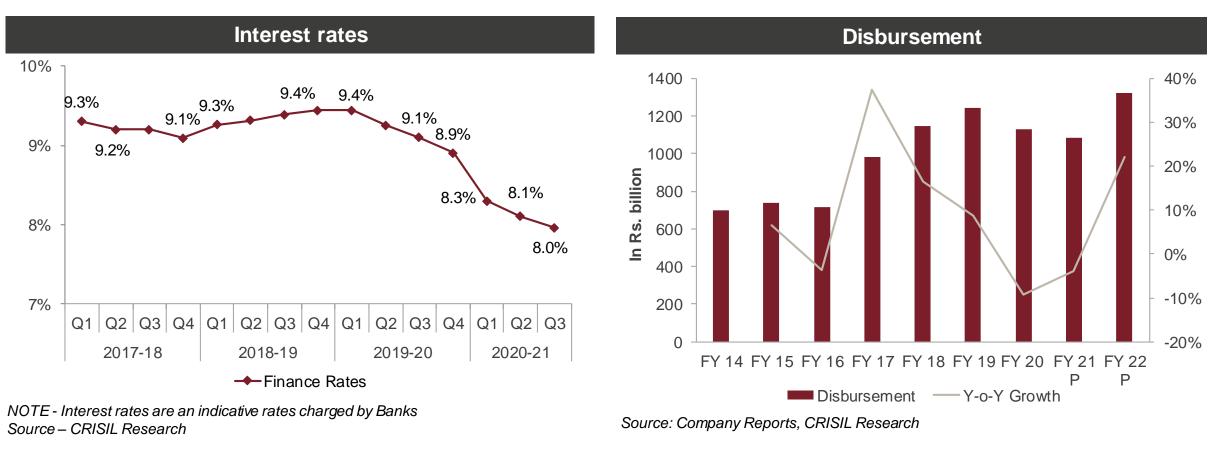
· Higher focus on the upgraded version of popular models

· Petrol prices are at record high

Source: Industry, CRISIL Research



After a 2 year consecutive drop, disbursements to bounce back & reach fiscal 2018 levels next year

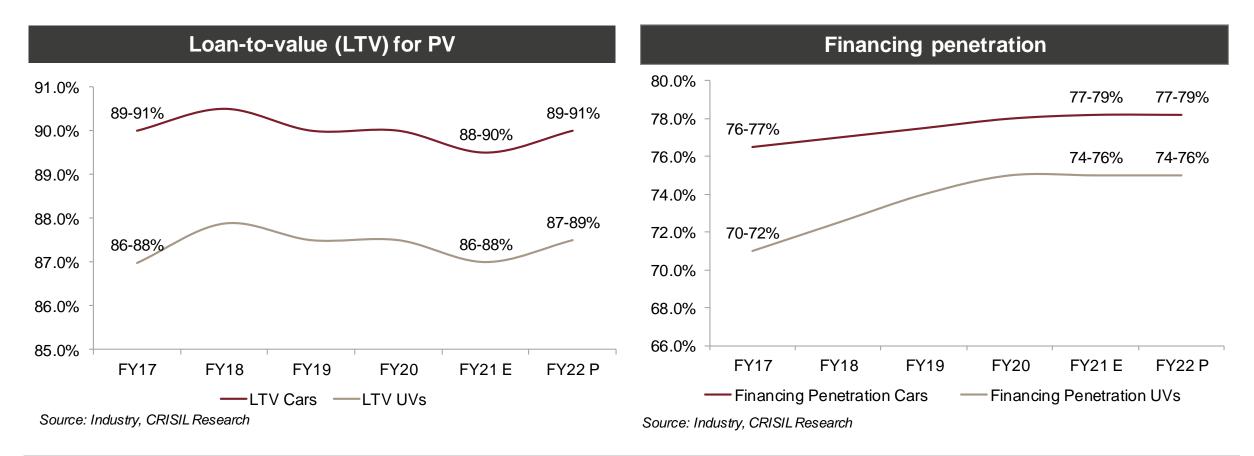


 Higher reduction in interest rates (~70-90 bps) have been witnessed in PVs segment as income sentiments have not been as severely impacted for the buyer segment of these vehicles as compared to other vehicle segments

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- However, continued y-o-y drop in underlying vehicle demand will exert pressure on disbursement levels in fiscal 2021
- In fiscal 2022, supported by the estimated pick up (23-25%) in PV demand, disbursements are also expected to register a healthy growth on a lower base

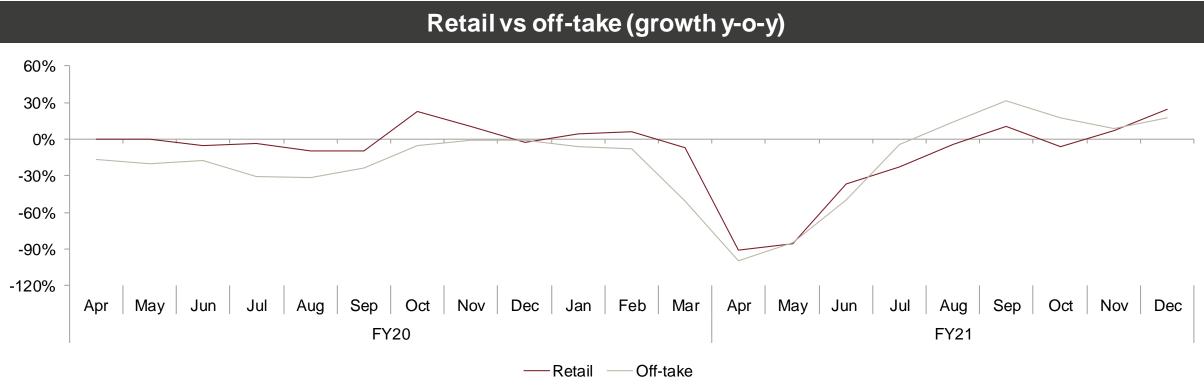
Lower impact on PV portfolio given negligible share of loans under moratorium as well as low income uncertainty



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- Only limited impact PV financial parameters during fiscal 21, given the negligible share of loans under moratorium as well as low income uncertainty
- 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

Retail sales continue their momentum after festive season; supply constraints restrain offtake growth



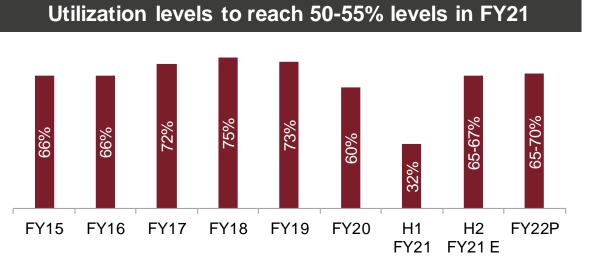
Source – MoRTH, SIAM, CRISIL Research

After a sharp drop in Q1 FY21 amidst lockdown, retails as well as off take sales bounced back in the next two quarters and posted really healthy 24% (retail) & 17% (off take) growth in December

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- Industry is facing a severe shortage of microprocessors impacting the vehicle supply.
- Dealer inventory levels have nearly halved and waiting period for popular models like Creta, Ertiga have reached to 10-12 week levels
- This supply crunch has restricted the growth in offtake as well as retails sales

~65% utilization in H2 to pull annual utilization to above 50% levels in FY21, high utilization levels expected to continue in FY22 as well



Source: CRISIL Research Estimated

Upcoming projects										
Player	Location	Capacity lacs units pa	Investment	Status						
Suzuki	Hansalpur, Gujarat	7.5	Rs 185 B	Construction completed in Nov 2020, production to begin by April 2021						
PSA	Chennai, TN	1	Rs 7 B	Production planned from 2021						

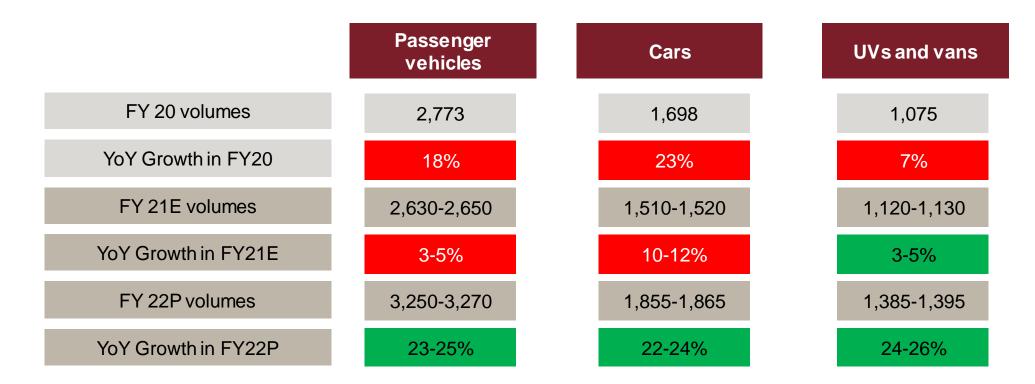
Source: Industry, CRISIL Research **Research**

	Player-wise capacity utilisation											
Player	Effective Capacity (in '000) (on 31st Mar 2020)	Production (FY21) (in '000) (Apr- Dec)	Capacity utilization in FY21 (Apr-Dec)	Capacity utilization in FY21 (Q2+Q3)								
Maruti	2,050	918	60%	84%								
Hyundai	763	381	67%	92%								
Tata Motors	564	131	31%	46%								
Ford India	440	65	21%	27%								
Renault-Nissan	480	81	23%	33%								
General Motors	165	28	23%	30%								
Toyota	310	30	13%	17%								
Honda	300	56	25%	36%								
Volkswagen	179	40	30%	36%								
Kia Motors	300	131	58%	79%								
Industry Total	5,745	2,006	43%	62%								

Source: SIAM, CRISIL Research



Domestic – annual forecast



NOTE: Volumes in thousand units, numbers in red boxes indicate y-o-y de-growth, numbers in green boxes represent y-o-y growth

Source – SIAM, CRISIL Research



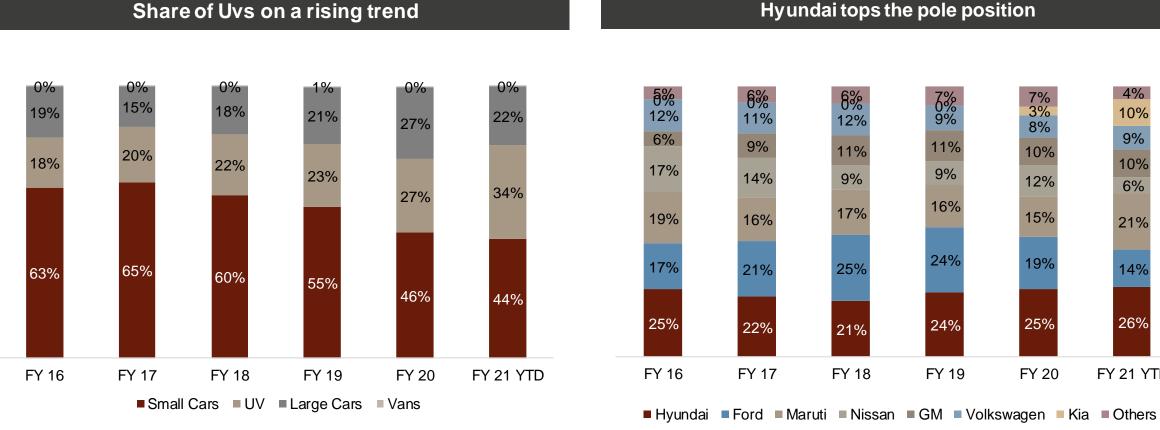
Domestic – quarterly forecast

Perio	A	Passenge	er vehicles	Ca	ars	UVs and vans		
Perio	Vol		YoY Growth	Volume ('000)	YoY Growth	Volume ('000)	YoY Growth	
FY20	Q4	655	(22)%	404	(23)%	251	(21)%	
	Q1	154	(78)%	80	(82)%	74	(72)%	
	Q2	692	12%	404	9%	288	15%	
FY21E	Q3	897	14%	516	8%	381	24%	
	Q4	890-910	36-38%	505-515	24-26%	380-390	52-54%	
	Q1	800-820	420-430%	455-465	470-475%	340-350	367-369%	
FY22P	Q2	820-840	19-21%	470-480	16-18%	350-360	23-25%	
	Q3	800-820	(11)-(9)%	455-465	(12)-(10)%	345-355	(10)-(8)%	

- Festive demand supported strong Q3 growth, retail/ off-take demand sustained in December as well
- Q4 expected to reach Q3 levels backed to expected inventory correction
- Continued need for personal mobility, improvement in economic scenario, continued traction for recent launches expected to back FY22 growth over the low base
- Early festive season expected to help register numbers in Q2
- Intermittent launches, competitively priced offerings, changing consumer preferences to assist UVs outperform industry growth



Export continues to decline compared to last fiscal



Hyundai tops the pole position

4%

10%

9%

10%

6%

21%

14%

26%

FY 21 YTD

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7% 3%

8%

10%

12%

15%

19%

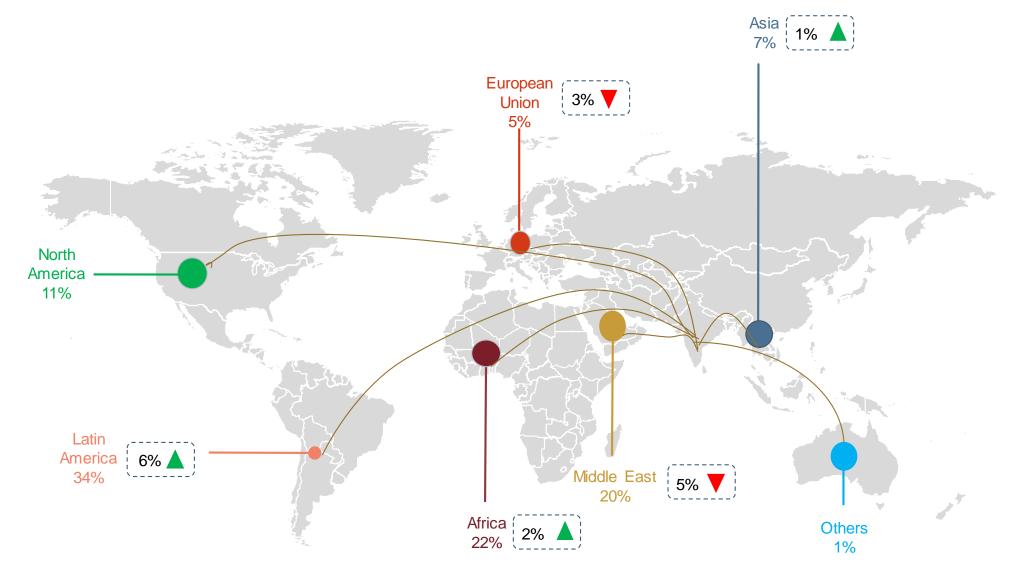
25%

FY 20

NOTE: YTD is Apr to Dec 2020 Source: SIAM. CRISIL Research

- Passenger vehicle exports registered a de-growth of 46% in in first three guarters of FY21.
- Among the top 10 major exporters, Maruti and Hyundai have recorded a positive growth on-year basis in Q3 of FY21.
- Few players faced serious supply constraints due to the unavailability of semiconductors, container and steel leading to glitch in the assembly line.
- Focus of the OEMs to serve domestic market first has also led to dent in exports. Exports to production ration has moved from 20% in FY20 to 14% in FY21 till date.

Passenger Vehicle Exports



- Exports to pandemic hit European nations has de-grown.
- LATAM and Africa has aided the exports.

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- Exports to North America remains stable. However, supply constraints led to low exports.
- Second wave of covid and fresh lockdowns in the underlying importing nations will remain a key monitorable.
- Policies by the new US Government will be a key monitorable

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Stakeholder interactions

OEM

- Demand has been buoyant, however due to supply issues mainly for electronics, semi conductors, etc. has led to supply bottleneck.
- Supply constraint mainly due to geo-political and more than expected demand from other end use industries. It will take atleast another quarter to streamline this issue.
- RoDTEP scheme is expected to provide lower benefits as compared to MEIS scheme. However, PLI scheme is expected to provide some cushion to exports.
- Fiscal 22 is expected to see a robust growth in PV industry as the efficacy of the medicine will take time to be established
- SUV segment is the primary growth driver, majority of the model launches/ facelifts are in this segment.
- Announcement in budget to be a key monitorable

Dealer



After healthy retail during the festive season, demand sustained even post the festive season in December, retail demand up 24% y-o-y in Dec

- High traction for recently launched models like Sonet, Creta, Venue, Magnite
- Lower demand for large cars
- Share of first time buyers on the rise given the need for personal mobility
- Traction for pre owned cars on the rise as well however not enough pre owned cars available in the market
- Microprocessor unavailability has significantly impacted PV production
- Dealers across OEMs are facing severe supply crunch especially for popular models
- Dealer stock has reached all time low of 10-15 days by December 2020 end
- Very strong booking pipeline with most dealers

Financier

- High retail demand backed m-o-m gradual improvement in disbursement, although, for the complete year disbursements to register a drop
- Aggressive push from financiers, however financiers are very cautious while lending to some profiles
- Preference given to government employees, salaried class
- No change in LTV for good profiles, some restrictions for risky profiles
- Interest rates are range bound
- No sizeable increase in NPA levels



Two-wheeler

Research

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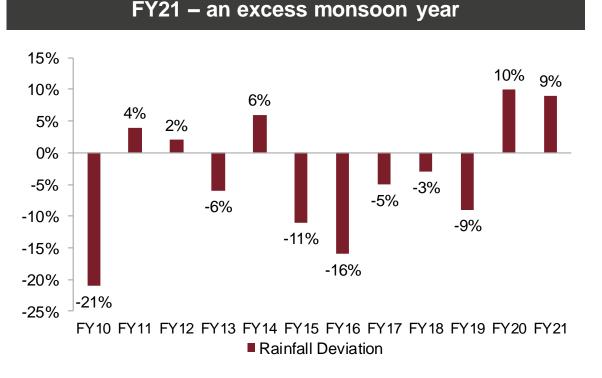
Normal monsoon, opening up of economy to drive twowheeler industry in FY22

Variables	FY 2018	FY 2019	FY 2020	FY 2021 E	FY 2022P
ncome for discretionary spending	F	F	NF	NF	F
Variables	FY 2018	FY 2019	FY 2020 E	FY 2021 F	FY 2022 E
Cost of ownership	F	NF	N	NF	Ν
Interest rates	F	N	Ν	F	N
Variables				FY 2021 F	FY 2022 E
Fuel injector vehicle				NF	Ν
E- Carburetor vehicle				N	Ν
Variables	FY 2018	FY 2019	FY 2020 E	FY 2021 F	FY 2022P
Regulations - 2 wheelers	F	NF	Ν	NF	Ν
Impact on Overall Sales Growth	F	N	NF	NF	N

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

E: Estimates P: Projected

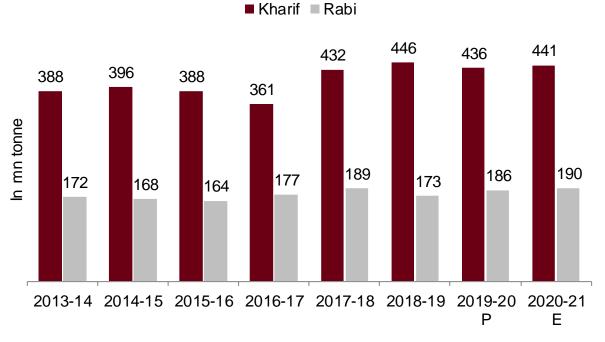
Better farm sentiment and government income support schemes keep rural sentiment buoyant



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

- Increase in total profit by 7-9% for the rabi and kharif crop expected to aid farm incomes
- High investment by farmers on agriculture activities amid absence of any other investment opportunities due to COVID-19 outbreak.
- Higher procurement through central and state government supports rural agri income.

