

# Impact of macro-economic environment on the automotive industry

ACMA  
July 2022



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Research

# Content

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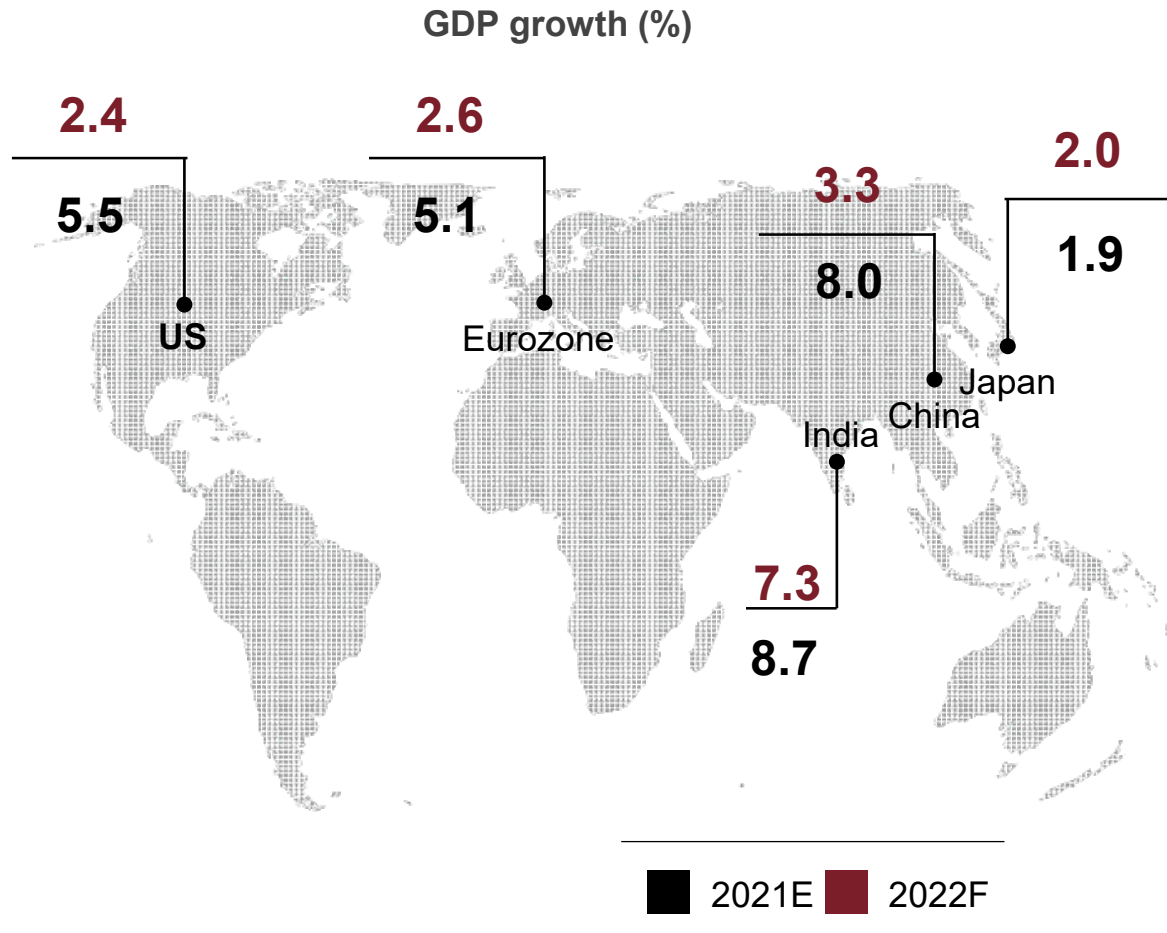
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# Economy overview

# Global growth moderating amid rising risks



E: Estimated; F: Forecast; AEs: Advanced economies; EMs: Emerging markets  
Source: S&P Global (June 2022); India outlook is for fiscal year

- Geopolitical tensions weighing on global growth, trade and high oil and commodity prices
- Eurozone facing a direct hit via the trade channel, the US suffering from the hit to inflation,
- Focus now on inflation more than recovery. US Fed actions to put pressure on EM central banks to raise policy rates
- Uncertainty, non-uniform growth patterns, inflation patters suggest a heightened period of capital volatility
- China covid-19 policy and economic slowdown

# Mobility Trends

# Hi-Frequency indicators

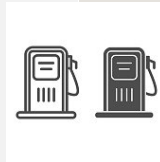
## How are they shaping?

### Mobility indicators and Vaccination progress



Mobility Indicators in March month indicate that most segments such as grocery and pharmacy, parks, workplaces, retail and recreation and transit stations have surpassed pre covid levels

### Fuel and Power consumption



Power consumption growth saw a 5% and 18% growth in March 2022 on y-o-y and m-o-m basis respectively. Diesel consumption witnessed drop of -0.6% in February 2022 on y-o-y basis while petrol consumption saw a growth of 3.5% for the same

### Freight movement & Transporter Profitability



E-waybill generation has been at daily average of 1.49mn in February 2022 compared to January 2022 daily average of 1.36mn for intra-city while for inter-city the same has been about daily average of 0.95mn in February 2022 compared with daily average of 0.86mn in January 2022 reflecting an uptick in commerce

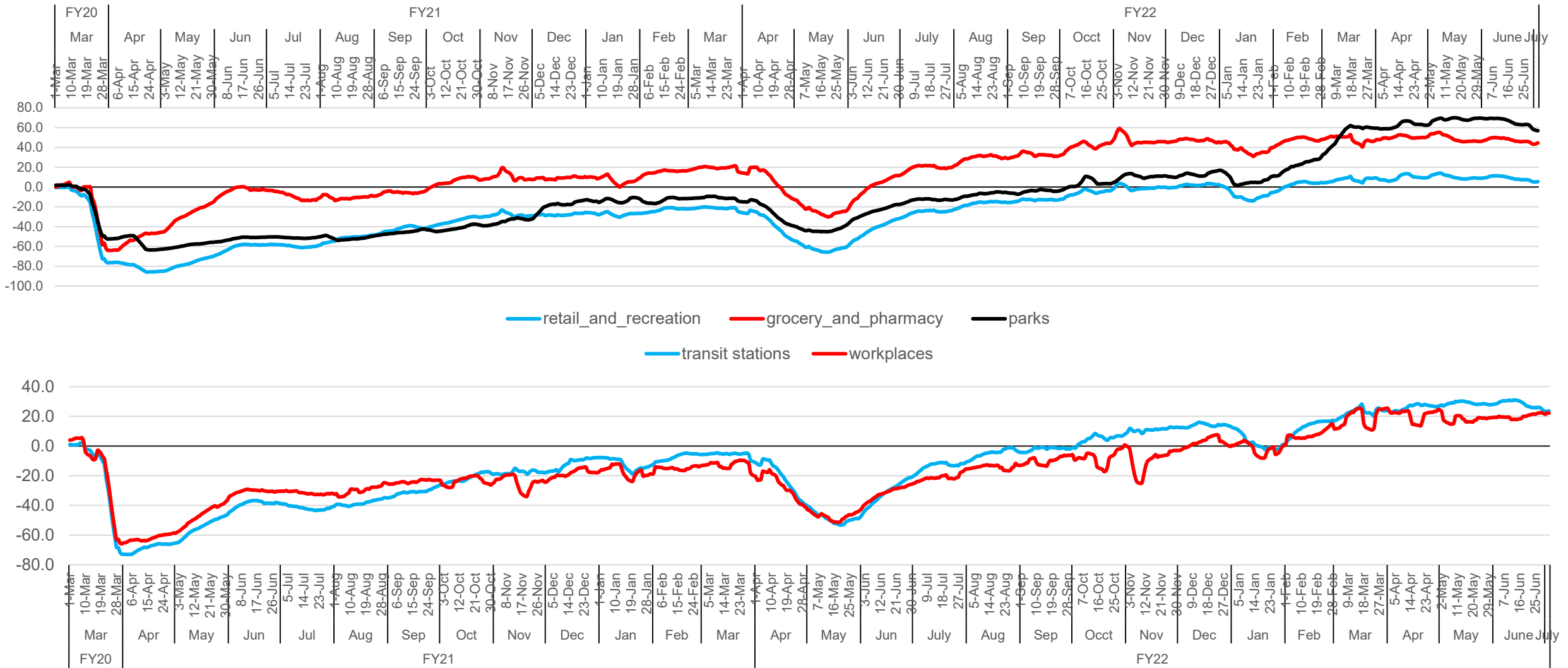
Freight rates edged up on higher diesel prices.

### STU Tendering Tracker



Interactions indicate fresh tenders from southern states like Tamil Nadu in addition with already released tenders from states like Kerala and Karnataka

# Mobility indicators-segmental

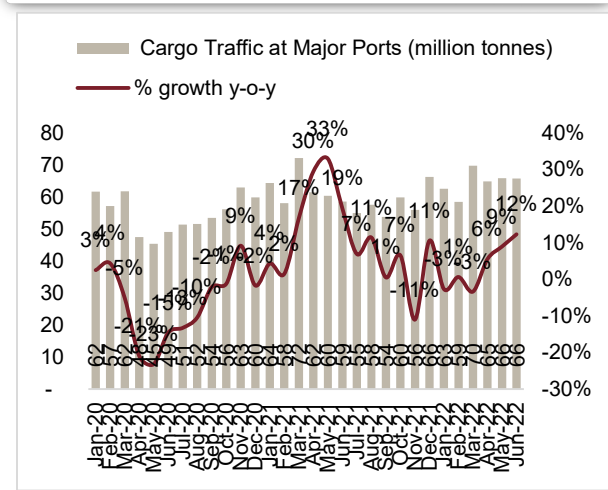


Source: CRISIL Research, Covid-19 Community Mobility Reports by Google,

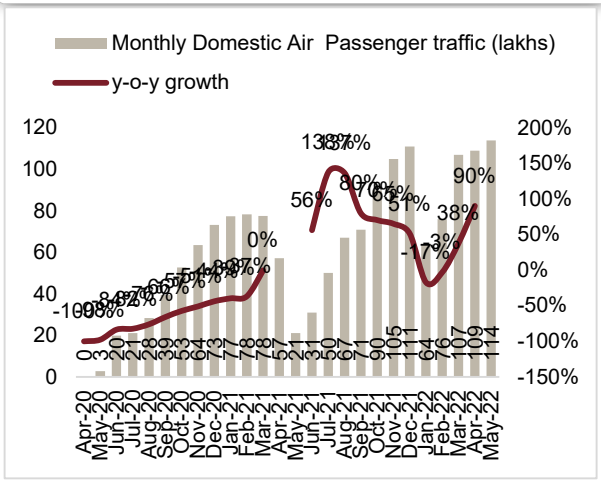
Note: Data is 7 day Moving Average data. Google's Community Mobility Reports use smartphone location data to publish reports about people's movement in an area.

# Overall mobility showing improvement month on month

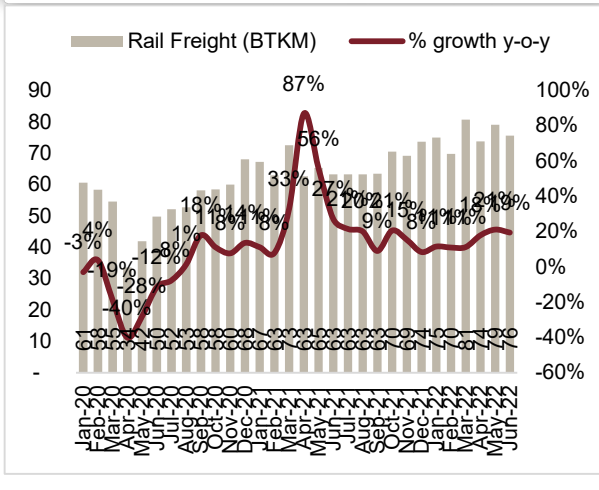
## Port Traffic



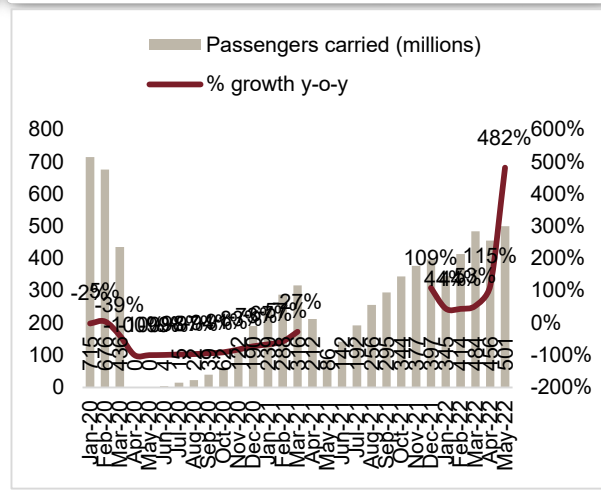
## Air traffic (Domestic)



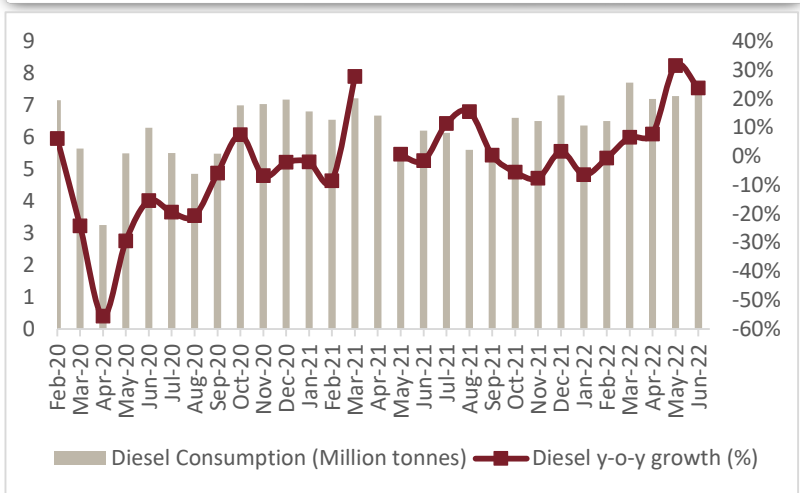
## Rail Cargo



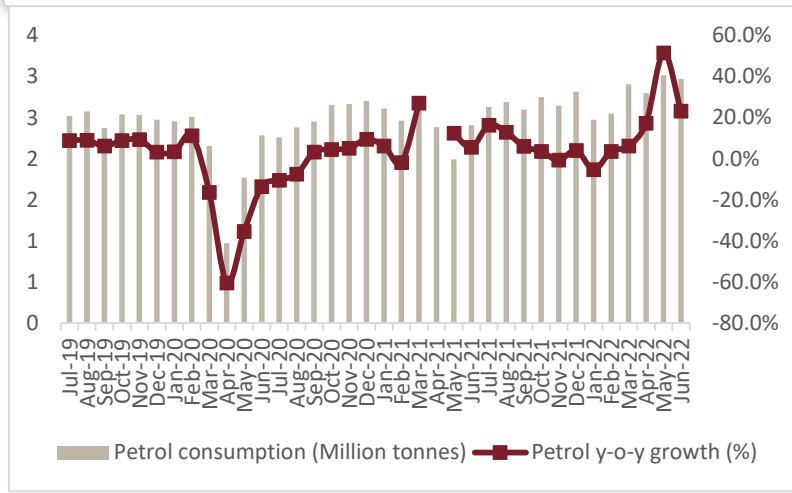
## Rail passenger



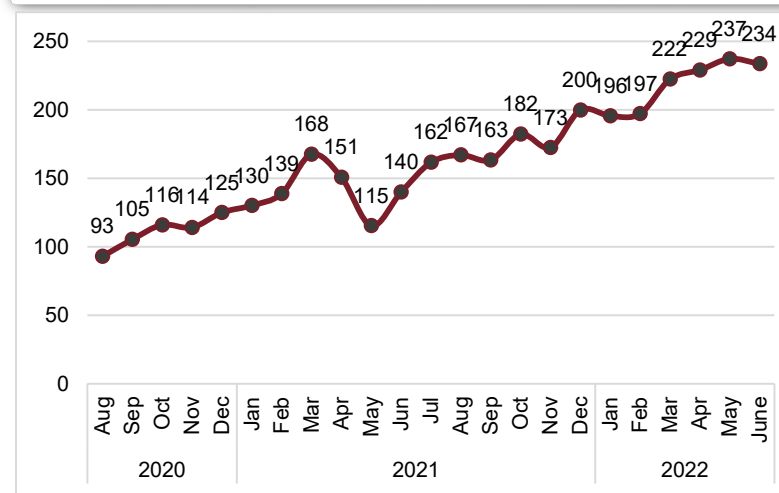
## Monthly diesel consumption



## Monthly petrol consumption



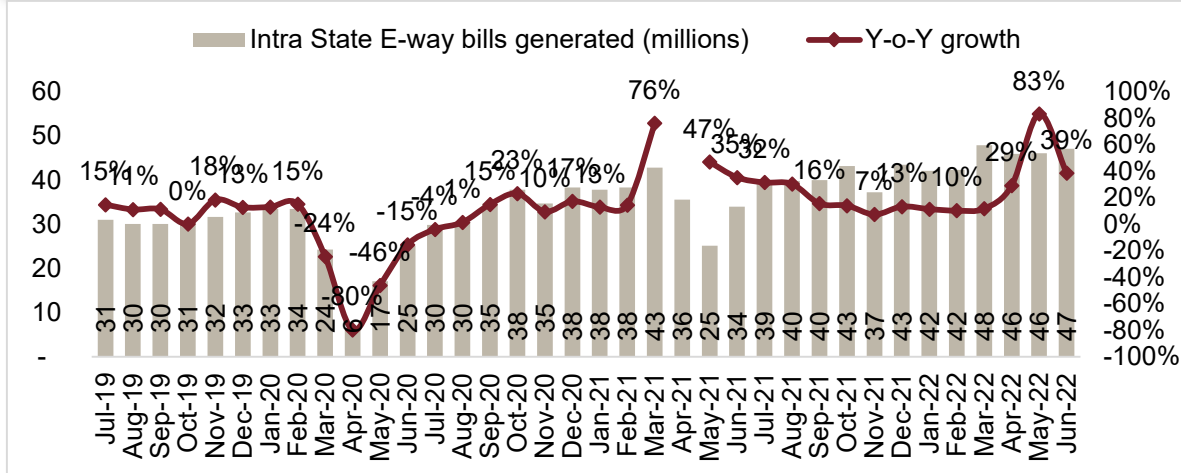
## NETC/Fastag collections-Indexed to Feb-20 levels



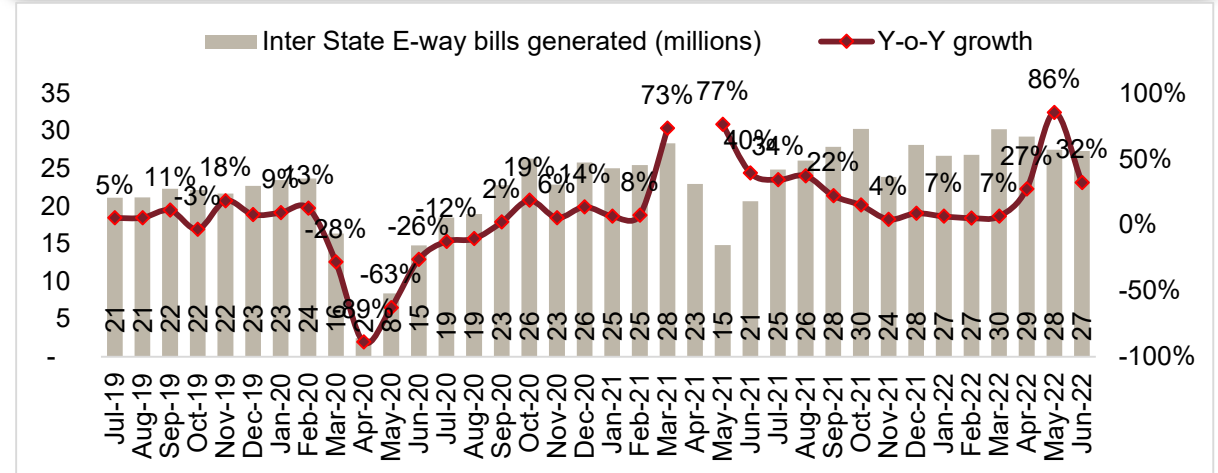


# High Frequency Indicators

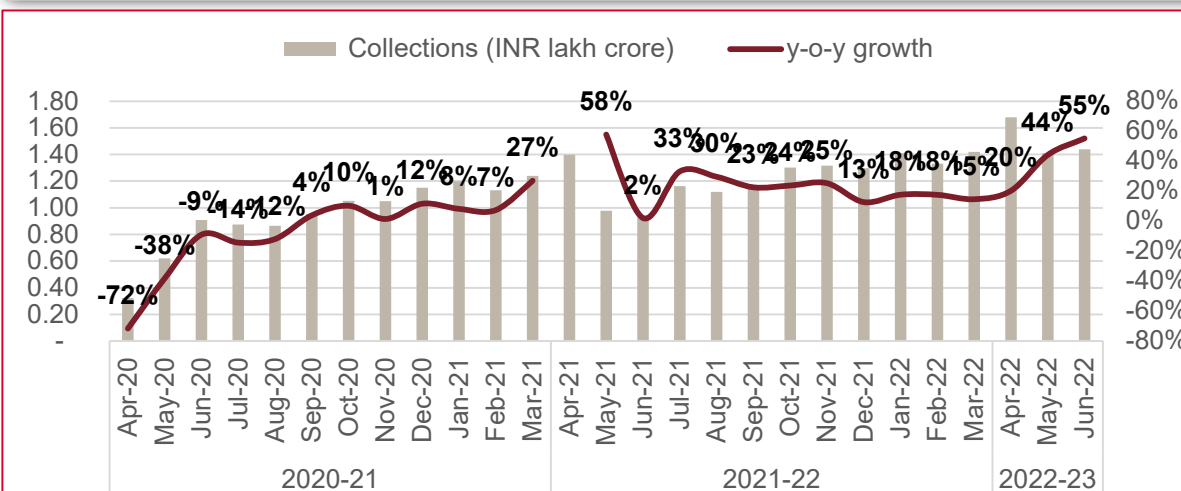
## Ewaybills : Intrastate



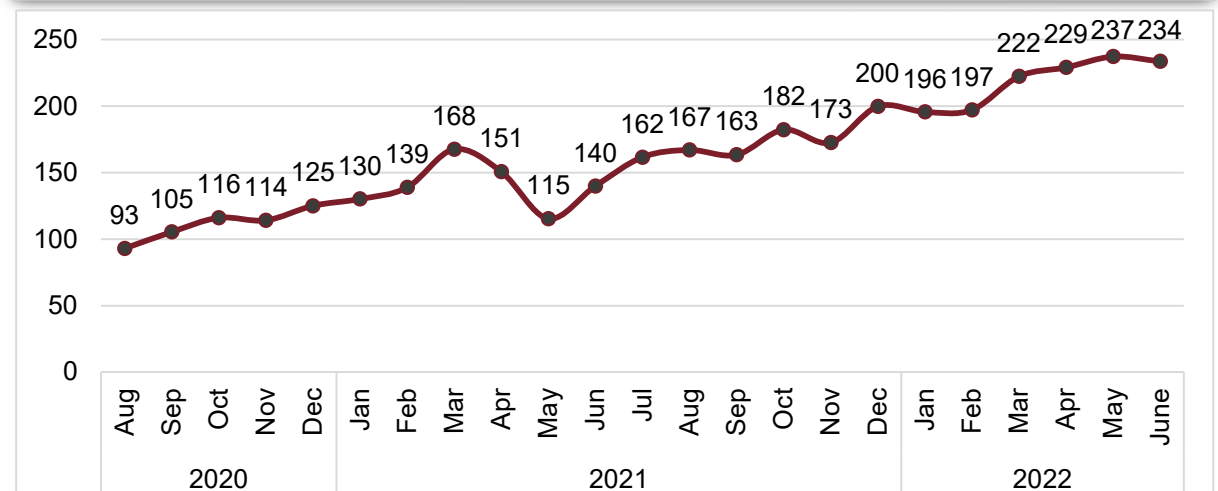
## Ewaybills : Interstate



## GST collections

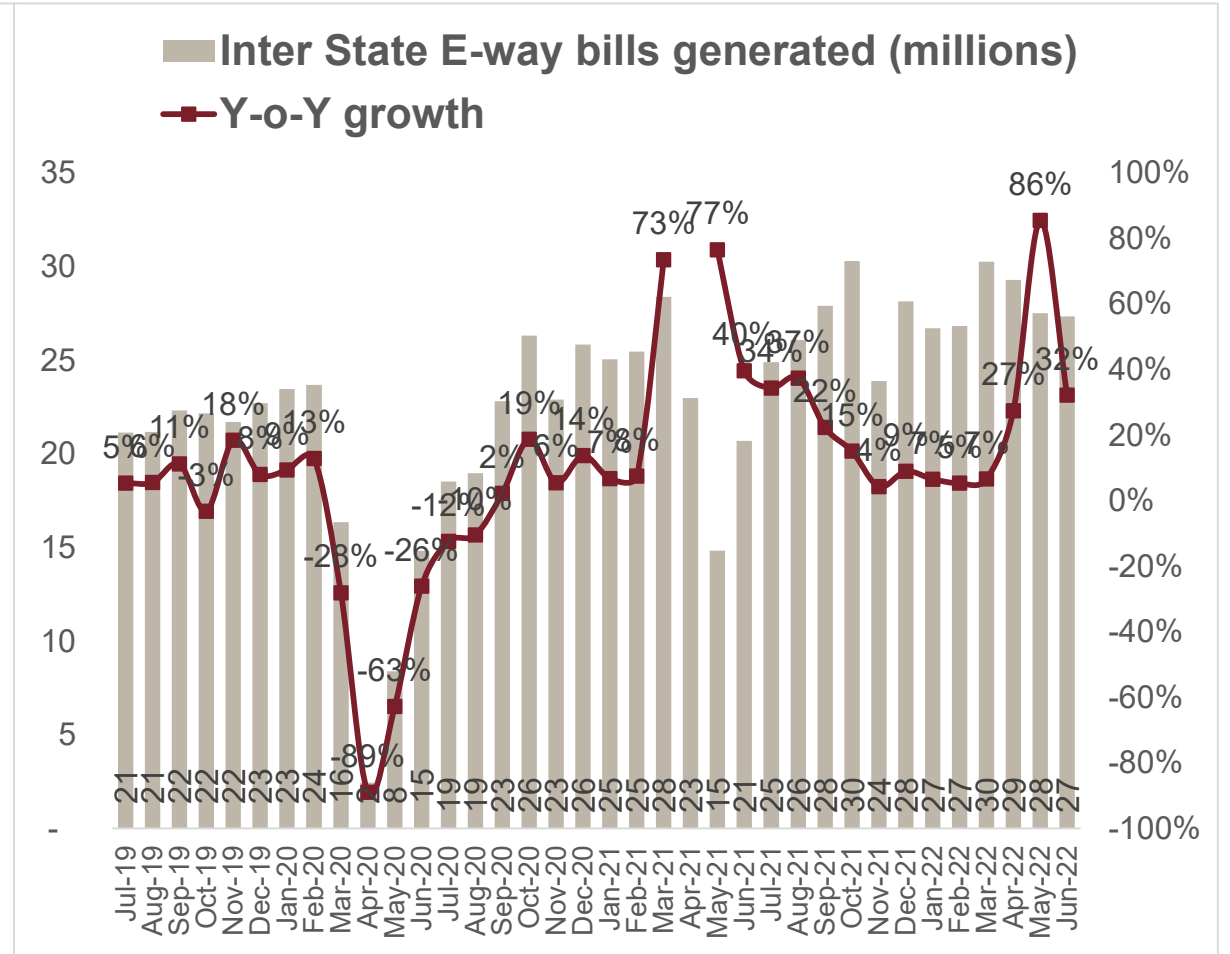
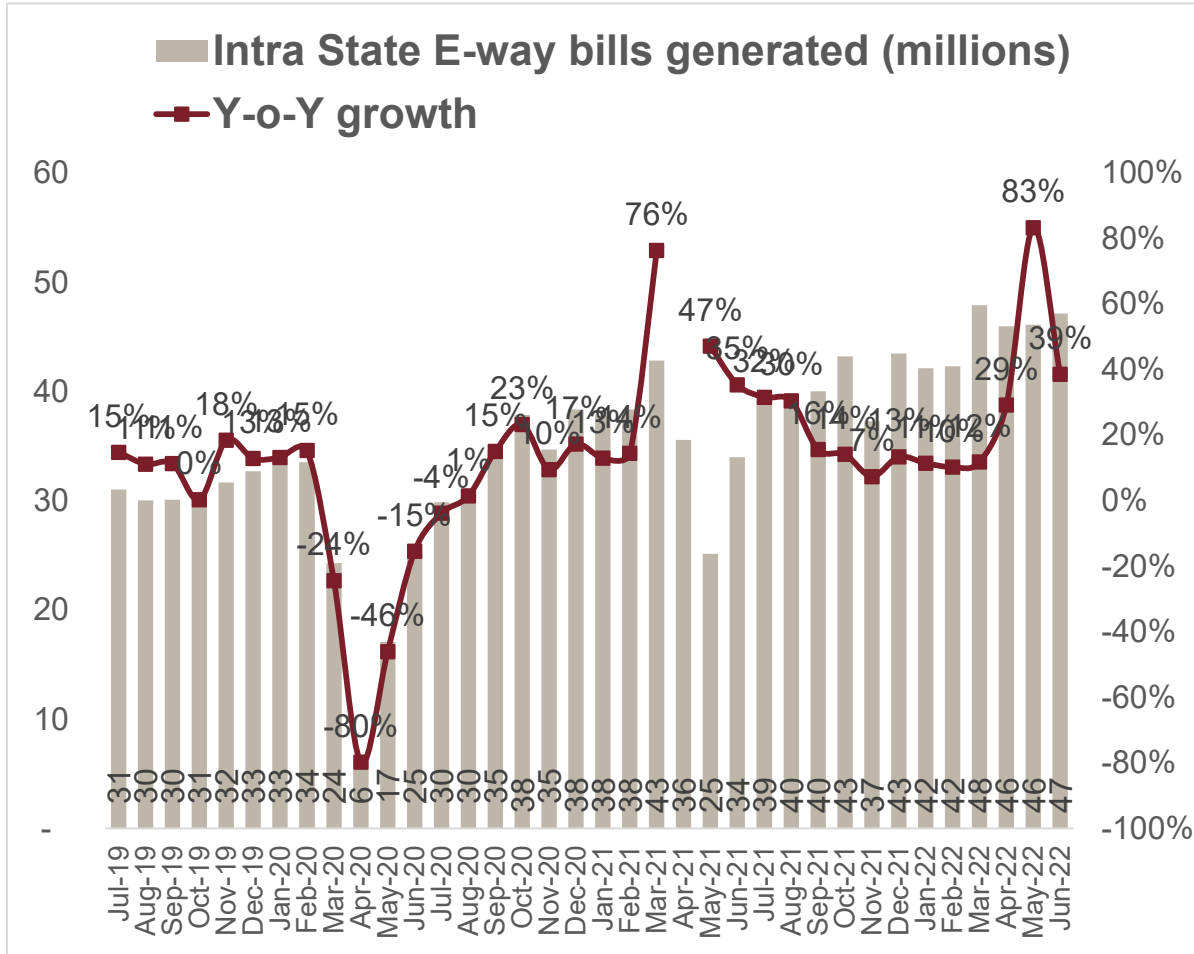


## Fastag trend (Feb 2020 level =100)



# Intra state E-waybill trend

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



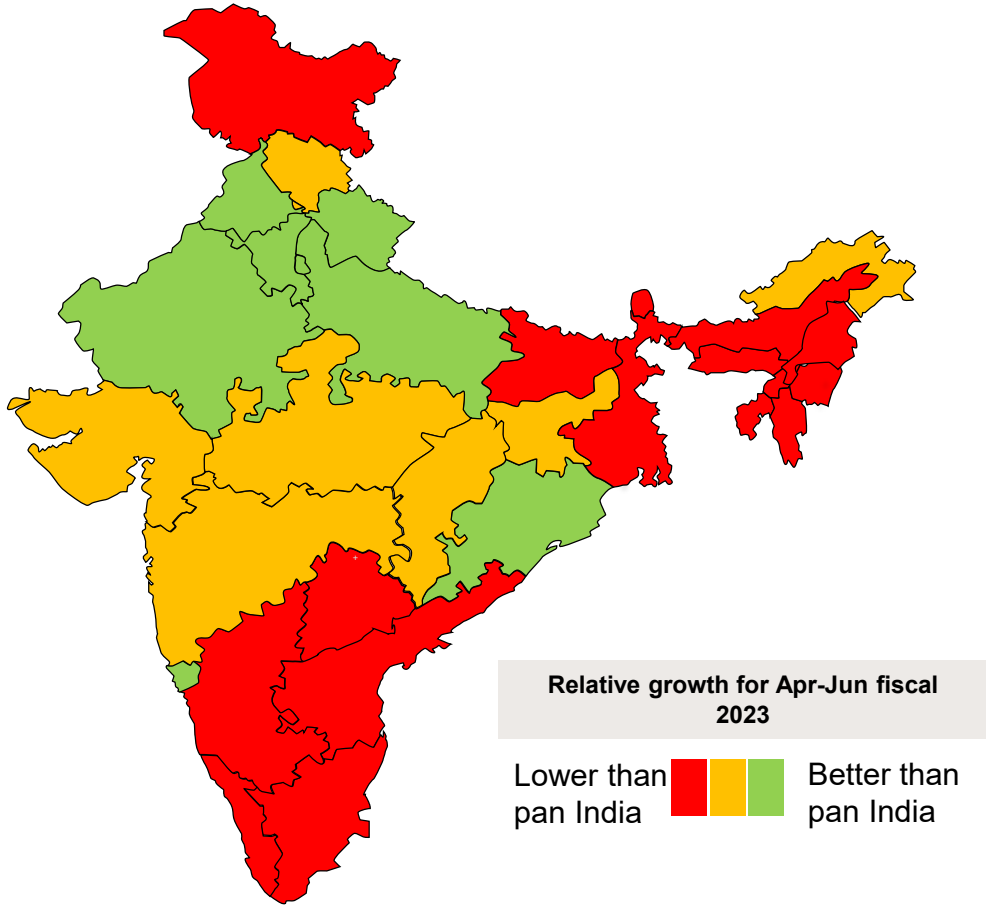
Note:

1. y-o-y growth not mentioned in Apr-21 as values are not meaningful due to low base effect of previous year caused by the nationwide lockdown.
2. Agri, last mile distribution and market load operations do not come under ambit of E-way bill hence the E-way bills mentioned here may not represent the entire movement of goods in the country
3. Weekly data available till 27<sup>th</sup> feb

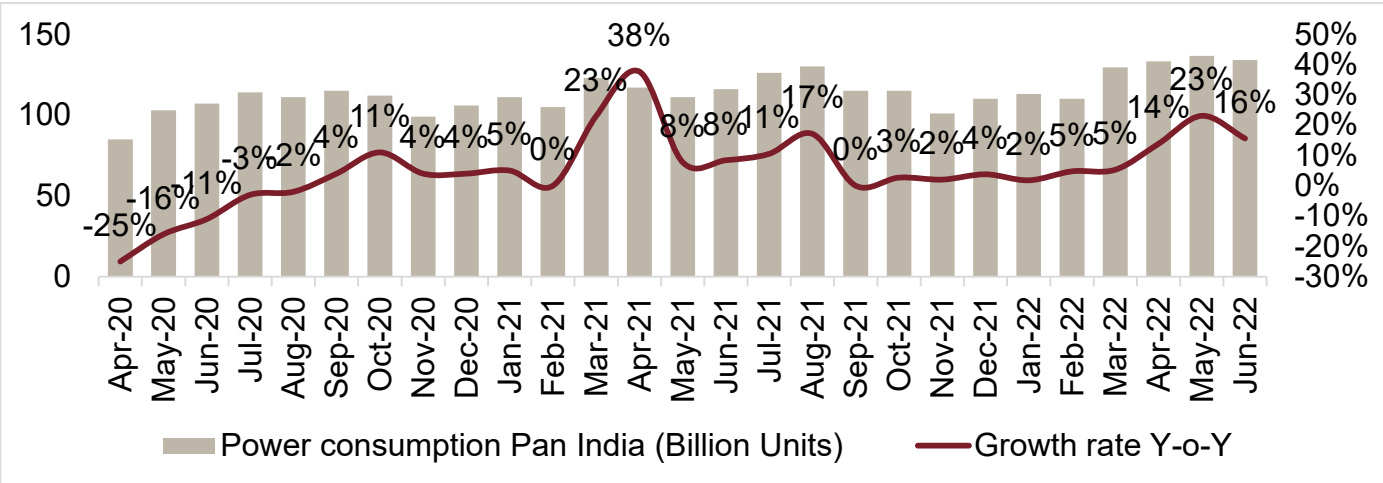
Source: GST Network, CRISIL Research,

# Power consumption poses double digit growth in Apr-Jun 2022; North region performs better than other regions in Apr-Jun FY23 period

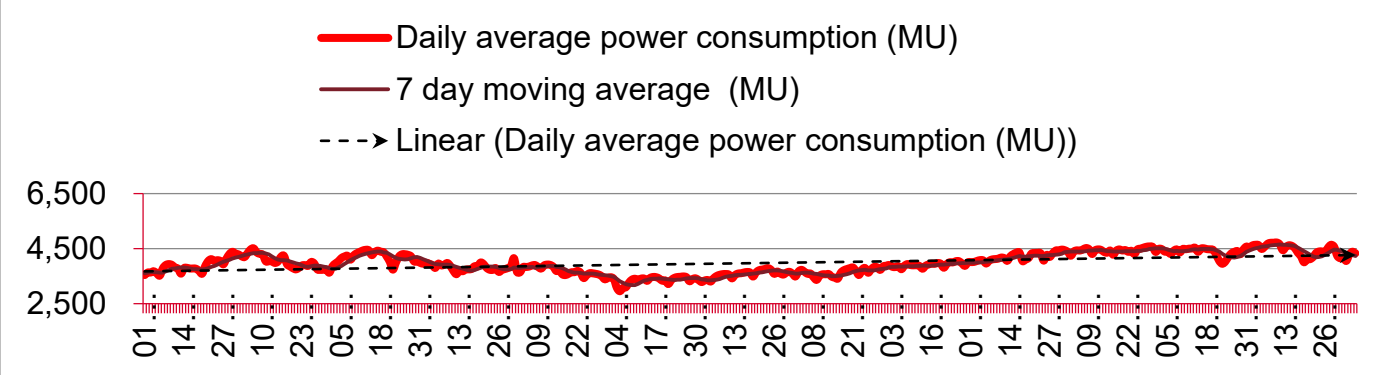
Eastern region seeing a better trajectory in power consumption



## Monthly trend for power consumption in India



## Daily trend for power consumption in India



# High frequency parameters seeing sequential improvement

Segments	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	
<b>Core Sectors</b>																												
Coal	-15%	-14%	-16%	-6%	4%	21%	12%	3%	2%	-2%	-4%	0%	9%	7%	7%	19%	21%	8%	15%	8%	5%	8%	7%	0%	29%	25%		
Crude Oil	-6%	-7%	-6%	-5%	-6%	-6%	-6%	-5%	-4%	-5%	-3%	-3%	-2%	-6%	-2%	-3%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-3%	-1%	5%		
Natural Gas	-20%	-17%	-12%	-10%	-9%	-11%	-9%	-9%	-7%	-2%	-1%	12%	25%	20%	21%	19%	21%	28%	26%	24%	20%	12%	13%	8%	6%	7%		
Petroleum Refinery Products	-24%	-21%	-9%	-14%	-19%	-9%	-17%	-5%	-3%	-3%	-11%	-1%	31%	15%	2%	7%	9%	6%	14%	4%	6%	4%	9%	6%	9%	17%		
Fertilizers	-4%	7%	4%	7%	7%	0%	6%	2%	-3%	3%	-4%	-7%	4%	-10%	2%	1%	-3%	0%	0%	3%	4%	-2%	-1%	15%	9%	23%		
Steel	-83%	-40%	-23%	-6%	-2%	3%	-3%	-4%	3%	3%	-2%	32%	494%	55%	25%	9%	5%	3%	5%	1%	-1%	3%	6%	4%	-1%	15%		
Cement	-85%	-21%	-7%	-13%	-15%	-4%	3%	-7%	-7%	-6%	-5%	41%	607%	12%	8%	22%	36%	11%	15%	-3%	13%	14%	5%	9%	8%	26%		
Electricity	-23%	-15%	-10%	-2%	-2%	5%	10%	2%	5%	5%	0%	22%	39%	7%	8%	11%	15%	1%	3%	2%	3%	1%	4%	5%	11%	22%		
<b>Auto-offtake</b>																												
Two Wheelers	-100%	-84%	-39%	-15%	3%	12%	17%	13%	7%	7%	10%	73%	NM	26%	3%	-2%	-15%	-17%	-25%	-34%	-11%	-21%	-27%	-21%	15%	250%	23%	
Cars	-100%	-88%	-59%	-18%	11%	55%	39%	-14%	13%	-7%	-1%	108%	NM	113%	118%	45%	8%	-41%	-27%	-19%	-13%	-8%	-7%	-4%	-4%	185%	19%	
Uvs + Vans	-100%	-76%	-43%	1%	26%	38%	39%	3%	23%	25%	33%	153%	NM	118%														
Three Wheelers	-100%	-95%	-80%	-77%	-75%	-72%	-5%	-22%	-6%	-6%	-3%	16%	NM	-49%	-9%	41%	60%	54%	19%	-7%	25%	-10%	-2%	-1%	51%	2162%	184%	
<b>Auto-Vaahan</b>																												
2W	-76%	-89%	-40%	-36%	-27%	-13%	-25%	-19%	12%	-7%	-16%	-35%	171%	155%	18%	28%	7%	-9%	-6%	0%	-19%	-13%	-10%	-4%	42%	214%	20%	
Cars+Uvs	-91%	-86%	-37%	-23%	-4%	10%	-6%	7%	24%	-2%	13%	34%	913%	171%	43%	63%	39%	22%	-11%	-19%	-10%	-10%	-7%	-5%	31%	209%	41%	
<b>Others</b>																												
PMI Manufacturing	27.4	30.8	47.2	46	52	56.8	58.9	56.3	56.4	57.7	57.5	55.4	55.5	50.8	48.1	55.3	52.3	53.7	55.9	57.6	55.5	54	54.9	54	54.7	54.6	53.9	
IIP Overall	-57%	-33%	-17%	-11%	-7%	1%	5%	-2%	2%	-1%	-3%	24%	134%	29%	14%	11%	12%	3%	4%	1%	1%	1%	2%	2%	7%			
Diesel consumption	-56%	-29%	-15%	-19%	-21%	-6%	8%	-7%	-2%	-2%	-8%	28%	106%	1%	-2%	11%	16%	0%	-6%	-8%	2%	-6%	-1%	7%	8%	32%		
Rail freight (NTKM)	-40%	-28%	-12%	-8%	1%	18%	11%	8%	14%	11%	8%	33%	87%	56%	27%	21%	20%	9%	21%	15%	8%	11%	11%	18%	21%	19%		
Bitumen consumption	-73%	-19%	37%	-4%	39%	38%	49%	18%	21%	-3%	-10%	45%	343%	12%	-23%	5%	16%	-2%	5%	-22%	-18%	-2%	3%	-12%	-8%	6%		
<b>Total credit</b>	-73%	-19%	37%	-4%	39%	38%	49%	18%	21%	-3%	-10%	45%	6%	5%	6%	6%	7%	7%	7%	7%	10%	7%	8%	9%	10%	12%	12.0%	
Industry credit	2%	2%	2%	1%	0%	0%	-2%	-1%	-1%	-1%	0%	0%	0%	1%	0%	1%	2%	2%	4%	4%	8%	6%	11%	7.00%	10%			
-Micro and Small	-2%	-3%	-4%	-2%	-1%	0%	1%	0%	1%	1%	2%	1%	4%	5%	6%	9%	10%	10%	12%	13%	20%	20%	29%	32.00%	46%			
-Medium	-6%	-5%	-9%	-3%	3%	14%	17%	21%	15%	19%	21%	29%	50%	52%	61%	66%	63%	49%	49%	49%	87%	75%	82%	55.00%	52%			
-Large	3%	3%	4%	1%	1%	-1%	-3%	-2%	-2%	-3%	-2%	-1%	-2%	-2%	-3%	-3%	-1%	-1%	1%	0%	1%	0%	4%	0.00%	1%			

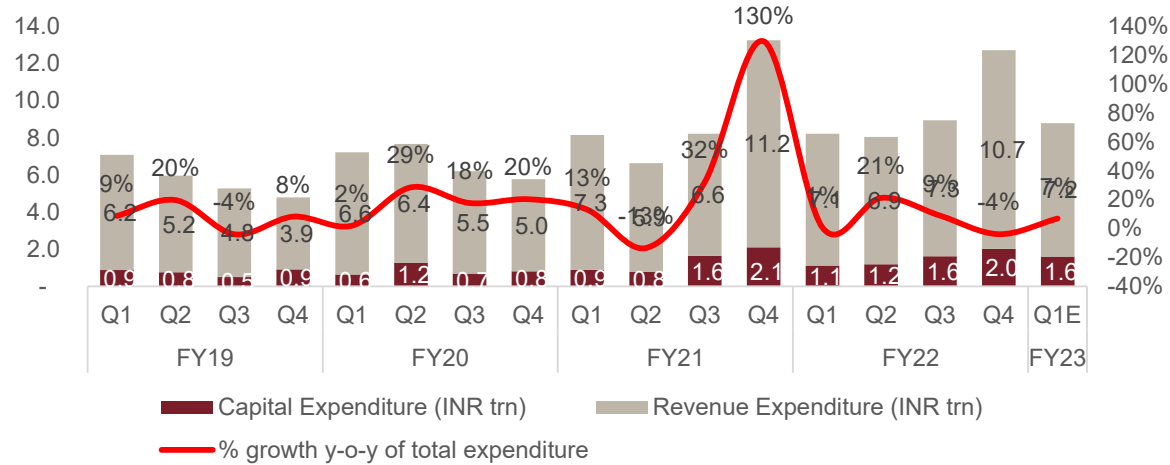
Research

Source: CSO, RBI and CRISIL estimates

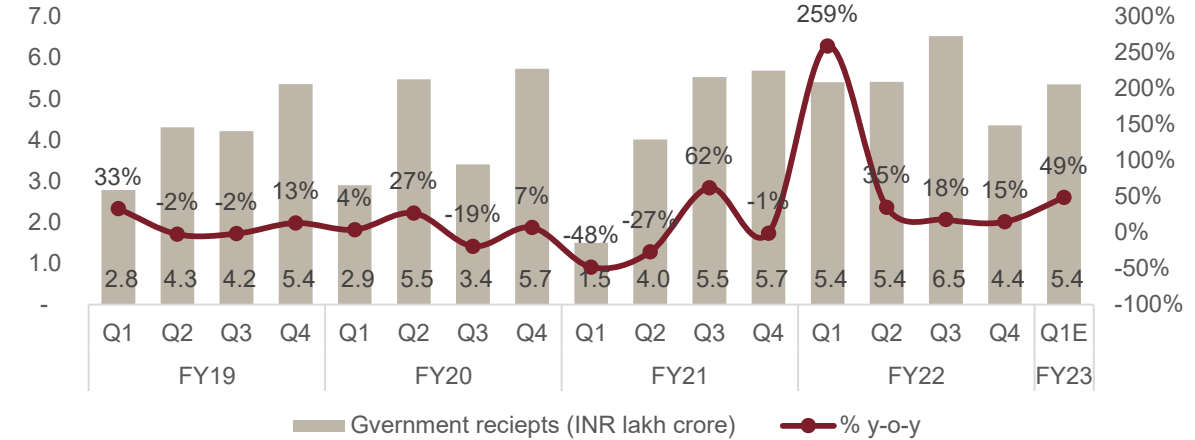
Note\* - (based on MOSPI classification)

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

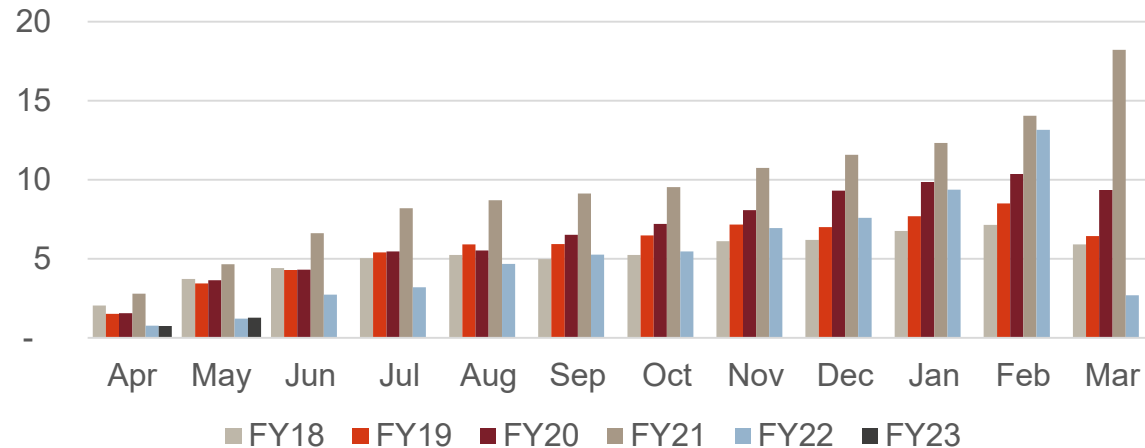
Government expenditure at a peak in Q4FY21, Q4FY22 cautious thus far



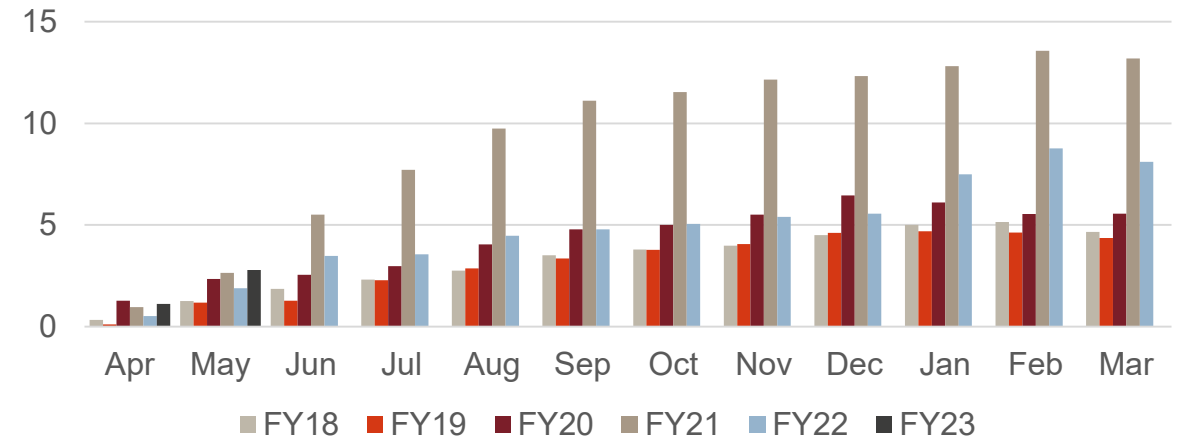
Receipts in Q4FY22 substantially lower than previous years



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

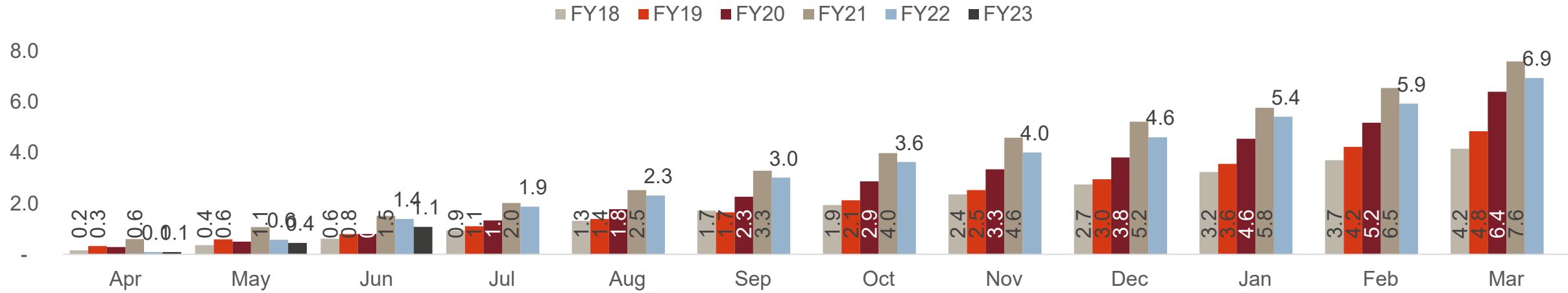


m-o-m build-up of cumulative market borrowings of the govt. (INR trillion)

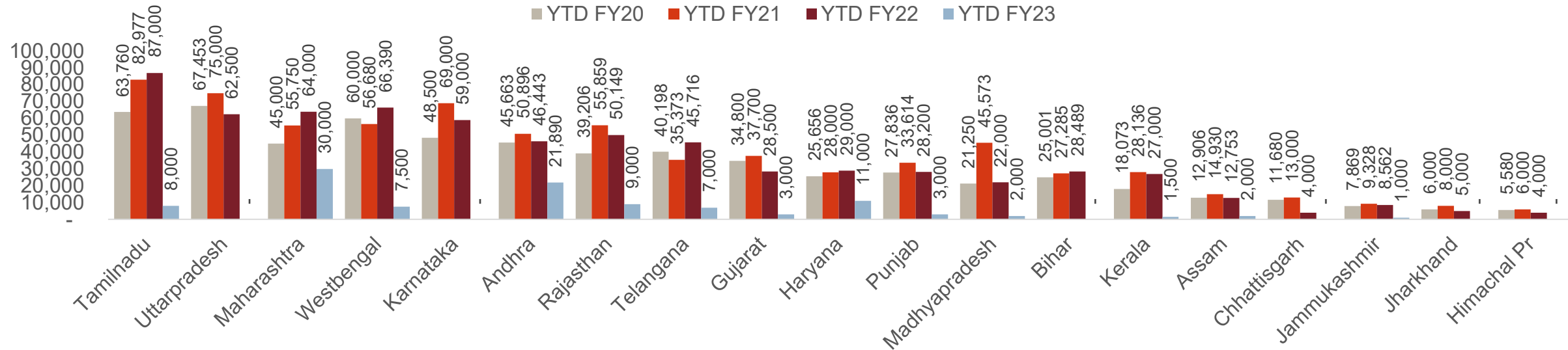


# State government borrowings similar to last year as partial lockdowns hurt state revenues

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



Year to date G-sec borrowings of various state governments and comparable levels for past year (INR crores)

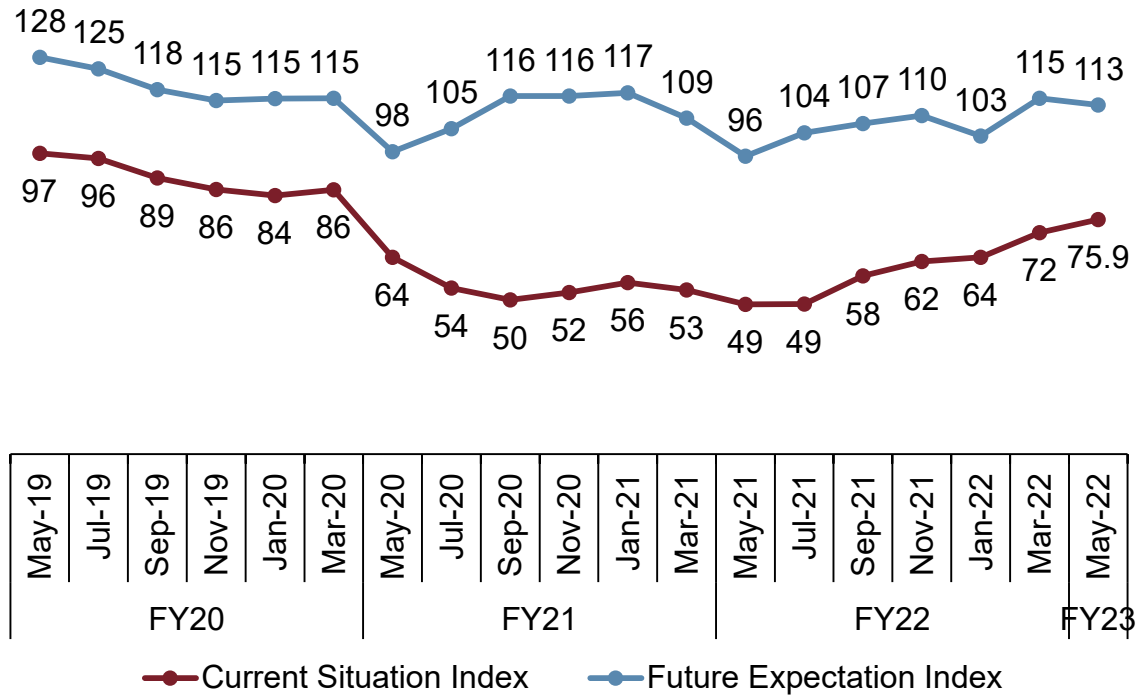


# Perceptions and Expectations on the General Economic Situation

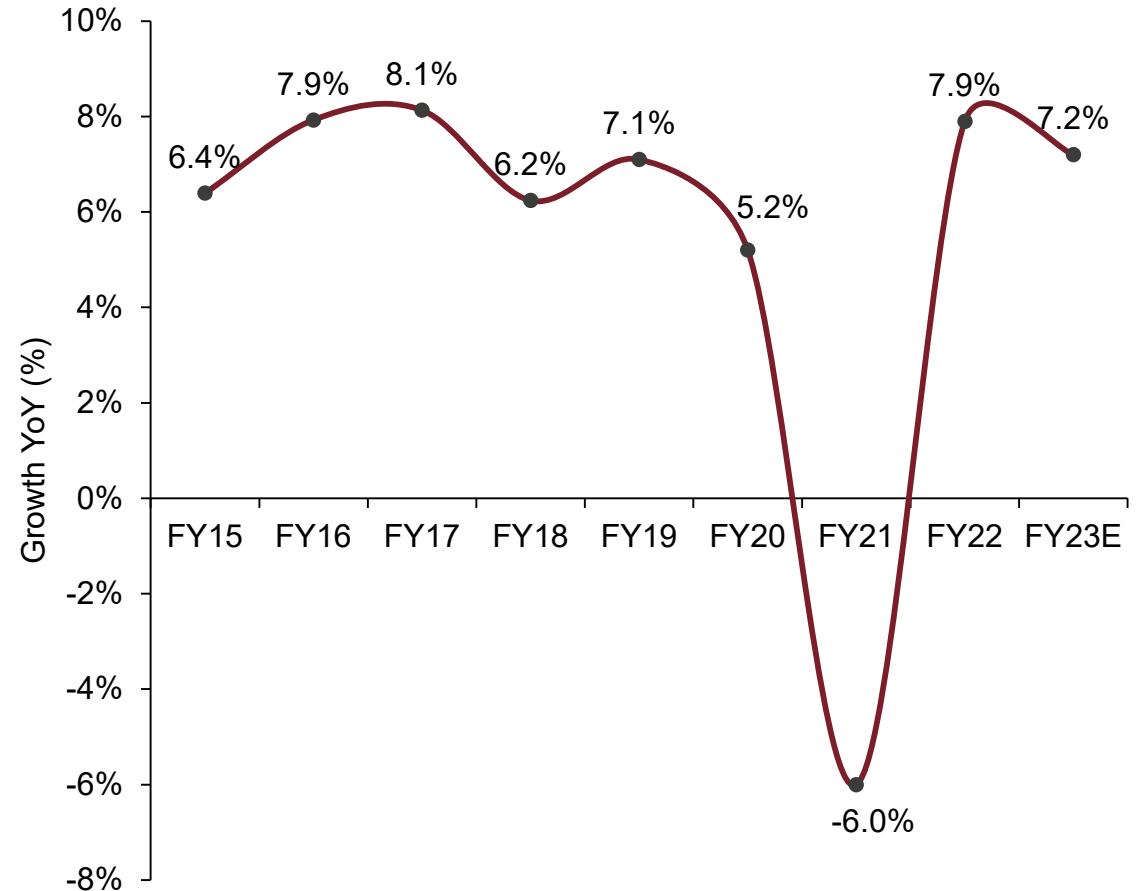
## Consumer Confidence Index



During May 22 survey round, current situation index continued its growth trajectory from the historic low of July 21  
On the other hand, future expectation index witnessed some tapering in May 22 from a high of Mar-22



## PFCE to continue its momentum in FY23, albeit at a slower pace



Source: CRISIL Research, RBI, NCAER

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

# Rural Scenario and Government Spending



# Low government support and higher input cost to impact farm sentiments in FY23

## Agri scenario lends support to a struggling economy

### Crop scenario



- Kharif CVI expected to improve marginally in FY23 on account of higher crop production backed by normal monsoon forecast by IMD.
- Higher input cost and low realizations to impact farm sentiments in the near term
- Rabi payments were received in a timely manner which led to a positive momentum on ground.

### MNREGA



- In fiscal 2022, Rs.99,053 cr has been spent in comparison to Rs.98,000 cr allocated
- Till June 2022, around 37.1 million households have worked under the scheme in FY23, while the full-year number in last fiscal was around 72.6 million
- For fiscal 2023, allocated expenditure has been cut by 25% to Rs.73,000 cr.
- Till June 2022, the total expenditure on the scheme has been ~Rs. 26,359 cr.

## Government support

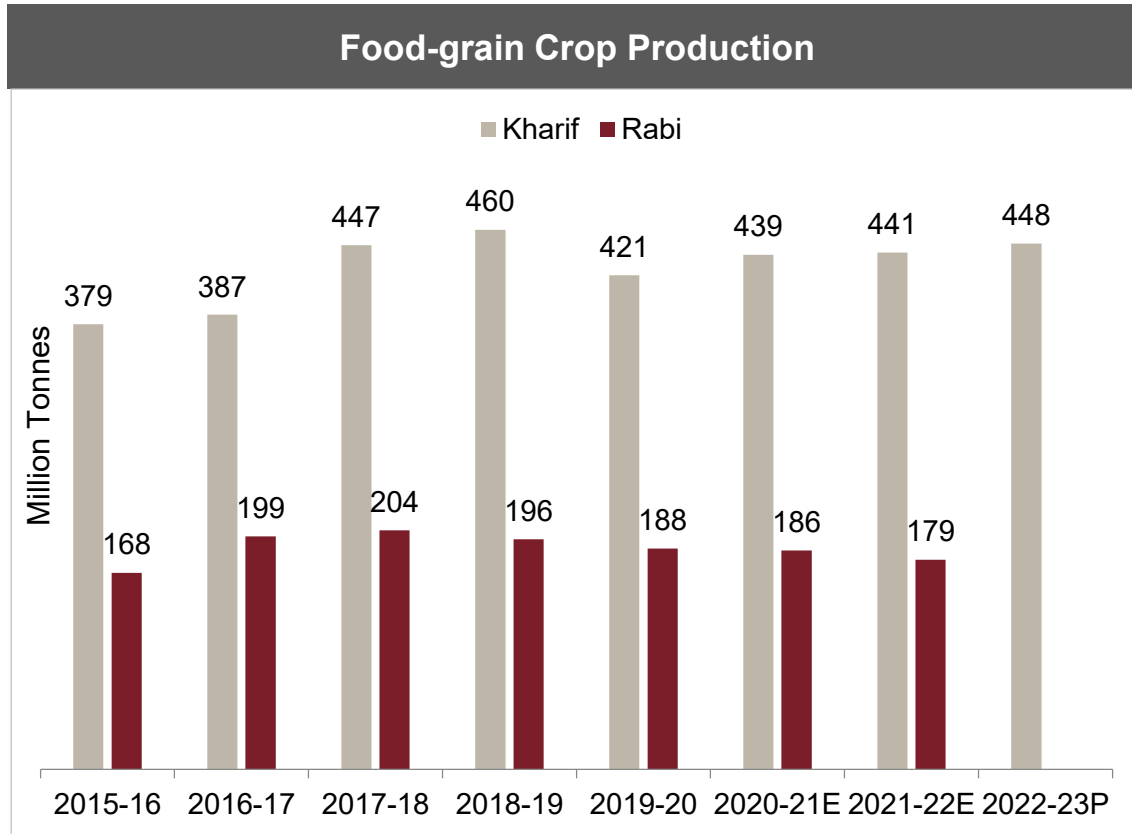
### PM Kisan and PM Garib Kalyan Yojana



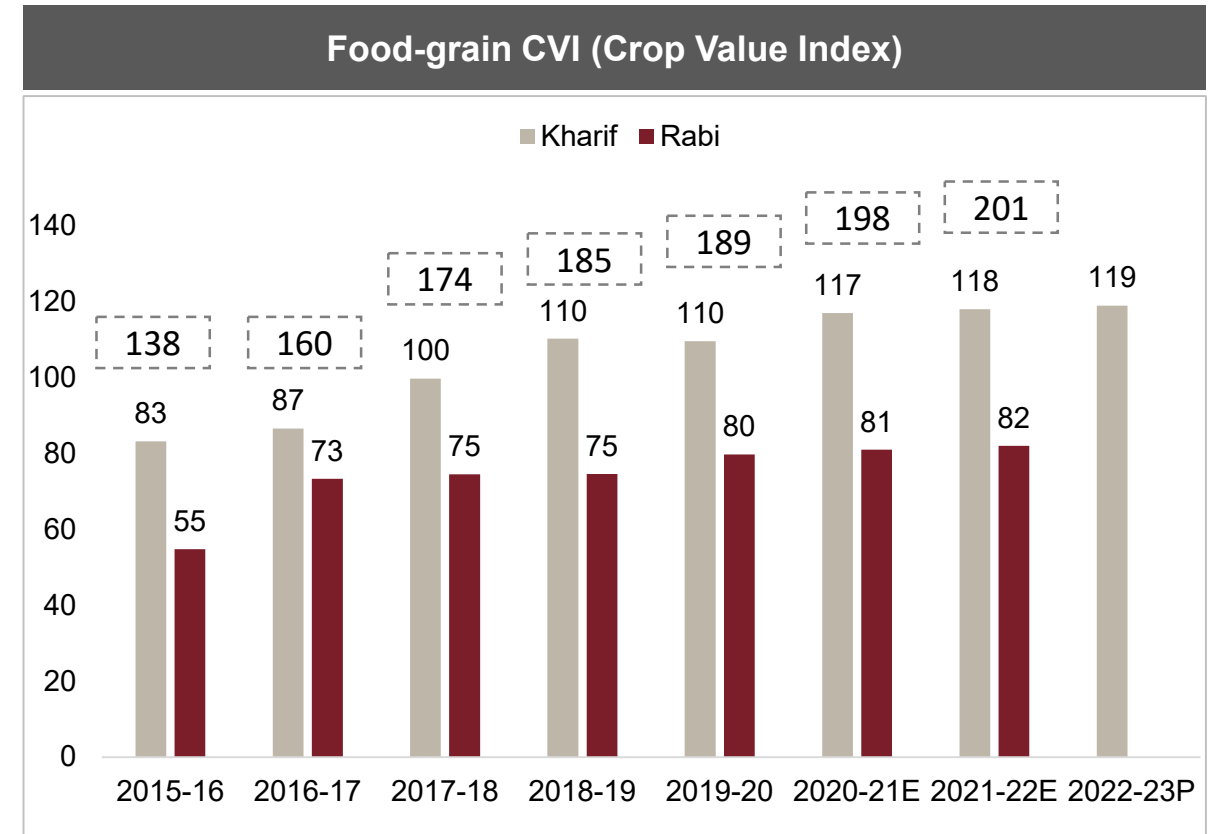
- Allocation for PM Kisan in the union budget for fiscal 2023 has been Rs.68000 cr, which is only marginally higher than the revised estimates for fiscal 2022, at Rs.65000 cr.
- As per a statement from PMO (Prime Minister Office), PM Kisan 11th Installment List 2022 for Rs.2000 has been transferred directly in the bank account of eligible beneficiaries by 31 May 2022.