Bumper kharif production; positive rural sentiments



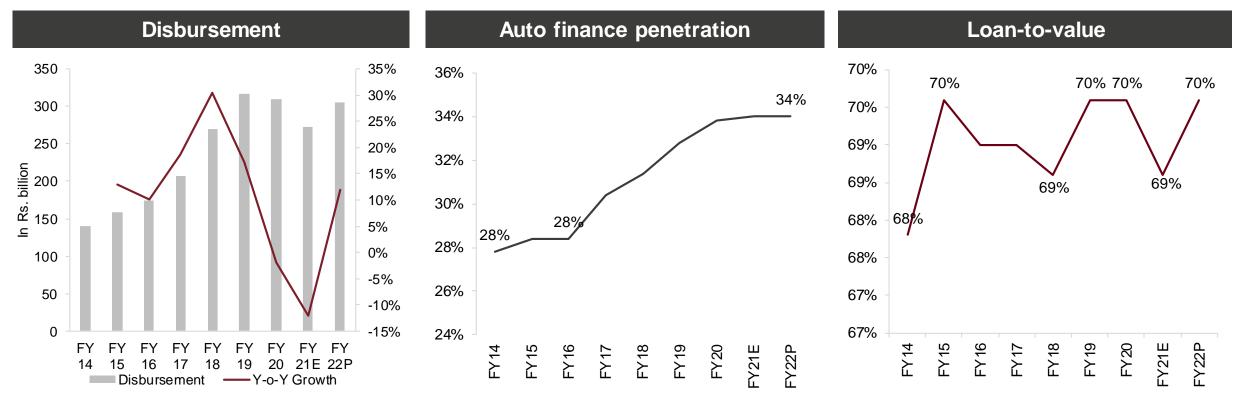
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Source: CRISIL Research

Research

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Two-wheeler financing in FY22 expected to bounce back to FY20 levels



Source: Experian Credit Bureau, Company Reports, CRISIL Research

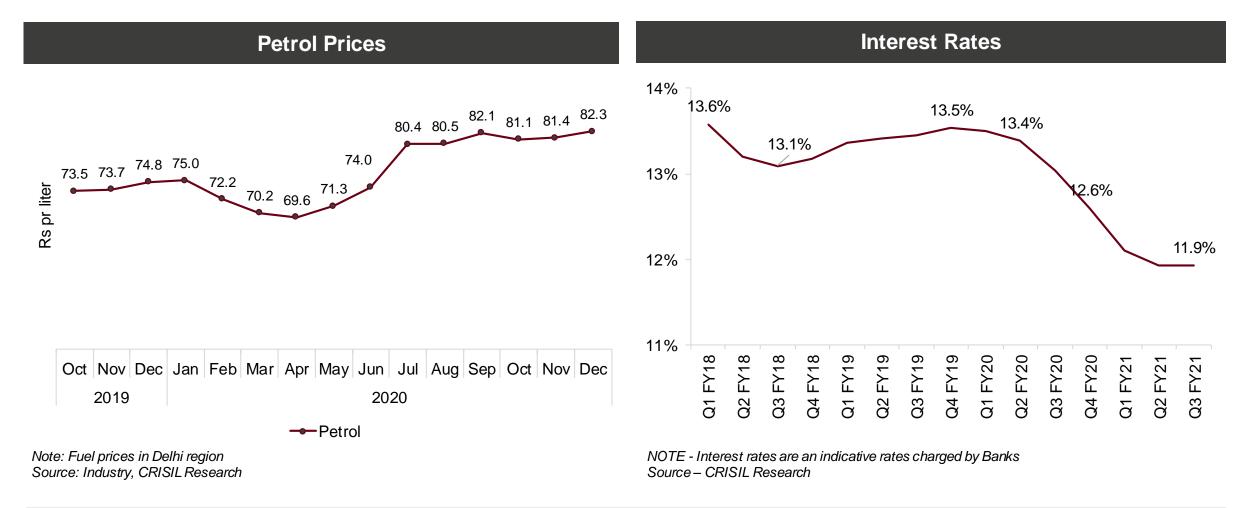
- Fiscal 2021 to see a sharp decline of 11-13% in disbursement due to more number of people in rural preferring cash payment (due to better cash availability in the hands of people) and financiers getting selective in lending. However, in FY22, financing scenario is expected to be back to pre-covid era.
- Loan-to-value (LTV) ratio will continue to be subdued as purchasing power of borrowers has taken a hit in the weakening economic environment, specially income loss to blue collar jobs and a hit taken by MSMEs.

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• Financing penetration is expected to remain range-bound

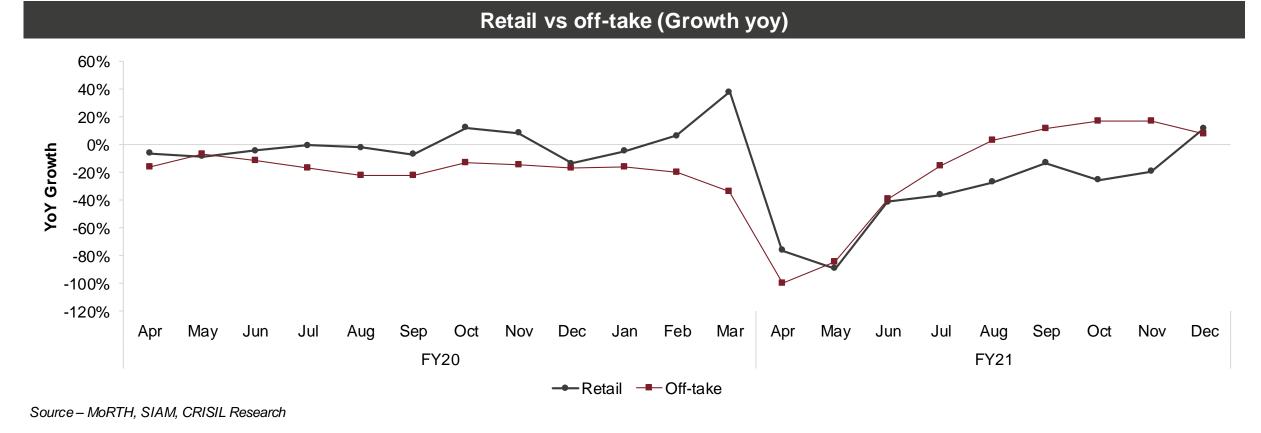
Hike in fuel prices; stabilisation of interest rates



- Petrol prices continues to rise due to increase in crude prices as economic optimism outweighed concerns over fresh virus scare in Europe and China
- Interest rates have been on a declining trend since June 2019, however, entire repo rate cut has not been passed to the consumer. Defaults in two-wheeler portfolio is high since majority of the customers are blue-collared workers who have lost jobs. Going forward, interest rate are not expected to stabilise.

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Off-take in positive zone for 5 consecutive months; retail registers a growth in Dec on a low base



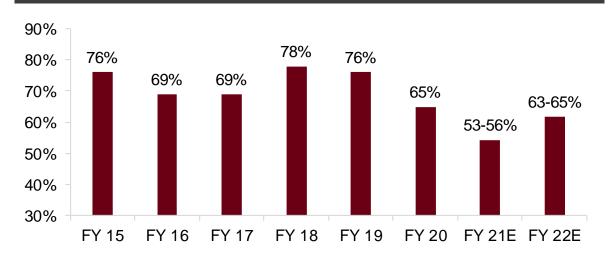
• Off-take has been in the positive trajectory since Aug 2020. Supply chains have normalized to great extend, however not yet completely. Festive built up led to inventory levels of 50-55 days with the two-wheeler dealers.

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- However, in Dec 2020, wholesale push from OEM was less to correct dealer inventory plus systematic plant closure in the last month of the year by various OEMs.
- Retails registered a positive growth for the first time in this year in Dec 2020, however in absolute volume terms lower than the festive sales

Capacity Utilisation in FY22 to be back to FY20 levels

Utilisation rates to jump to pre-covid levels



Expected capacity additions

Player	Location	Capacity million units	Investment (in crore)	Commissioning
Okinawa	Alwar, Rajasthan	1	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.

Motorcyc	cie tocussea p	biayersramp	ed up utilisati	onievei
Player	Effective Capacity* in mn (as on 31st Mar 2020)	Production (Apr-Dec) (in mn)	Capacity utilization (Apr-Dec) (%)	Capacity utilization (Q2 + Q3 FY21) (%)
Hero Motocorp	11.0	4.20	51%	67%
Bajaj Auto	5.4	2.56	63%	82%
HMSI	7.0	2.58	49%	71%
TVS Motor Company	4.5	2.03	60%	81%
India Yamaha Motors	1.6	0.49	41%	57%
Suzuki Motors	1.1	0.38	46%	65%
Royal Enfield	0.95	0.41	58%	77%
Piaggio Vehicles	0.3	0.05	23%	29%
Other Players	1.55	0.00	0%	0%
Industry Total	32.2	12.70	53%	71%

Motorcycle focussed players ramped up utilisation level

Note : * Estimate

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

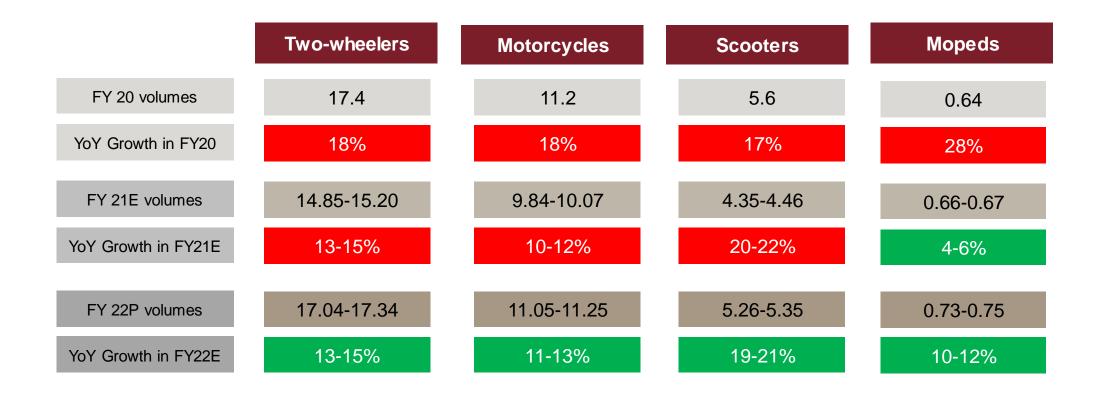


Research

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SOURCE: Industry, SIAM, CRISIL Research

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

		Two-w	heeler	Motorcycles		Scoo	oters	Мој	oeds
Perio	od	Volume (mn)	YoY Growth	Volume (mn)	YoY Growth	Volume (mn)	YoY Growth	Volume ('000)	YoY Growth
FY20	Q4	3.51	(25)%	2.26	(26)%	1.10	(20)%	144	(34)%
	Q1	1.29	(74)%	0.90	(73)%	0.34	(78)%	54	(68)%
FY21E	Q2	4.72	1%	3.15	8%	1.38	(16)%	197	20%
	Q3	4.78	13%	3.15	16%	1.42	5%	211	29%
	Q4	4.23-4.30	21-23%	2.73-2.78	21-23%	1.29-1.31	17-19%	202-205	43-45%
	Q1	4.22-4.25	227-229%	2.75-2.76	205-207%	1.30-1.31	283-285%	178-179	231-233%
FY22P	Q2	4.47-4.56	(5)-(3)%	2.86-2.92	(9)-(7)%	1.41-1.44	5-7%	194-197	(2)-0%
	Q3	4.24-4.34	(11)-(9)%	2.77-2.84	(12)-(10)%	1.29-1.31	(9)-(7)%	179-183	(15)-(13)%

Source – SIAM, CRISIL Research

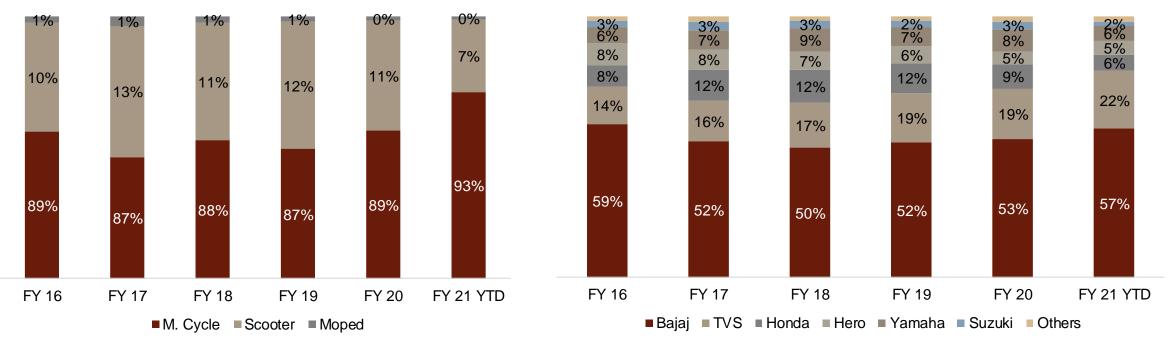
- Q3 of FY21 registered a growth of 13% driven by motorcycle and mopeds. Festive demand remained sluggish due to impact on incomes of blue collared jobs, however cash availability in rural region has aided the growth on motorcycle front.
- Marriage season for 2021 is from second half of March, this is expected to give push to motorcycle sale from Q1 of FY22. In FY22, we expect a normal monsoon aiding the motorcycle sales.

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- Scooters growth was at mere 5% in Q3 FY21 mainly due to urban centres still opening up, hence the demand being lower.
- We expect schools, colleges and workplaces to resume from Q1 of FY22 aiding to scooter demand from the first quarter of FY22.
- Demand for mopeds has been positive. We expect the similar momentum to continue in FY22 also.

Motorcycle exports at its record high

Share of motorcycle zooms up



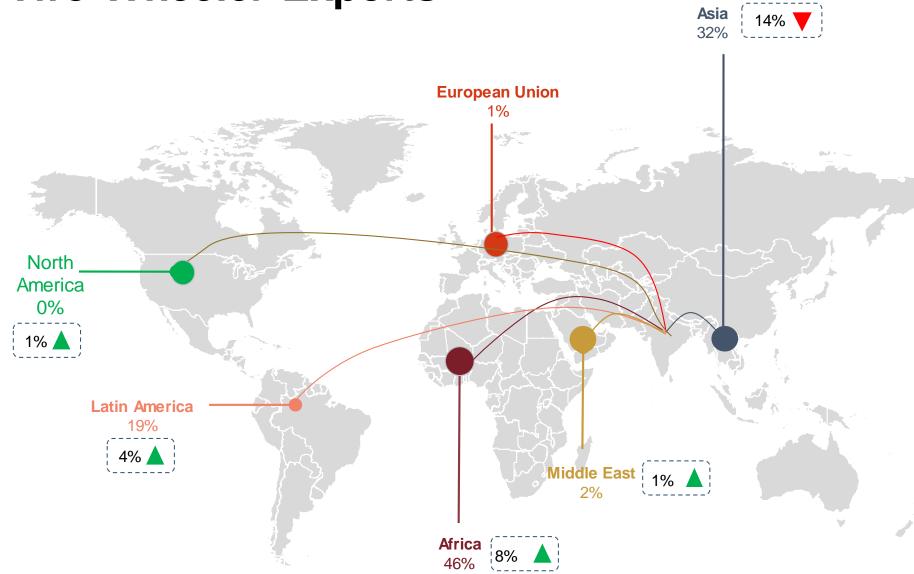
NOTE: YTD is Apr to Dec 2020 Source: SIAM, CRISIL Research

• In 9 months of FY2021, exports declined by 19% as compared to same period last year. However, in Q3, exports registered a growth of 20% led by growth of 22% in motorcycle and marginal de-growth in mopeds and scooter segment.

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- Bajaj recorded its all time high export volume in Q3, aided by demand from African continent.
- Scooters continue its de-growth, since demand from Asian market is still subdued.

Two-Wheeler Exports



 Lower spread of covid in African regions has proved beneficial for motorcycle exports.

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- Two-wheeler in LATAM is now used for personal commute due to social distancing requirement. Share of LATAM has increased in total pie of exports from India.
- Firming up of crude oil prices is expected to provide impetus to twowheeler exports.
- Srilanka, continues to ban imports of non-essential items.



Research

Note: : Represents volume data for FY20 exports, % in dotted boxes indicates change in market share from FY20 to Apr-Nov 2020 Source: DGFT, CRISIL Research

Stakeholder interactions

OEM

- Motorcycle demand in Q4 at best is expected to be similar to Q3 of FY21. Demand from marriage season is shifted to Q1 of FY22.
- Scooters in Q4 is expected to record a lower volume compared to Q3 of FY21 because of no clarity in opening up of school, colleges and other transit modes (specially in metros).
- Scooter to show recovery once education institutes and workplaces resume to normalcy. However, on low growth of last two years, scooters is expected to record a high double digit growth.
- Supply side constraints were faced for few models. However, the condition is not as grave as other vehicle segments like PV and CV.
- Price hike due to increase in raw material cost will remain a key monitorable
- Demand from **replacement buyer** is expected to culminate in FY22 due to postponement in purchase in FY21.

Dealer



- Festive demand was sluggish across the dealers.
- On motorcycle front, dealers expect better demand in Q4 of FY21 due to harvesting season and hence higher cash flow in the hands of the people.
- Enquiries have gone down, however the conversion rate has increased because of serious buyers visiting the dealerships.
- Inventory levels have come down due to lower billing in Dec 2020.
- Few models are facing supply issue, it is mainly due to people buying new year models, specially on premium two-wheeler side.
- Sale of second hand motorcycles have increased because of higher price difference between used BS IV vehicle and new BS VI vehicle.
- However, people do not prefer second hand scooter, since it is used by most of the family members to avoid inconvenience faced in case of breakdown.