Source – MGNREGA, Industry, CRISIL Research

# Increased costs, offset by healthy realizations keeping farm side sentiments healthy



Source: CRISIL Research



Source: CRISIL Research;

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

Total CVI



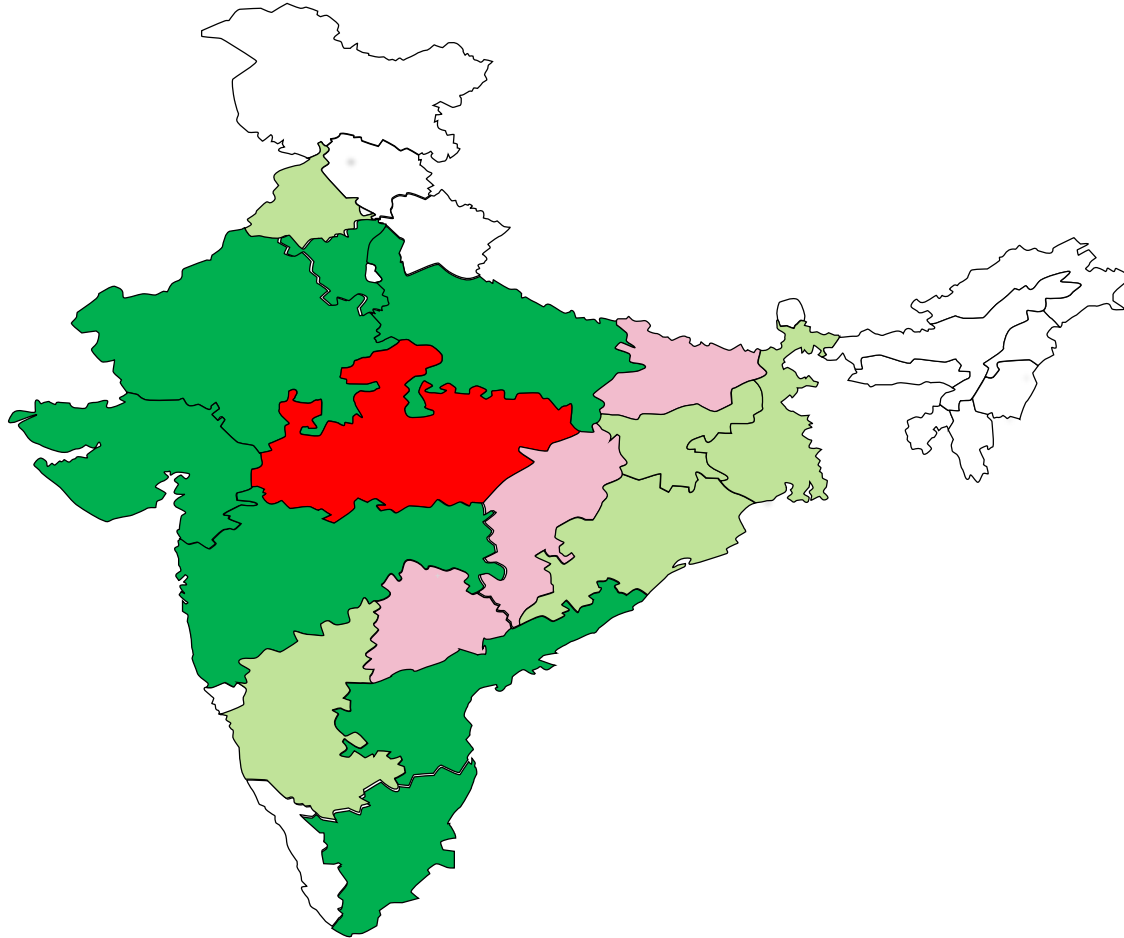
Crop damage on account of unseasonal rainfall impacted rabi crop output in FY22 but above average crop prices helped keep the cash flow healthy



Lower government procurement to impact farm income for the current fiscal; however current global food certainty is helping in realizing better prices

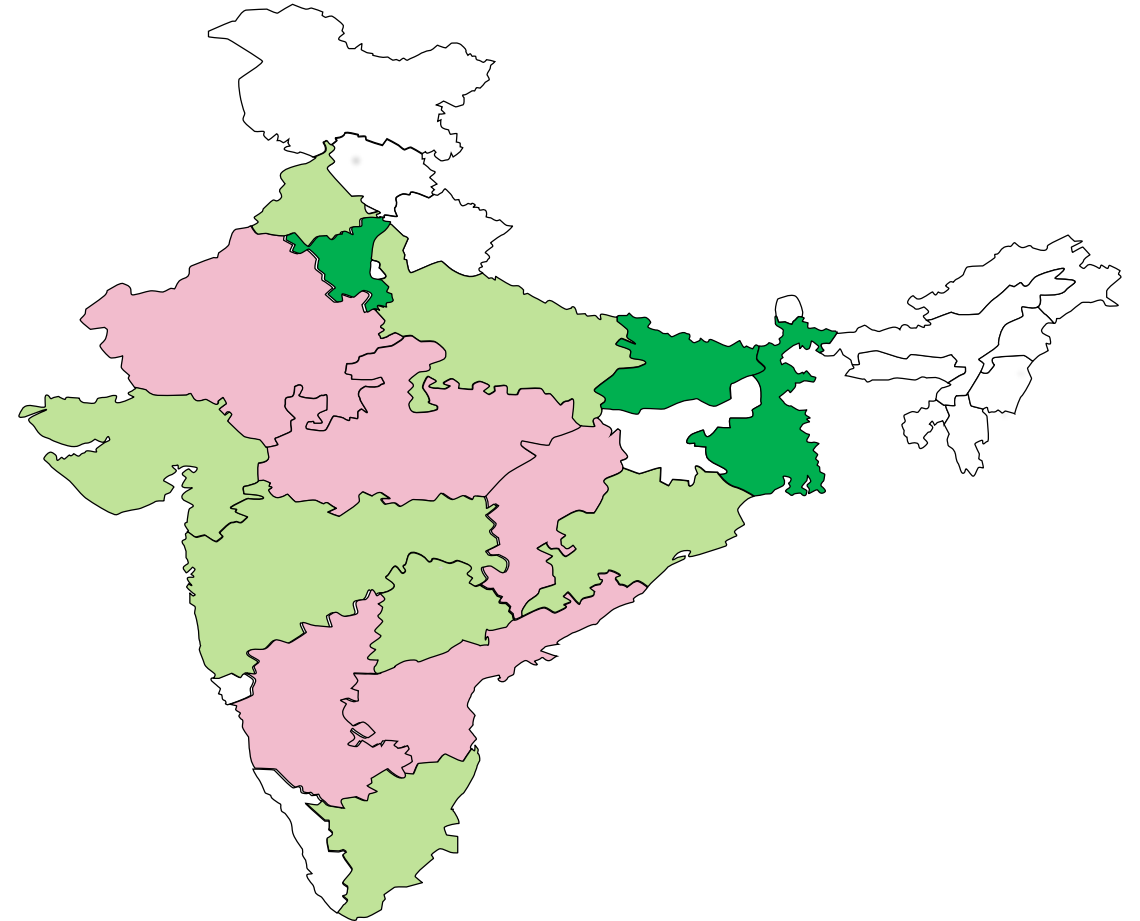
# State wise Crop Value Index

Kharif CVI heat Map for FY23



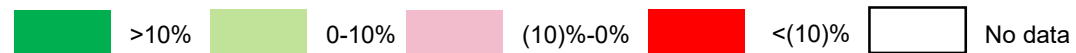
Source: CRISIL Research

Rabi CVI heat map for FY22



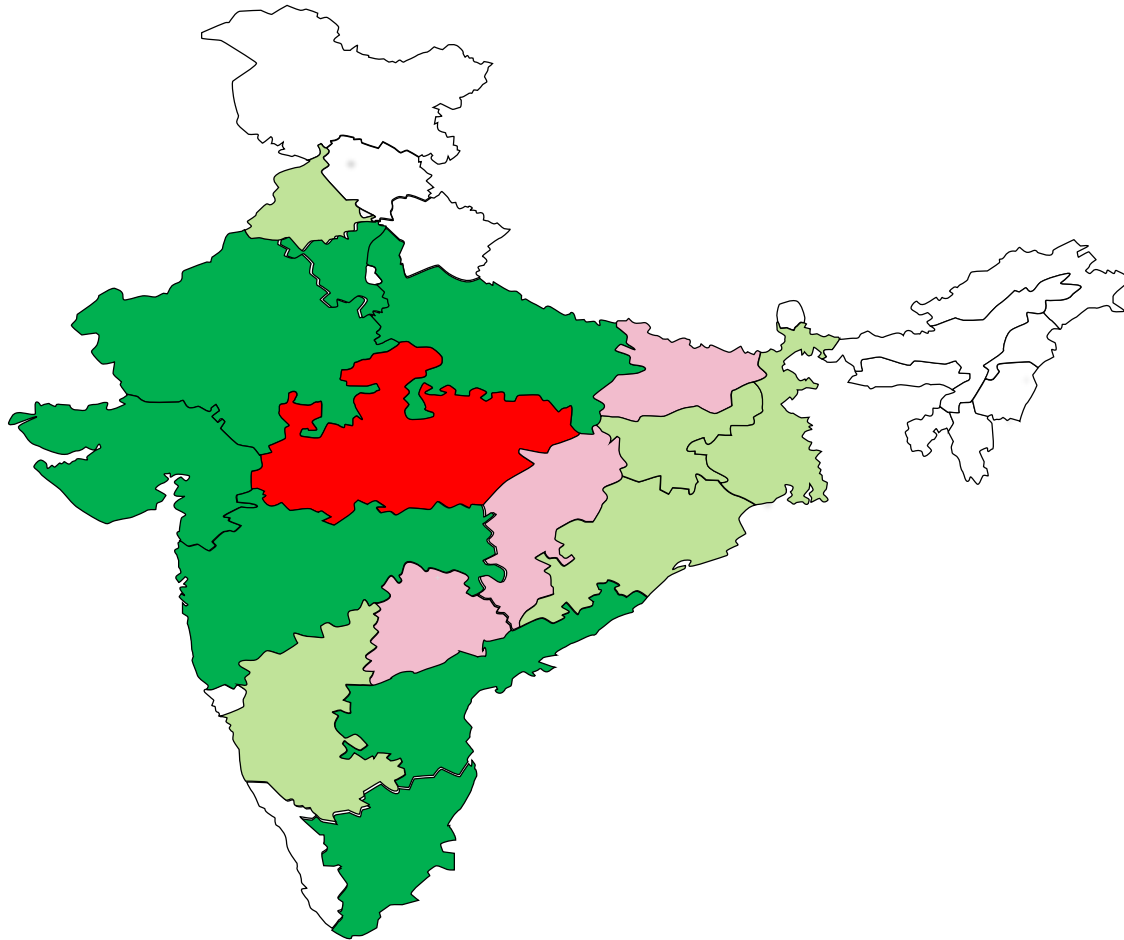
Source: CRISIL Research

Colours indicate % change on-year



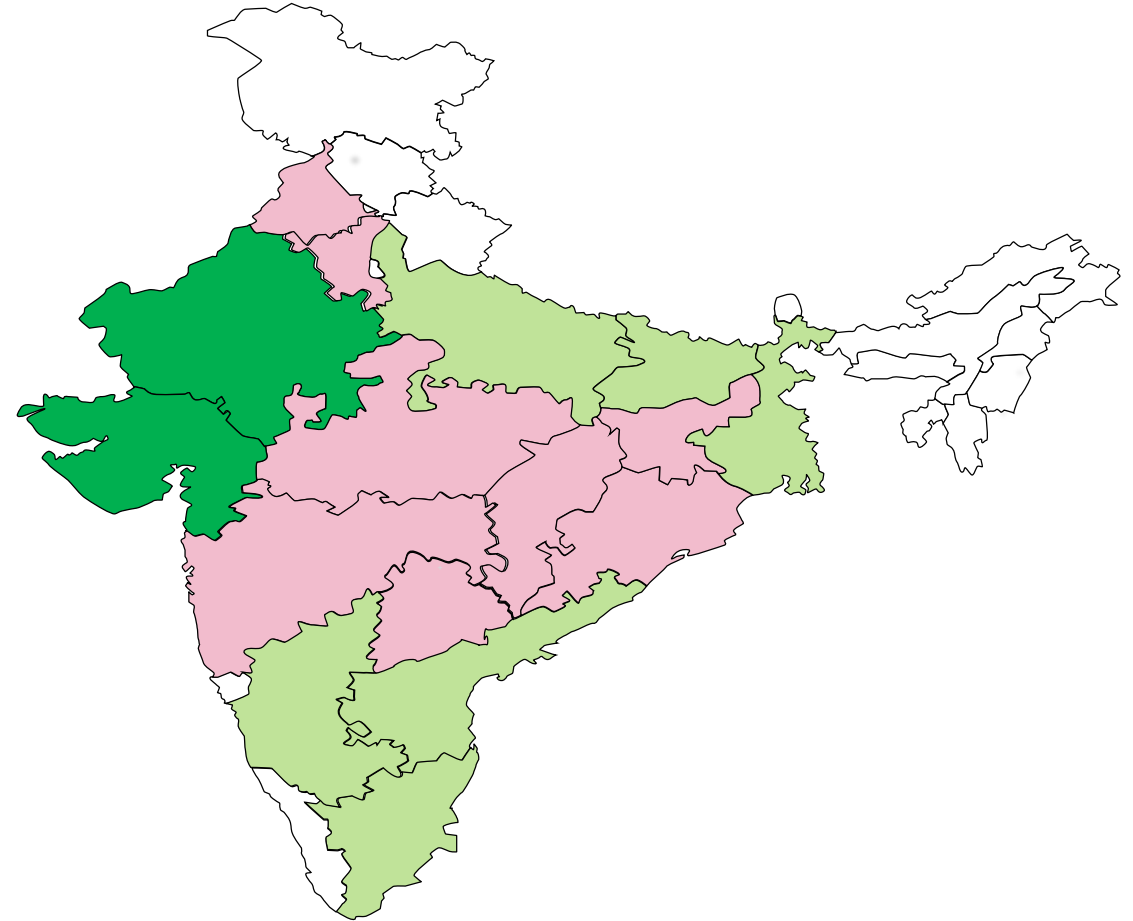
# State-wise production and farm income expectation for the kharif season

Kharif CVI heat Map for FY23



Source: CRISIL Research

Kharif Production for FY23



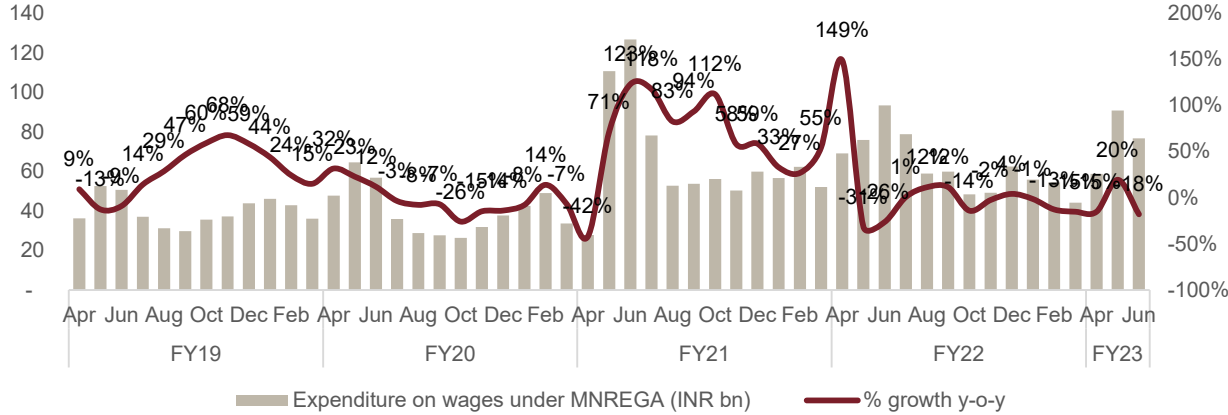
Source: CRISIL Research

Colours indicate % change on-year

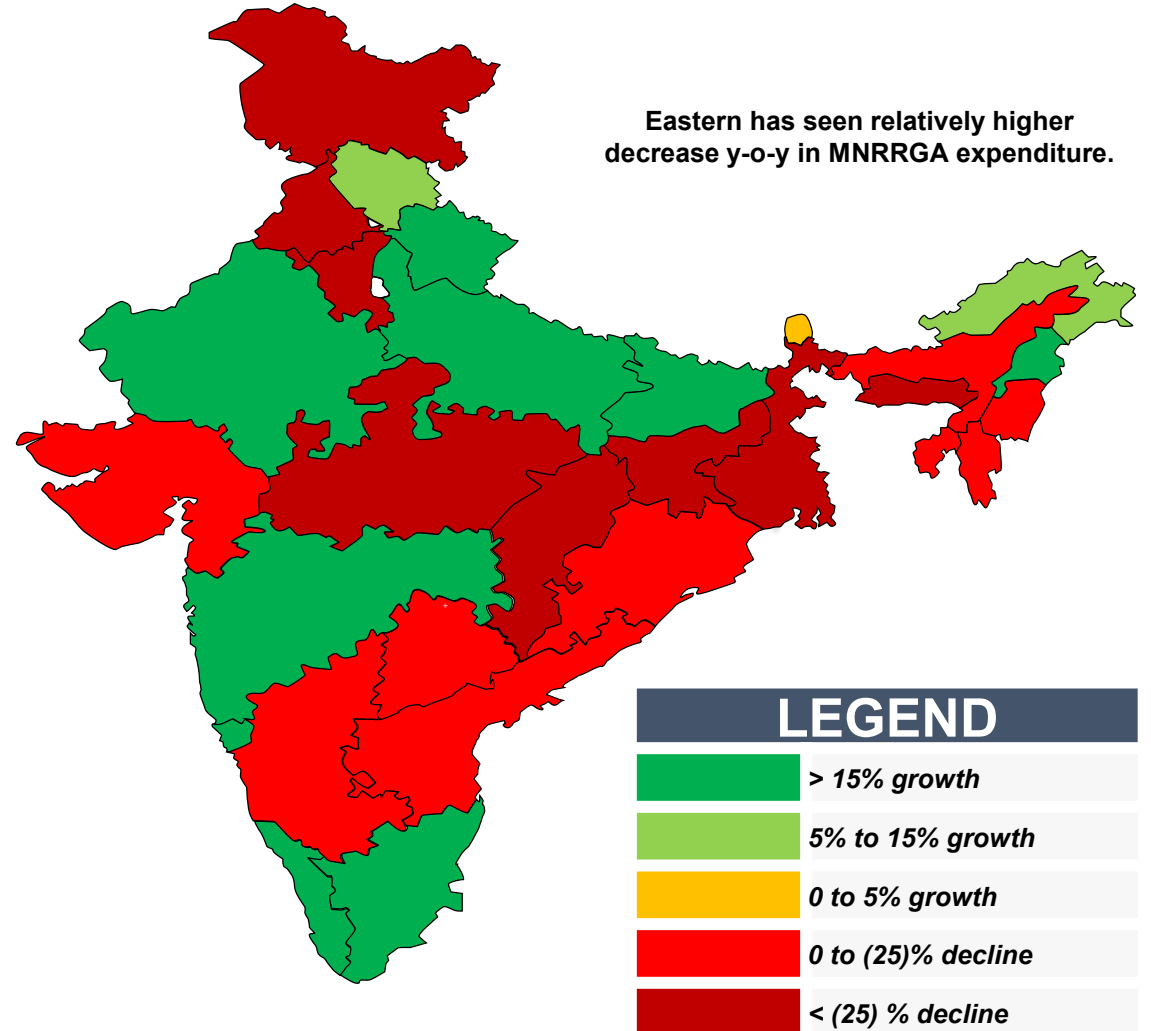


# MNREGA scheme budget allocation tapered down in FY23

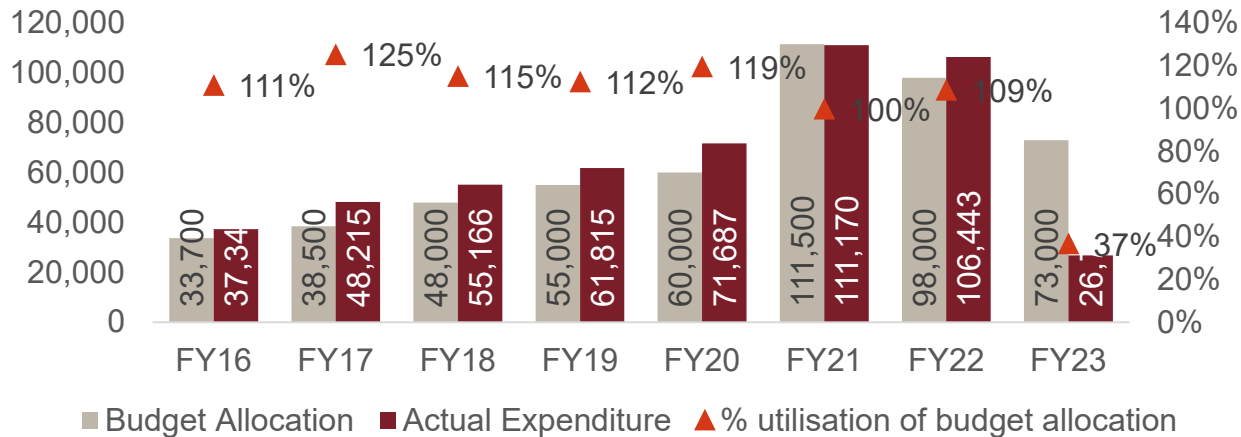
### MNREGA wages growth



### State wise growth in MNREGA wages expenditure for Apr-June FY23



### The MNREGA scheme has a history of overshooting budget

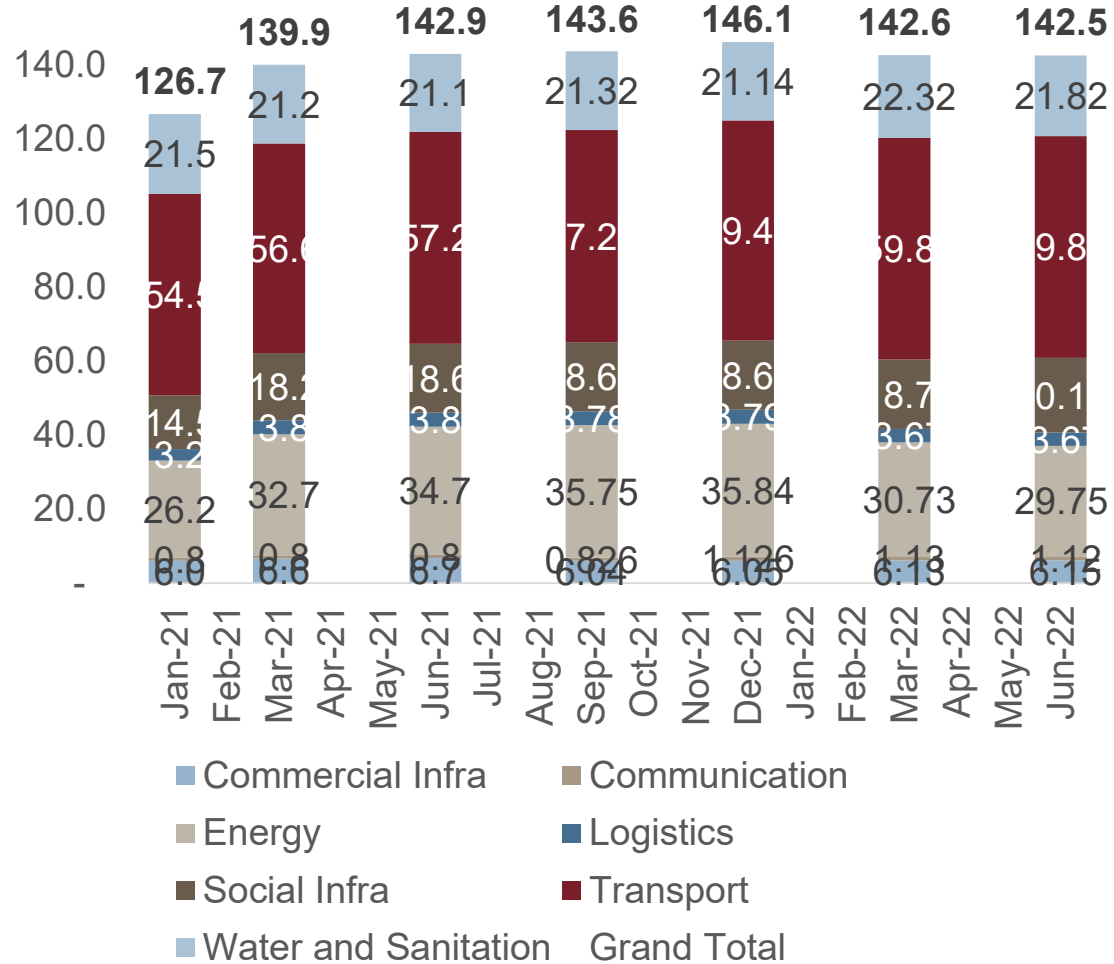


# How is the infrastructure scenario shaping up?

# National Infrastructure Pipeline

# Transport , energy, water and sanitation investments dominate the investments outlined in the NIP, momentum improving sequentially

Total project value of the NIP umbrella on the rise (INR trillion)



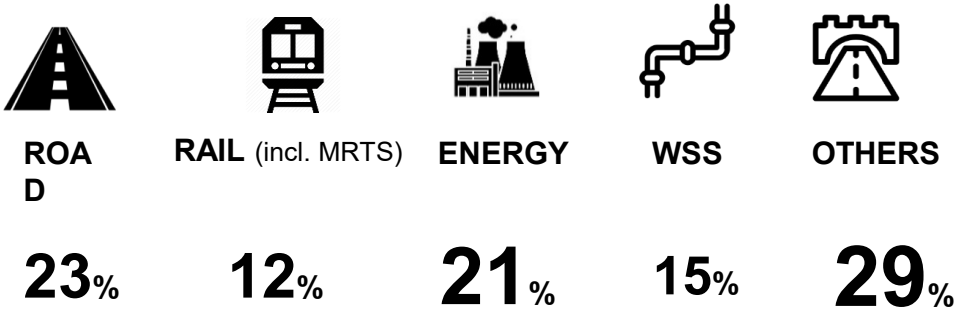
Sector wise stage wise value of projects (INR trillion)

Stage/Progress	Segment	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22
<b>Completed</b>	Transport	0.16	0.32	0.32	1.28	1.36	1.64
	Energy	1.01	1.49	1.84	1.84	1.89	1.94
	Water and Sanitation	0.12	0.58	0.59	0.61	0.68	0.69
	Commercial Infra	0.01	0.03	0.03	0.037	0.10	0.11
	Social Infra	0.06	0.07	0.07	0.073	0.084	0.09
	Logistics	0.21	0.21	0.3	0.31	0.29	0.29
	Communication	0.00	0.00	0.006	0.006	0.006	0.006
<b>Under Construction</b>	Transport	28.88	29.76	29.81	31.72	31.80	31.83
	Energy	6.95	7.24	7.9	10.1	9.58	9.5
	Water and Sanitation	12.12	11.69	11.61	11.61	12.13	12.13
	Commercial Infra	1.34	1.33	0.71	0.71	0.70	0.70
	Social Infra	13.87	15.23	15.23	15.24	15.24	17.01
	Logistics	2.79	2.78	2.69	2.69	2.76	2.76
	Communication	0.74	0.74	0.73	1.04	1.04	1.04
<b>Pre-construction &amp; planning</b>	Transport	27.55	27.07	27.15	26.48	26.73	26.42
	Energy	24.78	25.96	26.01	23.9	19.26	18.31
	Water and Sanitation	8.97	8.86	9.12	8.92	9.51	9
	Commercial Infra	5.26	5.37	5.3	5.3	5.33	5.34
	Social Infra	4.23	3.32	3.33	3.33	3.4	3
	Logistics	0.79	0.79	0.79	0.79	0.62	0.623
	Communication	0.10	0.09	0.09	0.08	0.08	0.08
<b>Total Completed</b>		<b>1.57</b>	<b>2.69</b>	<b>3.16</b>	<b>4.156</b>	<b>4.41</b>	<b>4.762</b>
<b>Total Under Construction</b>		<b>66.69</b>	<b>68.77</b>	<b>68.68</b>	<b>73.11</b>	<b>73.25</b>	<b>74.967</b>
<b>Total Pre-construction &amp; planning</b>		<b>71.68</b>	<b>71.50</b>	<b>71.8</b>	<b>68.8</b>	<b>64.93</b>	<b>62.769</b>

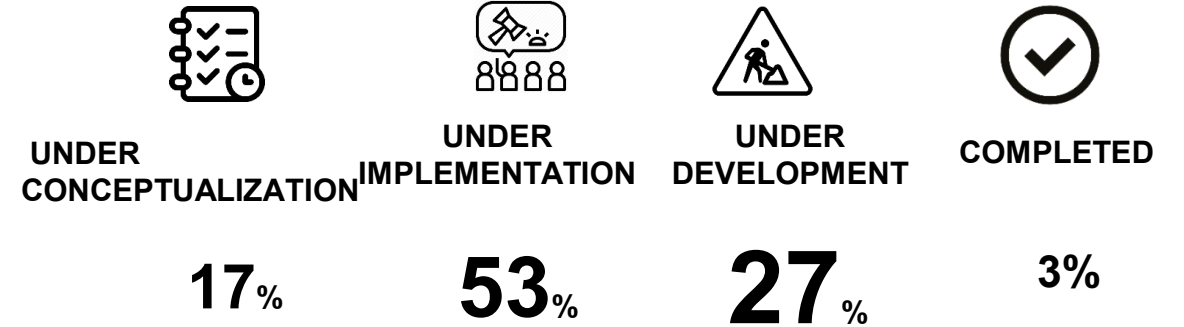


# Roads account for ~76% of opportunity in the transport segment

Transport, energy and water projects account for ~79% of NIP spending of Rs. 142.5 lakh crore

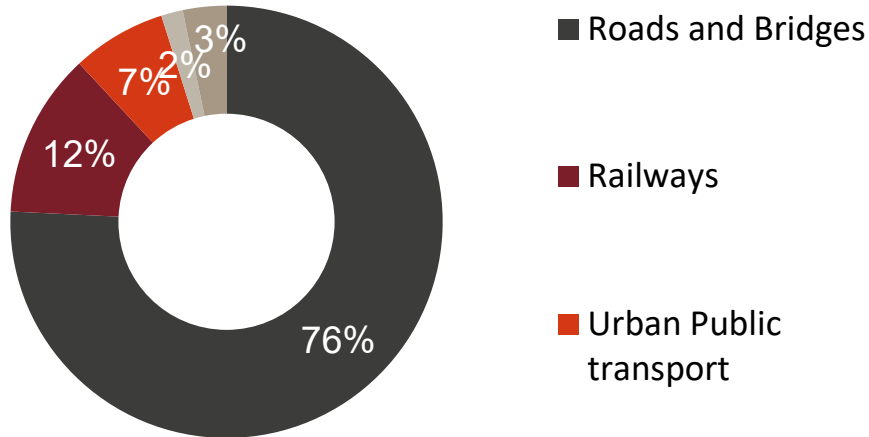


~Rs 31.83 lakh crore of projects currently under implementation

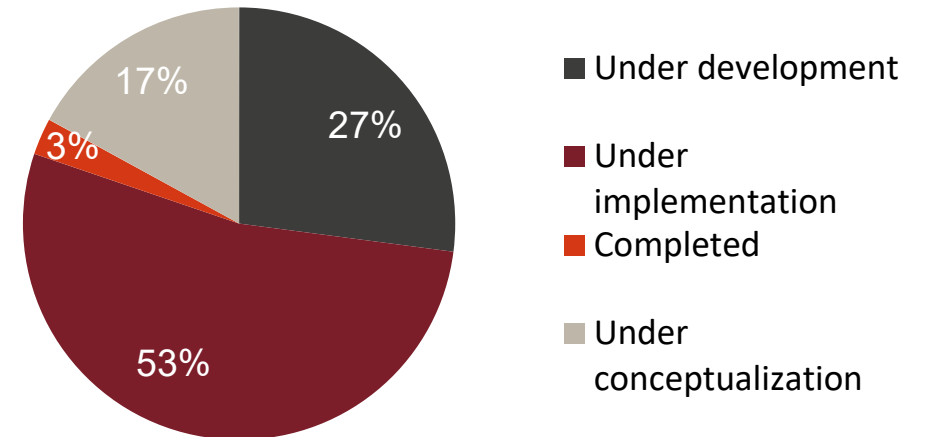


## Roads account for ~76% of opportunity in the transport segment

Note: 1. All charts are for the period FY20-25  
 2. Others include irrigation, rural infra, ports, airports, health, petroleum, natural gas, education, etc  
 3. Updated as on 22<sup>nd</sup> June 2022



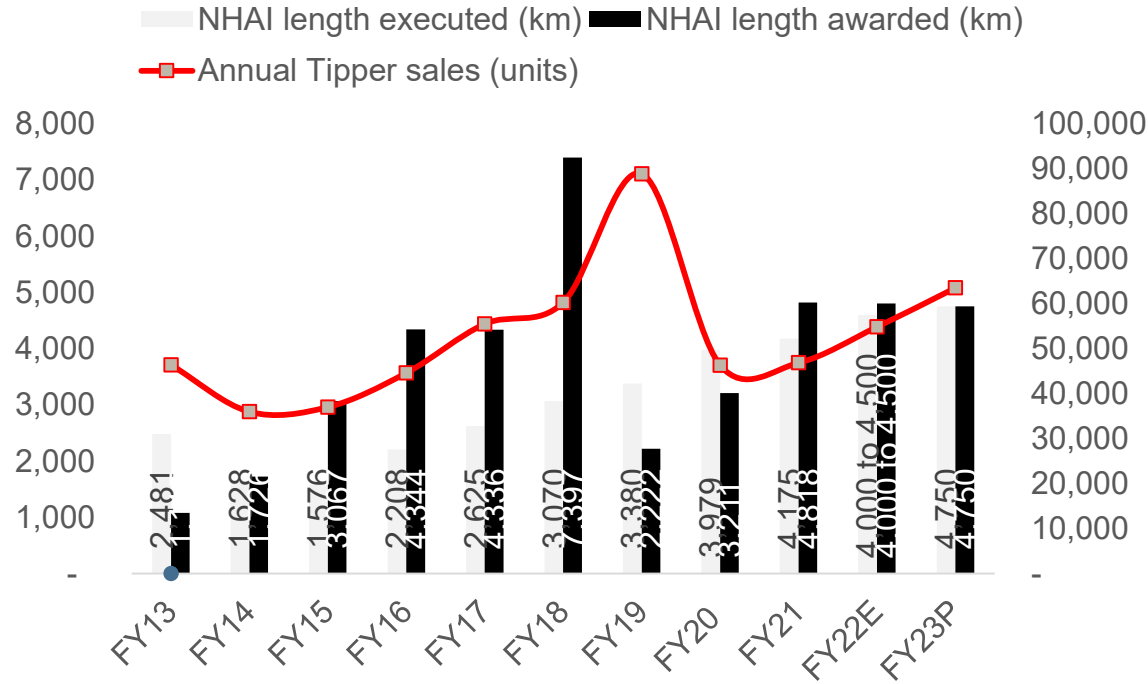
## Around half of investments under transport segment are under Implementation



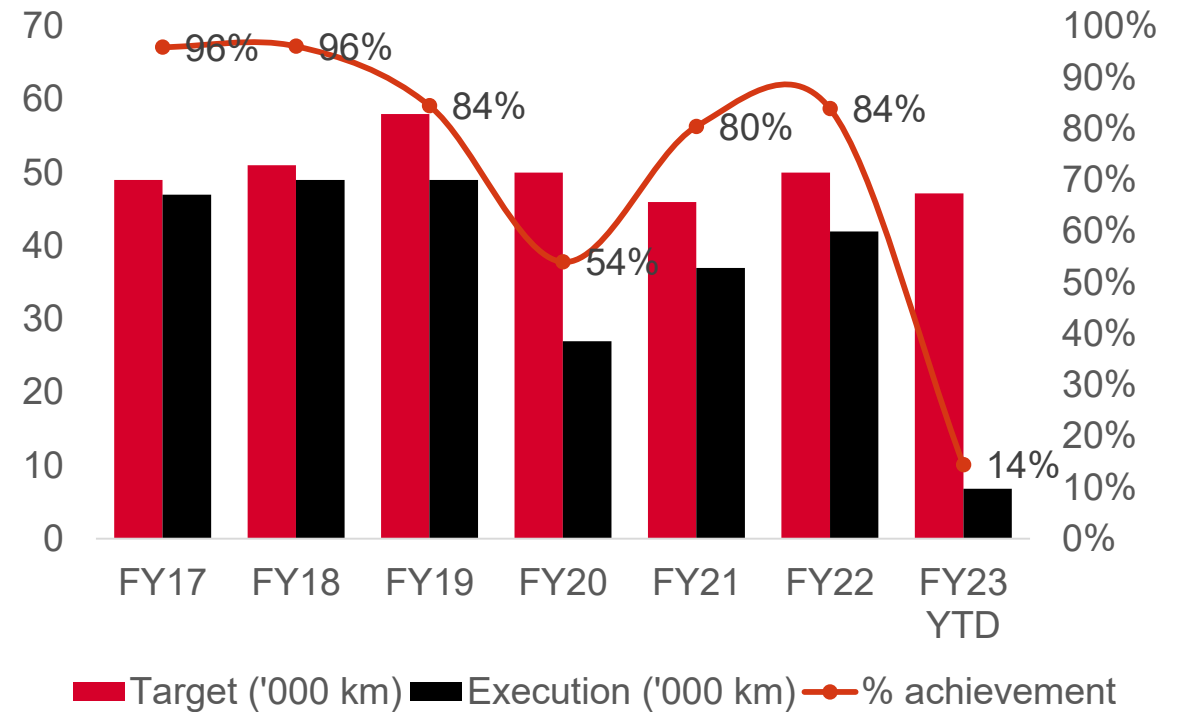
# Focus on Road Infrastructure

# Strong pace of central government projects to keep tipper demand higher than previous year

National highways (NHA) – Awarded and executed



Trend in PMGSY target and execution



FY22 has seen strong awarding of road projects after two slow years, this should keep the tipper segment buoyant as the government pushes infra outlay ahead of key state elections

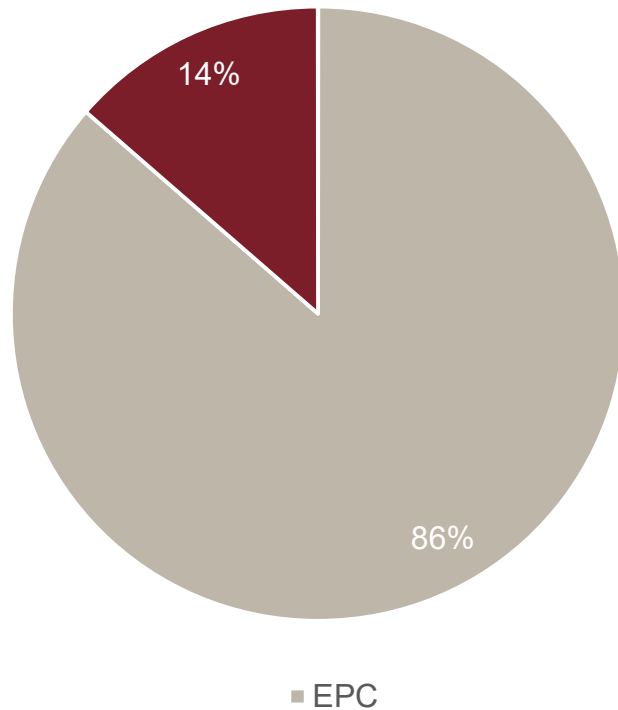
E: Estimated; P: Projected, National Highway Authority of India  
Source: NHA, MoRTH, CRISIL Research

# NHAI tendering in Apr-June FY23

## Total NHAI project value by mode type in Apr-June

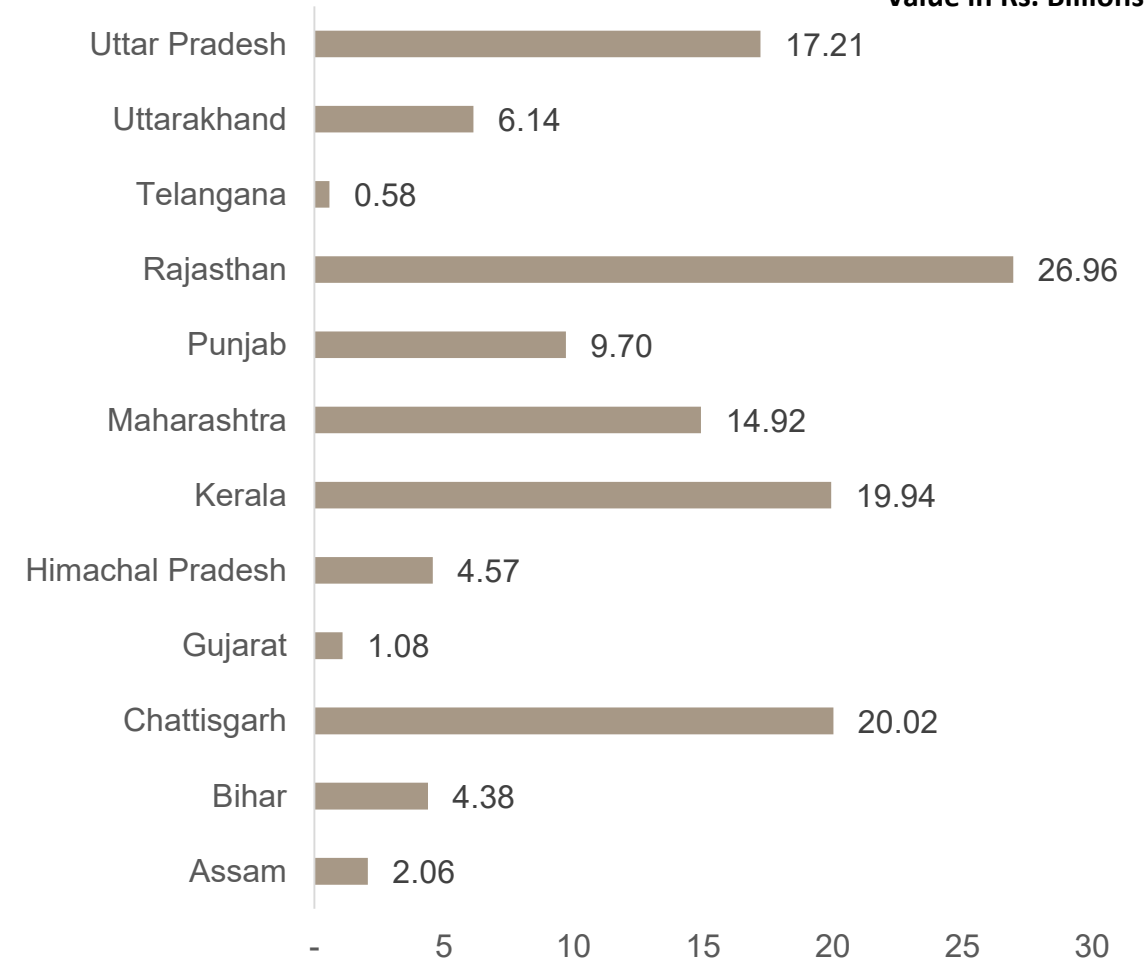
Value in Rs. Billions

**~33.595**



## Tender project value in major states

Value in Rs. Billions



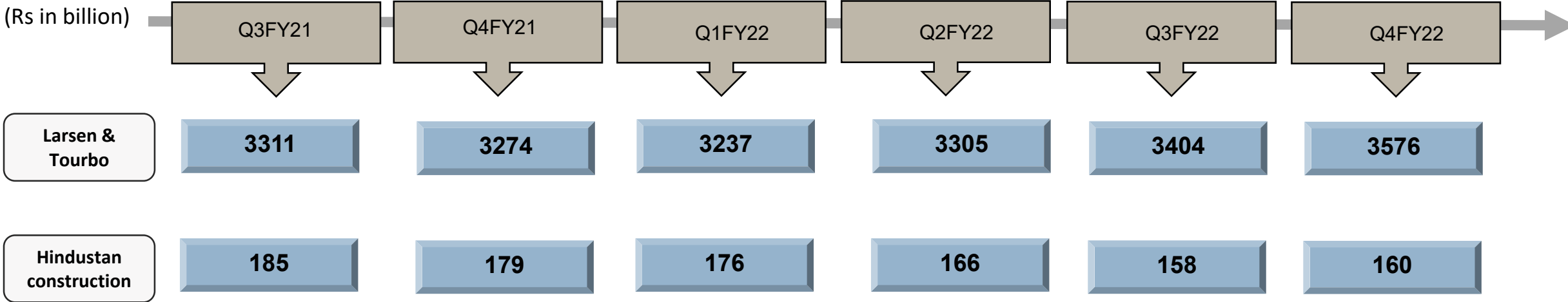
Source: CRISIL Research

Note: March data till 22<sup>nd</sup>

\*Total tender value consists of states mentioned herewith

# Order books swelling at EPC firms amid high govt spending and swift economic rebound

*Major players have bulging order book; Players with focus on roads, bridges and metro witnesses robust growth*



# Indian automobile industry

# Assumptions

- **No further global disruptions**
- **Continued gradual improvement in production levels**
- **Domestic market remains the primary priority for the OEMs**
- **OEMs to shift back focus towards the premium segments of UVs and premium hatchbacks**
- **No disruption in OEM vehicle launch plans**
- **Elevated inflation levels, impact on consumer disposable incomes in the short term**
- **Increase in vehicle prices during festive period for few vehicle segments**
- **Fuel prices to remain elevated (FY23 – average of 90\$ per barrel)**
- **Financing scenario to remain accommodative**
- **Favourable monsoon**

# Annual Forecast – Domestic (Base case)

	Volume			
	FY20	FY21	FY22	FY23P
<b><u>Passenger vehicles</u></b> (‘000)	2,773	2,712	2942	3515-3585
<b><u>Two-wheelers</u></b> (mn)	17.42	15.12	13.46	13.5-14.0
<b><u>Commercial vehicles</u></b> (‘000)	718	566	721	854-871
<b><u>Three-wheelers</u></b> (‘000)	636	216	260	344-349
<b><u>Tractors</u></b> (‘000)	709	898	842	887-892

	Growth y-o-y (%)			
	FY20	FY21	FY22	FY23P
	(18)%	(2)%	9%	15-17%
	(18)%	(13)%	(11)%	1-3%
	(29)%	(21)%	26%	19-21%
	(9)%	(66)%	20%	32-34%
	(10)%	26.6%	(6)%	4-7%

SOURCE: SIAM, CRISIL Research



# Quarterly forecasts – Domestic

Vehicle segment	Subsegment	Volume				YoY growth (%)			
		Q4 FY 22	Q1 FY 23	Q2 FY 23 P	Q3 FY 23 P	Q4 FY 22	Q1 FY 23	Q2 FY 23 P	Q3 FY 23 P
Passenger vehicles	Cars ('000)	437	411	377-382	345-350	(15)	22	9-11	(1)-1
	UVs & vans ('000)	483	499	528-533	493-498	15	62	33-35	19-21
	<b>PVs ('000)</b>	<b>920</b>	<b>910</b>	<b>908-913</b>	<b>841-846</b>	<b>(1)</b>	<b>41</b>	<b>22-24</b>	<b>10-13</b>
Two-wheelers	Motorcycles (mn)	2.2	2.4	2.30-2.35	2.27-2.32	(22)	38	(12)-(10)	(7)-(5)
	Scooters (mn)	1.1	1.2	1.20-1.25	1.00-1.05	(24)	100	(9)-(7)	(1)-1
	Mopeds ('000)	109	111	120-125	122-127	(30)	61	(26)-(24)	(7)-(5)
	<b>2W (mn)</b>	<b>3.4</b>	<b>3.7</b>	<b>3.67-3.72</b>	<b>3.40-3.45</b>	<b>(23)</b>	<b>54</b>	<b>(11)-(9)</b>	<b>(6)-(4)</b>
Commercial vehicles	LCV ('000)	148.9	136.6	144-147	149-152	19	86	34-36	1
	MHCV ('000)	88.1	67.4	61.5-62.5	72-73	16	147	20-22	19-21
	Buses ('000)	12.1	19.1	12.8-13	12.5-12.7	53	256	105-107	81-83
	<b>CVs ('000)</b>	<b>250</b>	<b>226</b>	<b>221-226</b>	<b>236-241</b>	<b>19</b>	<b>110</b>	<b>33-35</b>	<b>20-22</b>
Tractors ('000)		177	265	226-231	212-216	(26)	15	7-9	(5)-(3)
Three-wheelers	Goods ('000)	22.9	21.4	29.8-30.3	27.0-27.5	(19)	147	30-32	21-23
	Passenger ('000)	60.3	54.9	61.0-61.5	63.2-63.7	5	234	29-31	5-7
	<b>3W ('000)</b>	<b>83.2</b>	<b>76.3</b>	<b>94.5-95.0</b>	<b>92.0-92.5</b>	<b>(3)</b>	<b>211</b>	<b>34-36</b>	<b>11-13</b>

SOURCE: SIAM, CRISIL Research

# Long Term Forecast – Domestic (Base case)

	Volume			
	FY20	FY21	FY22	FY27P
Passenger vehicles ('000)	2,773	2,712	2942	4245-4255
Two-wheelers (mn)	17.42	15.12	13.46	22.2-22.7
Commercial vehicles ('000)	718	566	721	1248-1253
Three-wheelers ('000)	636	216	260	408-413
Tractors ('000)	709	898	842	1145-1150

	Growth y-o-y (%)			
	FY20	FY21	FY22	FY27P
Passenger vehicles ('000)	(18)%	(2)%	9%	7-9%
Two-wheelers (mn)	(18)%	(13)%	(11)%	9-11%
Commercial vehicles ('000)	(29)%	(21)%	26%	11-13%
Three-wheelers ('000)	(9)%	(66)%	20%	9-11%
Tractors ('000)	(10)%	26.6%	(6)%	5-7%

SOURCE: SIAM, CRISIL Research

# Annual forecasts – Exports

Vehicle segment	Subsegment	Volume				YoY growth (%)			
		FY 20	FY 21	FY22	FY23P	FY 20	FY 21	FY22	FY23P
Passenger vehicles	Cars ('000)	475	262	375	400-410	(7)	(45)	42	7-9
	UVs & vans ('000)	186	138	203	225-235	15	(26)	45	12-14
	<b>PVs ('000)</b>	<b>662</b>	<b>400</b>	<b>578</b>	<b>630-640</b>	<b>(2)</b>	<b>(40)</b>	<b>43</b>	<b>9-11</b>
Two-wheelers	Motorcycles (mn)	3.14	3.03	4.08	4.42-4.48	9	(3)	34	8-10
	Scooters (mn)	0.37	0.23	0.35	0.35-0.45	(7)	(37)	51	10-12
	Mopeds ('000)	14	8.3	10	10-12	(17)	(40)	231	8-10
	<b>2W (mn)</b>	<b>3.52</b>	<b>3.28</b>	<b>4.4</b>	<b>4.5-5.0</b>	<b>7</b>	<b>(7)</b>	<b>36</b>	<b>8-10</b>
Commercial vehicles	LCV ('000)	33.9	31.1	58.3	58-63	(28)	(8)	87	2-4
	MHCV ('000)	14.9	13.5	25.7	23-28	(63)	(9)	90	3-5
	Buses ('000)	11.9	5.7	8.3	8-9	(3)	(52)	46	0-2
	<b>CVs ('000)</b>	<b>60.7</b>	<b>50.3</b>	<b>92.3</b>	<b>92-97</b>	<b>(39)</b>	<b>(17)</b>	<b>83</b>	<b>2-4</b>
Tractors ('000)		76	88.6	129	130-140	(17)	17	45	4-6
Three-wheelers	Goods ('000)	6.3	5.6	10	11.0-11.5	2	(12)	82	9-11
	Passenger ('000)	495.9	387.4	490	515-525	(12)	(22)	26	5-7
	<b>3W ('000)</b>	<b>502.2</b>	<b>392.9</b>	<b>500</b>	<b>525-535</b>	<b>(12)</b>	<b>(22)</b>	<b>27</b>	<b>5-7</b>

# PV industry continues to grapple for stock

Vehicle segment	Normal inventory in days	Current inventory levels*	Inventory Units	Reasons
Passenger Vehicles	25-30	18-23	95-115 thousand	High retail traction, new launches, slower production have kept the inventory levels low . Industry continues to face chip shortage.
Two Wheelers	30-35	25-30	0.9-1.4 million	OEMs have corrected inventory in Q1 FY23 in order to normalize inventory levels. Some models have also been facing supply issues which has added to the drop in stock levels.
Commercial Vehicles	25-35	~35	70-75 thousand	Inventory levels are in the normal range for the MHCV segment. There has been some additional build up in the LCV and buses segment.
Tractors	30-35	45-50	110-120 thousand	Inventory levels, have further increased in Q1 due player actions to gain market share. Dealers have more stock than required on account of constant stock build up in by the OEMs.
Three-wheeler	20-25	40-45	~25-30 thousand	OEMs have increased production due to pick up in demand and dealers are left with enough stock to last more than a month for the retail demand

**Research** NOTE:\* Inventory level as on end of June 2022, Inventory units have been calculated using last 12 months sales

Source: Industry, CRISIL Research

# Passenger vehicles

# Strong booking pipeline, new launches to support continued growth in FY23

Variables	FY19	FY20	FY21	FY22	FY23 E
Income for discretionary spending	F	NF	NF	F	N*

Variables	FY19	FY20	FY21	FY22	FY23 E
Cost of ownership	NF	N	N	N	N
Petrol / CNG Vehicles	NF	N	N	NF	NF
Diesel vehicles	NF	N	NF	NF	NF
Interest rates	N	N	F	N	N

Variables	FY19	FY20	FY21	FY22	FY23 E
New model/ facelift launches	NF	F	N	F	F
Regulations – passenger vehicles	N	NF	N	N	N

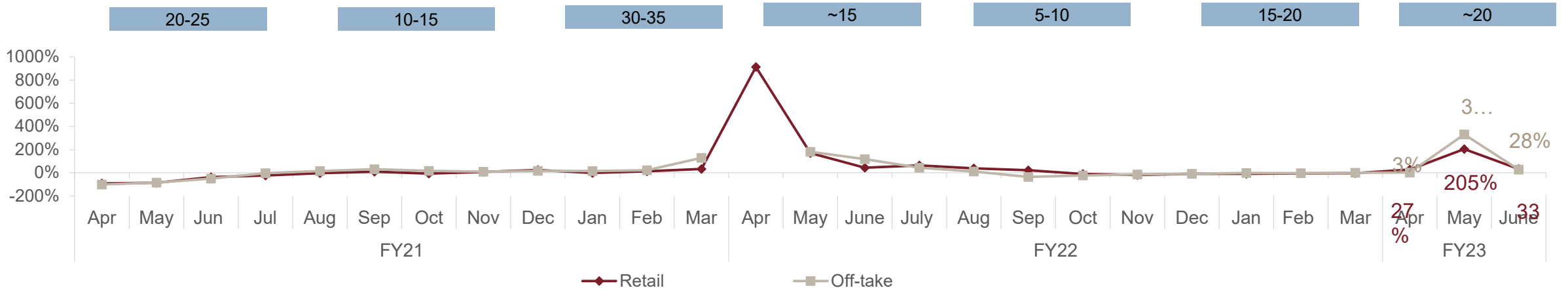
<b>Impact on Overall Sales Growth</b>	<b>N</b>	<b>NF</b>	<b>NF</b>	<b>F</b>	<b>F</b>
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E: Estimated; \*: Due to estimated pressure on GDP growth & inflation

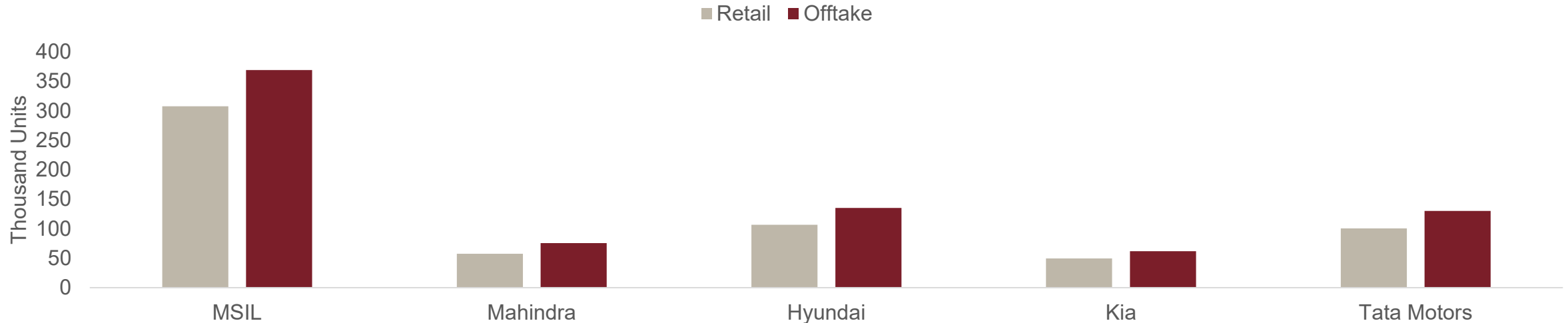
SOURCE: Industry, CRISIL Research

# M-o-m improvement in offtake during Q1, push to dealer inventory

## Retails witness contraction on m-o-m basis

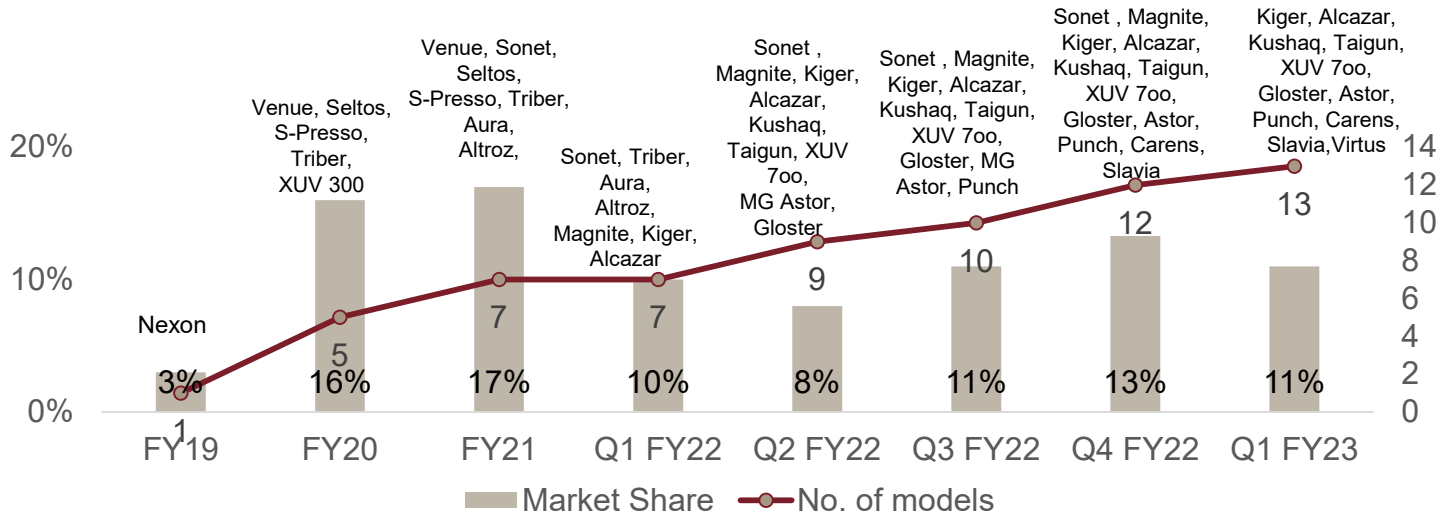


## Offtake eclipse retails for all major players



# Cars have continued to expand their presence in Q1 FY23

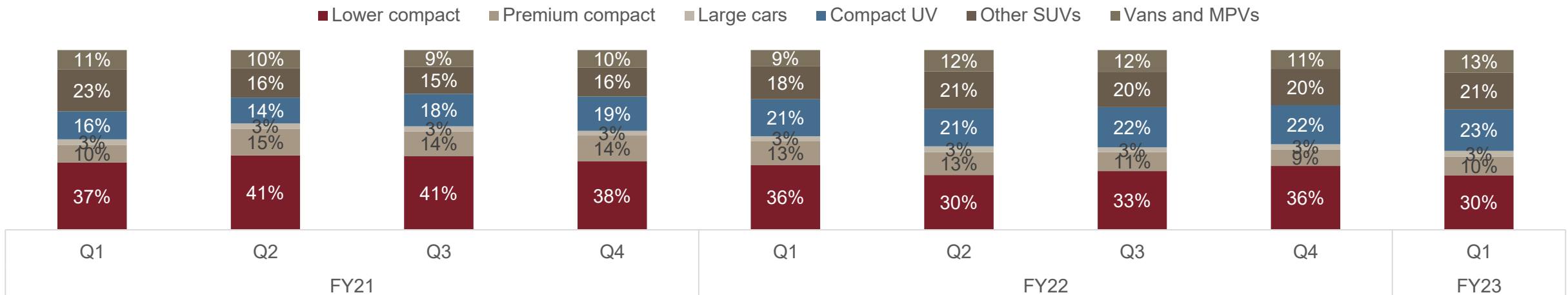
## New launches provide the much-needed push in FY22



## Major upcoming launches (Q2 FY 2023)

Company	Model	Segment
Toyota	Urban Cruiser Hyryder	Other SUV
Citroen	C3	Compact UV
Mahindra	XUV500 facelift	Other SUV
Jeep	Grand Cherokee facelift	Other SUV

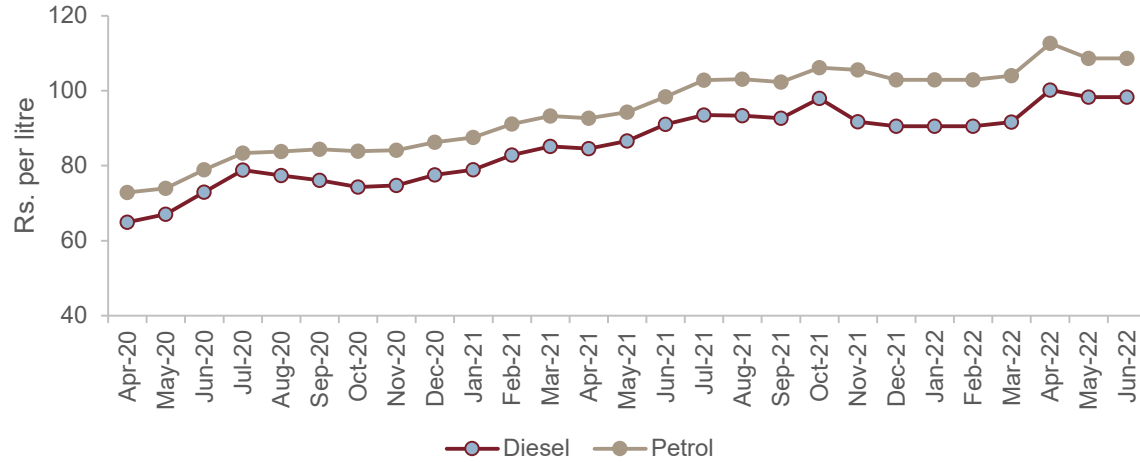
## Booking pipeline of UVs/MPVs gets a push, lower compact segment on the backburner



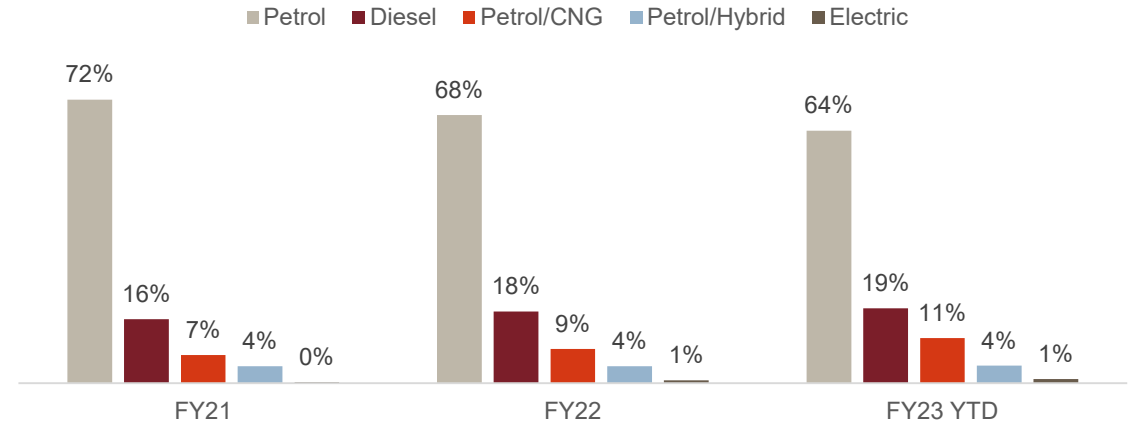


# Further increase in CNG/Electric vehicle adoption, interest rates get a push post RBI rate hike

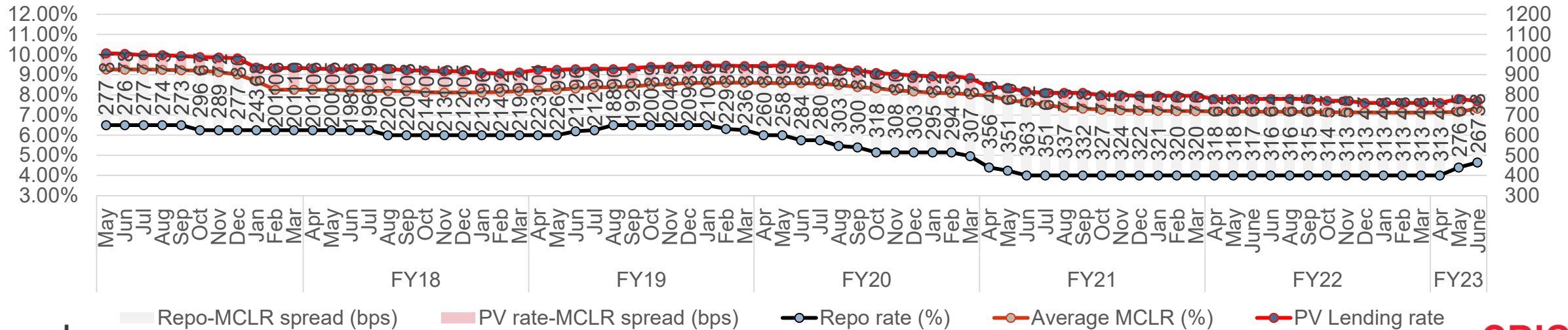
### Some respite from high fuel prices in May June