Financier

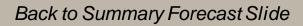
- Cash buying is seen mainly due to higher cash availability mainly in rural markets.
- Post the unlock phase, financiers were more stringent in lending, like reduction in LTV was seen. Now, the stringency is back to pre-Covid situation, however, higher emphasis is given to good **CIBIL** score.
- Few financiers have seen higher stringency in credit appraisal due to rising defaults. They have even started **repossessing** the vehicles and selling as second hand vehicles.
- Complete pass on of repo rate cuts is not seen due to two-wheeler portfolio being a riskier one. seen due to two-wheeler portfolio being a riskier one.



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Source - Industry, CRISIL Research

Commercial vehicles







Overview of end-use segments – cargo

FY 17	FY 18			ī		
		FY 19	FY 20	FY 21 P	FY 22 P	
3.0	3.0	7	1	(9)-(7)	12-14	
25	3	3	19	(21)-(19)	18-20	
3.1	8	9	1	(11)-(9)	12-14	Core Sectors
1.9	9	12	(2)	(5)-(3)	10-12	
7	8	9	11	11	11-12	
5.6	6.5	4.5	1-2	(7)-(5)	6-9	
6.9	14.8	5	(17)	(14)-(12)	14-16	
9.2	8	3	(18)	(4)-(6)	22-24	
6.6	5.8	7	5	(25)-(20)	30-35	Discretionary Products
22	35	35-37	23	10-15	20-25	
17	5	8	(3)	(35)-(30)	40-45	
	25 3.1 1.9 7 5.6 6.9 9.2 6.6 22	25 3 3.1 8 1.9 9 7 8 5.6 6.5 6.9 14.8 9.2 8 6.6 5.8 22 35	25 3 3 3.1 8 9 1.9 9 12 7 8 9 5.6 6.5 4.5 6.9 14.8 5 9.2 8 3 6.6 5.8 7 22 35 35-37	25 3 3 19 3.1 8 9 1 1.9 9 12 (2) 7 8 9 11 5.6 6.5 4.5 1-2 6.9 14.8 5 (17) 9.2 8 3 (18) 6.6 5.8 7 5 22 35 35-37 23	253319 $(21)-(19)$ 3.1 891 $(11)-(9)$ 1.9 912 (2) $(5)-(3)$ 7891111 5.6 6.5 4.5 $1-2$ $(7)-(5)$ 6.9 14.85 (17) $(14)-(12)$ 9.2 83 (18) $(4)-(6)$ 6.6 5.8 75 $(25)-(20)$ 22 35 $35-37$ 23 $10-15$	253319 $(21)-(19)$ 18-20 3.1 891 $(11)-(9)$ 12-14 1.9 912 (2) $(5)-(3)$ 10-12789111111-125.66.54.51-2 $(7)-(5)$ 6-96.914.85 (17) $(14)-(12)$ 14-169.283 (18) $(4)-(6)$ 22-246.65.875 $(25)-(20)$ 30-35223535-372310-1520-25

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

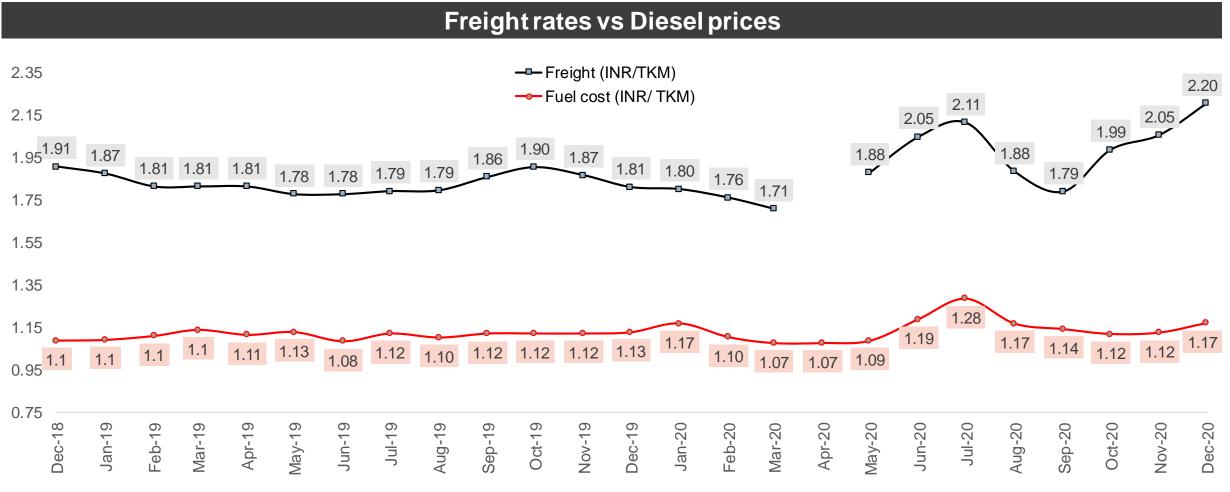
Overview of end-use segments

Segments (% growth Y-o-Y)							
	FY17	FY18	FY19	FY20	FY21E	FY22P	
Dairy (production)	5.8	6.7	6	(3)	7-9	6-8	Non - Discretionary Products
FMCG	5	8	12	5	0-1	13-15	
Pharmaceuticals (market size)	5	1	15	11	8-9	9-11	
Gross school enrollment							
K-12	77.5	74.3	73.2	73.5	73.8	74	Buses
Above K-12	22.6	22.6	23.2	23.7	24.3	24.9	
T employee base	4	3	4	4	(5)-(3)	2-4	
Air passenger traffic	16	16	11	(2)	(65)-(60)	70-75	
Hotel room demand	7	5	5	3	(55)-(50)	50-55	

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

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Freight rates and diesel prices seeing a peak after stabilizing in August



Source: Business Standard, PTI, CRISIL Research, IFTRT, AITWA

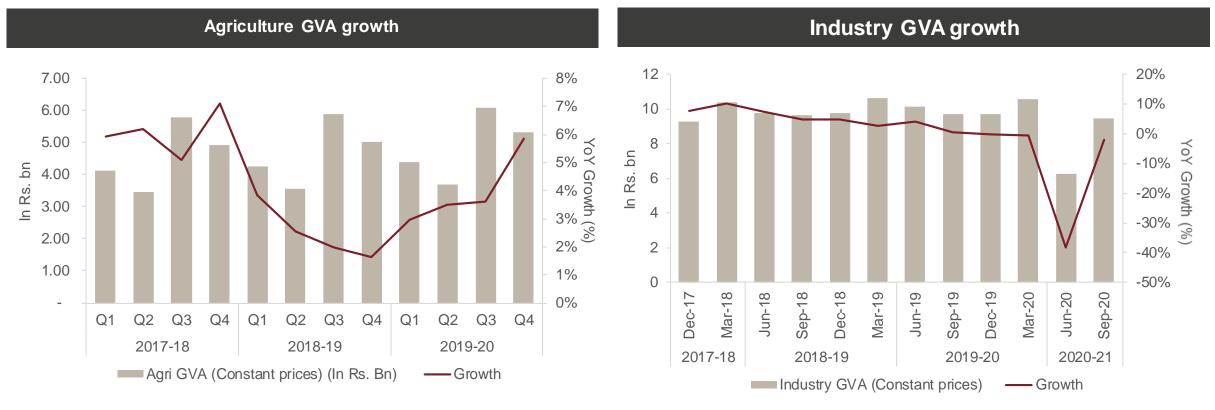
Note: (i) The estimated freight rate data is a representative of average freight rates from Delhi to 24 locations across India for a 9T payload truck

(ii) Indexed freight rates and diesel prices have been derived taking April 2014 values equaling 100

TKM is tonne per km



Festive built-up augmented well for Industrial GVA, normal monsoon to support sustained Agri GVA growth momentum in fiscal 2021



Source: MOSPI, CRISIL Research

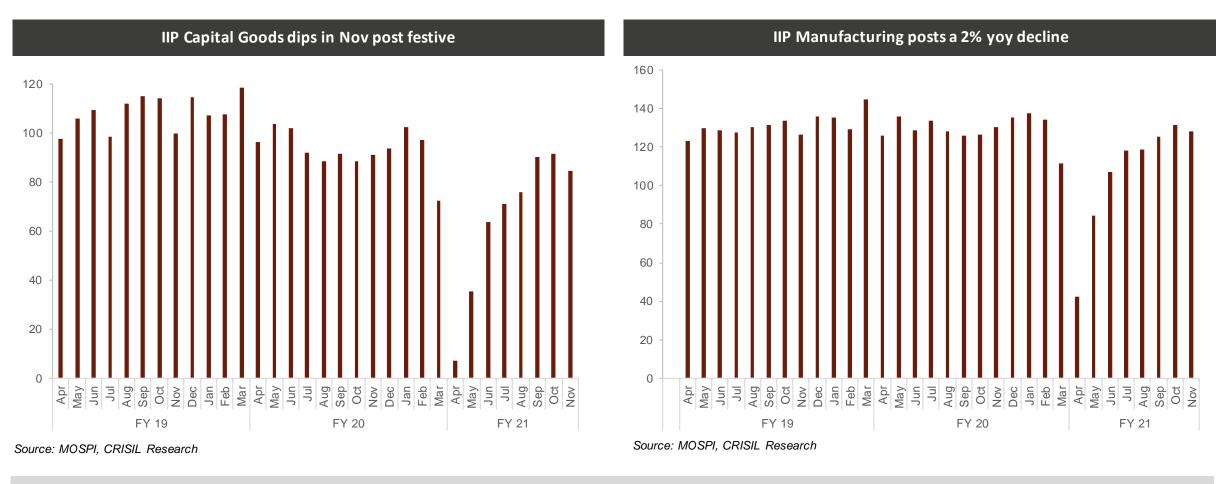
Source: MOSPI, CRISIL Research

- Agri GDP growth of Q2 FY2021 again grew at 3.4% on-year similar to Q1. It has been the best performing sector among the three broad categories.
- Consecutive good monsoons have help the agri sector remain relatively unscathed thus far. With good sowing, the upcoming rabi season as well as expectations of
 normal rainfall in FY22 will help the sector maintain its momentum in the upcoming fiscal as well.
- Industry GVA continued to contract in Q2 FY21 by a meagre 2.1% which was significantly better than Q1 decline of -38.1%





IIP contracts in Nov after two months of expansion



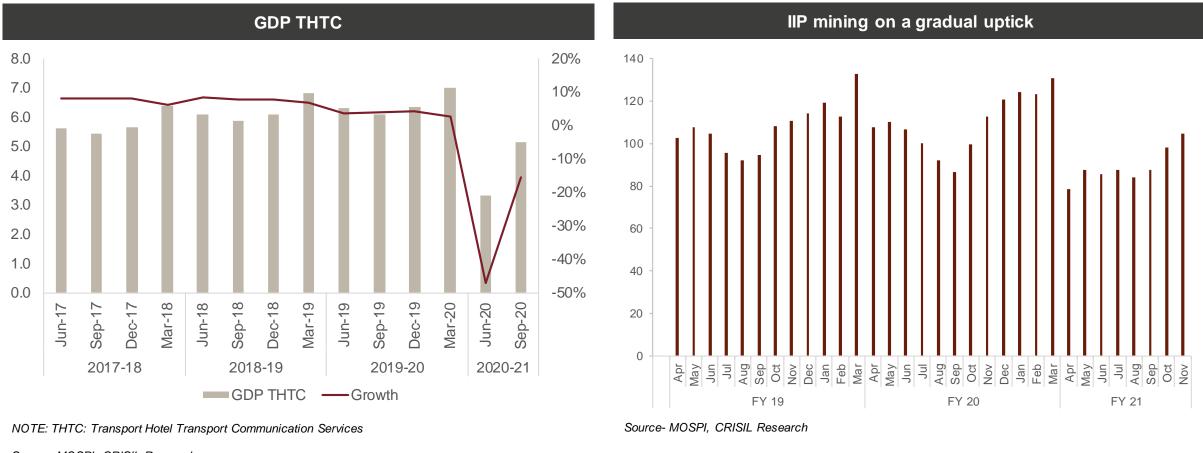
• IIP capital recorded a de-growth of 7% yoy in Nov 2020 on a moderate base of last year. Lower capacity utilisation because of subdued demand has kept its growth in negative territory.

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- IIP manufacturing has seen a marginal de-growth on a high base of last year.
- Gradually the manufacturing activities have resumed post the unlock phase initiative.

GDP THTC records a sequential growth

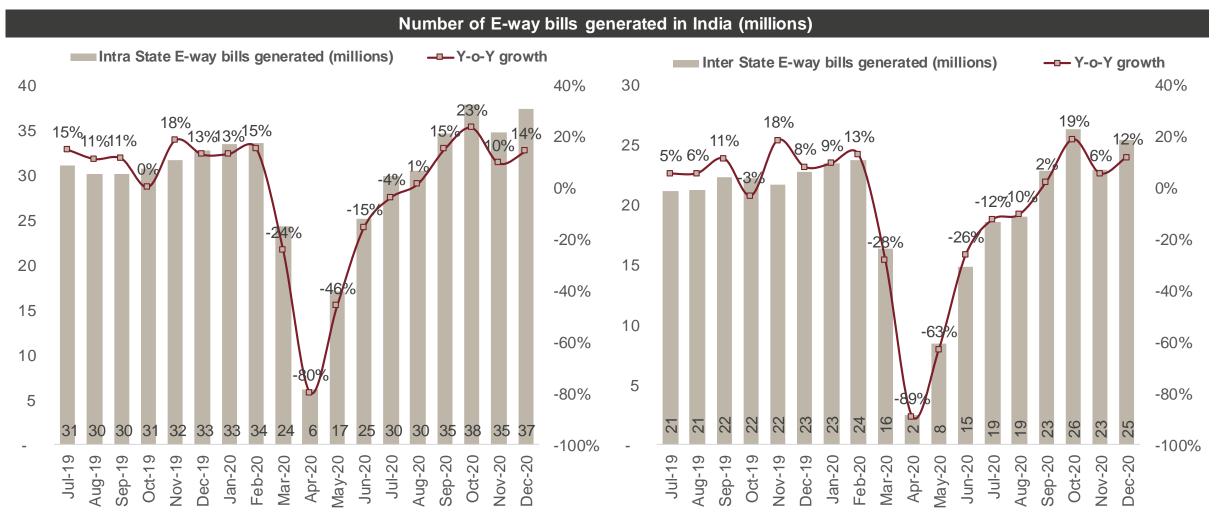


Source- MOSPI, CRISIL Research

- GDP THTC registered a steep de-growth of 17% in September quarter. For entire fiscal, this segment is expected to be affected due to fear of catching virus, which will continue to restrict movement.
- IIP mining has remained in a band since May 2020 onwards due to lower requirement from the end use segments like steel, cement, etc. It contracted by 7% in Nov 2020.

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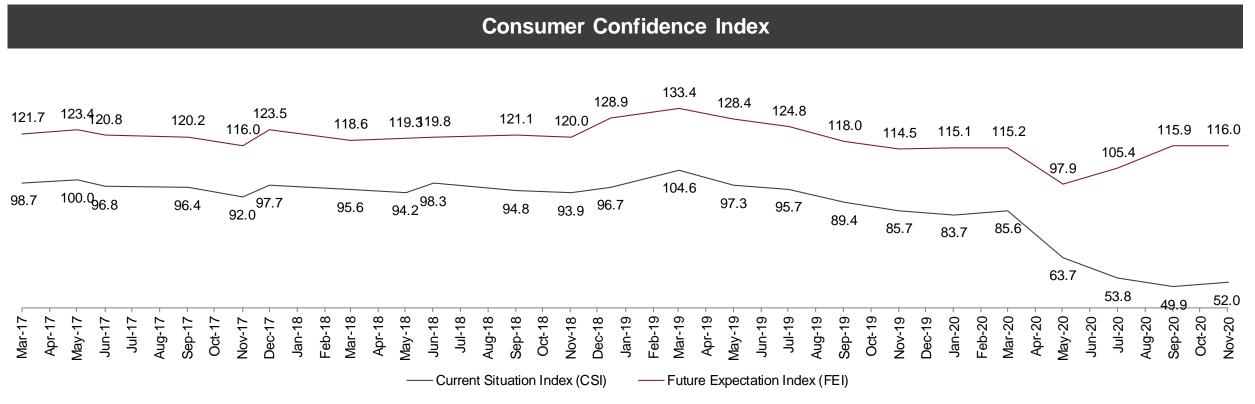
E-waybill growth back to double digit territory in December after seeing a small blip in November



Note: 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



Consumer confidence index on current situation shows marginal improvement



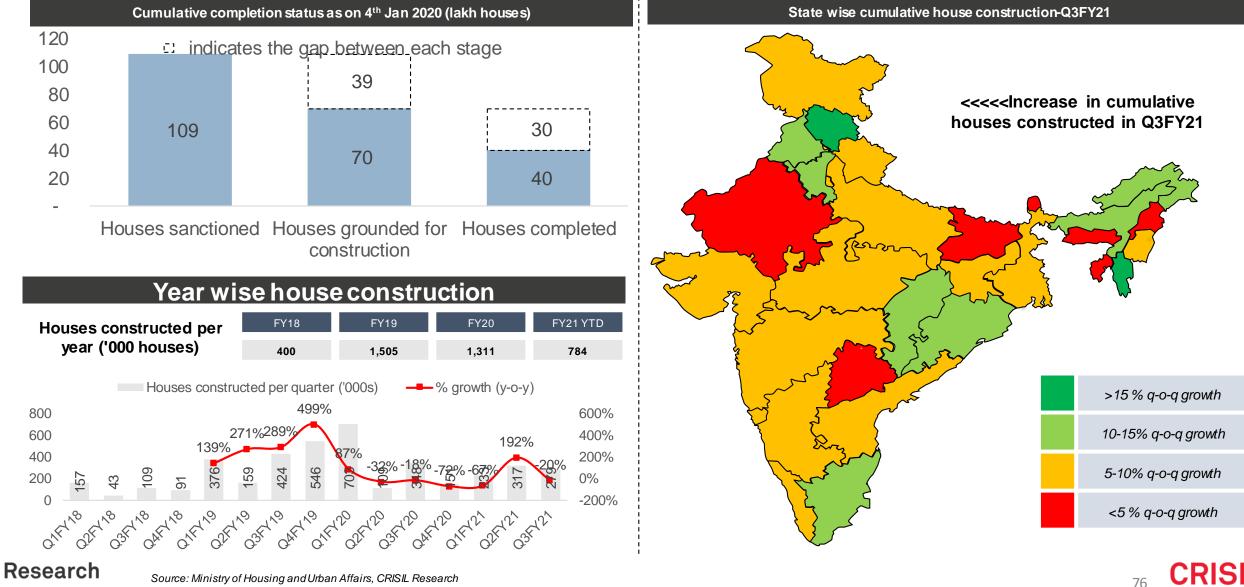
Source- RBI, CRISIL Research

 Consumer confidence remained very low in November 2020 when compared to a year ago, though it showed a marginal improvement over the all-time low recorded in the previous round