### Share of CNG & Electric expanded further in fiscal 23 YTD

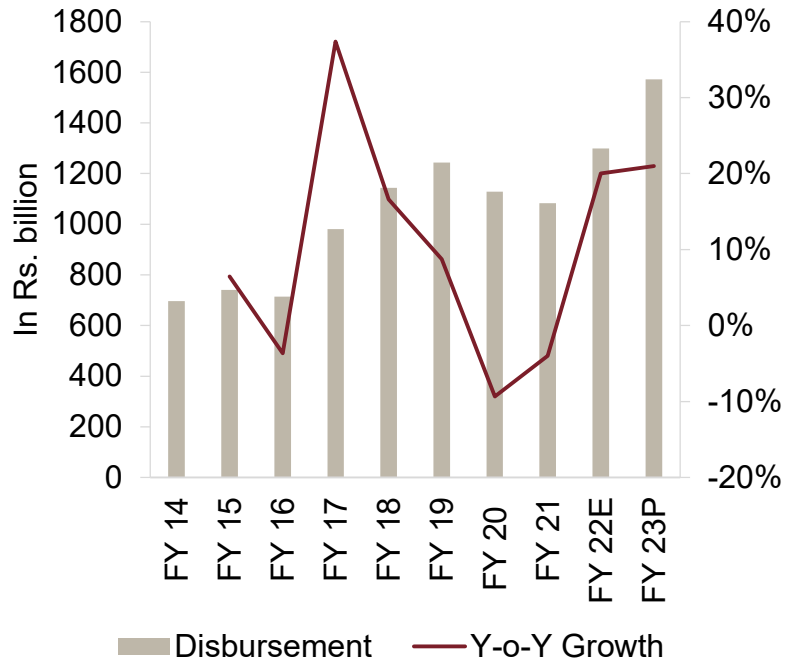


### Difference between MCLR & lending rate narrows down further

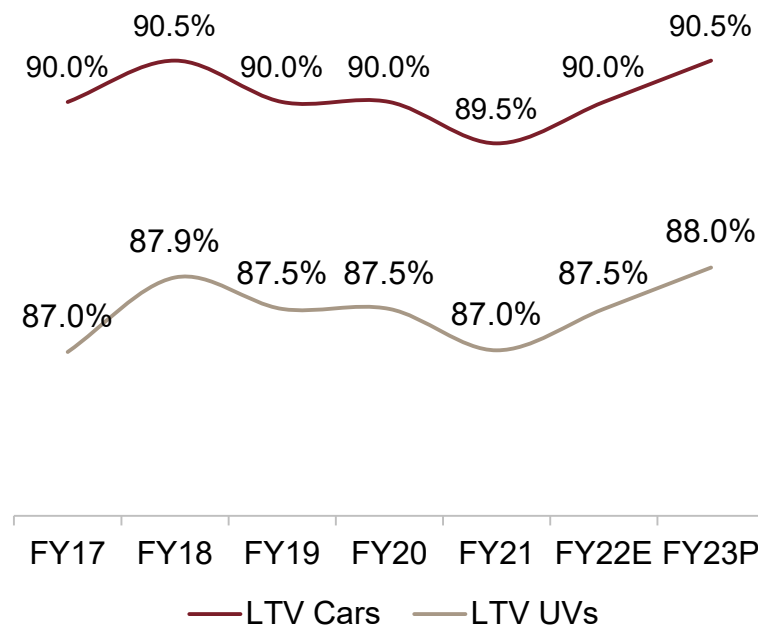


# Disbursements expected to rise further in fiscal 2023

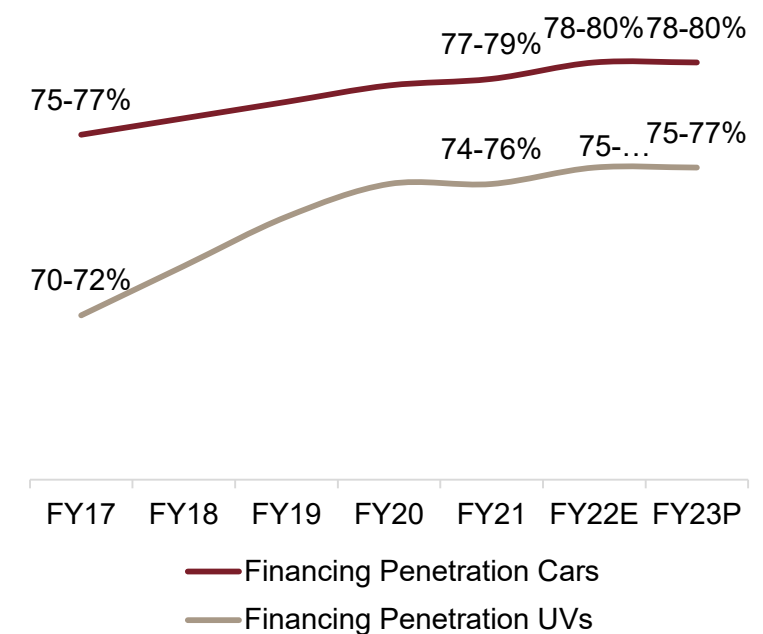
### Disbursement



### Loan-to-value (LTV)



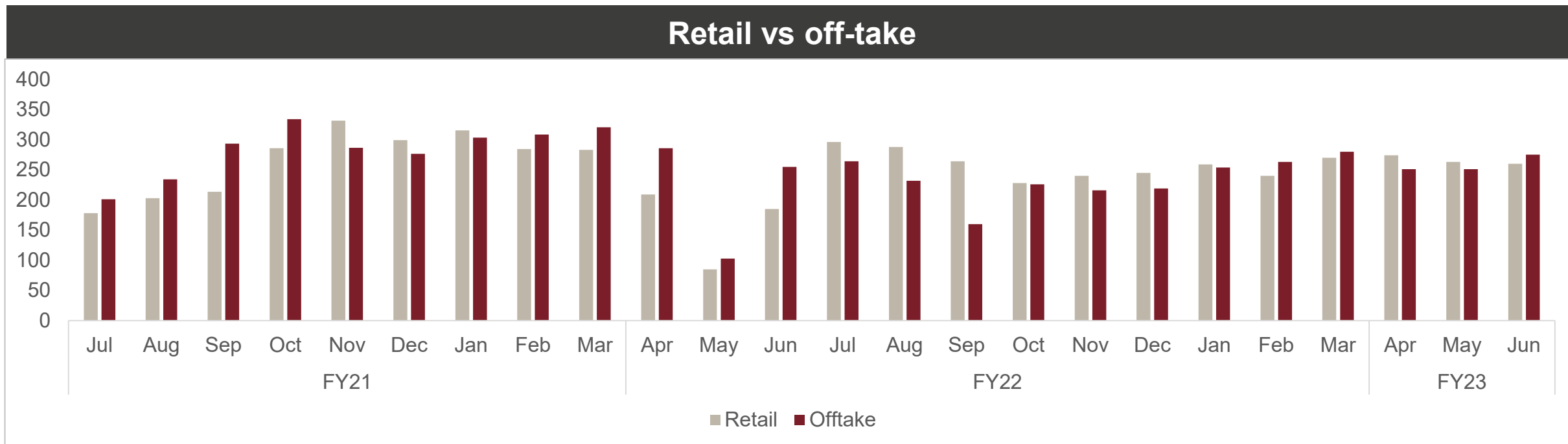
### Financing penetration



Source: Company Report, Industry, CRISIL Research

- PV industry is expected to grow 15-17% y-o-y during fiscal 23 providing a push to overall disbursements during the year, increase in prices during April to offset the rise in commodity costs to provide an added push to the disbursements; After a slide in fiscal 21, disbursement bounced back during fiscal 22 with increase in vehicle sales volumes as well as prices.
- Increase in repo rates by RBI pushed the interest rates during Q1 FY23
- However, some cautious funding is expected going ahead amidst the estimated pressure on disposable incomes of customers amidst the adverse economic scenario
- LTV & Penetration levels are expected to continue their gradual improvement

# Retail momentum has been good in Q1 FY23

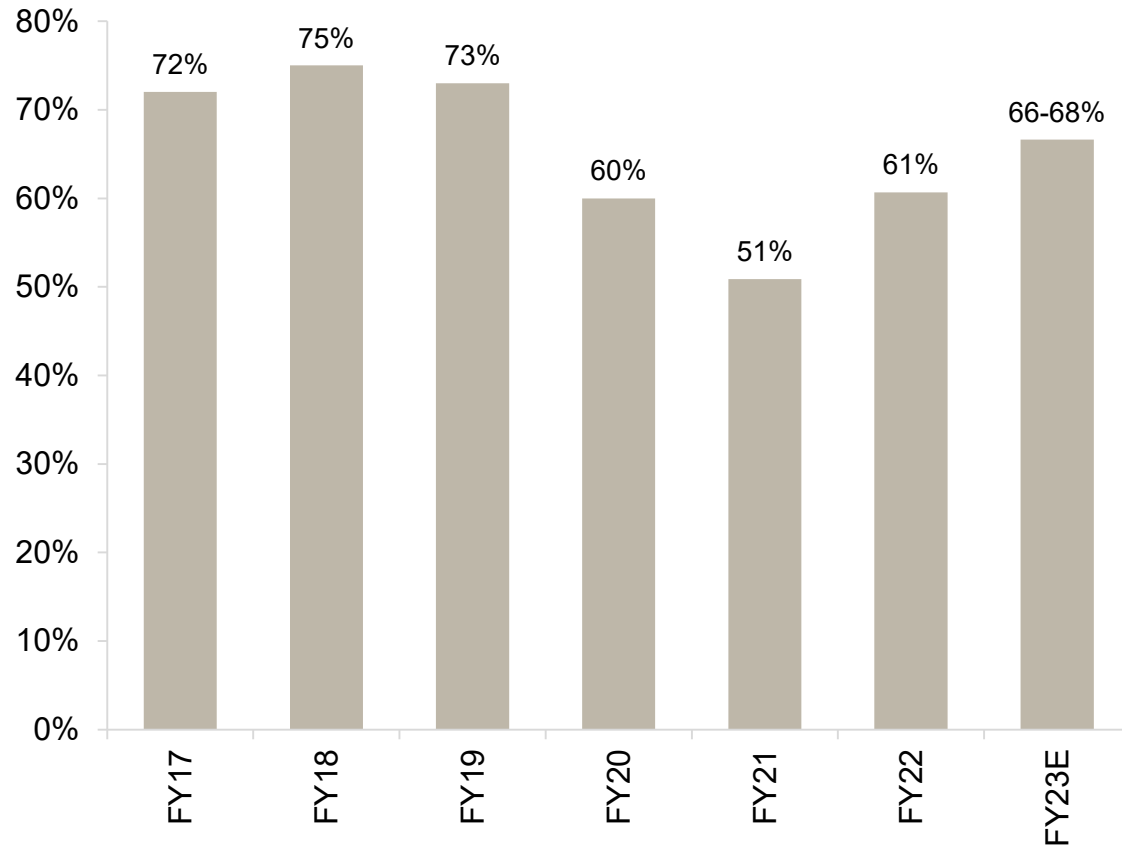


*Note: Retail numbers are estimated, Offtake numbers include Tata Motors sales  
Source – MoRTH, SIAM, CRISIL Research*

- Retail demand has improved with improving economic activities.
- Dealer stock levels continue to remain lower on account of the semi-conductor issue and waiting period for key models continues to be high
- However, this issue is expected to normalize by this fiscal year which will result in normal stock levels in the industry

# Augmentation in chip supply to back utilization improvement

## Supply constraint impacts utilization level



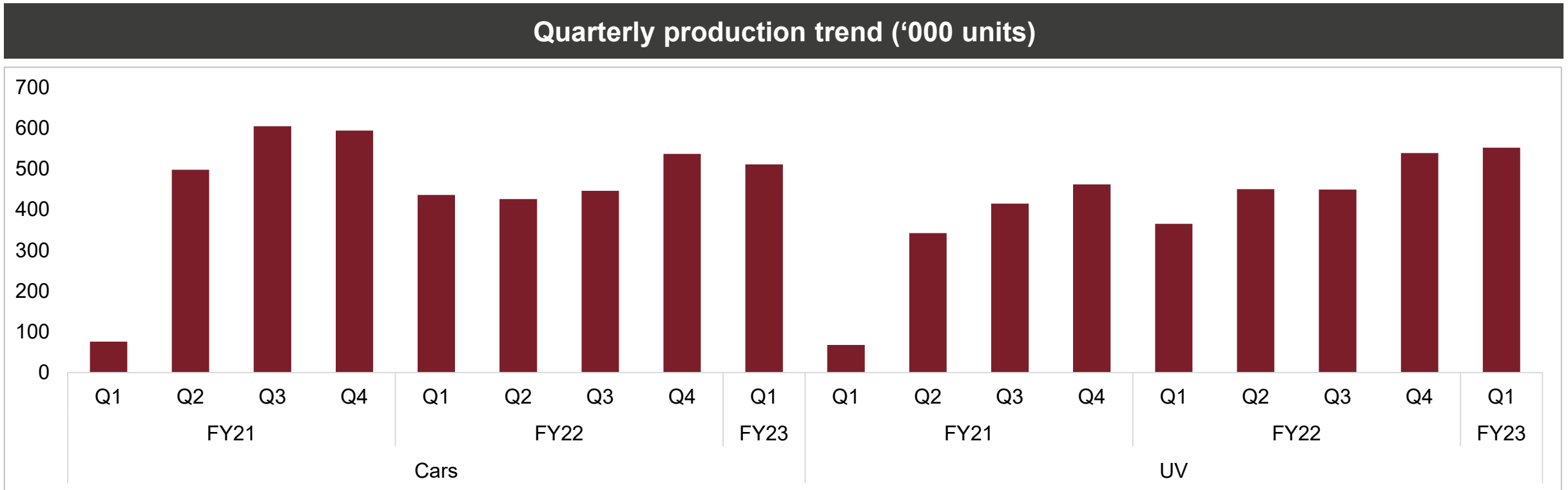
Source: CRISIL Research Estimated

## Capacity utilisation of key players

Player	Effective Capacity (in '000) (on 31st Mar 2022)	Capacity utilisation in FY21	Capacity Utilisation in FY22	Capacity Utilisation in FY23 Apr-June
Maruti	2,050	69%	79%	72%
Hyundai	763	74%	79%	71%
Tata Motors E	564	38%	66%	-
Renault-Nissan	480	30%	39%	65%
Toyota	310	17%	24%	53%
Honda	180	48%	59%	53%
Volkswagen	179	28%	43%	22%
Kia Motors	300	64%	79%	83%

Source: SIAM, Industry, CRISIL Research

# Production has marginally declined on a q-o-q basis



Source: SIAM, CRISIL Research

- In fiscal 2022, second and third wave of COVID-19 followed by semiconductor shortage impacted supply chain and subsequently, has led to reduced production across OEMs.
- However, due to improvement in supply of chips and agile production strategies adopted by OEMs, production volumes improved from Q4 FY22.
- On a low base of last year Q1 FY23 saw a high double-digit growth. With production levels improving the inventory situation in the industry is getting better.
- Improved availability of semiconductors is expected in second half of FY23, thus some improvement in production can be expected in FY23.

# Domestic – annual forecast

	Passenger vehicles	Cars	UVs and vans
FY 21 volumes	2706	1542	1170
YoY Growth in FY21	2%	9%	9%
FY 22 volumes	3064	1467	1597
YoY Growth in FY22	13%	7%	36%
FY 23P volumes	3,515-3,585	1,480-1520	2,030-2,070
YoY Growth in FY23P	15-17%	1-3%	27-29%

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

Period		Passenger vehicles		Cars		UVs and vans	
		Volume (000)	YoY Growth	Volume ('000)	YoY Growth	Volume ('000)	YoY Growth
<b>FY21</b>	Q4	934	43%	513	27%	420	67%
<b>FY22</b>	Q1	645	320%	337	321%	308	319%
	Q2	741	2%	344	(19)%	397	32%
	Q3	760	(15)%	349	(32)%	411	9%
	Q4	920	(1)%	437	(15)%	483	15%
<b>FY23 P</b>	Q1	910	41%	411	22%	499	62%
	Q2	908-912	22-24%	377-382	9-11%	528-533	33-35%
	Q3	841-846	10-13%	345-350	(1)-1%	493-498	19-21%
	Q4	886-891	(4)-(2)%	374-379	(15)-(13)%	510-515	6-8%
<b>FY24 P</b>	Q1	869-874	(5)-(3)%	365-370	(11)-(9)%	500-505	0-2%

Source – SIAM, CRISIL Research

- Pent up demand and easing semiconductor shortage to support volume offtake in fiscal 2023.
- Q1 FY23 saw a sequential growth. This was possible because of pick-up in economic activities. Demand for compact UV segment is driving the market.
- Semi-conductor shortage is expected to remain till end of fiscal 2023, with some gradual improvement in the situation from the second half of fiscal 2023 as few companies such as SMIC, SK Hynix etc. are expected to add capacity in the period under consideration.

# Stakeholder interactions

## OEM/ Tier-I suppliers



- Semiconductor supply on a recovery path, **m-o-n-i-t-o-r improvement in production levels, Production expected to normalize during the year**
- **UV segment to continue its march forward, hatchbacks to take secondary role**
- **Lower compact segment to remain under pressure, premium compact to provide the impetus to hatchbacks**
- Vehicle launches to accelerate demand growth, most launches expected in UV segment especially compact UVs
- **Slight impact on fresh bookings, booking pipeline to provide an added cushioning**
- **Some softening in commodity prices, no immediate price rise expected**
- **Mandatory airbags to push vehicle prices especially for lower compact segment**

## Dealer



- Improved wholesale during the quarter
- OEMs dispatching requested vehicles unlike in Q4
- Improved dispatches especially for premium compact, compact UVs , other UVs and MPVs
- Waiting periods have come down by a 1-1.5 months even for popular models
- Increase in inventory, currently ~20 days
- Primarily lower compact vehicle stocks
- These vehicles are not much in demand
- Popular models continue to have waiting time 2-3 months
- Some increase in booking cancellations/ postponement
- Uncertainty amongst the price sensitive customers about future earnings amidst the worsened economic scenario, increased operating costs and higher interest rates
- Fresh bookings have gone down especially for lower compact segment
- Minimal discounts exerting added pressure
- Increase in prices will hurt the basic segments
- Launches expected to provide a kicker to new demand, high enthusiasm amongst the customers for Venue, Brezza and Scorpio
- Demand during the festive season remains a key monitorable

## Financier



- **Improved vehicle supply provided a boost to disbursements during Q1**
- **Production levels expected to continue towards normalization backing the disbursement demand**
- Sharp rise in repo rate during the quarter
- Some increase in interest rates
- LTV and penetration levels remain steady
- **Insignificant impact of rate hike seen on disbursement during Q1**
- Stance from financiers remains accommodative
- Some increase in caution going ahead if the economic indicators remain negative

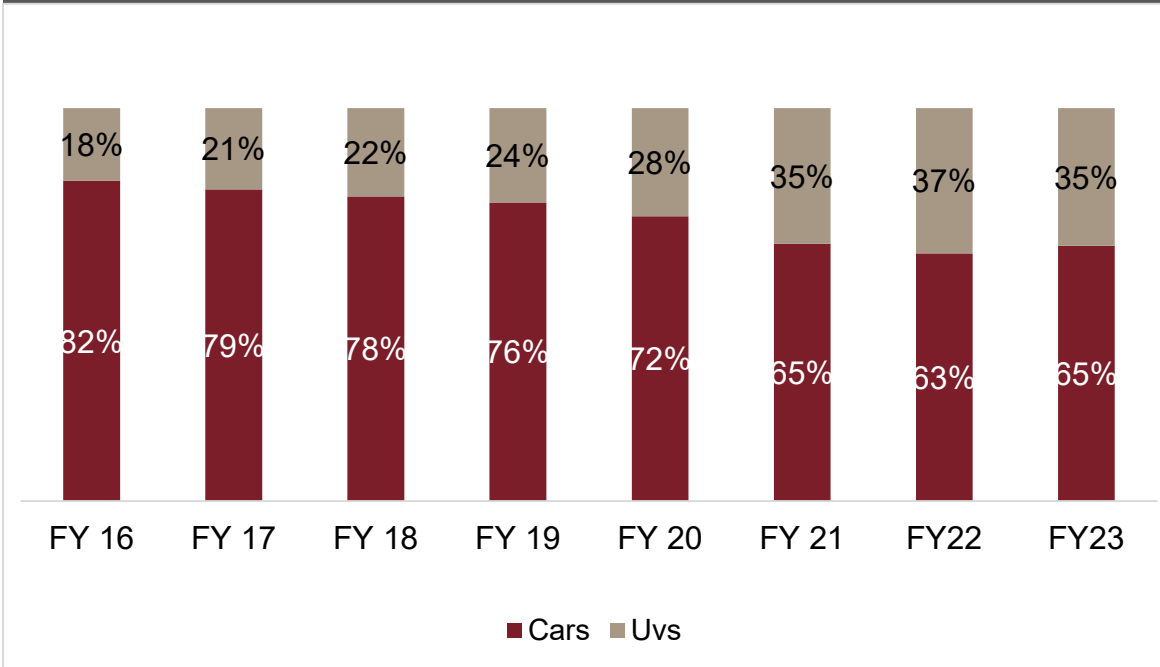
Source – Industry, CRISIL Research



# PV exports

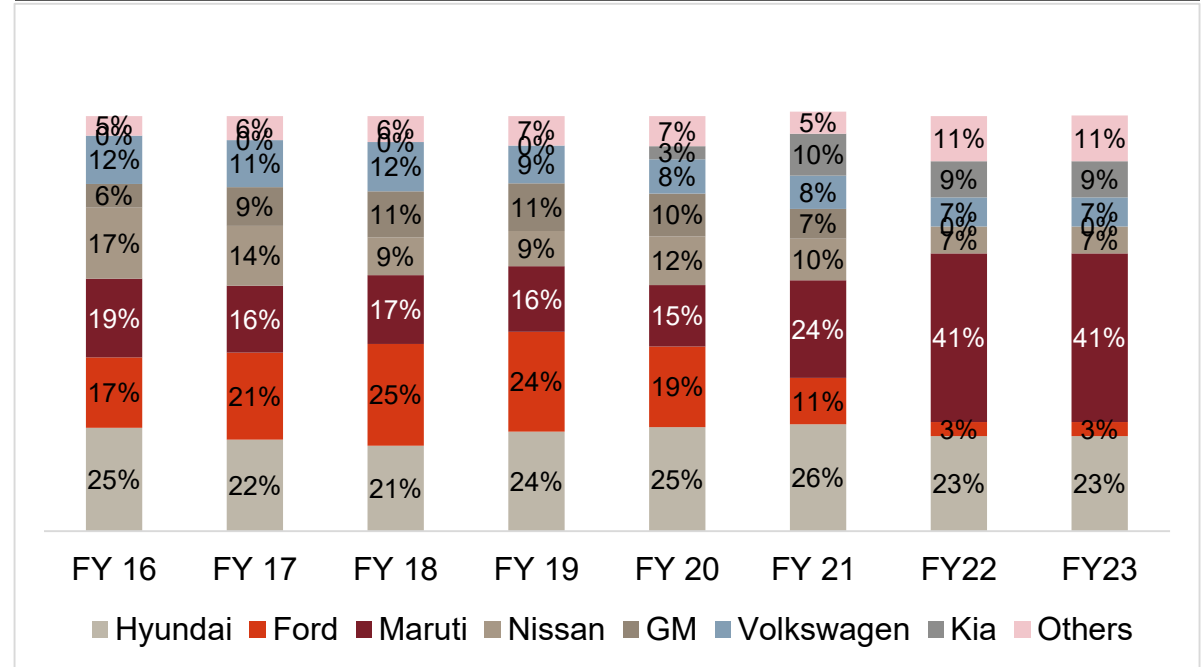
# Export to witness modest growth in FY23

## Share of UVs on a rising trend



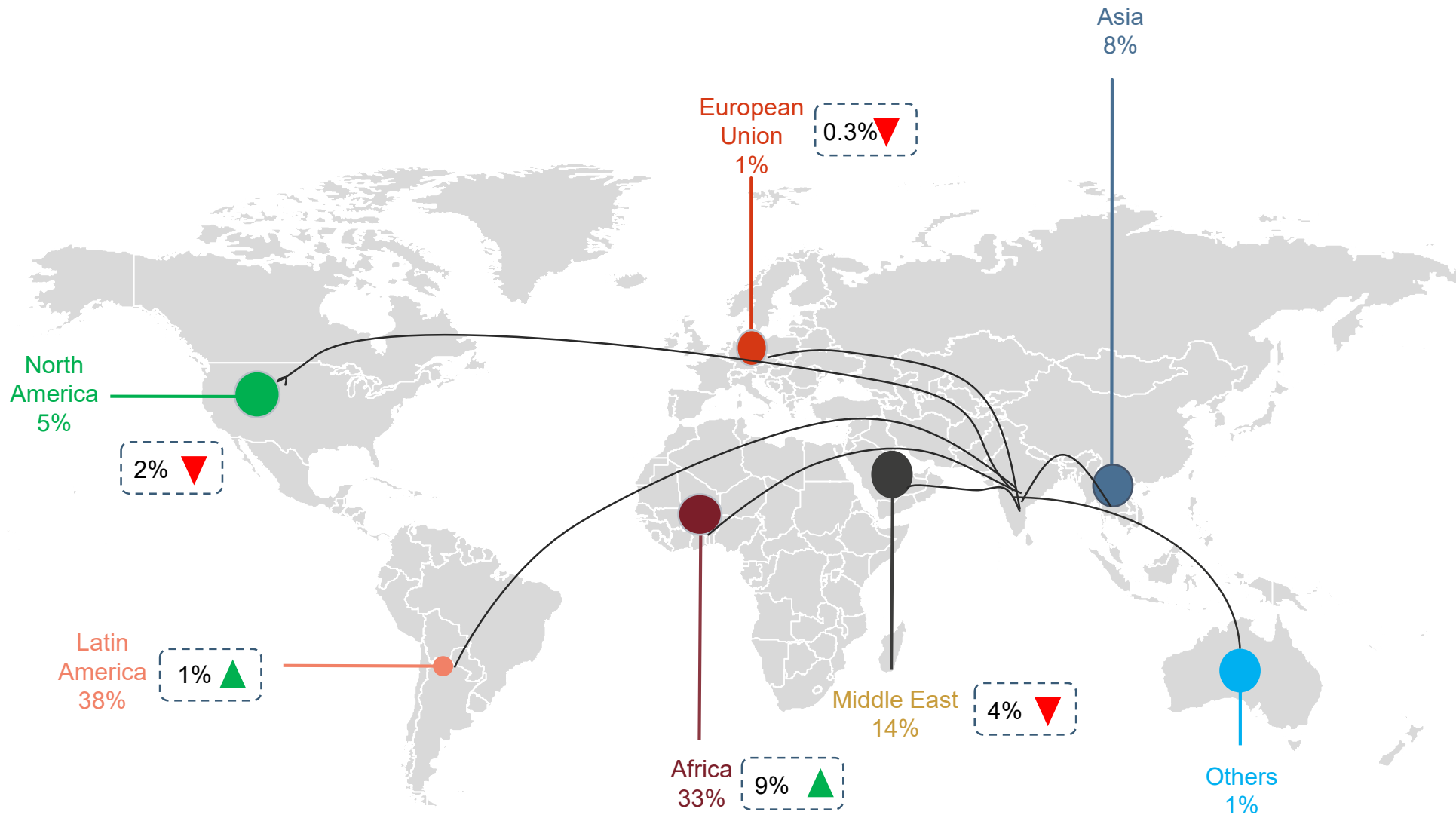
Source: SIAM, CRISIL Research

## MSIL tops the pole position, followed by Hyundai



- The share of compact UV's has been increasing year by year led by major model launches and traction in this segment due to their superior features, capabilities at affordable prices.
- Large cars have seen an increase in volumes with higher traction for Hyundai Verna and Nissan Sunny.
- On the back of poor demand in the domestic market, MSIL capitalized on the export demand and increased its market share from 15% in FY20 to 41% in FY22.
- As of Q1 FY23, MSIL still holds the top position for exports.

# Passenger Vehicle Exports



- Passenger vehicle exports to Africa and the Middle East accounted for ~47% of overall exports in April-July 2022, compared with ~23% in fiscal 2017.
- Key export markets in the Middle East are the UAE, Kuwait, Saudi Arabia, Lebanon, and Israel. The fall in crude oil prices has impacted demand from these countries since 2015.
- The share of export demand from South American countries such as Chile and Peru increased from 9% in fiscal 2017 to 17% in the 7 months of fiscal 2022, due led by Maruti Suzuki models such as the Baleno, Dzire and Vitara Brezza etc.

# Two-wheelers

# Two-wheeler sales to remain sluggish in fiscal 2023

Variables	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 P
Income for discretionary spending	F	NF	NF	N	N

Variables	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 P
Cost of ownership	NF	N	NF	NF	NF
Interest rates	N	N	F	N	N

Variables	FY 2021	FY 2022	FY 2023 P
Fuel injector vehicle	NF	N	N
E- Carburetor vehicle	N	N	N

Variables	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 P
Regulations – 2 wheelers	NF	N	NF	N	N

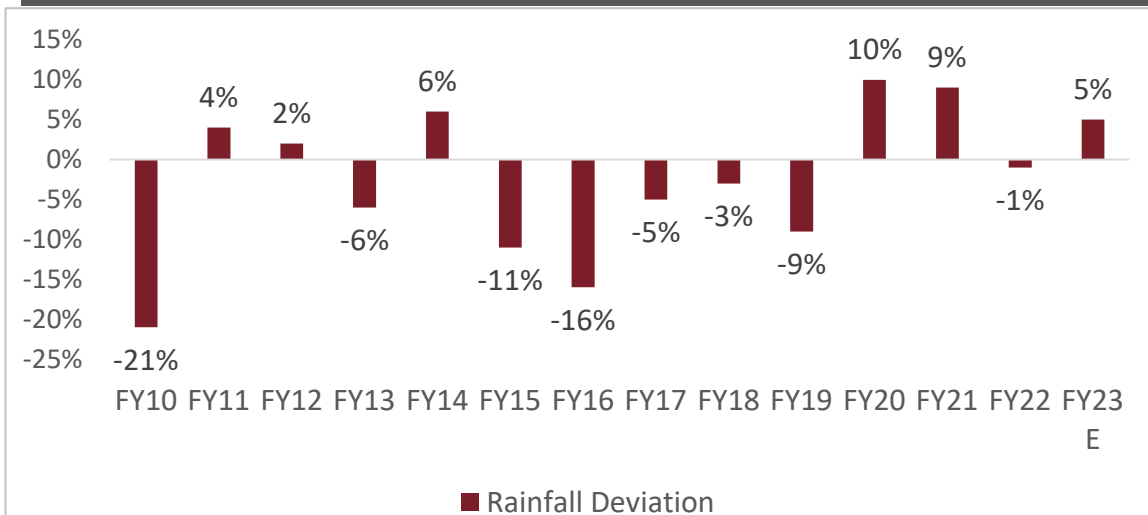
<b>Impact on Overall Sales Growth</b>	<b>N</b>	<b>NF</b>	<b>NF</b>	<b>N</b>	<b>N</b>
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NF: Not Favorable, F: Favorable; N: Neutral

E: Estimates P: Projected

# Monsoon has been expected to be normal in fiscal 2023

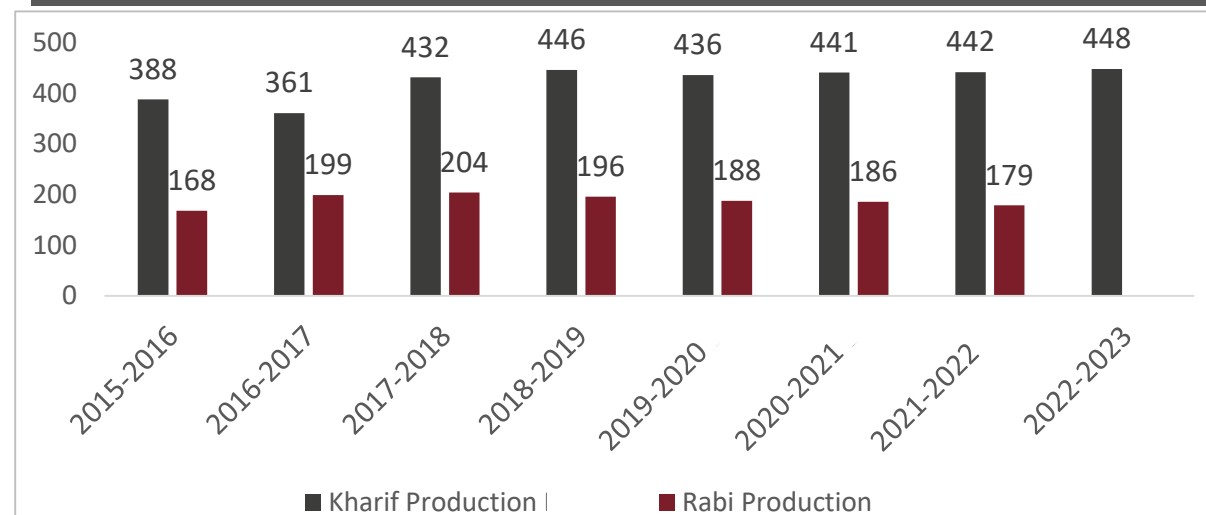
## Normal rainfall in fiscal 2023



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

## Positive boost from high crop production

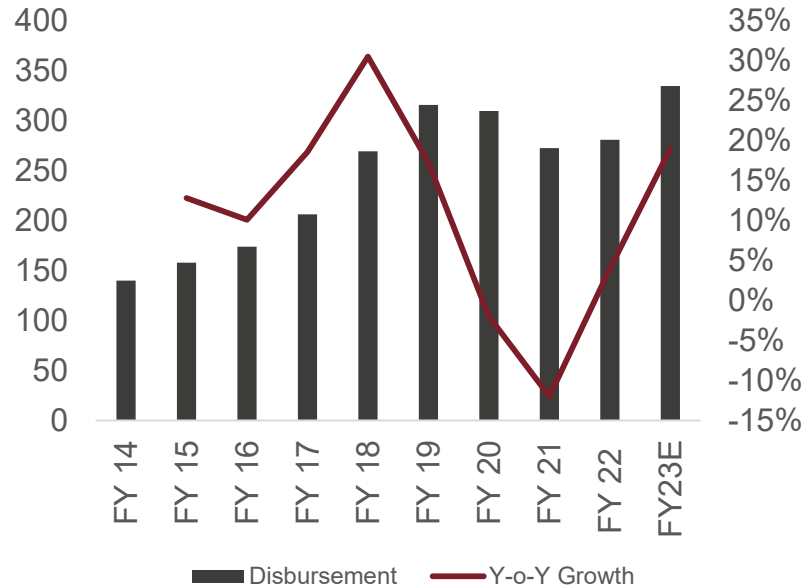


Source: Ministry of Agriculture, CRISIL Research

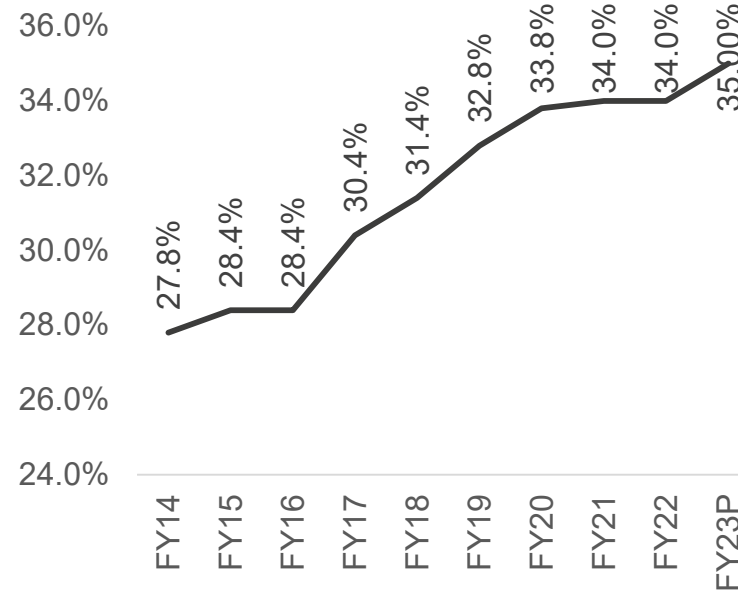
- The monsoon is expected to be normal in FY23.
- The start of monsoon has been promising, across most states, with sowing of Kharif crops picking up pace. However, north east and east India have been facing deficit rainfall which has led to a slow sowing progress in those states.
- With increase in MSP for the on-going Kharif crops, both combined, shall have positive impact on the demand from rural side in the coming months, specially with festive season round the corner.