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- Households were, however, more confident for the year ahead: the future expectations index (FEI) improved for the third successive survey round.
- Consumers expect improvements in general economic situation, employment conditions and income scenario during the coming year

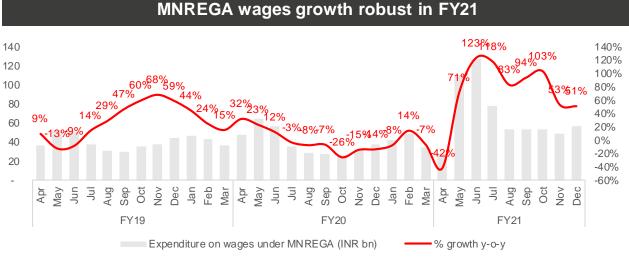
PMAY(Urban): Improving construction activity to help support demand marginally

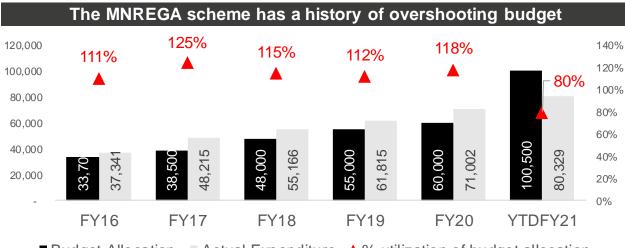


Source: Ministry of Housing and Urban Affairs, CRISIL Research

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In the first 9 months of MNREGA about 80% of budgeted funds expended yet

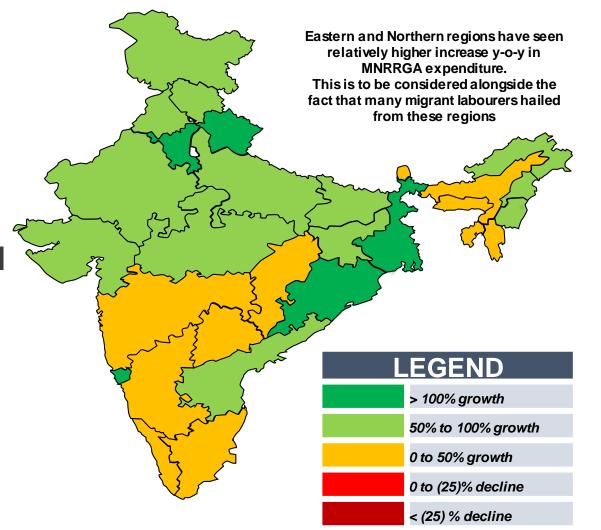




Budget Allocation Actual Expenditure A % utilization of budget allocation

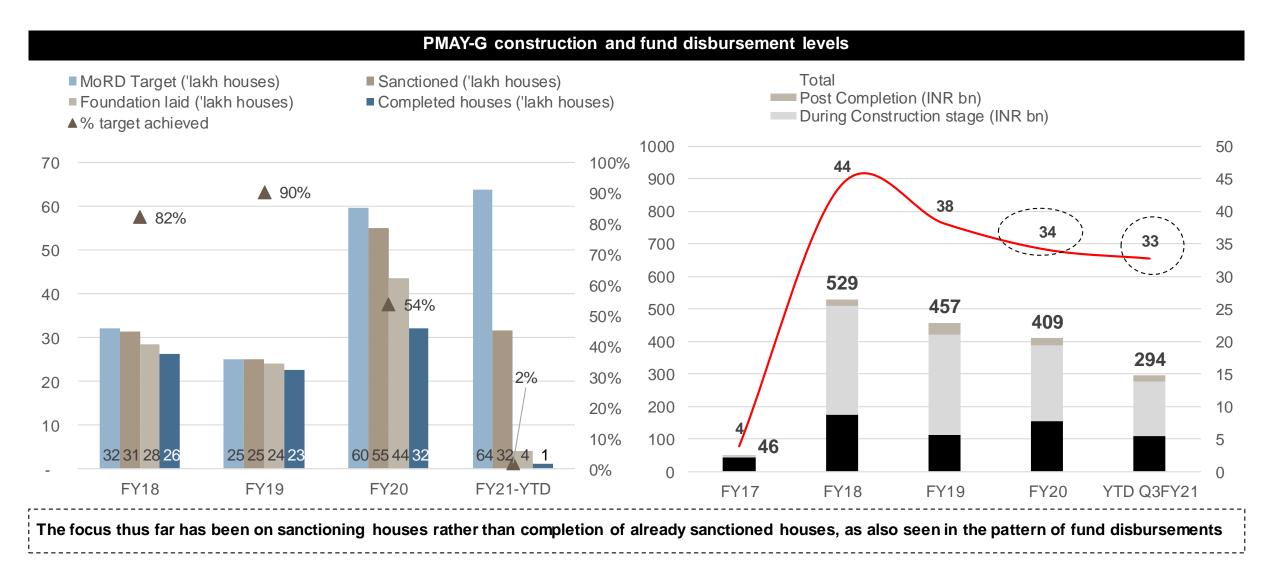


State wise growth in MNREGA wages expenditure for Apr-Dec FY21





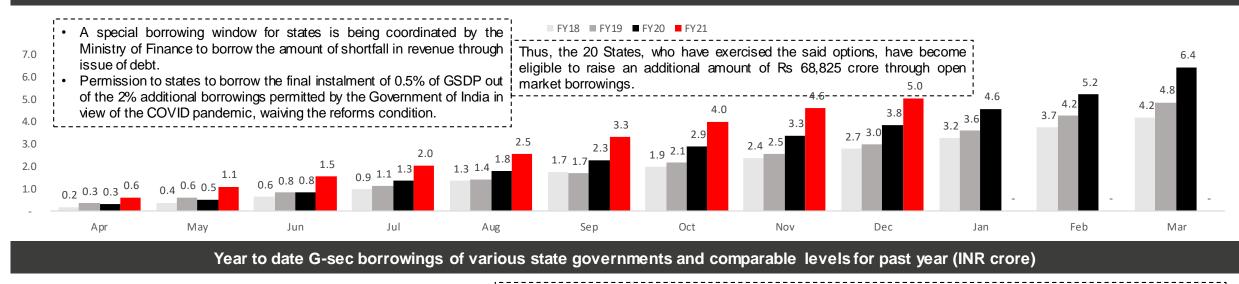
PMAY-G: Completion of houses could fall short second year in a row in FY21 as funding has not kept pace with the elevated targets in FY20 and FY21

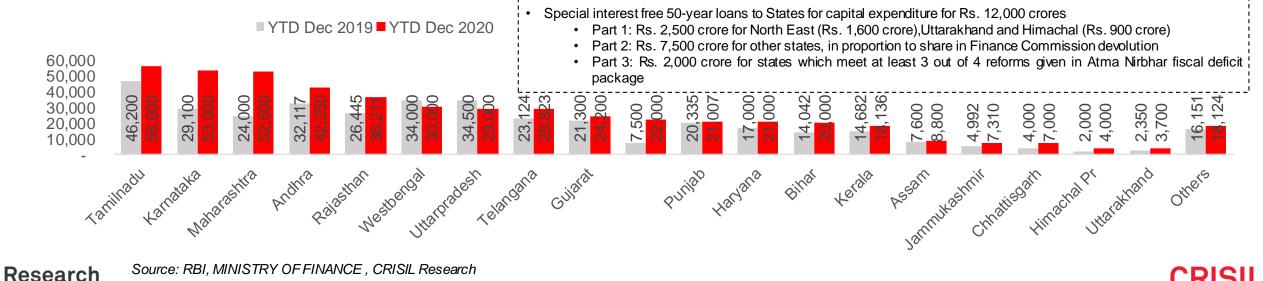




Along with centre, state governments too are borrowing higher than last year; Centre has approved further borrowing for states for Capex

m-o-m build-up of state government G-sec borrowings (INR trillion/INR lakh crore)

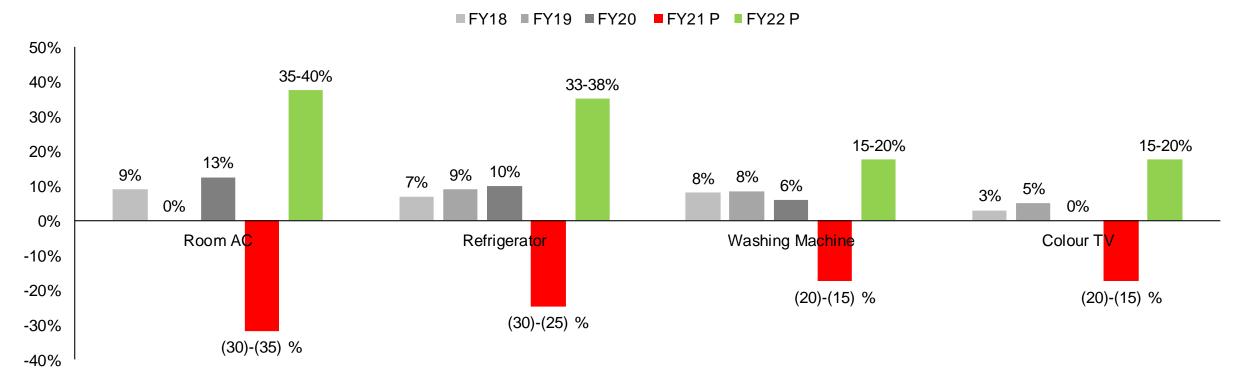






Overall consumer durable segment is expected to fall by ~20-25% in fiscal 2021, central government schemes may give a minor relief

Trend in annual volume growth across consumer durables and automobiles



Source: CRISIL Research

• Lost sales in the first quarter due to the lockdown for products such as Room AC may not return in this fiscal. Demand for household appliances such as washing machine, dish washer have increased in Q2

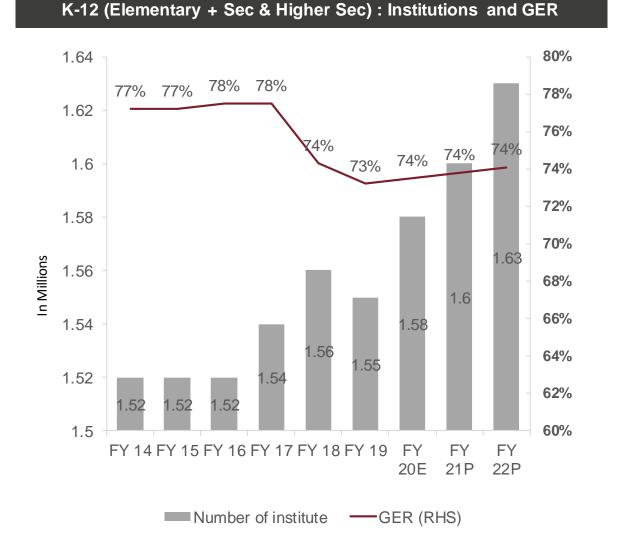
• Moreover income pressures will limit spending on other appliances such as television post lockdown as well

• The central government has launched 2 new schemes for public sector employees for encashment of leave travel coupons and festival advances, which may cause result in slight positivity

in consumer spending for goods in >12% GST slab . The government estimates these schemes to generate additional consumer spending of ~INR 36,000 crore

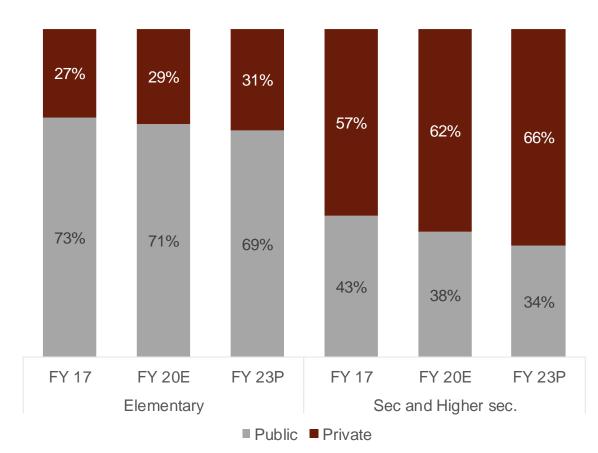


While school enrolment is resilient, online school concept expected to severely dent school bus demand



Research

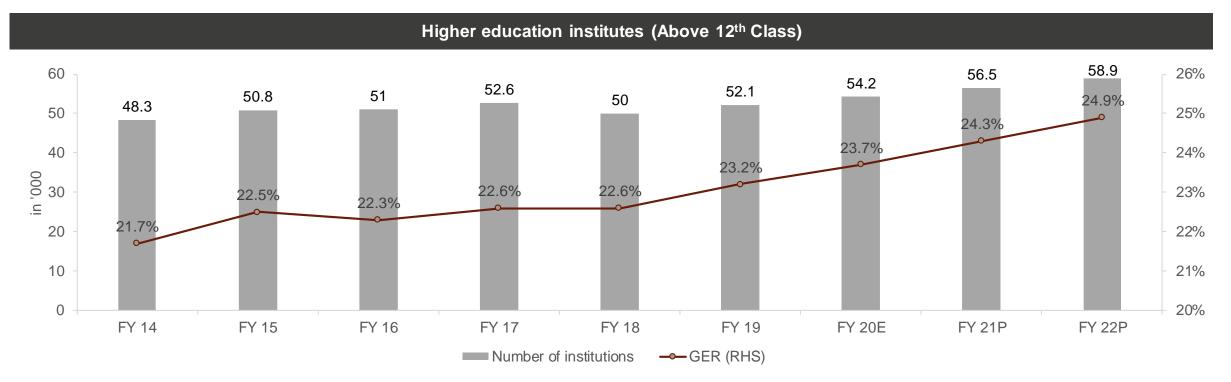
Private institute shaping up, share expected to increase further



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 unlikely to materialize in this fiscal year



Covid 19 has delayed graduation enrollments for Higher education due to postponement of exams

Both formal and non- formal segments have shifted to online mode and conducting the classes through online channels. Institutes are using online applications to conduct classes and exams. A combination of offline recorded videos and online lectures is used by most of the institutes.

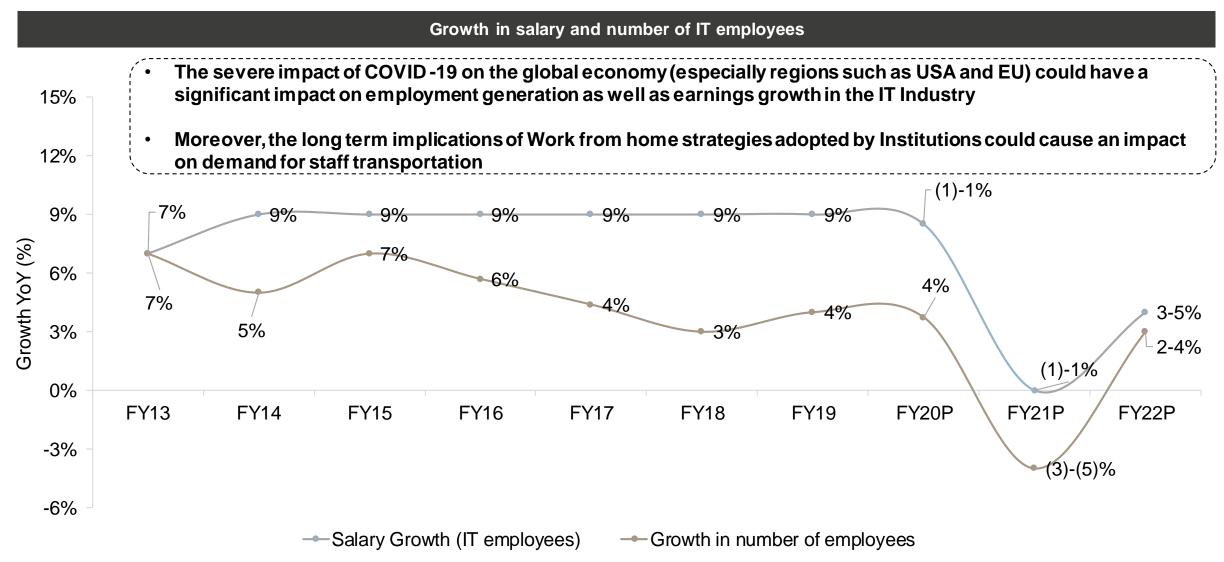
As a result demand for bus is expected to be non-material this fiscal

Research

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



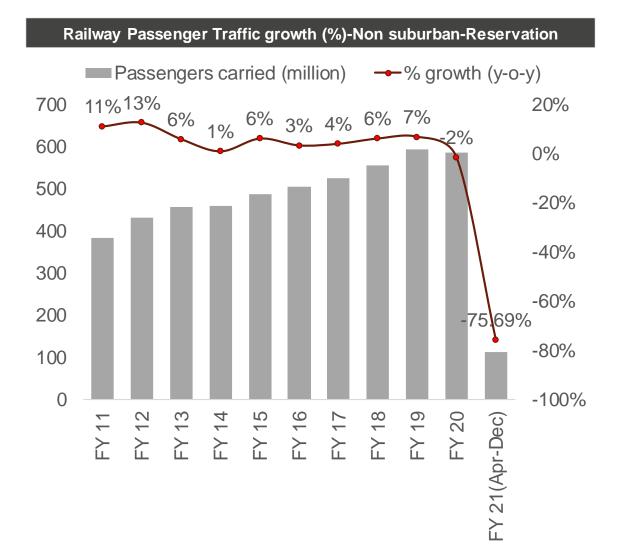
Employee base to contract in FY21; with non-linearity to limit medium term employee additions, salary growth to be flat in FY21

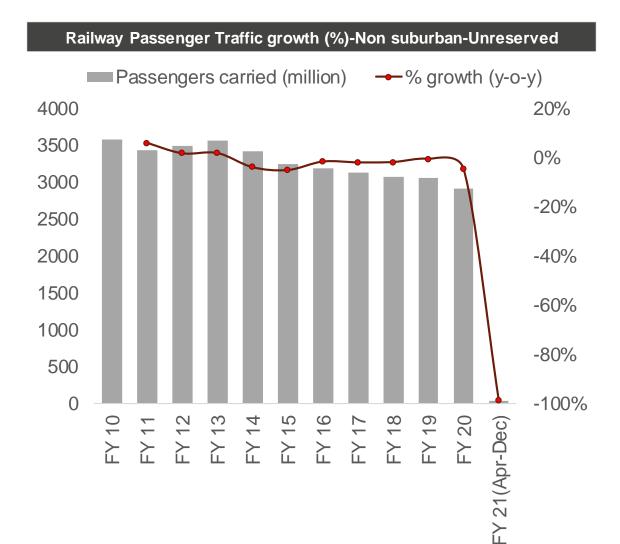


Research NOTE: Employee grow this summation of employees working for domestic and international clients based in India Source: National Association of Software and Services Companies (NASSCOM), CRISIL Research



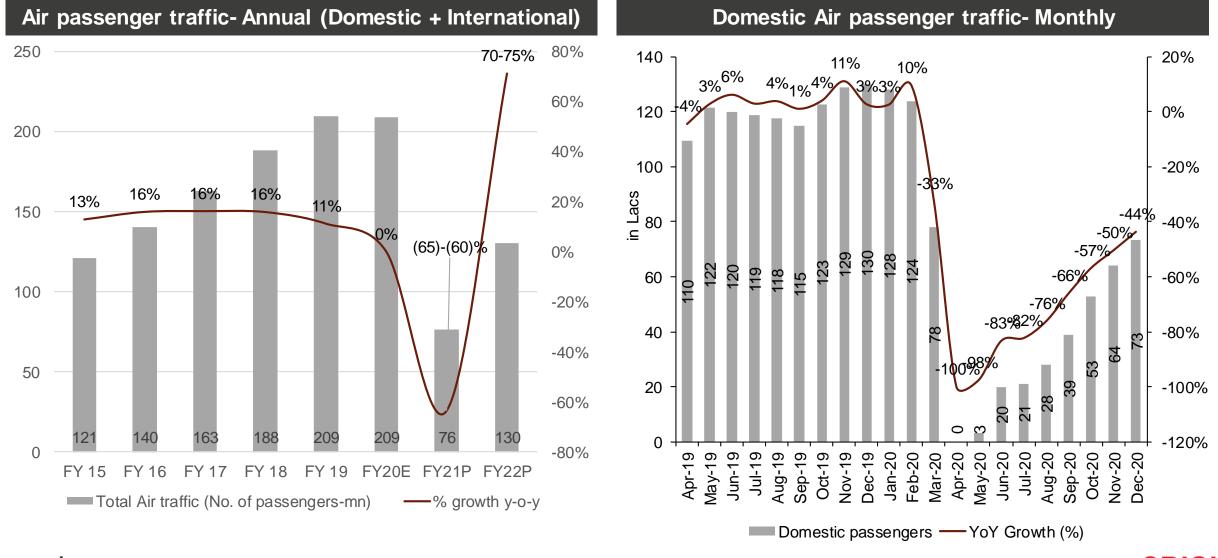
While railways was losing share to road and air based modes earlier, with the advent of COVID-19 passenger movement across modes to suffer







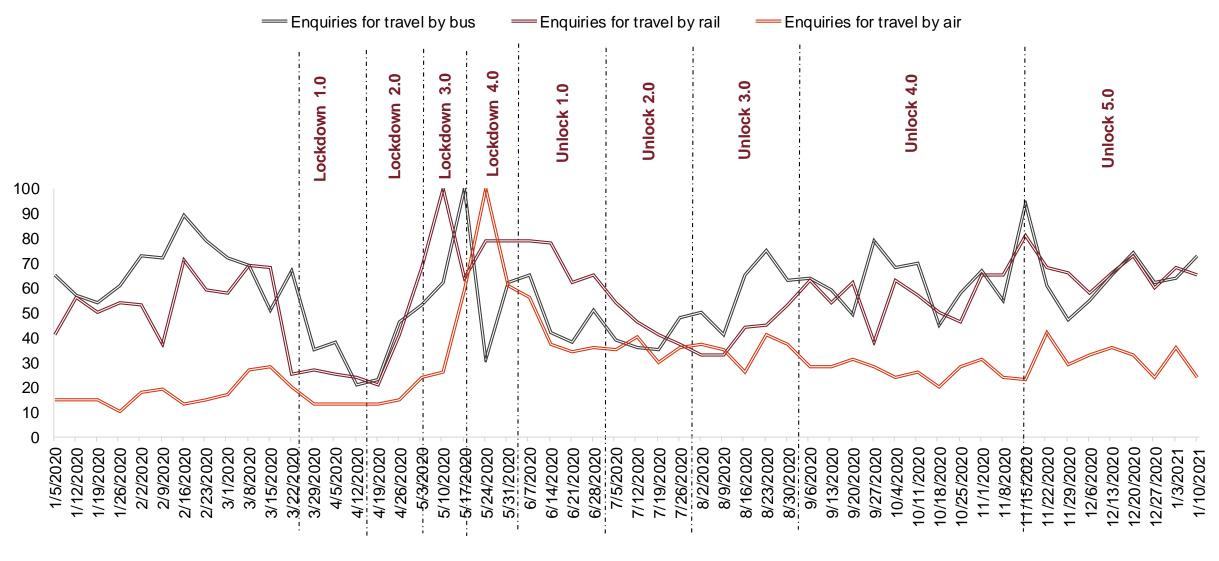
Air passenger traffic could erode by >= half in FY21 amid pessimistic travel sentiments as well as restrictions placed due to COVID-19



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

CRISIL

Demand for train & bus travel at pre-covid levels

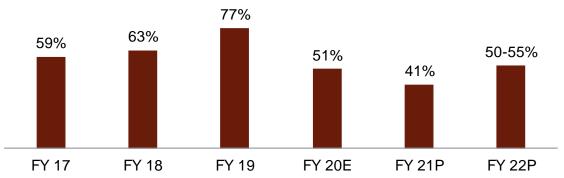


Source: CRISIL Research, Google analytics **Research**



Capacity utilisation on a downward trend

Decline in capacity utilization level



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

Capacity additions						
Player	Location	Capacity '000 units	Investment	Status		
Ashok Leyland Ltd.	Medak, Telangana	20	Rs 5 billion	Under implementation		
Ashok Leyland Ltd.	Alwar, Rajasthan	1	Rs 2 billion	Planning		
VECV Ltd.	ECV Ltd. Bhopal, MP		Rs 4 billion	Under implementation		
Volvo Buses India Pvt. Ltd.	Bengaluru, Karnataka	1.5	Rs 3 billion	Planning		
Sino Truck	Medak, Telangana	1.45	Rs 1 billion	Planning		

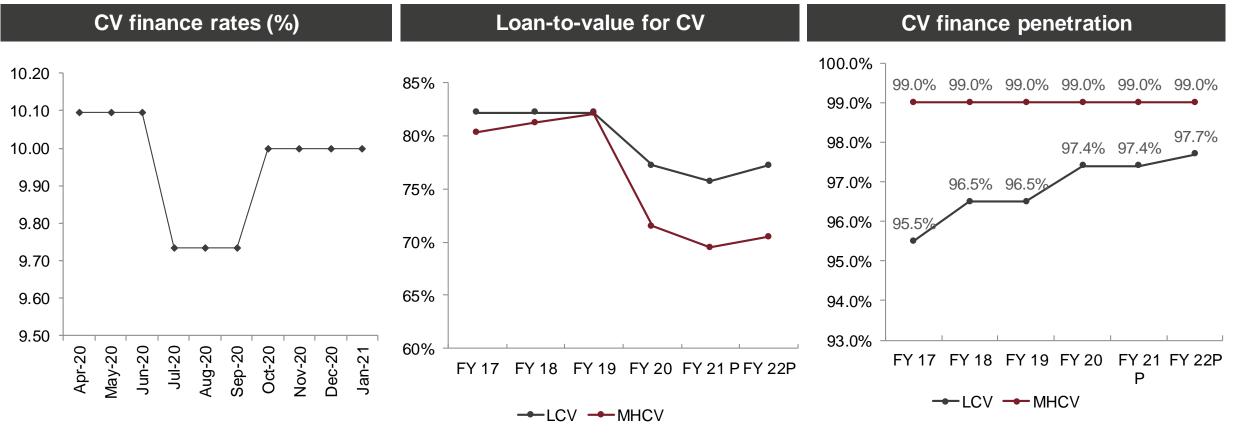
Player-wise capacity utilisation								
Player	Effective Capacity estimate (as on 31st Mar 2020)	Production (FY21) (in '000) (Apr- Dec)	Capacity utilization in FY21E (Apr-Dec)	Capacity utilization in FY21E (Q2+Q3 FY21)				
Ashok Leyland	2,22,300	58,682	35%	49%				
Eicher Motors	rs 97,500 23,105 32%		32%	43%				
Tata Motors	7,62,000	1,60,424	28%	39%				
Mahindra & Mahindra	2,92,000	1,14,918	52%	72%				

- The capacity utilisation of the top four players Tata Motors (standalone), Ashok Leyland, Volvo Eicher Commercial Vehicles (VECV), and Mahindra & Mahindra - which was at ~77% in fiscal 2019, is expected to have fallen to ~41% in fiscal 2021 but expected to show improvement in fiscal 22 and settle at ~50-55%
- OEMs had earlier anticipated demand to be muted in FY21 (owing to increase in vehicle prices) because of which they had refrained from any major capacity expansion in FY20 and FY21.



Research Source: Industry, CRISIL Research

Cautious lending by banks; more focus on collections

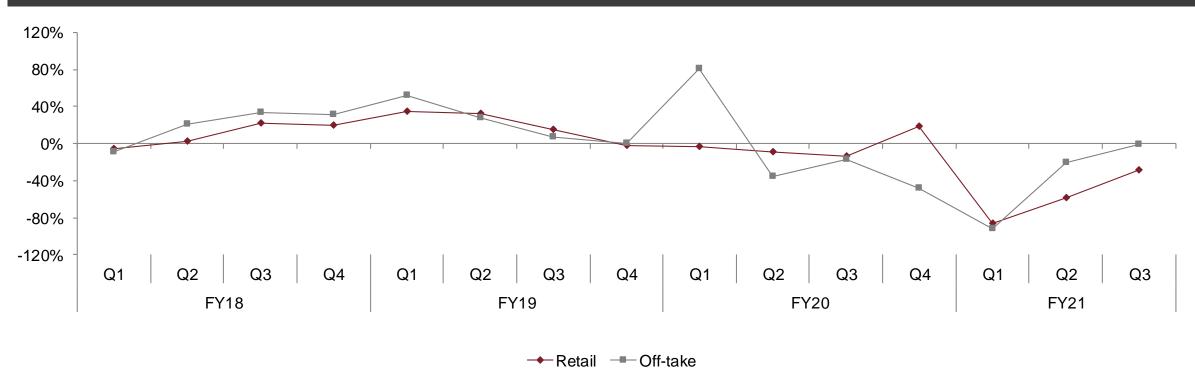


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NOTE - Interest rates are an indicative rates charged by Banks Source: Company Reports, Industry, Crisil Research

Retail & offtake showing recovery on sequential basis

Retail vs off-take (Growth yoy)

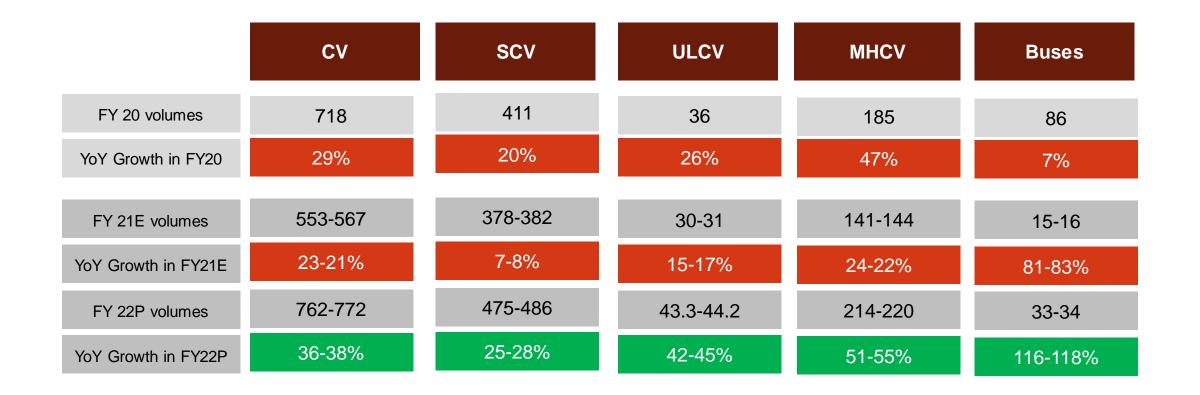


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Source: SIAM, MoRTH, CRISIL Research

- OEM's facing huge supply issues due to semi conductor supply constraints. Production issues to be there in Q4 FY21.
- Among all segments- Pick-ups continue to see good traction in the economy especially in rural areas.
- This is followed by the ICV segment with good traction visible due to e-commerce

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		SCV		ULCV		MHCV		Buses	
		Volume ('000)	YoY Growth								
FY20	Q4	147	(48)%	81.2	(43)%	7.1	(49)%	37.8	(62)%	20.9	(27)%
	Q1	32	(85)%	25.2	(77)%	1.1	(88)%	4.2	(93)%	1.1	(96)%
FY21 E	Q2	133.5	(20)%	98.4	(1)%	6.8	(23)%	23.9	(41)%	4.4	(76)%
	Q3	192.7	(1)%	128	5%	10.7	4%	49.5	16%	4.5	(78)%
	Q4	207-210	41-43%	127.5-130.7	57-61%	11.7-11.9	65-68%	60.9-61.9	61-64%	5.8-6.3	(72)-(70)%
FY22 P	Q1	164.5-165.1	414-416%	99.5-101.6	295-303%	8.8-9	698-715%	42.5-43.4	913-933%	6.1-6.3	474-476%
	Q2	188.2-190.9	41-43%	119-122	21-24%	10.8-11	59-63%	48.9-49.9	105-109%	6.8-6.9	55-57%
	Q3	202.3-206.2	5-7%	129.3-131.8	1-3%	11.2-11.5	5-7%	53.5-54.5	8-10%	8.2-8.3	82-84%

• SCV & ULCV: Rural sentiments to be driven by robust agri output in rabi of CY 21, farm produce movement to see a healthy growth. Captive purchases by farmers, grocery and essentials retailers to continue

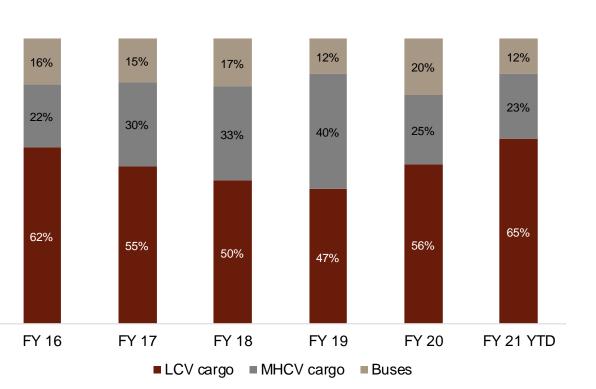
• IMHCV: Recovery in utilization of large industries may improve performance and output of SMEs catering to these entities, PLI scheme has potential to provide some fillip.

• Buses: Inter city and Stage carriage application slowly picking up, but the traction is still much lower than pre COVID levels, some large LFOs have commenced surrender of vehicles in the luxury segment

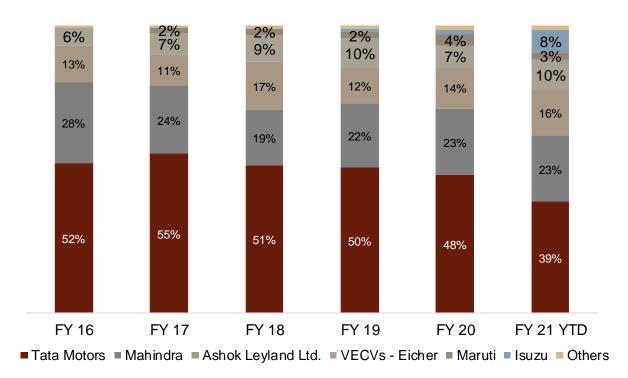
Research Source – SIAM, CRISIL Research

Share of LCV cargo on an uptrend

LCV occupies ~2/3rd share



Share of leading players declines

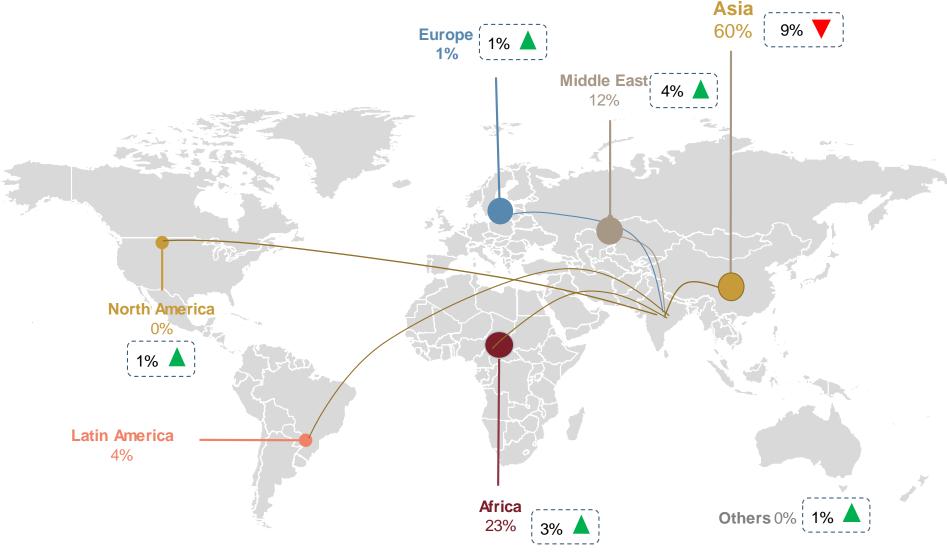


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NOTE: YTD is Apr to Dec 2020 Source: SIAM, CRISIL Research

- Exports growth across segments continues to decline. Overall CV exports declined by 35%, LCV cargo by 25%, MHCV cargo by 38% and buses by 59%.
- LCV/ICV segment expected to be better compared to other segments due to e-commerce and essential movement.
- Tipper category is also expected to perform better due to revival in construction activities in the underlying economies.
- Isuzu has gained a share of 8% by mainly gaining traction on pickup category in exports market.

Commercial vehicles exports



- Good traction seen from Middle East nations, mainly in buses category.
- Demand of buses due to social distancing,
 - requirement on **staff segment** mainly from Middle East nations.
- Traction seen in tipper category followed by revival in construction activities.
- Srilanka continues with its ban on non-essential imports.