# Slight recovery in sales for two-wheelers; but still not back to pre-covid levels

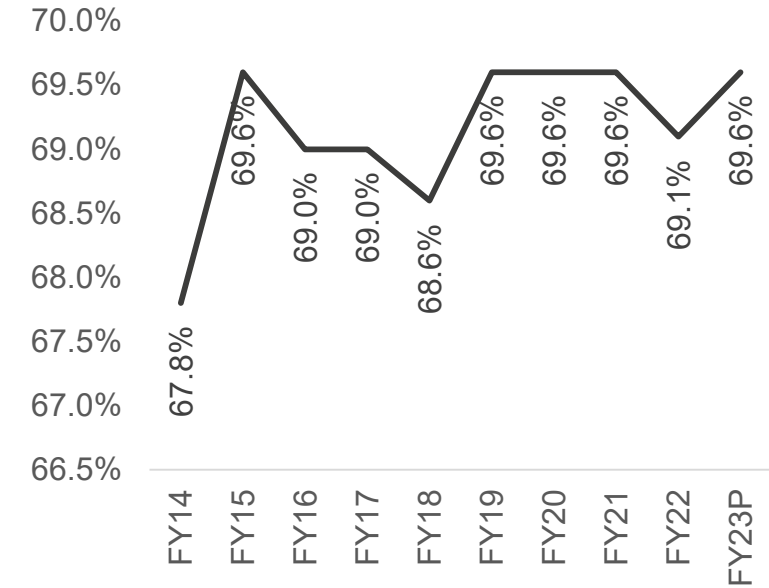
## Disbursement



## Auto finance penetration



## Loan-to-value

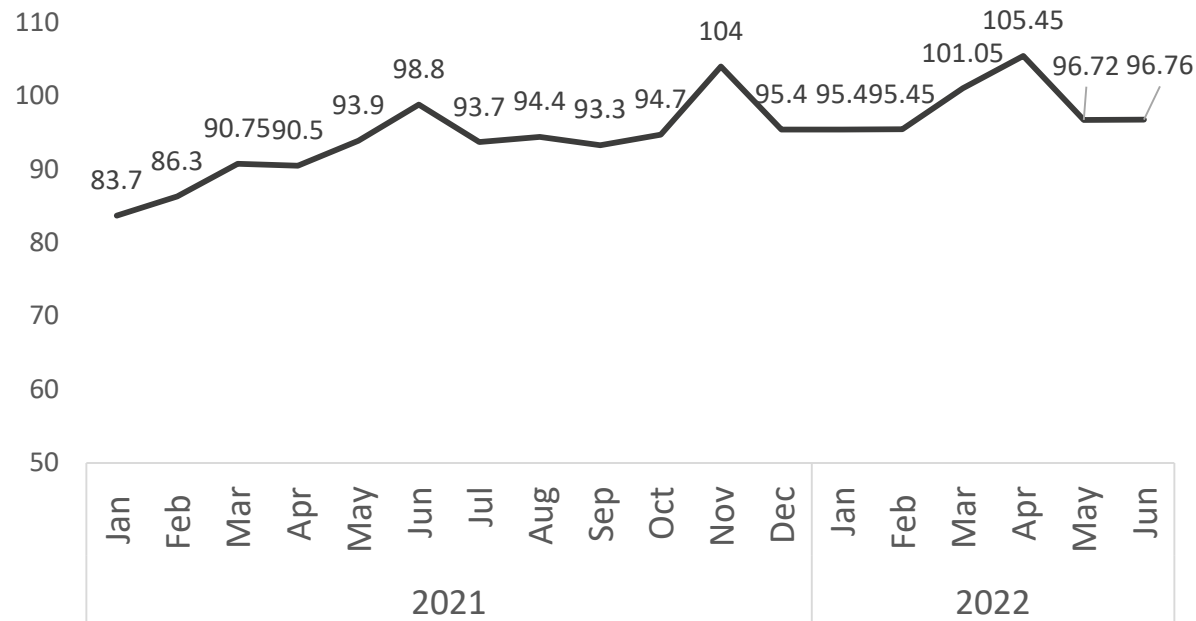


Source: Experian Credit Bureau, Company Reports, CRISIL Research

- The disbursements are on the road to getting back on track and is expected to get better in the coming year considering the slight recovery in two-wheeler segment.
- The festive seasons in India have always been the hype for Auto Markets, but due to rise in prices of petrol and vehicles, the demand remains sluggish as people are refraining from buying a brand-new two-wheeler with their income levels staying intact.
- As economic condition of India is slowly but surely improving, the LTV levels are supposed to be restored by the players in the coming financial year

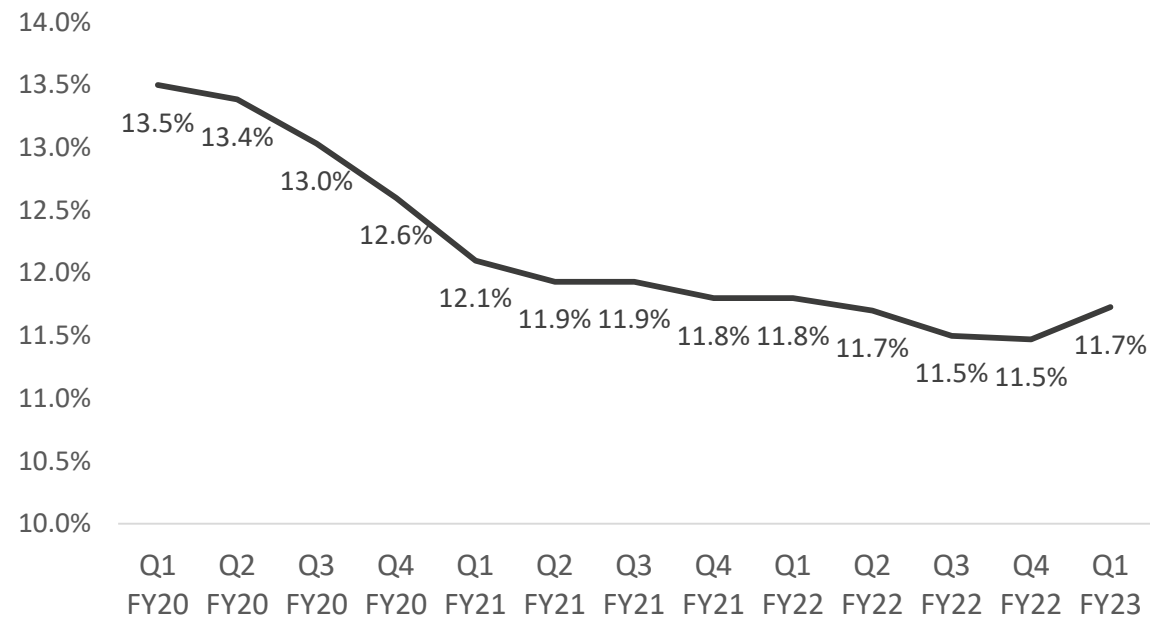
# Slight relief from the rising fuel costs due to excise duty cut

## Petrol Prices



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

## Interest Rates



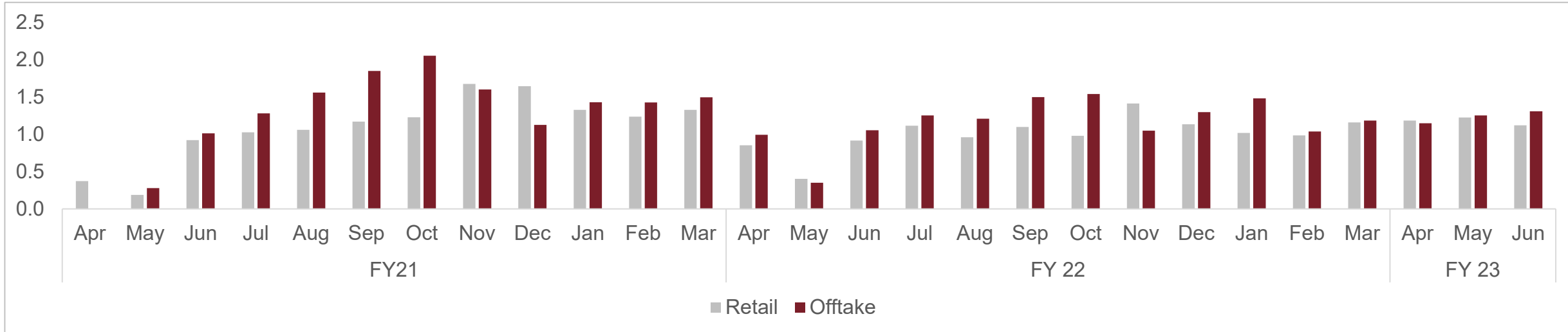
NOTE - Interest rates are an indicative rates charged by Banks  
Source - CRISIL Research

- Fuel prices have dropped due to excise duty cuts; however, the crude oil prices continue to remain at higher levels, with just a marginal decline recently which is yet to have an impact on the prices further going down.
- Commodities and raw materials prices have been rising and as a result, the vehicle prices have also gone up to compensate for that additional manufacturing costs.
- Interest rates continue to remain range bound.



# Two-wheeler wholesale volumes still stagnant, retail is expected to do better owing to festive season in coming months

Retail vs off-take sales trend



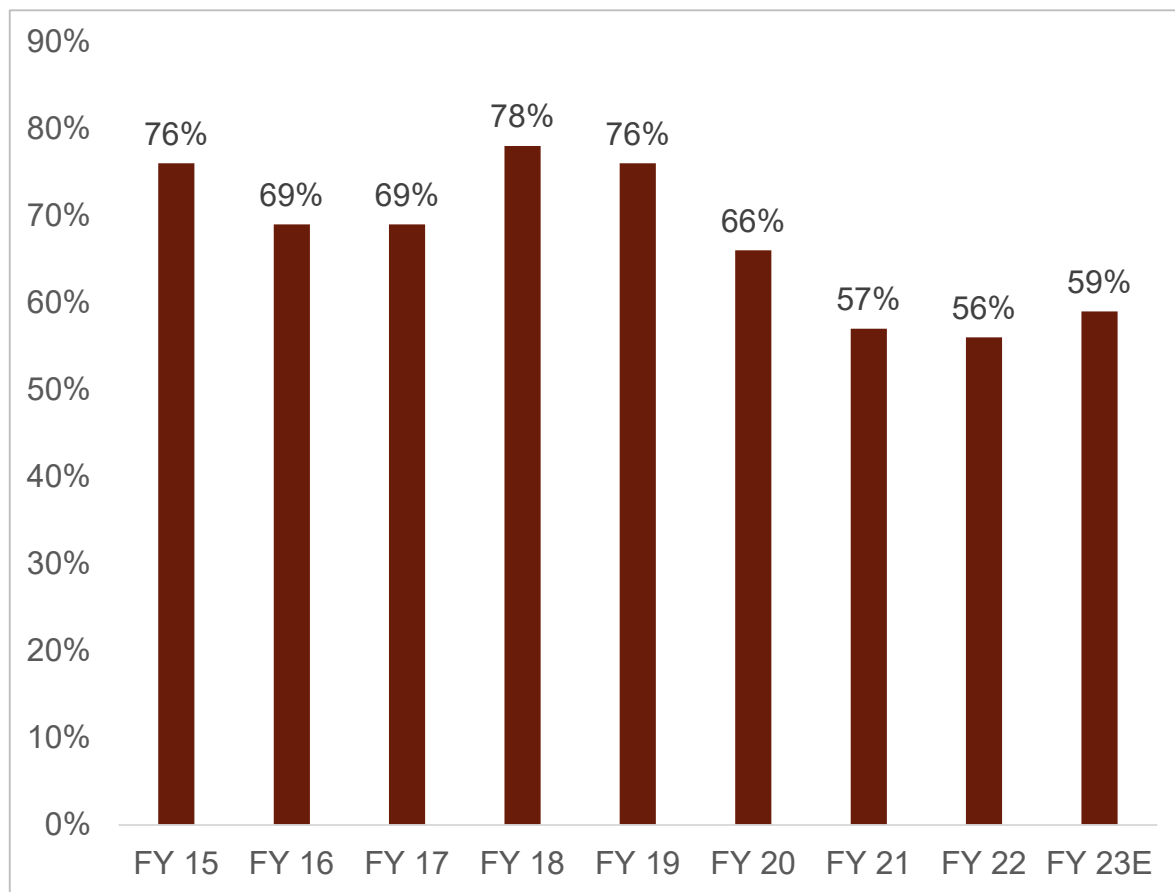
Note: Retail numbers are estimated

Source – MoRTH, SIAM, CRISIL Research

- In Q1 FY23, there was a slight increase in retail movement via-a-vis last year and last month, due to motorcycles segment showing some improvement in sales owing to good cash flows from the Rabi season.
- In June, the retail movement was slightly slow, due reasons like – no prominent discounts offered from the dealer’s side, start of monsoon for many states and EVs slightly getting back to doing better after the decline in penetration for the month of April and May.

# Capacity utilization levels to improve marginally in FY23

## Utilisation rates remained lower in FY22



SOURCE: Industry, SIAM, CRISIL Research

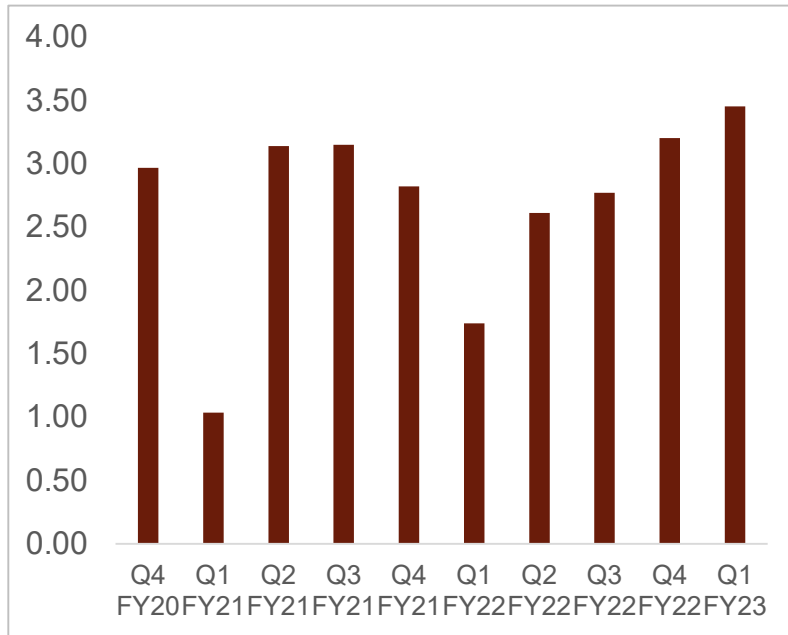
## Utilization levels

Player	Effective Capacity in Mn (as on 31st Mar 2022)	Production (in Mn) FY22	Capacity utilization FY22	Capacity Utilization Q1 FY23
Hero MotoCorp	11.0	4.8	44%	49%
Bajaj Auto	5.4	3.8	70%	64%
HMSI	6.4	3.8	59%	67%
TVS Motor Company	4.5	3.1	69%	75%
India Yamaha Motors	1.6	0.7	44%	53%
Suzuki Motors	1.04	0.8	77%	78%
Royal Enfield	0.95	0.6	63%	87%
<b>Industry Total</b>	<b>32</b>	<b>17.9</b>	<b>56%</b>	<b>60%</b>

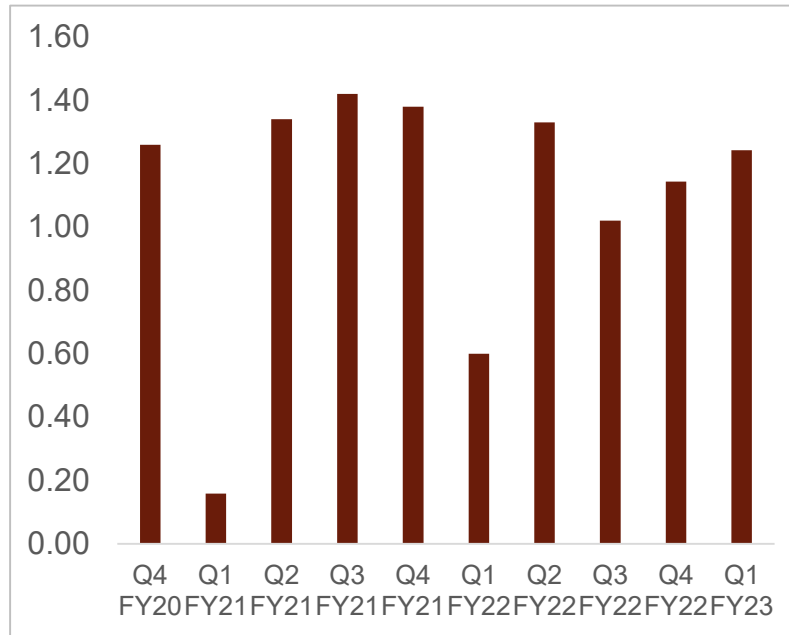
Capacity utilization estimates of Bajaj Auto and TVS Motor Co Ltd exclude three-wheelers

# Production levels for motorcycles and scooters shows an upward trend for three consecutive quarters

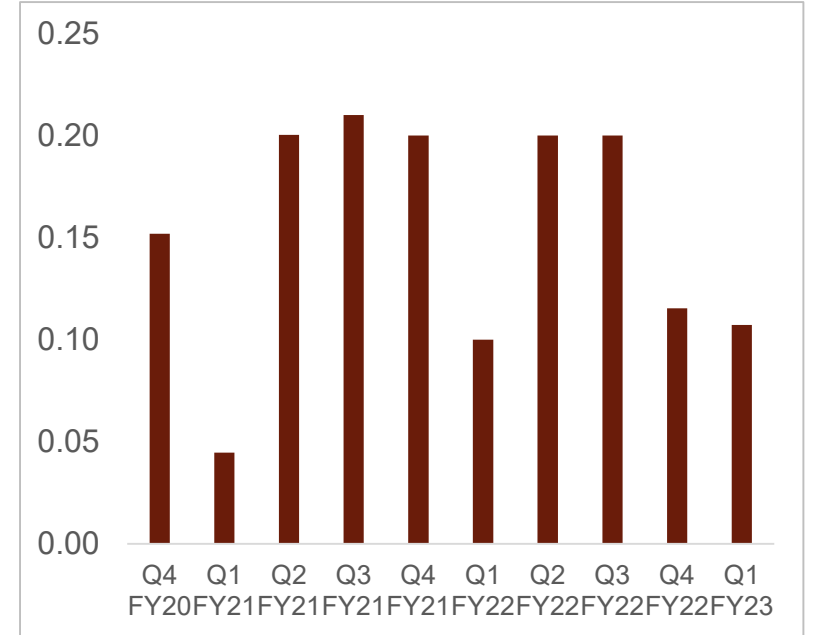
## Motorcycles



## Scooters



## Mopeds



Source: SIAM, CRISIL Research

- Production levels of motorcycles and scooters have taken an upwards trend owing to improvement in demand and things slowly picking up as the offices, schools, colleges have opened up and daily commute has got back to usual levels.
- Also, exports of two wheelers are on the rise.
- However mopeds continue to show decline in production levels. There has been a substantial increase in the cost of ownership for Mopeds. Earlier, the difference in costs that was there between mopeds and motorcycles, that was about ~8,000-10,000, has now shrunk to ~3000-5000 due to various upgrades in entry level motorcycles.

# Domestic – annual forecast

	Two-wheelers	Motorcycles	Scoters	Mopeds
FY 21 volumes	15.12	10.02	4.48	0.62
YoY Growth in FY21	13%	11%	20%	3%
FY 22E volumes	13.46	9.0	4.0	0.47
YoY Growth in FY22E	11%	10%	11%	23%
FY 23 volumes	13.5-14.0	8.95-9.00	4.24-4.29	0.45-0.50
YoY Growth in FY23P	1-3%	(1)-1%	6-8%	(2)-0%

NOTE: Volumes in million units;

YoY Growth in red indicates a negative growth

YoY Growth in green indicates a positive growth

Source – SIAM, CRISIL Research

# Domestic – quarterly forecast

Period		Two-wheeler		Motorcycles		Scooters		Mopeds	
		Volume (mn)	YoY Growth	Volume (mn)	YoY Growth	Volume (mn)	YoY Growth	Volume ('000)	YoY Growth
FY22P	Q1	2.4	86%	1.7	93%	0.6	75%	69	28%
	Q2	4.1	(12)%	2.6	(17)%	1.3	(1)%	164	(17)%
	Q3	3.6	(25)%	2.4	(22)%	1.0	(28)%	131	(38)%
	Q4	3.4	(23)%	2.2	(22)%	1.1	(24)%	109	(30)%
FY23P	Q1	3.7	54%	2.4	38%	1.2	100%	111	61%
	Q2	3.67-3.72	(11)-(9)%	2.30-2.35	(12)-(10)%	1.20-1.25	(9)-(7)%	120-125	(26)-(24)%
	Q3	3.40-3.45	(6)-(4)%	2.27-2.32	(7)-(5)%	1.00-1.05	(1)-1%	122-127	(7)-(5)%
	Q4	2.85-2.90	(15)-(13)%	1.92-1.97	(12)-(10)%	0.78-0.83	(23)-(21)%	109-114	1-3%
FY21	Q1	3.63-3.68	(3)-(1)%	2.40-2.45	0-2%	1.08-1.13	(9)-(7)%	113-118	2-4%

Source – SIAM, CRISIL Research

- Demand was impacted in FY22 on account of increasing cost of ownership and slow revival of the economy.
- Q1 FY23 witnessed some momentum backed by pick up in scooter demand, however the base overall base of the 2w industry is low. Hence, such a high growth does not indicate a bounce back of the industry.
- Economy has started reviving with offices and schools opening-up, but increase in fuel prices is a major concern for growth going forward
- Going ahead in FY23, uncertainty revolves around increasing fuel prices, increasing vehicle prices and uneven rainfall spread dampening rural sentiments in certain states. Further, inventory liquidation on account of BS VI-B regulation to be implemented from 1<sup>st</sup> April 2023 to negatively impact industry.

# Stakeholder interactions

## OEM



- Rural demand has witnessed a slight uptick in Q1 FY23.
- Favorable rural demand pushing motorcycle sales
- Economy and executive segments are more in demand
- Scooter segment has picked up with urban movement improving.
- Demand for electric two-wheelers was hampered marginally due to the recent events of catching fire, however it is getting back to normal now.
- Players have been correcting inventory to bring the stock levels back to normal at 30-35 days.
- A price hike was witnessed across the industry in June/July 2022. Another price hike is expected around the festive season.

## Dealer



- There has been a slight improvement in demand for the ICE two wheelers in last couple of months, but it has still not gotten back to Pre-Covid levels.
- Scooters too have seen some improvement in demand from the urban side, but the sentiments are mixed. Increase in prices and rise in cost of ownership have together led to postponement for buying a two-wheeler.
- Rural demand for motorcycles have seen some marginal improvement, owing to good Rabi payments. Whereas for the scooters, rural demand remains on the lower side, as the prices for the scooters have considerably risen post BS6 implementation.
- Enquiries to Conversion percentage remains lower.
- There are not much discounts offered currently, barring some marginal discounts on accessories.
- Price increase in two wheelers is expected in the near time, though marginal, but still might impact the demand in the log run.

## Financier



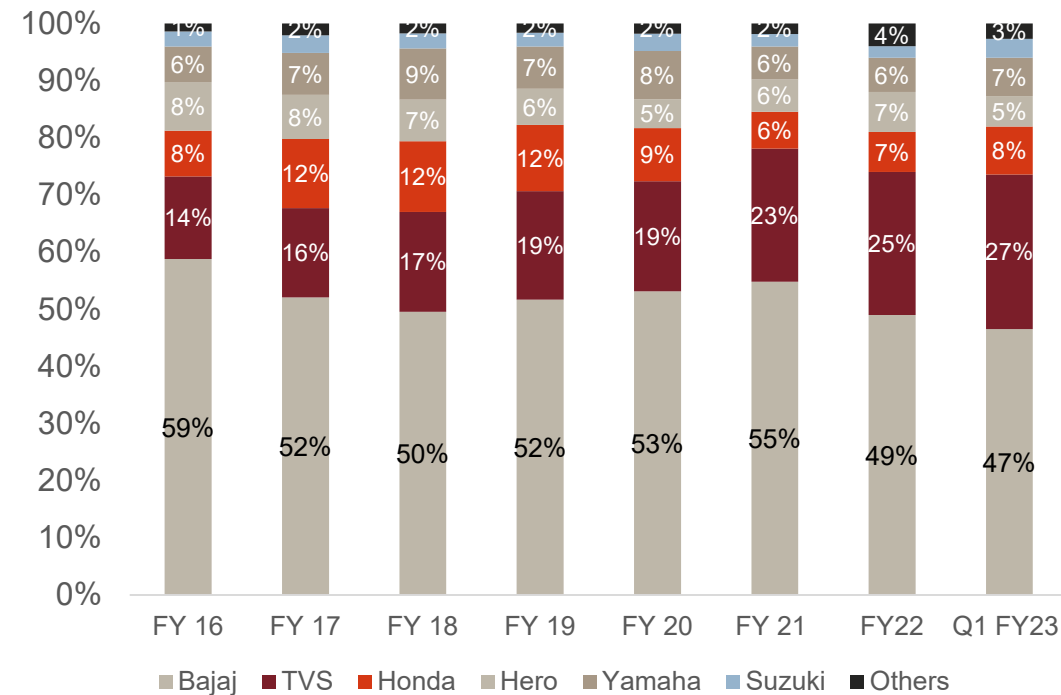
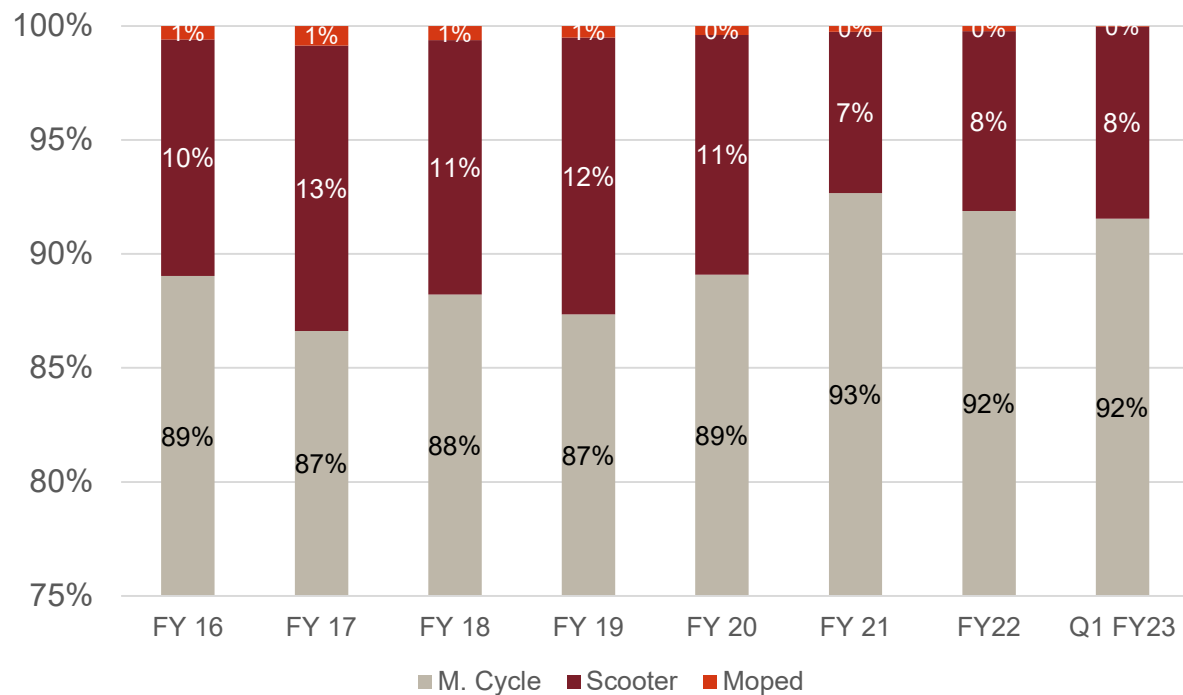
- Interest rates have marginally gone up whereas LTV remains on the similar lines.
- Gradual improvement in demand expected as the festive times are near, which might drive some retail movement in the industry.

Source – Industry, CRISIL Research

# Two-wheeler exports

# Export demand showing positive start for FY23

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

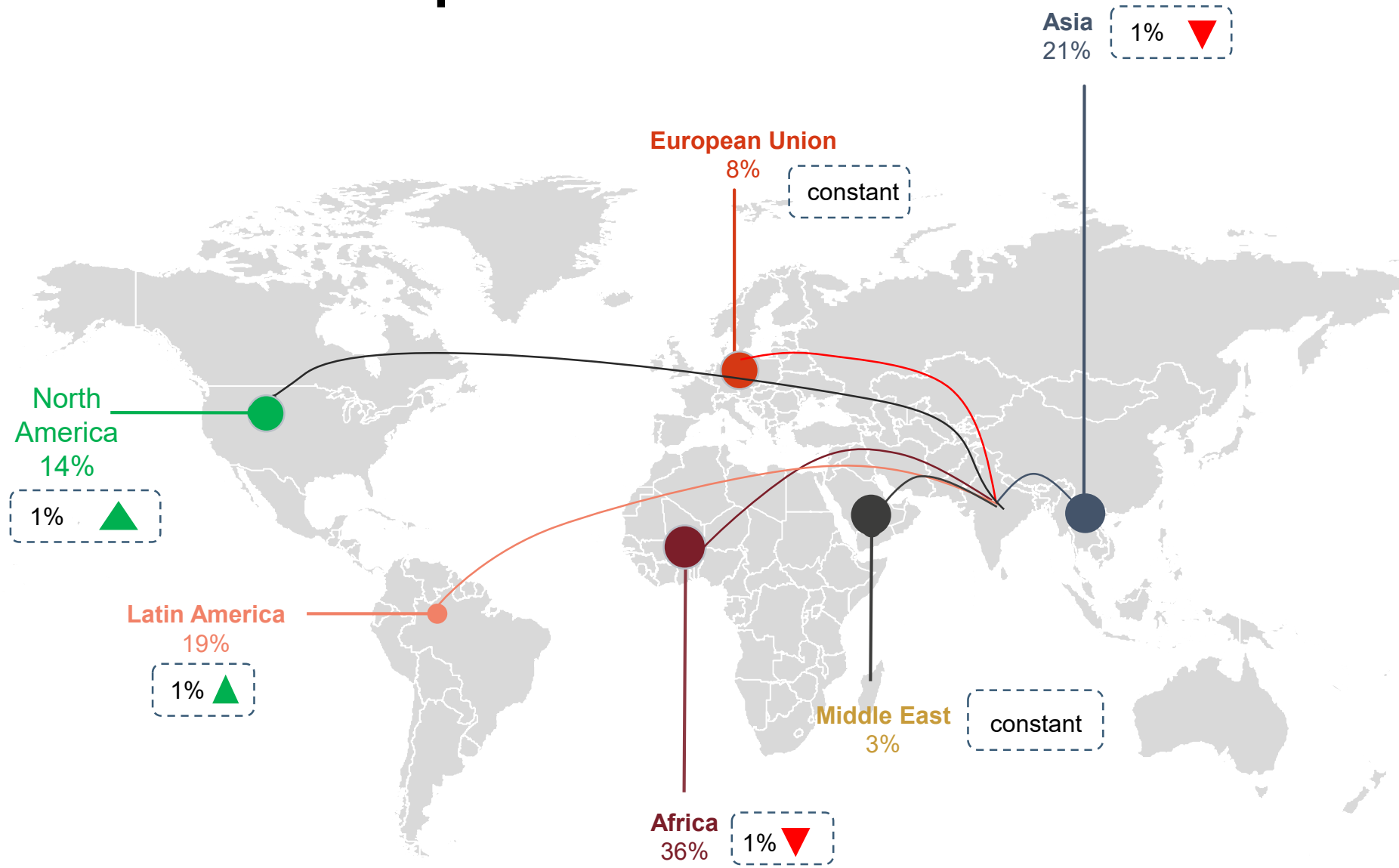


Source: SIAM, CRISIL Research

- Nigeria is Bajaj Auto's key export destination. Exports to Africa had been affected due to increasing covid cases and inadequate vaccination progress
- Demand for scooters increased by 51% on year during FY22 on a very low base of FY21. HMSI and TVS's key export market for scooters includes Sri Lanka and Nepal.
- Export of motorcycle segment has shown a good momentum in Q1 FY23.



# Two-Wheeler Exports



- Two-wheeler exports to Asia increased by 47% on year during April-February 2022 over very low base of FY21 as lockdowns were imposed from April 2020. Within Asia, Nepal is an important export destination
- Similarly, the other key export nation which drives Asia exports, namely Bangladesh, witnessed growth in April-February of fiscal 2022
- Sri Lanka, which accounted for ~8% of Indian two-wheeler exports in fiscal 2020, banned vehicle imports in early fiscal 2021 due to pressure on the government's foreign debt repayment.
- Another important market is the Colombian market. Two-wheeler exports to Colombia accounted for ~10% of the total two-wheeler exports in YTD FY22. With economic conditions improving in the country, exports increased by 69% on year during YTD Fiscal 22 over same period last year.