Stakeholder interactions

OEM

- Replacement demand from cement and steel coming back to some extent
- Most OEMs expect the MHCV haulage segment to grow by close to 2X or so in FY22, where MCVs could grow 1.5-2X, MAV by ~2.5X and TT by 1.5-2X
- E-comm, Agri and FMCG/FMCD to drive the ICV segment.
- Auto carrier segment in MCV to be muted, 32ft body for e-comm and consumer goods could see traction
- MAV replacement to be driven by Cement/steel
- TT replacement uncertain for container, but cement ,steel and auto-carriers could materialise
- .Very limited visibility on any resolution of supply side constraints before Q4FY21 end
- Supply issues prevalent in SCVs and ULCVs, may persist for few months

Dealer



• Transactions of used vehicles have gathered pace

and yet to be proven operational metrics

mandating fleet vintage

freight demand)

in the market as many operators are uncertain

about deploying BS-VI vehicles due to high cost

• New purchases are largely being made for

• LFOs in West expressed possibility of fleet

• Transporters wishing to exit the market are able to

find fair values for takeover of their existing

vehicles with loans, as a result the NPA levels

have not spiked due to stressed assets being

taken over by other operators who would have

otherwise purchased new vehicles

rationalisation (reduction in fleet size to match

committed fleet operations with Large MNCs

Financier

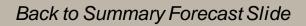
- MHCV funding is starting gradually and the sentiments should improve sequentially over the next quarter or so
- Financiers whose focus is only LCVs at this moment as portfolio quality is good may also start looking at MHCVs on improving market conditions
- GNPA spike may not be very severe by Q4 FY21 due to partial relief of moratorium and ECLG scheme.
- FY21 levels may not exceed 1.5X of FY20
- Financers formulating step-up EMIs and balloon/bullet payment programs in addition to 7 year tenures in order to address at least some portion of retail segment of MHCV in FY22.
- However OEM participation may also be needed in some manner to materialize this



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Source - Industry, CRISIL Research

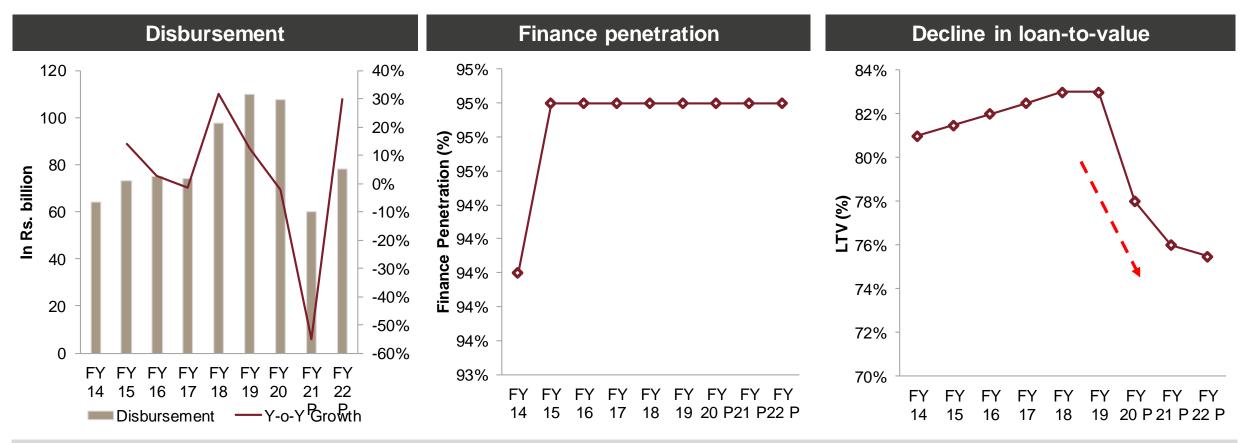
Three-wheelers







Financing parameters to remain in red in fiscal 2021, some recovery expected in fiscal 2022 from a very low base



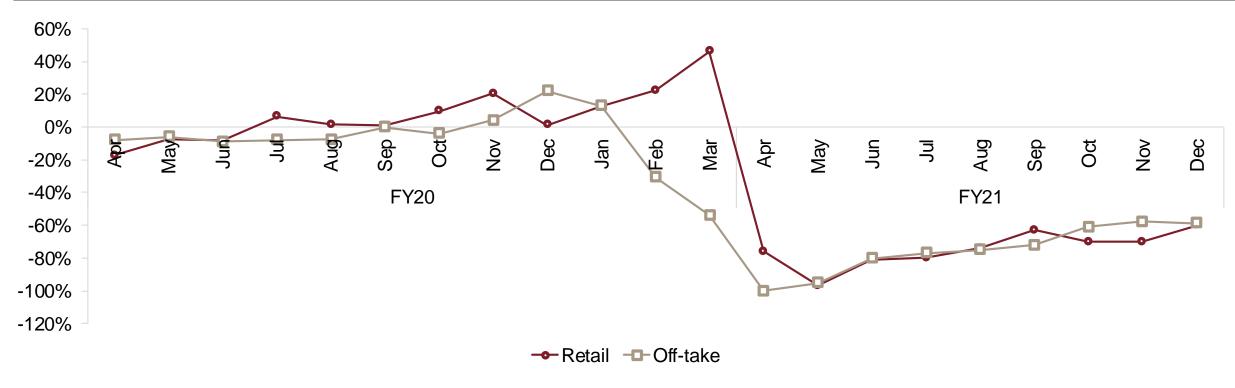
- Three-wheeler segment expected to witness sharp decline in disbursement in fiscal 2021. Financiers have got cautious in lending to this segment, especially passenger segment given the consumer reluctance to use shared mobility
- From a very low base of fiscal 2021, some pick up is expected in fiscal 2022 with gradual improvement in customer incomes & expected growth in retail demand
- LTVs are expected to remain under pressure even in fiscal 2022 given the continued cautious approach of the financers

Source: Experian Credit Bureau, Company Reports, CRISIL Research



Industry remains in red, however, m-o-m gradual improvement posted in Q3





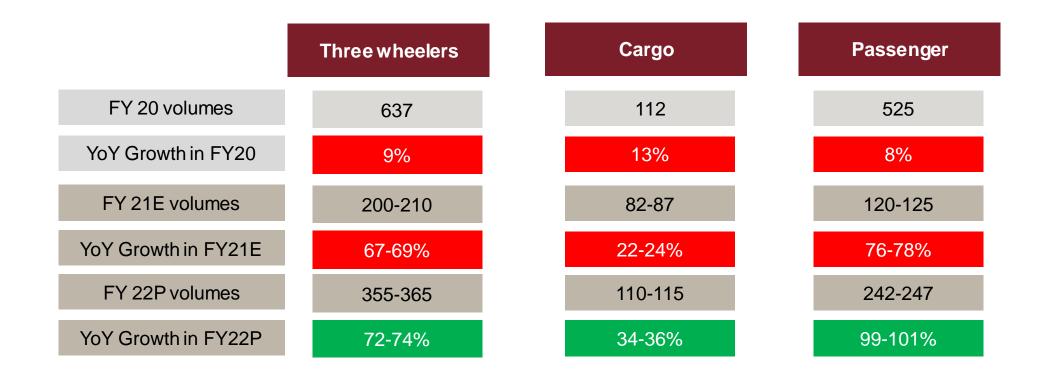
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Source: SIAM, MoRTH, CRISIL Research

- From the nadir reached in Q1, industry is showing gradual improvement
- This is primarily aided by traction in cargo segment, passenger segment remains in deep trouble
- Dealers have not done any major inventory built up in fiscal 2021 after BSIV stock clearing
- Stock levels are insignificant and orders are being placed only after the booking

Domestic – annual forecast

98

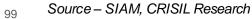




Domestic – quarterly forecast

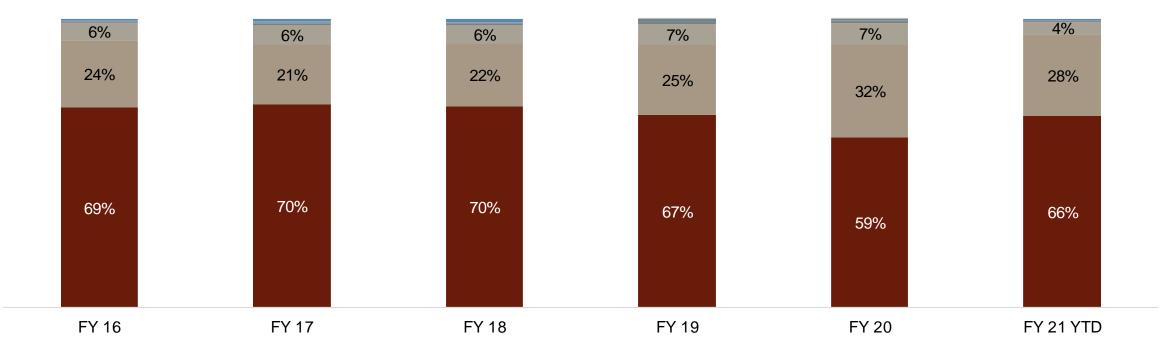
Period		Three-wheeler		Ca	rgo	Passenger		
		Volume ('000)	YoY Growth	Volume ('000)	YoY Growth	Volume ('000)	YoY Growth	
FY20E	Q4	129.8	(28)%	24.6	(32)%	105.3	(27)%	
	Q1	12.8	(91)%	5.8	(90)%	6.9	(94)%	
	Q2	45.9	(75)%	19.8	(27)%	26.2	(83)%	
FY21E	Q3	72.7	(59)%	29.1	(2)%	43.6	(70)%	
	Q4	74.3-74.8	(44)-(42)%	29.0-29.5	18-20%	44.9-45.4	(58)-(56)%	
	Q1	75.7-76.2	496-498%	26.9-27.4	367-369%	48.5-49	605-607%	
FY22P	Q2	87.8-88.3	91-93%	29.2-29.7	48-50%	58.2-58.7	123-125%	
	Q3	91.7-92.2	25-27%	25.8-26.3	(11)-(9)%	65.7-66.2	50-52%	

- Gradual recovery in end user segments like FMCG, e retail, construction has boosted the cargo segment demand
- On the other hand, despite easing restrictions, customers are still reluctant to use shared transportation impacting passenger segment
- Moreover, restricted operations at metro, railway, bus stations has limited need for last mile transportations which further impacted passenger segment demand
- Price rise amidst BSVI implementation, restricted financing have worsened the situation
- In fiscal 2022, we expect cargo segment to continue its recovery and post healthy numbers while passenger segment to witness gradual recovery with reopening of schools, colleges, offices and recovery in metro, railway & bus traffic



Export performs better than domestic market

Bajaj maintains its top position



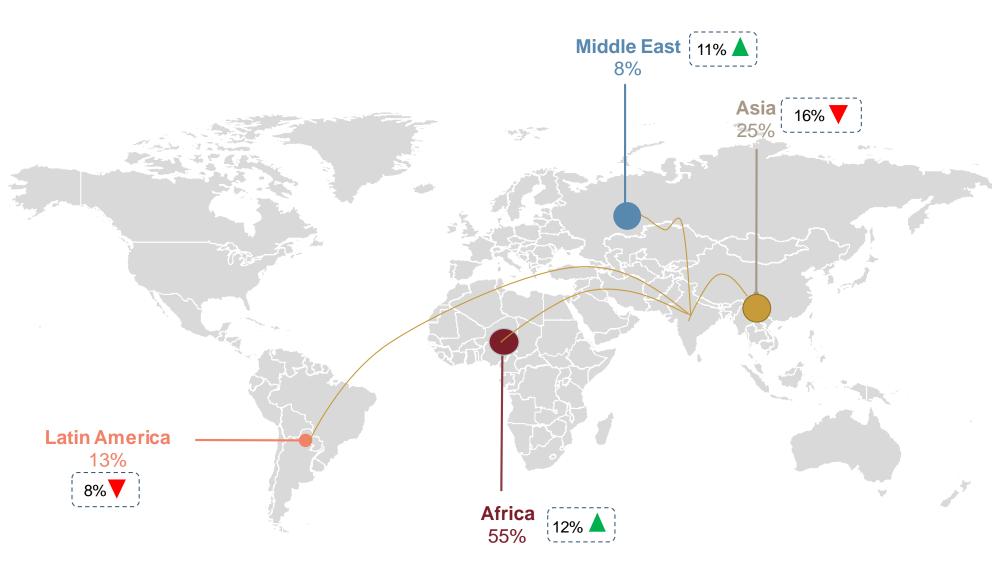
Bajaj Auto Ltd. TVS Motor Company Ltd. Piaggio Vehicles Pvt. Ltd. Atul Auto Ltd. Force Motors Ltd. Mahindra & Mahindra Ltd. Others

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NOTE: YTD is Apr to Dec 2020 Source: SIAM, CRISIL Research

- In last 9 months of FY21, exports declined by 31%, cargo segment saw a dip of 39% whereas passenger segment declined by 30%.
- · Bajaj continues to perform better even in passenger three-wheeler exports.
- Companies with higher exposure towards African markets performed better compared to others.

Three-wheeler exports



- Exports share of African and Middle East countries increased aided by lower covid spared and crude prices firming up.
- Substantial recovery is seen in exports to Egypt after the ban of auto-rickshaw was lifted which has aided to exports growth.
- Exports to Latin American country was lower due to considerable spread of Covid and hence people not preferring a shared mode of transport.
- Firming up of crude oil prices, will aid the economy of African and Latin American region, aiding three-wheeler exports.

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Stakeholder interactions

OEM

- Auto rickshaw drivers have moved back from their hometowns, however utilisation levels are still low due to closure of schools and colleges in urban cities.
- Sale of second hand three-wheeler has increased in pandemic due to higher price difference between second hand BS IV vehicle and new BS VI vehicle, this has given competition to new purchases
- Higher repossession on account of defaults has led to increased supply of second hand vehicle.
- Availability of finance is a major concern on passenger three-wheeler side.
- Cargo segment is expected to continue its growth momentum in fiscal 22 as well, demand for passenger three-wheeler to improve gradually from a very low base of fiscal 21

Source - Industry, CRISIL Research

Dealer



Financier

- Incomes of 3W customers have dropped significantly since the pandemic
- Many are finding it difficult to sustain, are selling off their vehicles
- NPA levels have increased especially for passenger segment
- LTV levels have dropped from 90-95% earlier to 70-75%
- Focus is more on collection rather than lending
- Lending is being done after much deliberation & caution
- Passenger segment is being avoided as far as possible



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Research

Relatively few takers for passenger vehicles

- Income of passenger segment has been severely impacted (60-70% drop) given reduced requirement for last mile transport
- 50-70k price rise in BSVi vehicles
- No discounts, no schemes
- Financing is another major hurdle for the customers, financiers are not willing to lend to 3w industry
- Traction for cargo segment is gradually improving
- Mainly used for transportation of e retail, construction, FMCG, Dairy etc
- Product mix has reversed from a typical 60% passenger & 40% cargo to 70% cargo & 30% passenger
- Despite all cost reduction measures , many dealers are finding it difficult to sustain
- Good traction for pre owned vehicles

Tractors

Research

Back to Summary Forecast Slide

CRISIL

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Tractor sales expected to soar in fiscal 2021 after a fall in fiscal 2020

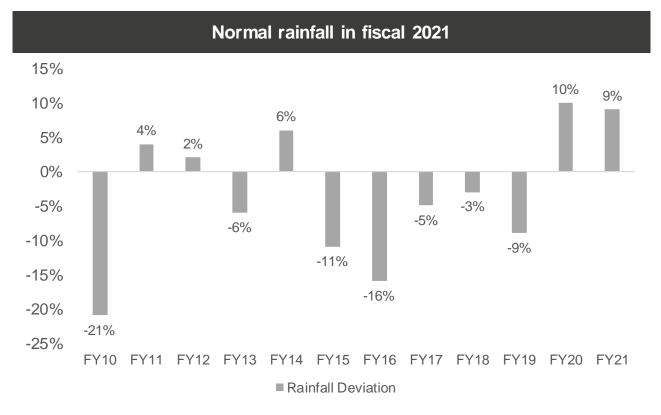


CRISIL

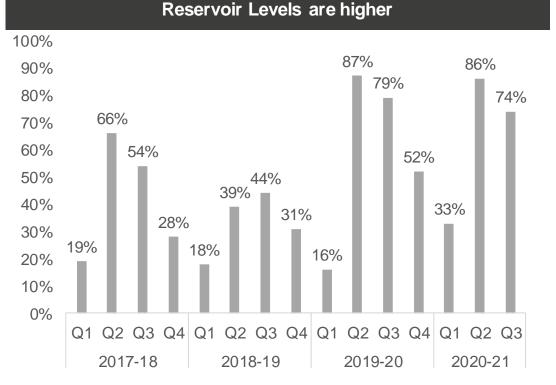
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NOTE : ** Fiscal 2021 assumed neutral assuming normal monsoon, P: Projected Source: CRISIL Research

Southwest Monsoon up by 9%, augured well for agriculture



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

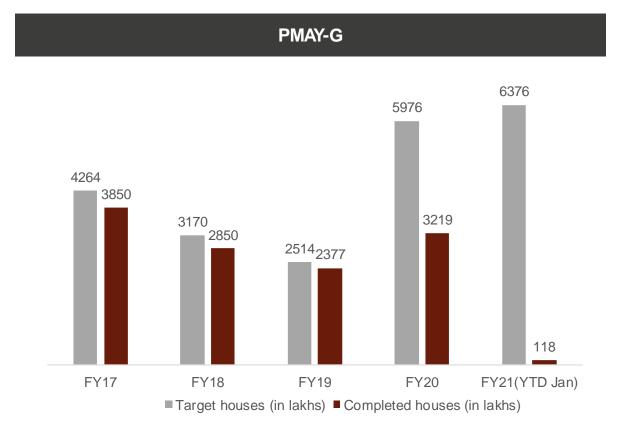


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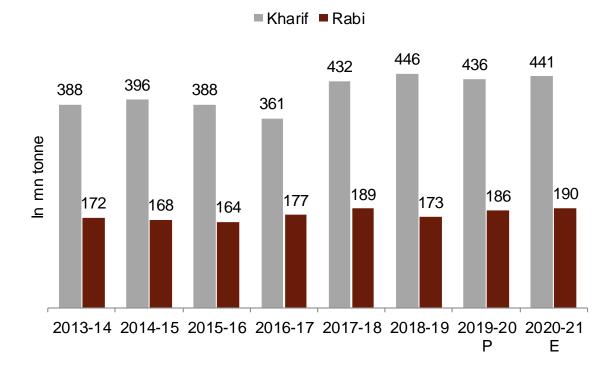
SOURCE: Ministry of Rural Development, CRISIL Research

- · Normal and well distributed monsoon in FY21 aiding to better farm sentiments.
- Above normal monsoon leading to above normal reservoir levels, ~5% higher sowing for upcoming Rabi.
- Good reservoir levels, an expected normal monsoon, better commercial demand, and higher government support in the form of schemes and subsides to augur well for the industry in fiscal 2022. Total profit under upcoming rabi is expected to increase by ~9% supported by higher sowing

PMAY-G witnessed uptick in from Q2 FY21



Food grain crop production



Source: CWC, CRISIL Research

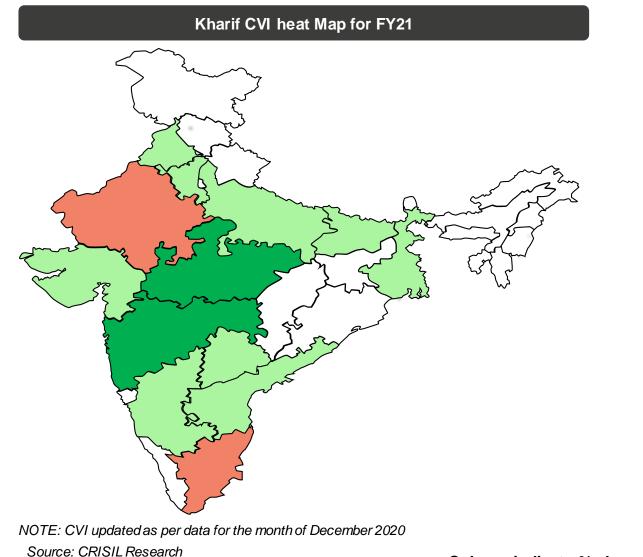
Notes: Storage Status of 120 Reservoirs of the Country

Source: CRISIL Research

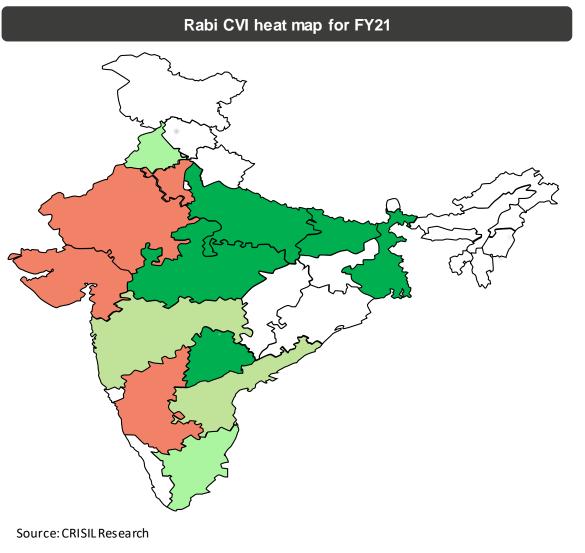
- Increase in total profit by ~8% and 7-9% for the rabi and kharif crop respectively expected to aid farm incomes
- High investment by farmers on agriculture activities amid absence of any other investment opportunities due to COVID-19 outbreak.
- The completion rate under Pradhan Mantri awas yojana-Gramin(PMAY-G) also picking up but mostly for eastern states and Rajasthan.