# Commercial Vehicles

# Overview of end-use segments – cargo

Segments (% Growth Y-o-Y)	FY 18	FY 19	FY 20	FY 21	FY 22 P	FY 23 P
Coal (production)	2.0	7	0	(4)	11	6-8
Iron ore (production)	3	3	19	(17)	23	1-3
Steel (consumption)	8	9	2	(5)	13	6-8
Cement (consumption)	9	12	(2.4)	0.3	8	7-8
Roads (Km constructed / day)	8	9	11	11	13	14-15
Port (traffic)	6.5	8.2	2	(5.5)	4.4	4-6
Two-wheelers (domestic sales)	14.8	5	(18)	(13)	(11)	0-3
Passenger vehicles (domestic sales)	8	3	(18)	(2)	13	14-16
Consumer durables (consumption)	5.8	7	5	(17)	12-17	8-10
E-retail	35	35-37	23	13	27	25-30
RMG (market size)	5	68	(2)	(24)	18	14-16

Core Sectors

Discretionary Products

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

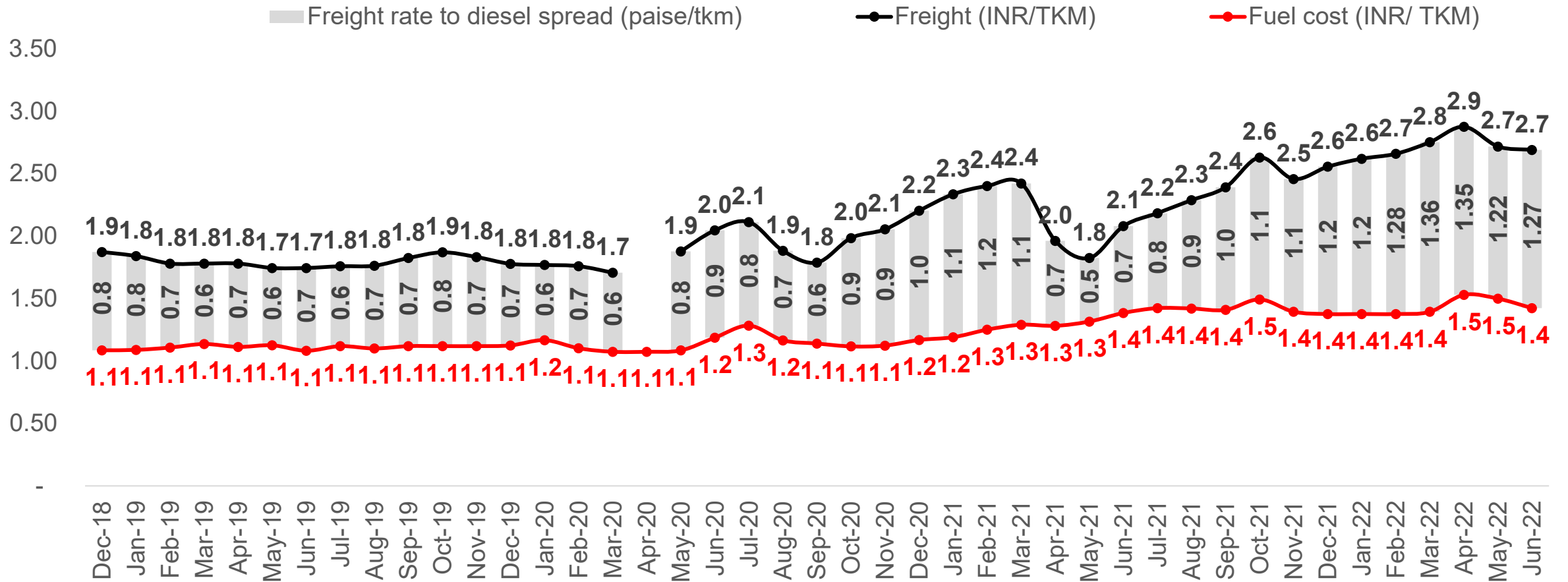
# Overview of end-use segments

Segments (% growth Y-o-Y)	FY 18	FY 19	FY 20	FY 21	FY 22 P	FY 23 P	
Dairy (production)	6.7	7	5	(4)	3	5-7	Non - Discretionary Products
FMCG	8	12	5	3.5	13-15	8-10	
Pharmaceuticals (market size)	1	15	9	13	7	5-7	
Gross school enrollment							Buses
K-12	73.4	73.4	78	74.5	74.8	75.1	
Above K-12	23.4	22.5	22.5	22.2	23.0	23.4	
IT employee base	3	4	4	9	13	5-7	
Air passenger traffic	188	209	209	64.4	106.8	195	
Hotel room demand	5	4	1	(51)	74	25-30	

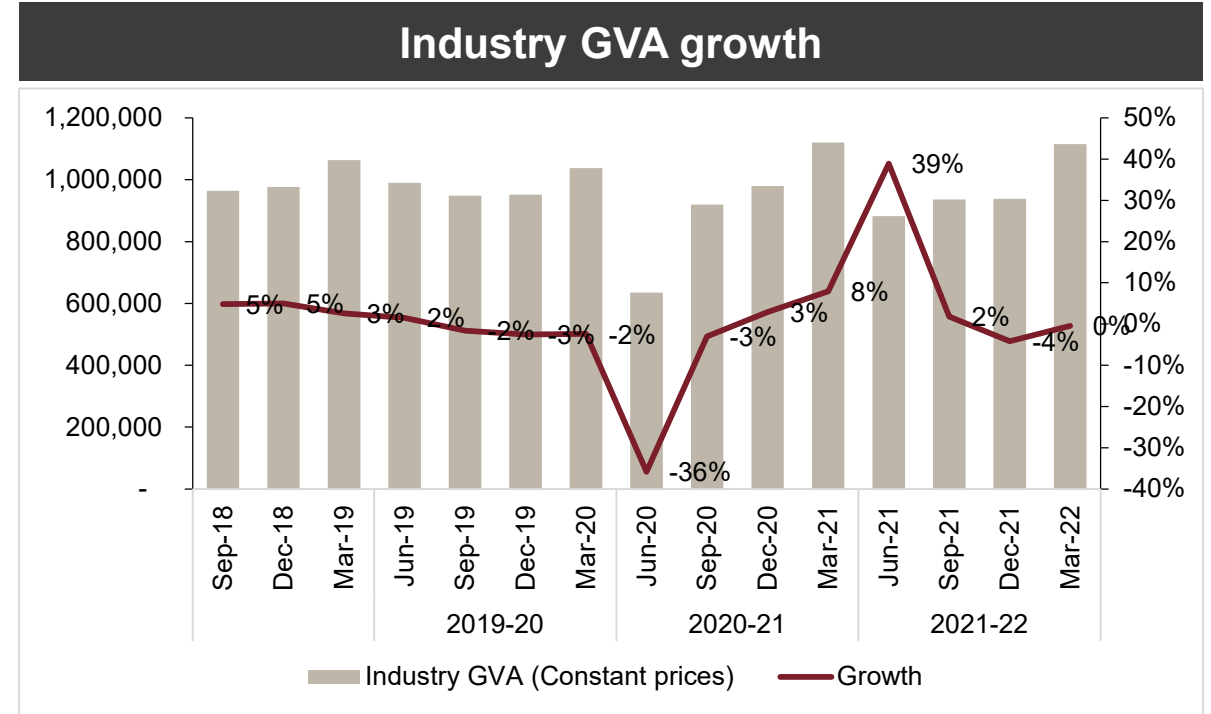
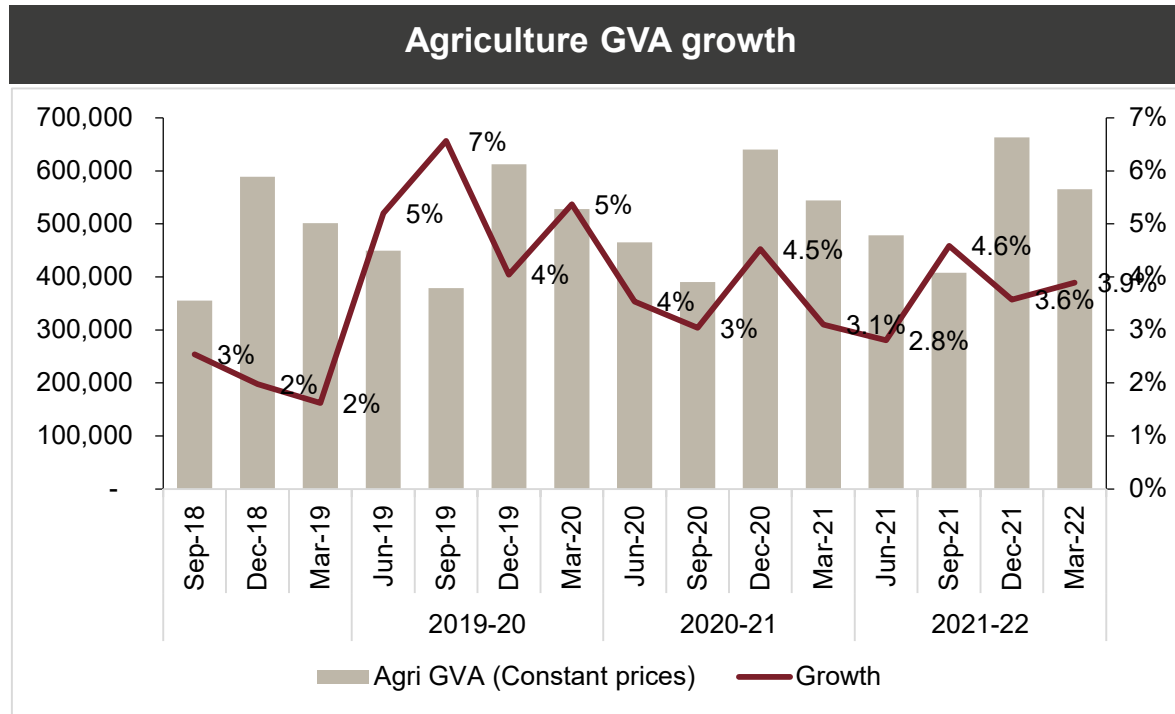
Note – Gross enrollment ratio (GER) is the ratio of the number of students enrolled to the population of those who qualify for the particular grade level. K-12 indicates classes 1<sup>st</sup> – 12<sup>th</sup>.

Source: NASSCOM, AAI, CRISIL Research

# Freight and diesel on a continuous improvement



# Agriculture is expected to maintain a healthy growth momentum – growing 3% in fiscal 2023



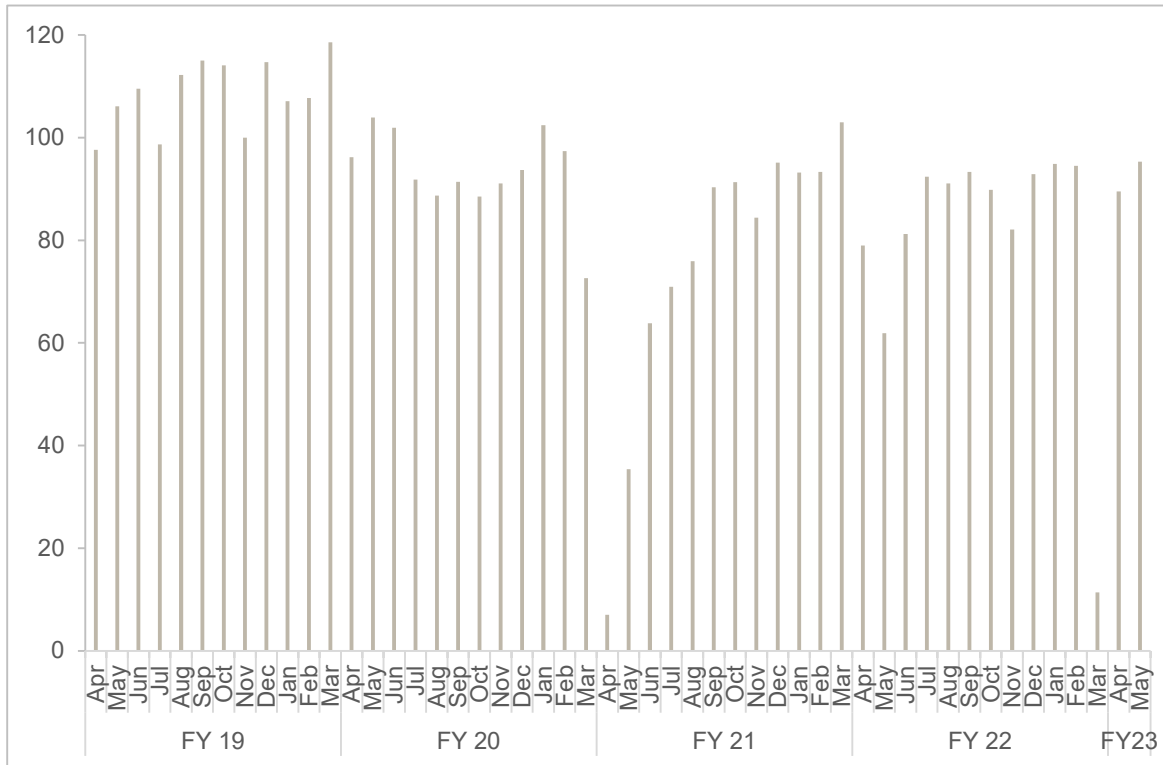
Source: MOSPI, CRISIL Research

Source: MOSPI, CRISIL Research

- Agri GDP growth of Q4 FY 2022 grew at 3.9% on-year. Growth in Q4 FY 2021 was around 3.1%
- Overall agriculture growth is expected to remain healthy at 3% in next fiscal as well, given the normal monsoon, expectation of record kharif production, and adequate reservoir levels.
- Industry GVA witnessed flattish growth in Q4 FY22 by growth of 8% in Q4 FY21

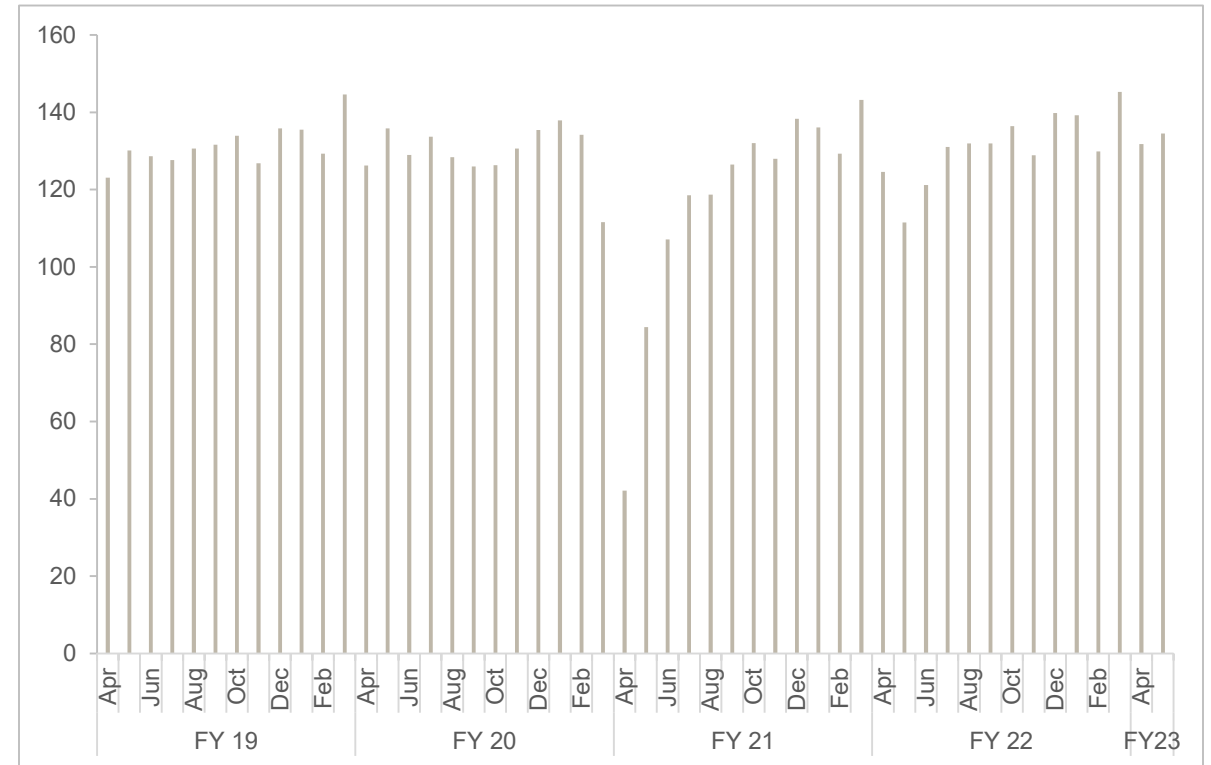
# IIP holds ground

## IIP Capital Goods



Source: MOSPI, CRISIL Research

## IIP Manufacturing

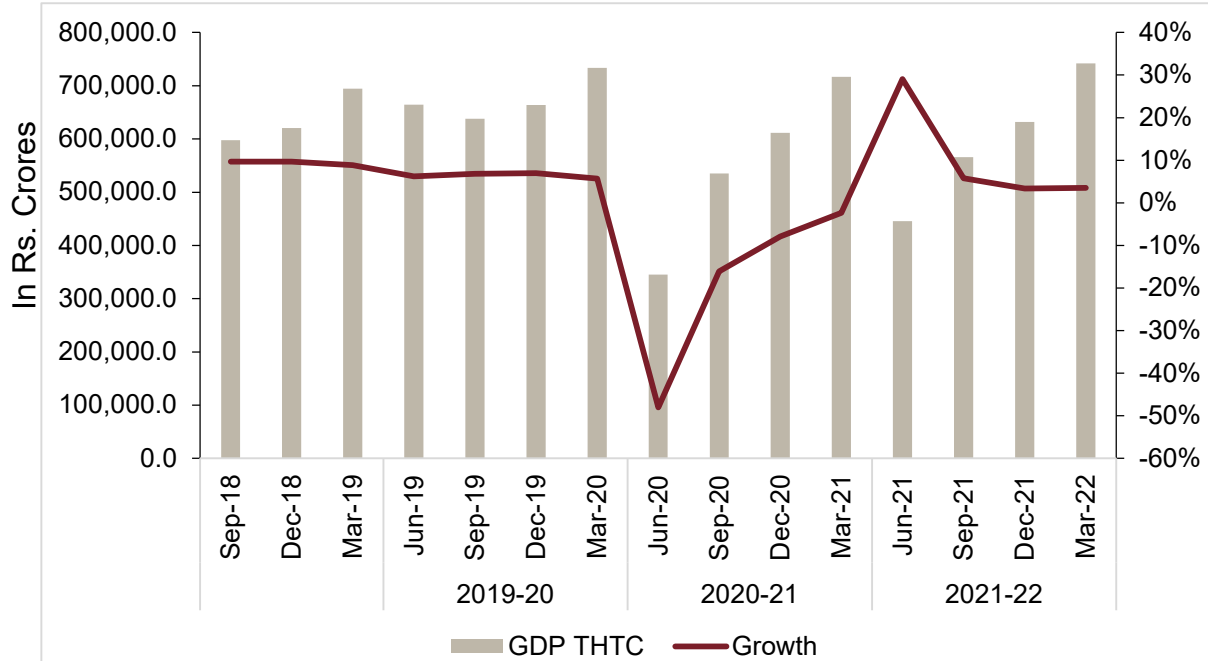


Source: MOSPI, CRISIL Research

- The Index of Industrial Production (IIP) printed at 137.7 in May and representing 19% on-year growth, up from 7% growth in April due to low base of last year.
- Electricity saw the highest growth while manufacturing was the slowest reflecting the challenges faced by the latter
- As per use-based classification, not only consumer non-durable goods production remained weak, infrastructure and construction goods too witnessed softening
- IIP grew 7.1% on-year in April, up from 2.2% (revised from 1.9% earlier) in March. The high growth was partly a reflection of a low base as industrial activity slowed with the second wave of Covid-19 last year.

# GDP THTC & IIP-Mining

## GDP THTC

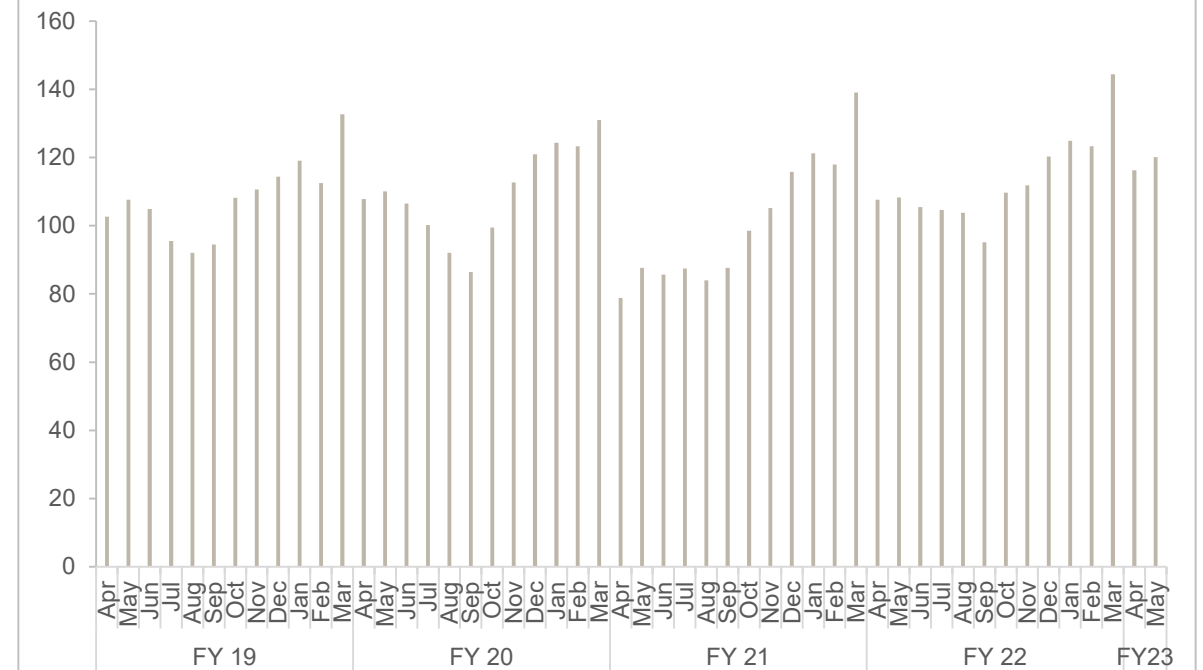


NOTE: THTC: Transport Hotel Transport Communication Services

Source- MOSPI, CRISIL Research

- GDP THTC registered a growth of 3.5% in fourth quarter over Q4FY21. This segment is showing signs of revival
- Mining (14.4% weight) sector did better, growing 11% on-year in May

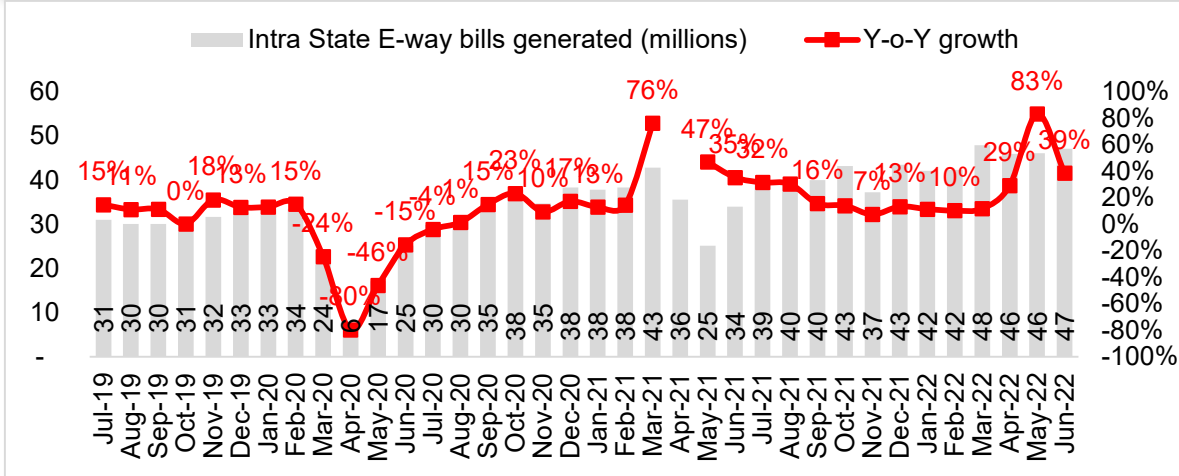
## IIP mining



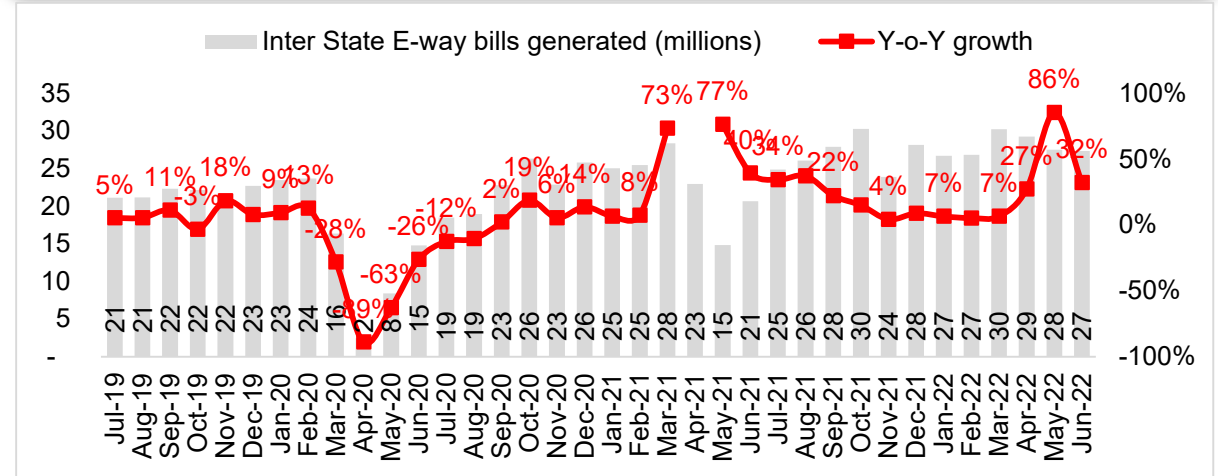
Source- MOSPI, CRISIL Research



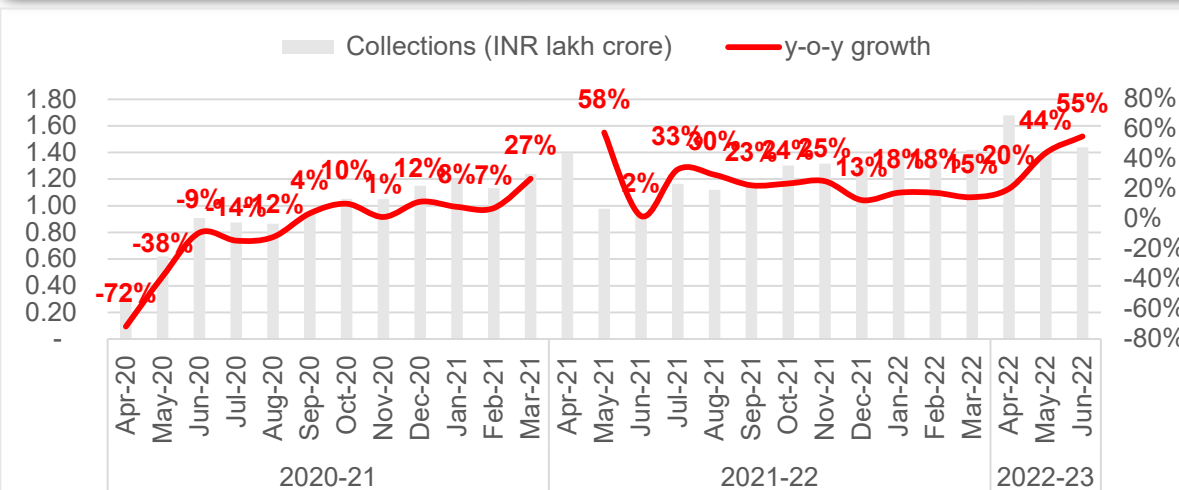
## Ewaybills : Intrastate



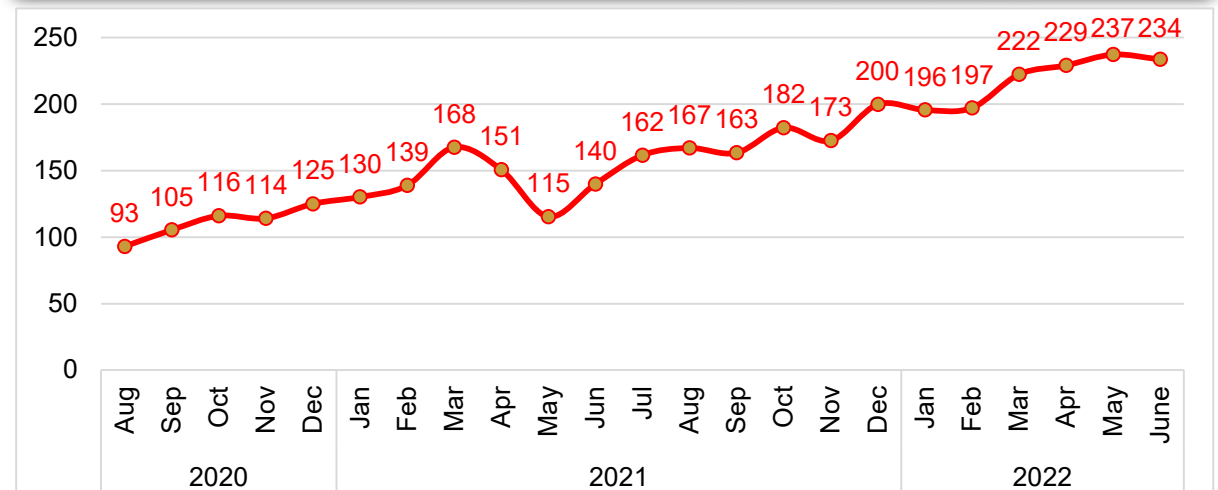
## Ewaybills : Interstate



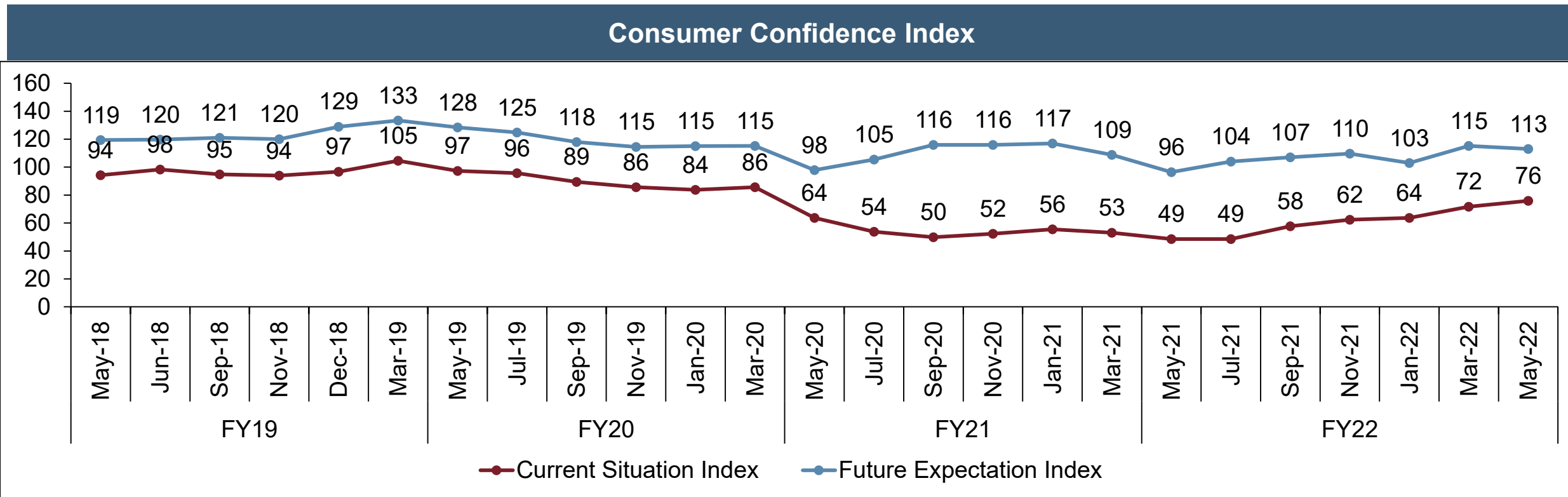
## GST collections



## Fastag trend (Feb 2020 level =100)



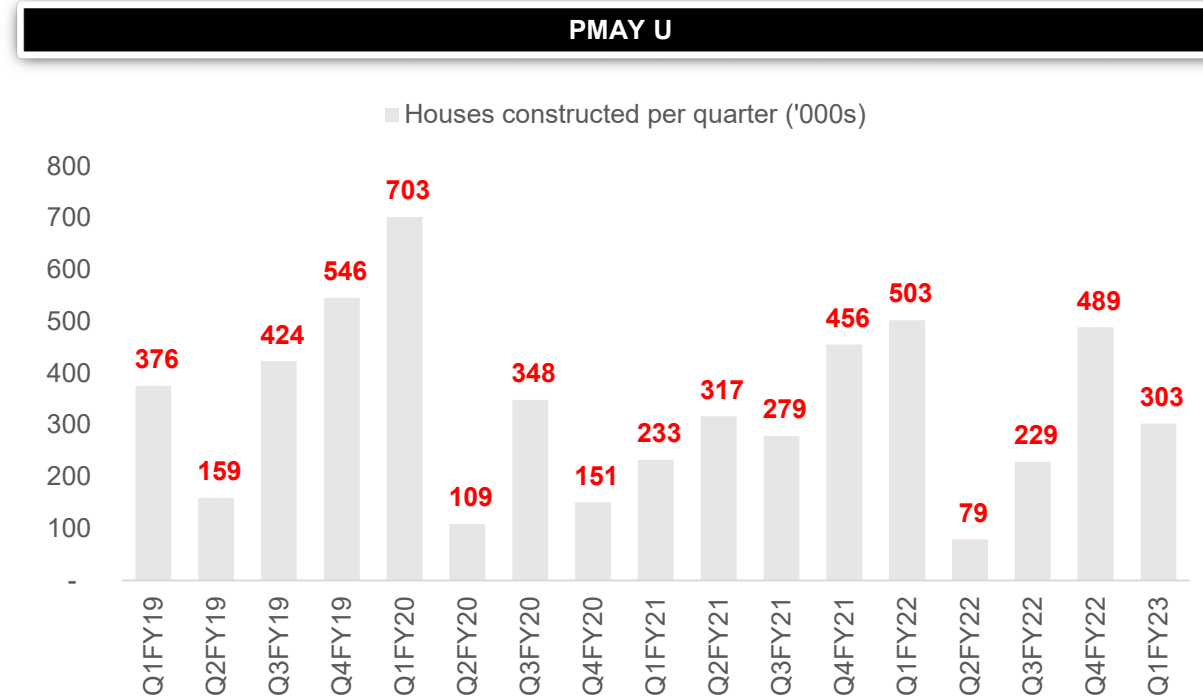
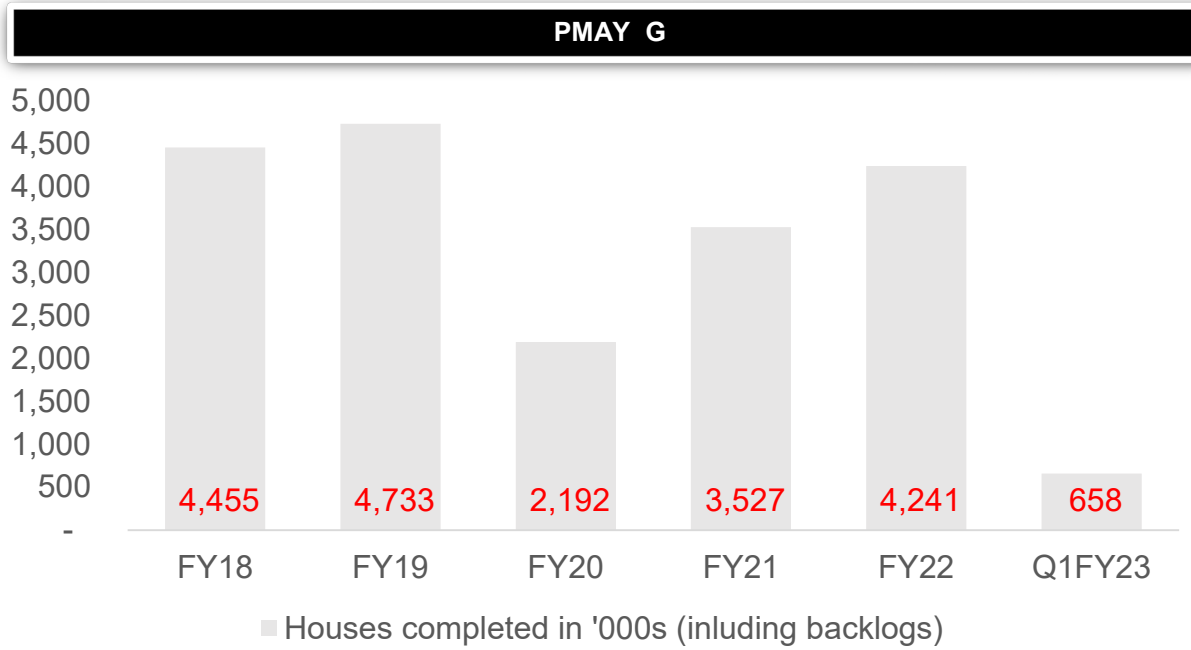
# Perceptions and Expectations on the General Economic Situation