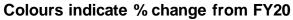


State wise Crop Value Index



>10%





(10)%-0%

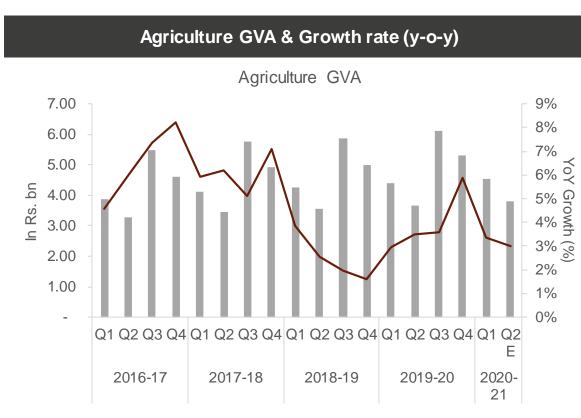
0-10%

Research

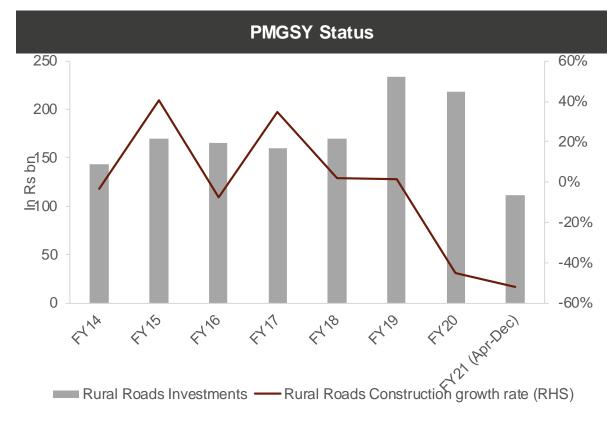
<(10)% No data



GVA for agriculture sector remains unchanged in the Q2 FY21 on the back of bumper rabi and aggressive procurement



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

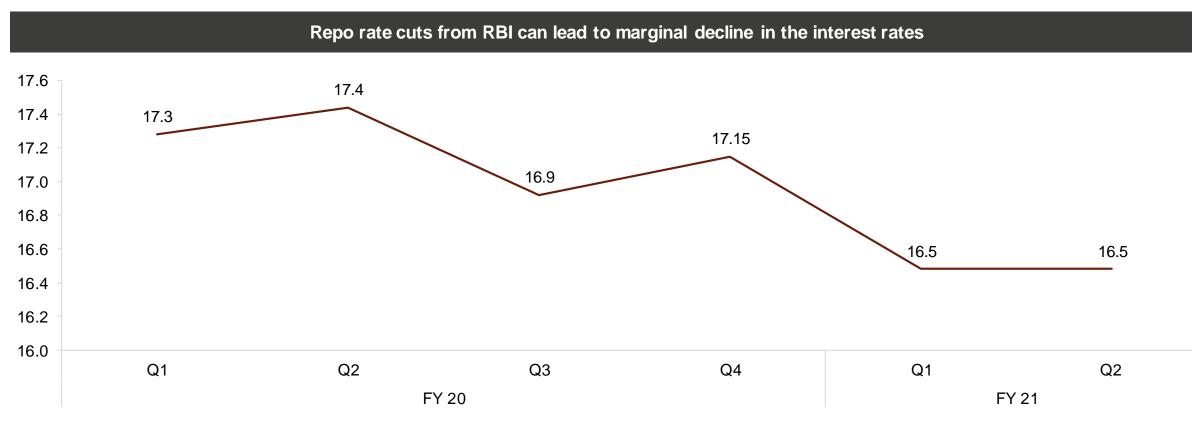


Source: OMMS (Online management, Monitoring and Accounting System), CRISIL Research

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- Pace of rural construction plunged in Q1FY21 as construction activities being put to halt in April and May'20 on account of nationwide lockdown. However, due to higher government spend since Q2FY21 under PMGSY, commercial demand picked up.
- The agricultural sector had remained unruffled by the lockdown in the June quarter, backed by a bumper rabi crop and aggressive procurement by the government.

Interest rate remains stable in festive season

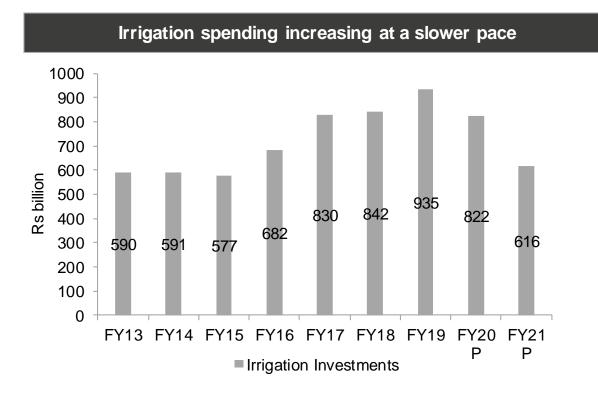


NOTE: Interest rates for Q3 FY21 is not yet released by leading financiers Source: Company Reports, CRISIL Research

- Amid robust demand, no interest rate cuts were undertaken in Q2FY21 during festive season.
- Tractor NPAs are estimated to be at a stable level in H1 of FY21.
- Tractor loans under moratorium are estimated to be at less than 10% as on Oct 2020.



Investment in irrigation is expected to improve in the long term, barring a drop in FY21 due to Covid-19 outbreak



Daily Rural Wage 500 441 450 384 375 400 355 346 342 350 300 250 200 150 100 50 0 Q1 Q2 Q3 Q4 ■FY20 ■FY21

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

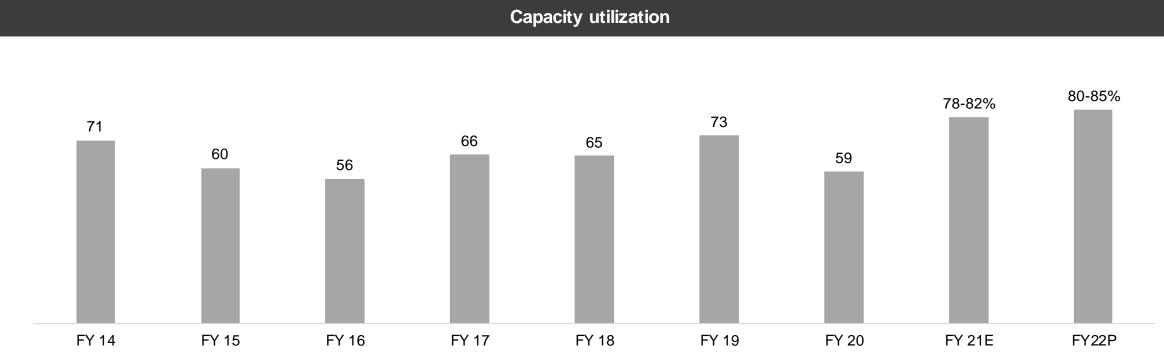
Rural wages includes general non-agricultural labour. Source: RBI, CRISIL Research

- Investments to decline to the tune of 8-12% in fiscal 2021 as states divert funds towards healthcare and other social expenditure owing to COVID. The Investments are expected to record a 10-15% rise in the next fiscal led by states such as Maharashtra, Karnataka and Madhya Pradesh who have higher needs for irrigation investments. Irrigation intensity is highest in northern region, followed by the southern and eastern regions.
- 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.

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Amidst healthy demand, capacity utilization is expected to improve in FY21



P = Projected

Source: CRISIL Research

- Supply constraints led to liquidation of plant level inventory in April and May. Plant inventory is expected to be marginally lower in fiscal 2021 as supply constraints will persist and then stabilize in fiscal 2022.
- Production capacity of Escorts Ltd is expected to reach 129,000 units in fiscal 2021 (including capacity addition due to JV with Kubota). The company plans to increase its capacity to 150,000 tractors annually by fiscal 2022.
- Tractor and Farm Equipment Company (TAFE), the country's second largest tractor manufacturer will be undertaking capital investment of Rs 250 crore at its Bhopal and Doddaballapur plants to increase its total installed capacity by 50,000 tractors. The company increased its capacity to ~1,80,000 tractors and is further expected to reach at a capacity of 2,00,000 by fiscal 2022.

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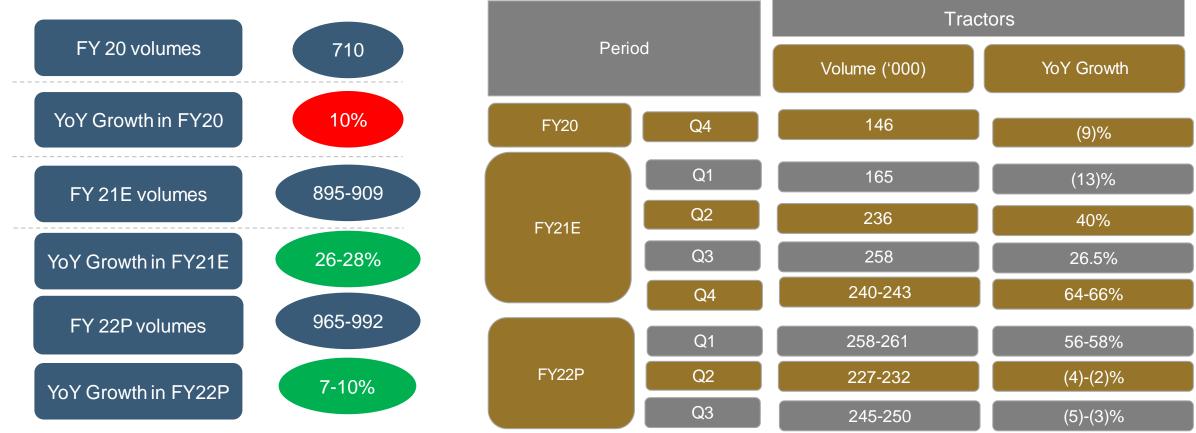
Implementation of Trem IV norms postponed by one year

Emission standard stage	Engine Power	Market share	Date	CO HC+Nox		РМ				
	HP		Date							
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 chango							
	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 coming in of 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.

Domestic – Annual & Quarterly Forecast



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

Source – CRISIL Research

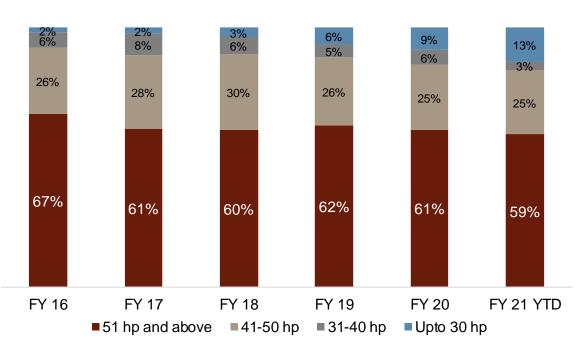
- Tractor industry to see a growth by 26-28% in FY21 as most of the lost retail sales in March-April due to the lockdown has come back, positive farm sentiments on account of better crop profitability, higher government support through income support schemes, higher procurement of field crops and higher rural expenditure.
- Tractor demand is expected to further improve on account of healthy reservoir level and expected pick up in commercial demand.
- Agriculture spend has been higher by 52% on-year (as of Mid-Sept'20). However, government spending in H2 will remain a key monitor able as fund run low.

Research

NOTE: Volumes in thousand units;

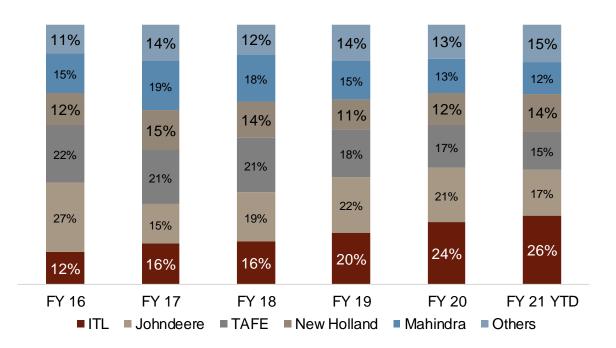
YoY Growth in red indicates a negative growth, green indicates positive growth

Tractor exports enters a positive growth territory



Segment wise market share of exports

Player wise market share of exports

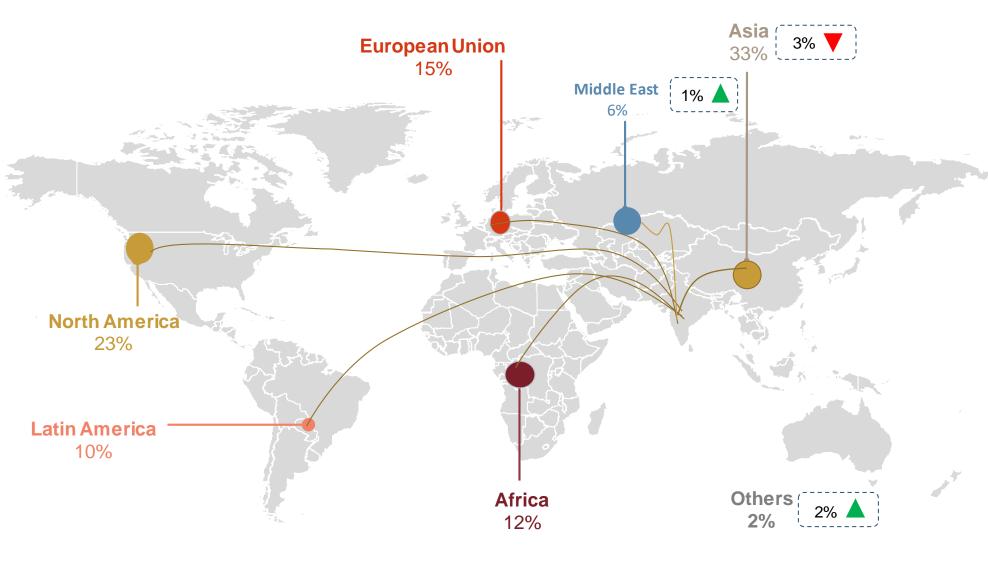


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NOTE: YTD is Apr to Dec 2020 Source: CRISIL Research

- Tractor exports increased by 2% in last 9 months of FY21 as compared to last year.
- · Share of Johndeere and New Holland expanded in this year.
- Increase in share of smaller tractors (<30HP), demand mainly seen from Asian countries where land pattern is similar to India and hence higher demand for smaller tractors.
- Demand expected to recover in FY22 propelled by strategic push by players to cater to the global demand. ITL's Solis brand launched last fiscal has been gaining
 popularity in European markets.

Tractor Exports



- Demand for tractors has remained robust in importing nations, similar to domestic market. It has grown by 2% in Apr to Dec 2020 as compared to same period last year.
- Drop seen by Asian countries in the first half of the fiscal has gradually eased out.
- Exports to Srilanka has also improved. (Tractor is
 - considered as an essential commodity for imports)
- Demand seen from European nations on personal agriculture side.
- Second wave of Covid specially in European and North American region remains a key monitorable.



Research

Note: : Represents value data for FY20 exports, % in dotted boxes indicates change in market share from FY20 to Apr-Nov 2020 Source: DGFT, CRISIL Research

Stakeholder interactions

OEM

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Dealer

- Resilient tractor demand even post festive season on account of positive agri sentiments and good cash flow.
- Higher procurement to aid cash flow for farmer although average growth in MSPs to only have positive impact for wheat and paddy belt.
- SW Monsoon has led to good sentiments for the Kharif season and increase in Kharif production can be expected.
- There are certain supply constraints as well which are expected to smoothen by Q1FY22.
- OEMs have also been boosting production levels to ramp-up inventory for the coming quarter as healthy sales are expected to continue
- The demand on-ground is positive across states on account of a good Kharif produce and expectation of better farm income. Further, high reservoir levels to secure the upcoming Rabi season as well.

- Supply constraints dampened dealer sentiments as dealers were not able to cater to the huge on ground demand. Higher HP tractors are in demand and are unavailable at present.
- Demand has been robust at present as farmers want to buy 2021 models.
- Dealers are looking to stock up as inventory is low.
- Kharif crop has done really well. Harvest is almost complete.
- Rabi sowing is underway and almost complete as well.
- Government procurement of crop has started and is expected to gain momentum.

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 loans under moratorium are estimated to be at less than 10%.

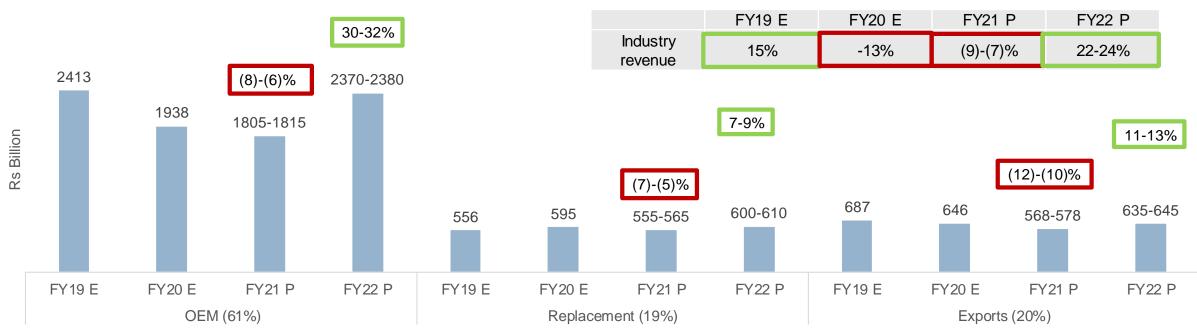


Outlook on auto component industry



After a consecutive drop in fiscal 2021, component industry revenue expected to bounce back in fiscal 2022

Demand from OEMs to drive auto component growth in fiscal 2022

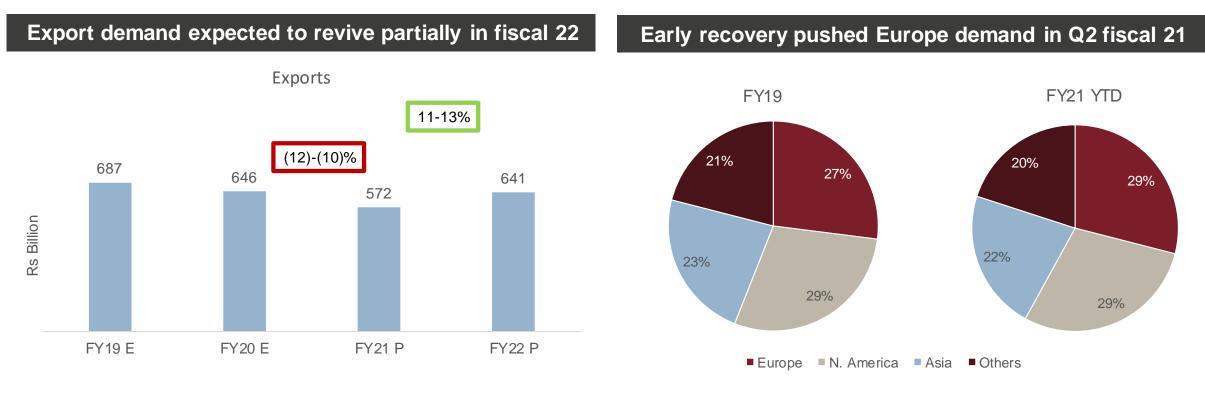


Note: Brackets represent y-o-y growth; Numbers in the bracket represent share in production for fiscal 2020 Source: CRISIL Research

- Production revenue to drop 8-10% in fiscal 2021, on account of subdued demand across all automobile asset classes amid continued weakness in the economy, decline in exports given COVID-19 outbreak in key export destinations and lower demand from replacement market owing to less movement of vehicles
- In fiscal 2022, revenue is projected to accelerate at 22-24% on the back of an expected improvement in automobile demand
- However, auto components production revenue is not expected to reach fiscal 2019 levels, wherein the industry reported a healthy growth across all segments

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Europe, US to back export revival in fiscal 2022, impact of second wave remains a key monitorable



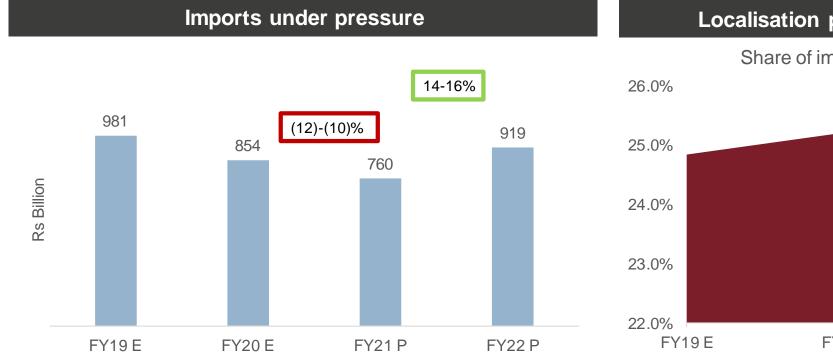
Note: Brackets represent y-o-y growth; Source: CRISIL Research

Note: YTD represents April- Oct 2020 data Source: DGFT, CRISIL Research

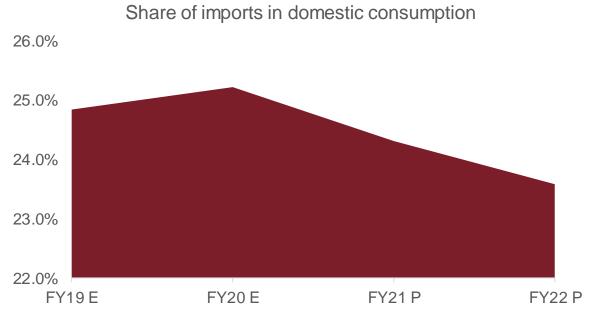
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- Export demand got severely impacted in 2020 with H1 fiscal 2021 posting 28% y-o-y drop
- Some recovery was seen in Q3 led by increase in demand from Europe and Asia, primarily Germany and Italy
- Going ahead, demand from Europe remains a key monitorable owing to re-imposition of lockdown in the wake of second wave of COVID-19
- With easing of pandemic situation & improvement in global production, export demand expected to recover in fiscal 2022

Slowdown in domestic demand to shrink import levels further in fiscal 21, recovery in domestic demand to back imports in fiscal 22



Localisation pulling the import share down



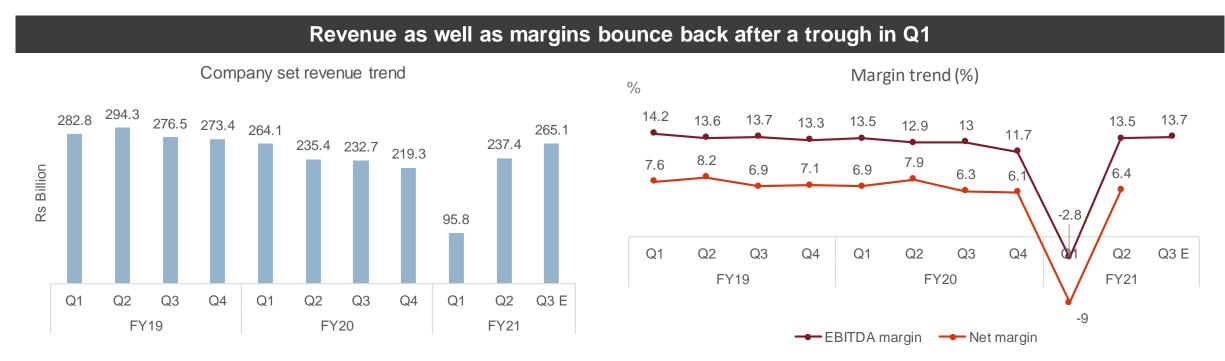
Source – DGFT, CRISIL Research

Source: DGFT, CRISIL Research

- India imports mainly from China, Korea, Germany, Japan and the USA
- In fiscal 2021, imports are expected to decline by 10-12% owing to subdued demand from OEMs and aftermarket.
- Demand dropped ~35% in H1 FY21; Nonetheless, imports have been increasing month-on-month.
- In fiscal 2022, imports to bounce back with an expected recovery in the global markets along with healthy demand from domestic automotive manufacturers
- Increasing localization to put pressure on import levels



Company financials return to pre Covid levels, further improvement expected



Note: Amara Raja Batteries, Bharat Forge, BOSCH, Exide industries, Motherson Sumi Systems WABCO Ltd are considered for analysis Source: Company financials, CRISIL Research

- With improvement in production, revenue of the auto component companies is expected to rise further
- Operating margins are expected to rise despite continued increase in raw material prices with cost cutting measures undertaken by companies as well as improving economies of scale

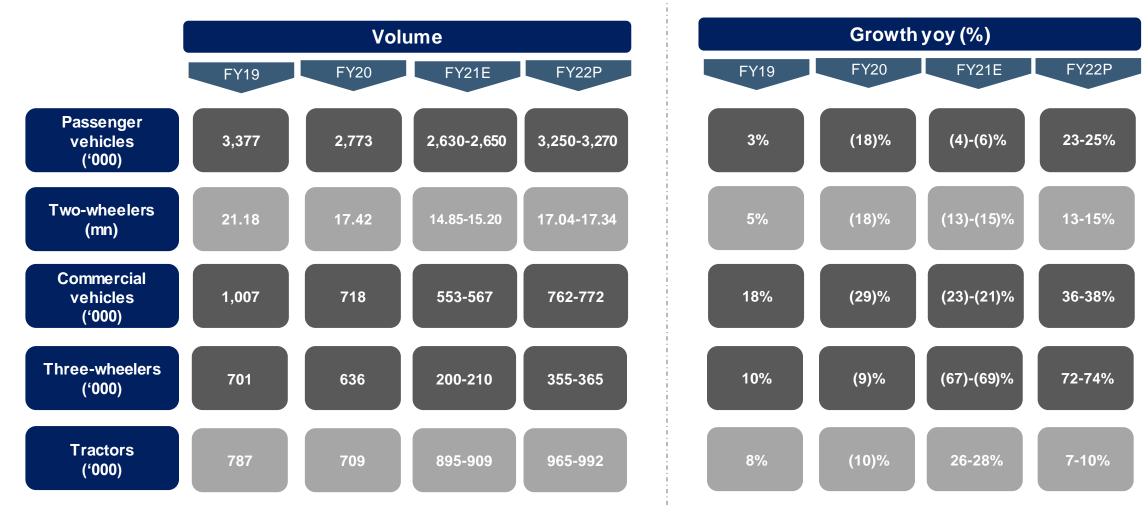
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Rise in raw material prices is expected to be passed on the end customer

Summary



Annual Forecast - Domestic



SOURCE: SIAM, CRISIL Research

Research

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CRISIL

Quarterly forecasts – Domestic

Vehicle segment	Subsegment	Volume				YoY growth (%)			
		Q4 FY 21	Q1 FY 22	Q2 FY 22	Q3 FY 22	Q4 FY 21	Q1 FY 22	Q2 FY 22	Q3 FY 22
Passenger vehicles	Cars ('000)	505-515	455-465	470-480	455-465	24-26	470-475	16-18	(12)-(10)
	UVs & vans ('000)	380-390	340-350	350-360	345-355	52-54	367-369	23-25	(10)-(8)
	PVs ('000)	890-910	800-820	820-840	800-820	36-38	420-430	19-21	(11)-(9)
Two-wheelers	Motorcycles (mn)	2.73-2.78	2.75-2.76	2.86-2.92	2.77-2.84	21-23	205-207	(9)-(7)	(12)-(10)
	Scooters (mn)	1.29-1.31	1.30-1.31	1.41-1.44	1.29-1.31	17-19	283-285	5-7	(9)-(7)
	Mopeds ('000)	202-205	178-179	194-197	179-183	43-45	231-233	(2)-0	(15)-(13)
	2W (mn)	4.23-4.30	4.22-4.25	4.47-4.56	4.24-4.34	21-23	227-229	(5)-(3)	(11)-(9)
Commercial vehicles	SCV ('000)	127.5-130.7	99.5-101.6	119-122	129.3-131.8	57-61	295-303	21-24	1-3
	ULCV ('000)	11.7-11.9	8.8-9.0	10.8-11.0	11.2-11.5	65-68	698-715	59-63	5-7
	MHCV ('000)	60.9-61.9	42.5-43.4	48.9-49.9	53.5-54.5	61-64	913-933	105-109	8-10
	Buses ('000)	5.8-6.3	6.1-6.3	6.8-6.9	8.2-8.3	(72)-(70)	474-476	55-57	82-84
	CVs ('000)	207-210	164.5-165.1	188.2-190.9	202.3-206.2	41-43	414-416	41-43	5-7
Tractors ('000)		240-243	258-261	227-232	245-250	64-66	56-58	(4)-(2)	(5)-(3)
			200-201		273-230			(+)-(4)	(0)-(0)
Three-wheelers	Goods ('000)	29-29.5	26.9-27.4	29.2-29.7	25.8-26.3	18-20	367-369	48-50	(11)-(9)
	Passenger ('000)	44.9-45.4	48.5-49	58.2-58.7	65.7-66.2	(58)-(56)	605-607	123-125	50-52
	3W ('000)	74.3-74.8	75.7-76.2	87.8-88.3	91.7-92.2	(44)-(42)	496-498	91-93	25-27

SOURCE: SIAM, CRISIL Research Research

Annual forecasts – Exports

Vehicle segment	Subsegment	Volume				YoY growth (%)			
		FY 19	FY 20	FY 21E	FY22P	FY 19	FY 20	FY 21E	FY22P
Passenger vehicles	Cars ('000)	514	491	281-297	457-469	(11)	(5)	(43)-(39)	58-62
	UVs & vans ('000)	162	186	158-170	190-197	(4)	15	(15)-(9)	16-20
	PVs ('000)	676	677	438-467	647-666	(10)	0	(35)-(31)	43-47
	Motorcycles (mn)	2.87	3.14	2.95-3.04	3.29-3.44	15	9	(6)-(3)	10-15
Two-wheelers	Scooters (mn)	0.40	0.37	0.23-0.24	0.31-0.32	27	(7)	(37)-(35)	30-35
	Mopeds ('000)	17	14	10.71-11.34	14.54-14.87	(4)	(17)	(23)-(18)	32-35
	2W (mn)	3.28	3.52	3.19-3.29	3.62-3.78	17	7	(9)-(6)	12-17
Commercial	LCV ('000)	47.2	33.9	30.4-31.6	46.5-47.8	(3)	(28)	(10)-(7)	50-54
	MHCV ('000)	40.4	14.9	11.9-12.9	20.9-21.4	27	(63)	(20)-(13)	68-72
vehicles	Buses ('000)	12.4	11.9	5.8-6.2	12.4-12.7	(24)	(3)	(52)-(48)	108-112
	CVs ('000)	99.9	60.7	48.0-50.7	79.8-81.8	3	(39)	(21)-(16)	62-66
Tractors ('000)		92	76	80-84	87-91	7	(17)	6-11	6-10
	· , ,	I							I
Three-wheelers	Goods ('000)	6.2	6.3	4.8-5.1	6.1-6.3	47	2	(25)-(20)	23-27
	Passenger ('000)	561.5	495.9	385.1-402.7	488.8-504.6	49	(12)	(22)-(19)	24-28
	3W ('000)	567.7	502.2	389.9-407.8	494.9-510.8	49	(12)	(22)-(19)	24-28
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SOURCE: SIAM, CRISIL Research

Deviation in the forecast for Q3 FY21

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Vehicle segment	Subsegment	Volume			Deviation	Reasons for Deviation	
		Forecast	Actuals		Deviation	Reasons for Deviation	
Passenger vehicles	Cars ('000)	470-480	516	÷	7.5%	Impact of incomes on urban was far lower	
	UVs & vans ('000)	318-324	381	i -	17.6%	than anticipated. Model launches and fear	
	PVs ('000)	789-805	897	1	11.4%	factor on account of COVID19 fueled growth higher than anticipation	
	Motorcycles (mn)	2.97-3.03	3.15	. I 🛛	3.8%	Scooter inventory build up was lower than	
Two-wheelers	Scooters (mn)	1.52-1.55	1.42		7.0%	anticipated which lead to deviation in	
	Mopeds ('000)	201-205	211	i –	2.8%	scooters while wrt motorcycles and mopeds we were largely in line	
	2W (mn)	4.70-4.78	4.78	I.	-		
	SCV ('000)	119.5-121.5	128		5.1%	Pick up in consumption demand was strong	
	ULCV ('000)	10.0-11.0	10.7	÷	-	and slight inventory build up lead to deviation in LCV nos; MHCV demand	
Commercial vehicles	MHCV ('000)	39.0-39.8	49.5		19.6%	recovery was sustained even post festive and	
Venicies	Buses ('000)	4.0-4.4	4.5		2.2%	despite pressure on credit quality financiers were proactive helping MHCV sales	
	CVs ('000)	172.4-176.3	192.7		8.5%	were prodetive helping winev sales	
Tracto	ors ('000)	256-261	258		-		
		200 201				Financiers not at all accommodative towards	
Three-wheelers	Goods ('000)	29.6-30.2	29.1		3.8%	3W passengers despite economy and travel opening up were we had anticipated some	
	Passenger ('000)	47.8-48.8	43.6		9.6%	conversions on account of festive which did	
	3W ('000)	77.4-79.0	72.7	i -	6.1%	not happen. Goods we were largely in line	

Research NOTE: Forecast give in Oct 2020 update, Deviation is calculated by dividing the absolute difference between the actual and closest range given by the actual volume SOURCE: SIAM, CRISIL Research



Inventory level lower compared to festive; supply constraints hits inventory of PV & CV

Vehicle segment	Normal inventory in days	Current inventory levels (days)*	Reasons
Passenger Vehicles	25-30	10-15	Industry registered healthy retail numbers during the festive season. Moreover, traction in the PV market continued post festive in December as well. On the other hand, due to the severe shortage of semiconductors, most OEMs faced supply constraints. And in turn, dealer inventory got impacted. Currently dealer inventory is at a record low of 10-15 days.
Two Wheelers	30-35	38-42	OEMs have sharply corrected the inventory, since the retail sale during festive was sluggish and inventory piled up at the dealer end. In Oct and Nov, inventory with the dealers was >50days.
Commercial Vehicles	25-35	25-30	Inventory levels continue to remain at 30 days for majority of dealers. Some dealers even maintaining lower inventory. Huge supply issues faced by one of the OEM's due to semiconductors shortage.
Tractors	30-35	20-25	Inventory levels are stable. However, demand is higher than the supply OEMs are able to run factories in multiple shifts to achieve optimum production levels. Supply chain situation continues to remain volatile.
Three-wheeler	20-25	5-10	Three wheeler segment was impacted the most during the pandemic. There was gradual recovery in the cargo segment, passenger segment is still struggling. Given the sharp drop in retail demand, dealers are unwilling to stock vehicles & prefer to order once the vehicle is booked. Hence, dealer inventory levels are dwindling.

Research NOTE: Normal inventory days for passenger three-wheeler is 15-20 days and for goods three-wheeler is 25-30 days * Inventory level as on end of Dec 2020.

Source: Industry, CRISIL Research

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