Source- RBI, CRISIL Research

- Consumer confidence for the current period has been consistently improving since July 2021; the sentiments on the key parameters like employment and household income improved further in the latest round of the survey, though they remained in pessimistic zone. One year ahead outlook of households remained in growth terrain despite marginal moderation in sentiments in the latest survey round
- Households' assessed a rise in their current spending and expected it to increase further over the next one year; they expected higher essential spending whereas the sentiments on non-essential spending remained downbeat

# 1.23 cr houses sanctioned under PMAY-Urban, 61.04 lakh units already built

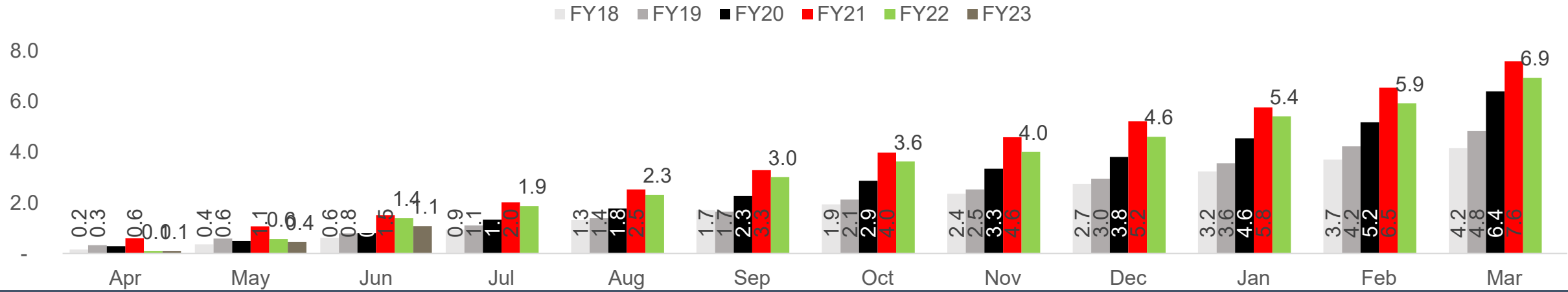


- Out of the total sanctioned houses under PMAY-Urban, 101.43 lakh have been grounded for construction and 61.04 lakh units have already been completed or delivered to beneficiaries.
- The highest execution was when there were elections in FY19 post which activities have tapered off
- ~50% of the homes sanctioned being completed in the urban areas

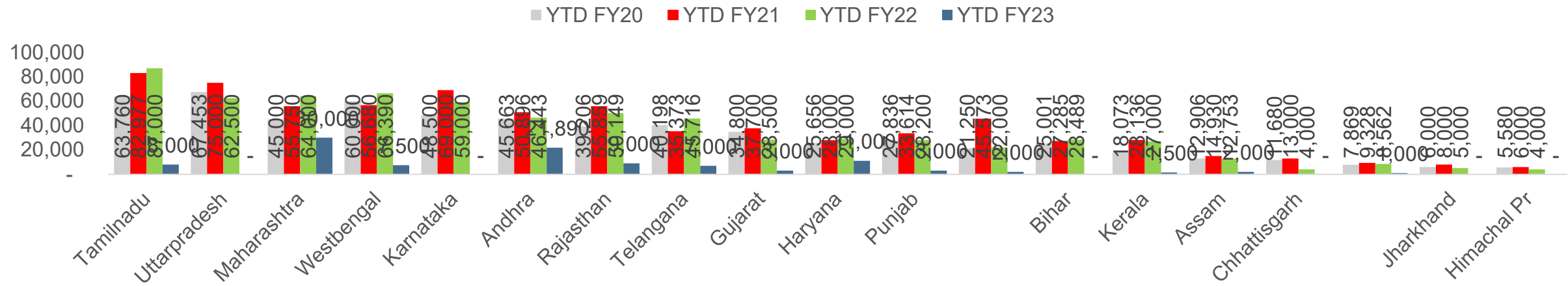


# State government borrowings similar to last year as partial lockdowns hurt state revenues

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



Year to date G-sec borrowings of various state governments and comparable levels for past year (INR crores)



# Overview of end-use segments – Discretionary consumer goods



Segments (% Growth Y-o-Y)	FY 18	FY 19	FY 20	FY 21	FY 22 P	FY 23 P
<b>Consumer durables (Consumption)</b>	<b>5.8</b>	<b>7</b>	<b>5</b>	<b>(17)</b>	<b>12-17</b>	<b>8-10</b>

- The household appliances sector is expected to witness growth in fiscal 2023 on expected increase in discretionary spend and waning impact of pandemic. Long-term demand is expected to clock a healthy trajectory, led by rising disposable income and low penetration levels amid an improving economy. Demand is expected to improve, and industry can see a growth of 8 to 10% fiscal 2023.



Segments (% Growth Y-o-Y)	FY 18	FY 19	FY 20	FY 21	FY 22 P	FY 23 P
<b>E-retail</b>	<b>35</b>	<b>35-37</b>	<b>23</b>	<b>13</b>	<b>27</b>	<b>25-30</b>

- The sector is expected to witness 25-30% growth in fiscal 2023 on account of higher discretionary spending and waning impact of the pandemic. An improving economy amid low to moderate inflation is expected to drive consumer spends in the medium to long term, propelling growth in the retail industry. Among verticals, food & grocery is expected to grow at a healthy pace on back of significant offline as well as online impetus.



Segments (% Growth Y-o-Y)	FY 18	FY 19	FY 20	FY 21	FY 22 P	FY 23 P
<b>RMG (Market Size)</b>	<b>5</b>	<b>6</b>	<b>(2)</b>	<b>(24)</b>	<b>18</b>	<b>14-16</b>

- Overall RMG market is projected to reach to ~Rs 5.1 trillion in fiscal 23 from estimated ~Rs 4.3 trillion in fiscal 22 with a growth of 14-16%. The demand will be driven by economic revival across domestic and export markets along with surge in export driven demand.
- The growth in fiscal 2023 will be led by both domestic and export driven growth, where the domestic market is expected to grow at 15-20% and export market is expected to grow at 5-10%. This growth will be on a high base of fiscal 2022, indicating that the RMG market is poised for significant growth over the next 3-5 fiscals.

# Overview of buses



Segments	FY 18	FY 19	FY 20	FY 21	FY 22 P	FY 23 P
No of K-12 institutions (million)	1.56	1.56	1.65	1.62	1.65	1.69
Gross enrolment ration (GER) (%)	73.4	73.4	78	74.5	74.8	75.1

- Covid wave 2 and Omicron impacted school /college reopening for academic year 2021-22; School bus demand might come in fiscal 2023 with improvement in number of K-12 institutions and gross enrolment ratio



Segments (% Growth Y-o-Y)	FY 18	FY 19	FY 20	FY 21	FY 22 P	FY 23 P
Growth in number of IT employees	3	4	4	9	13	5-7

- The IT industry's employee base has grown in line with revenue growth in the past. However, higher adoption of non-linear services such as automation and artificial intelligence, which will improve with time, is likely to lead to lower hiring in the future.



Segment	FY 18	FY 19	FY 20	FY 21	FY 22 P	FY 23 P
Pan India hotel rooms supply	72028	75250	77410	79051	83617	91162
Occupancy rates (%)	65	65	64	31	51	60

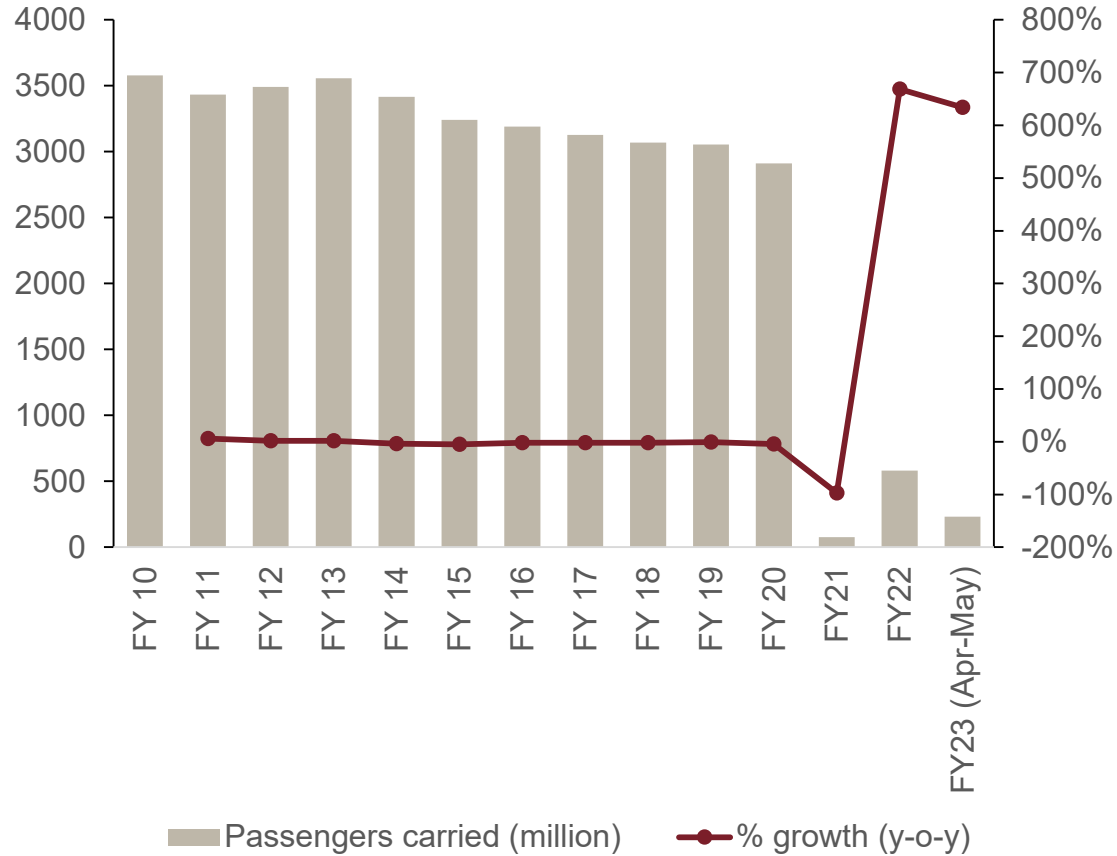
- The hotels sector is expected to witness strong growth in fiscal 2023, on the back of a recovery in major demand drivers as the economy picks up. The sector will likely reach pre-pandemic levels in absolute terms, as it emerges from the shadows of the pandemic.
- Premium hotels saw a sharp recovery in fiscal 2022 on a low base, driven by staycations and leisure demand. A revival in corporate travel and MICE segments, coupled with restarting of inbound international travel, should help the sector regain pre-pandemic levels in fiscal 2023.

## Research

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

# While railways was losing share to road and air based modes earlier, with the COVID-19 effect waning passenger movement across modes to be better

**Railway Passenger Traffic growth (%) - Non suburban-Reservation**



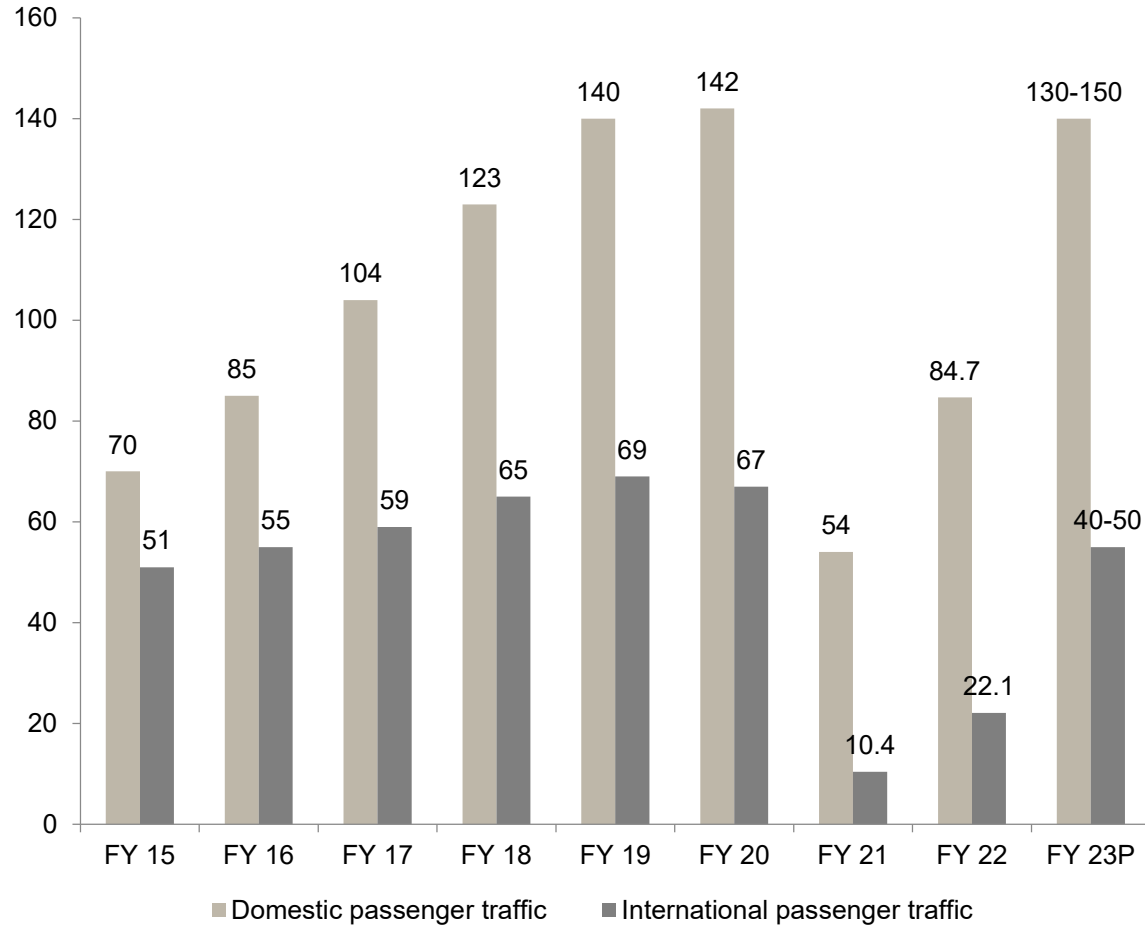
**Railway Passenger Traffic growth (%) - Non suburban-Unreserved**



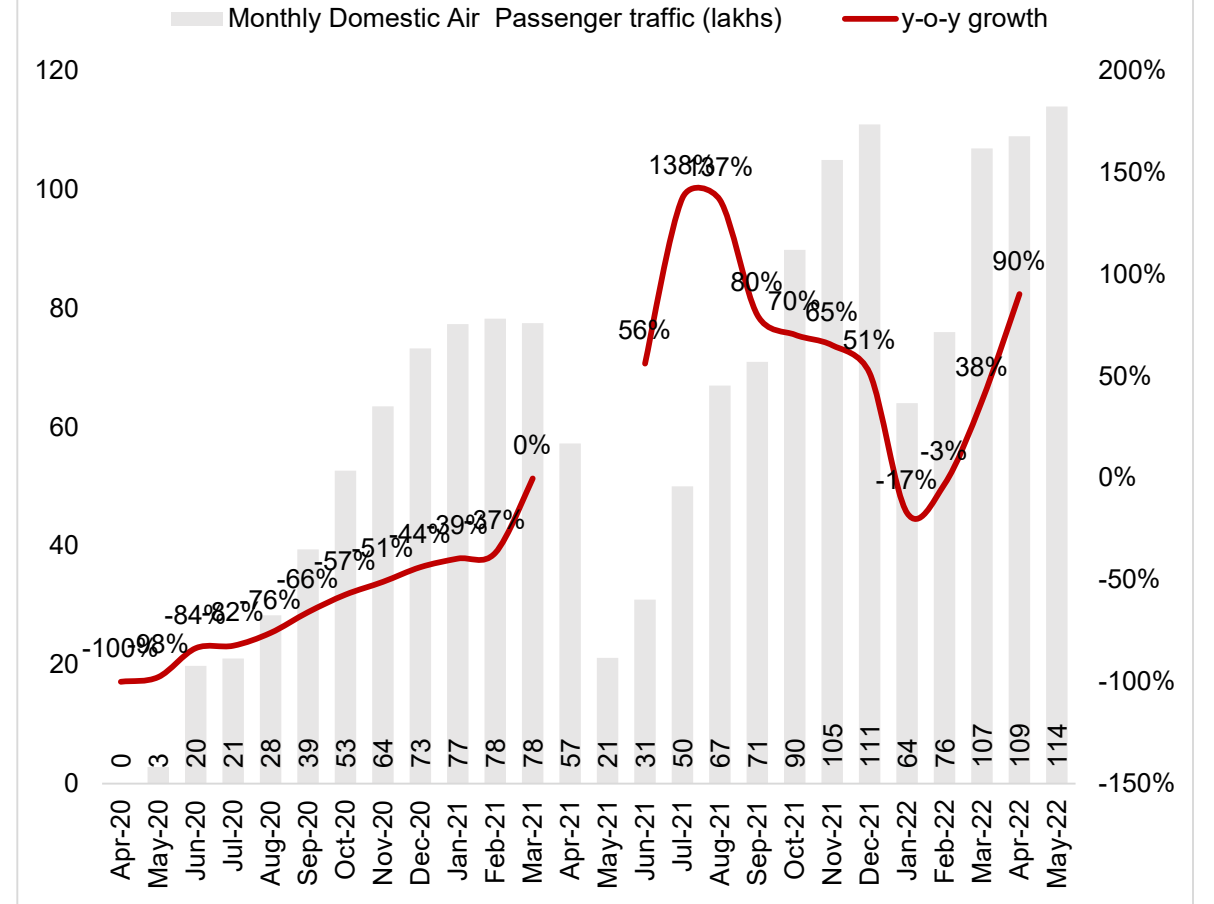


# Airlines sector expected to fly out of turbulence in FY23 in absence of further waves of pandemic

Air passenger traffic- Annual (Domestic & International)

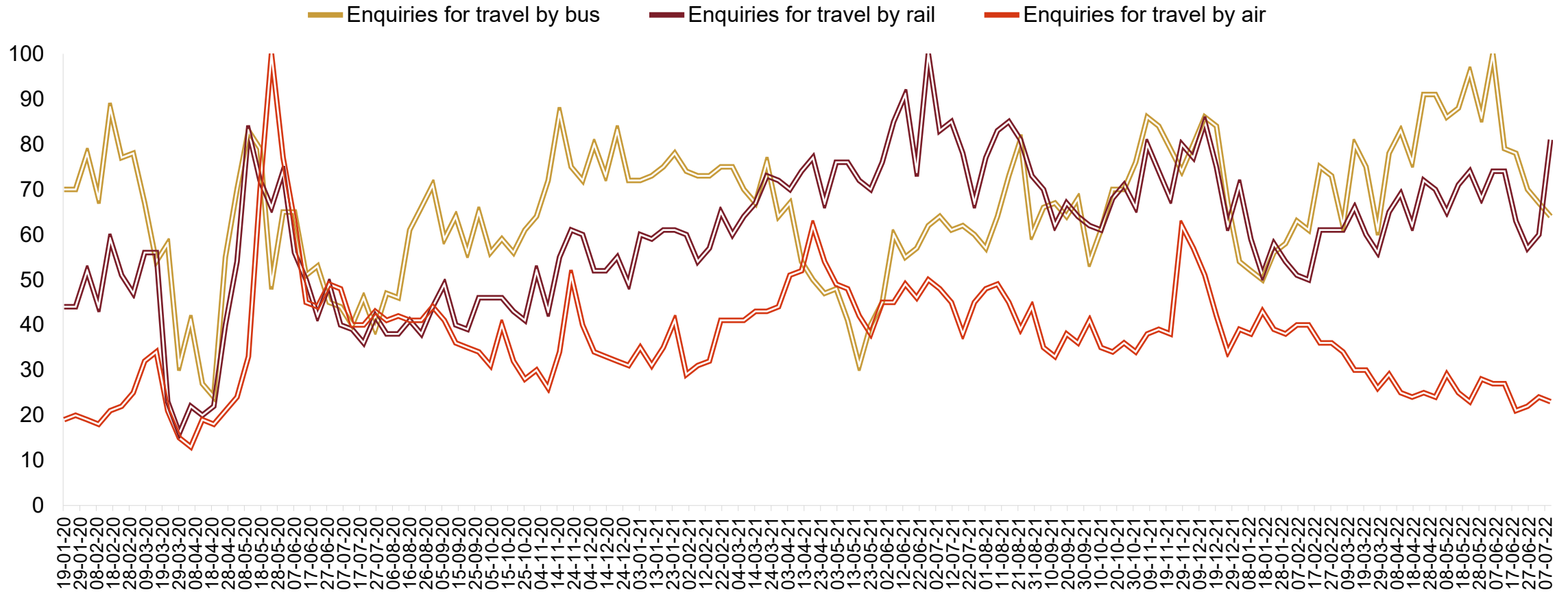


Domestic Air passenger traffic- Monthly



Source: Directorate General of Civil Aviation (DGCA), CRISIL Research  
 Note: E: Expected P: Projected

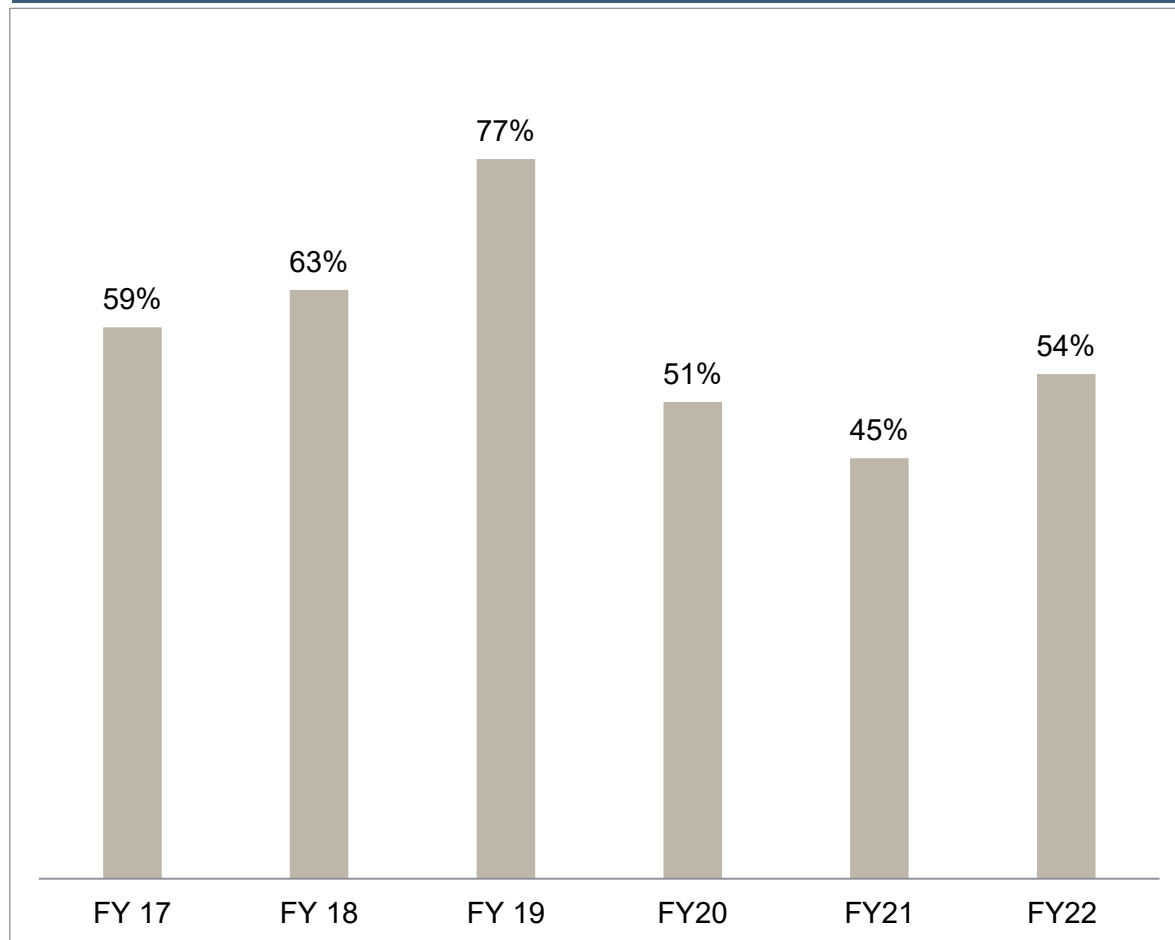
# Train & bus travel remains range bound; lately air travel has seen a slight pickup



For Internal Use Only – Not For External Distribution

# Capacity utilisation showed improvement in FY22

## Decline in capacity utilization level



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

Source: CRISIL Research

## Player-wise capacity utilisation

Player	Effective Capacity estimate (as on 31st Mar 2020)	Production Apr-June FY23 (in '000)	Capacity utilization in Apr-June FY23
Ashok Leyland	2,22,300	42,782	78%
Eicher Motors	97,500	18,905	58%
Tata Motors	7,62,000	106,610	56%
Mahindra & Mahindra	2,92,000	63,611	87%

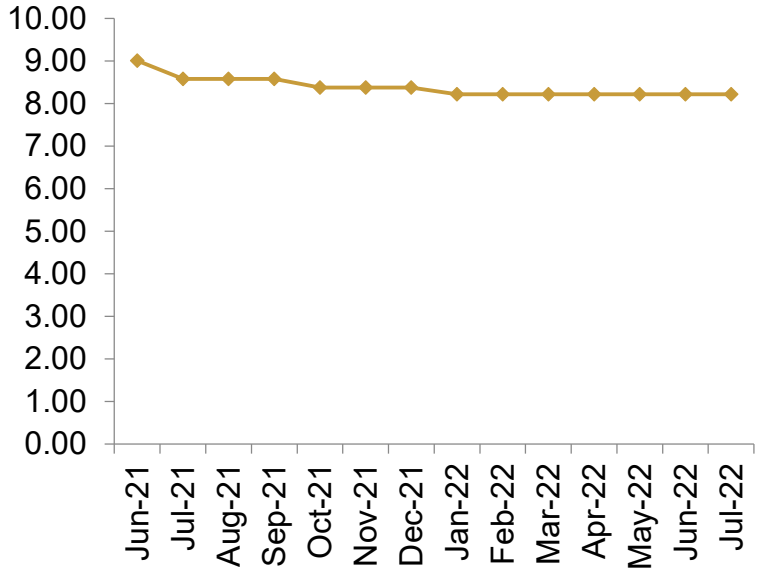
## Capacity additions

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.	Bhopal, MP	40	Rs 4 billion	Under implementation
Volvo Buses India Pvt. Ltd.	Bengaluru, Karnataka	1.5	Rs 3 billion	Planning
Veera Vahana Udyog Pvt. Ltd.	Anantapur, Andhra Pradesh	3	Rs 1 billion	Planning

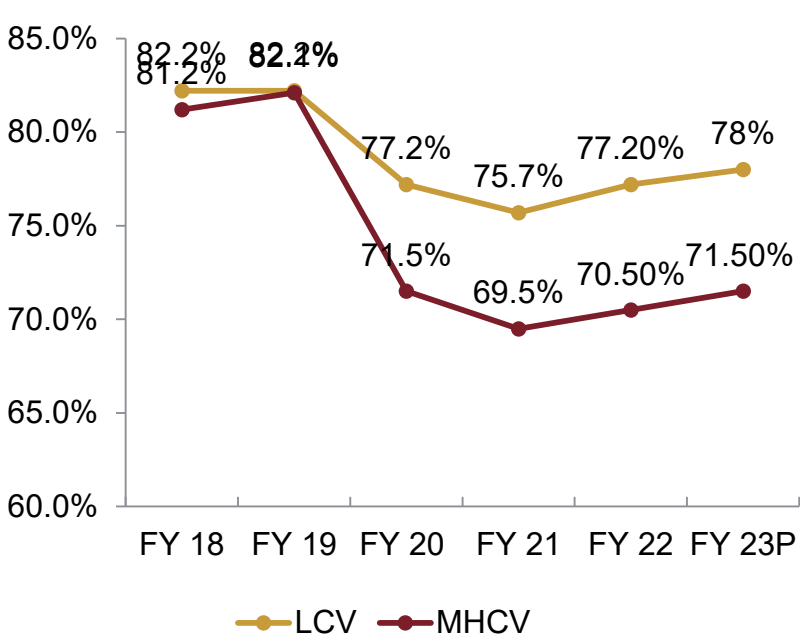
Source: Industry, CRISIL Research

# Cautious lending by banks; more focus on collections

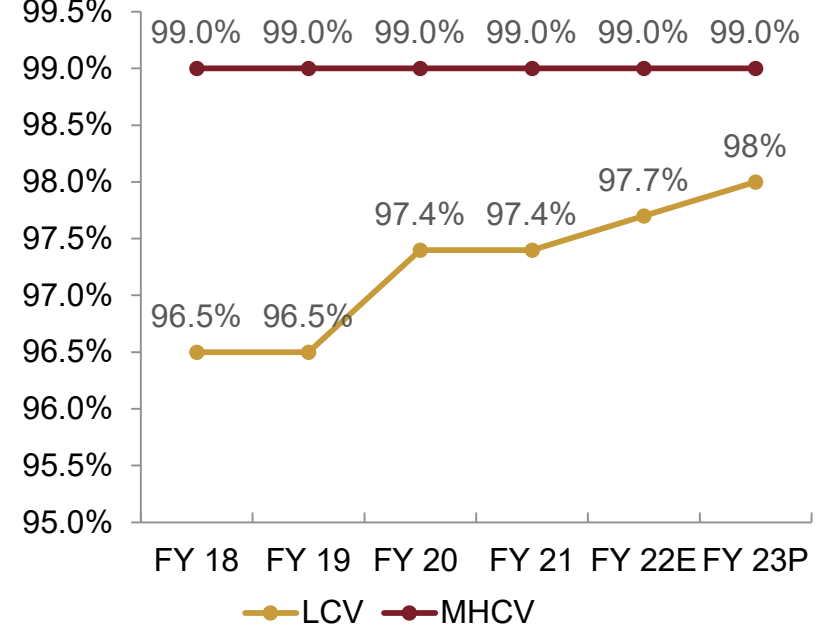
**CV finance rates (%)**



**Loan-to-value for CV**

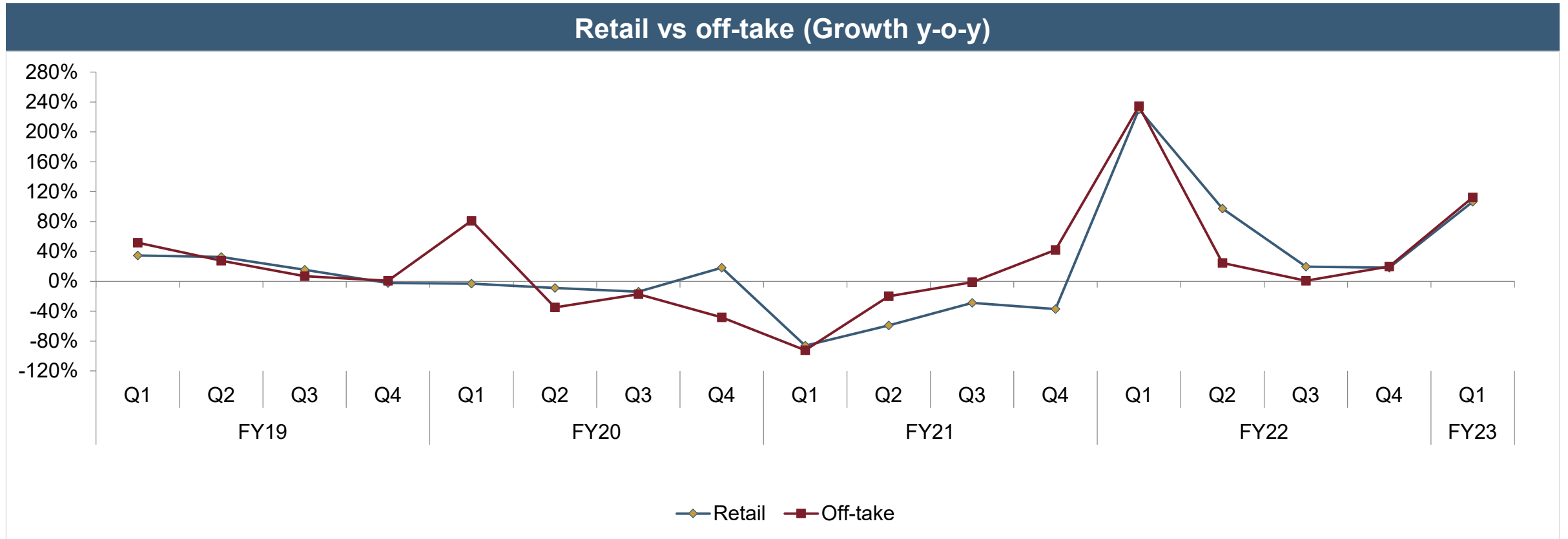


**CV finance penetration**



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

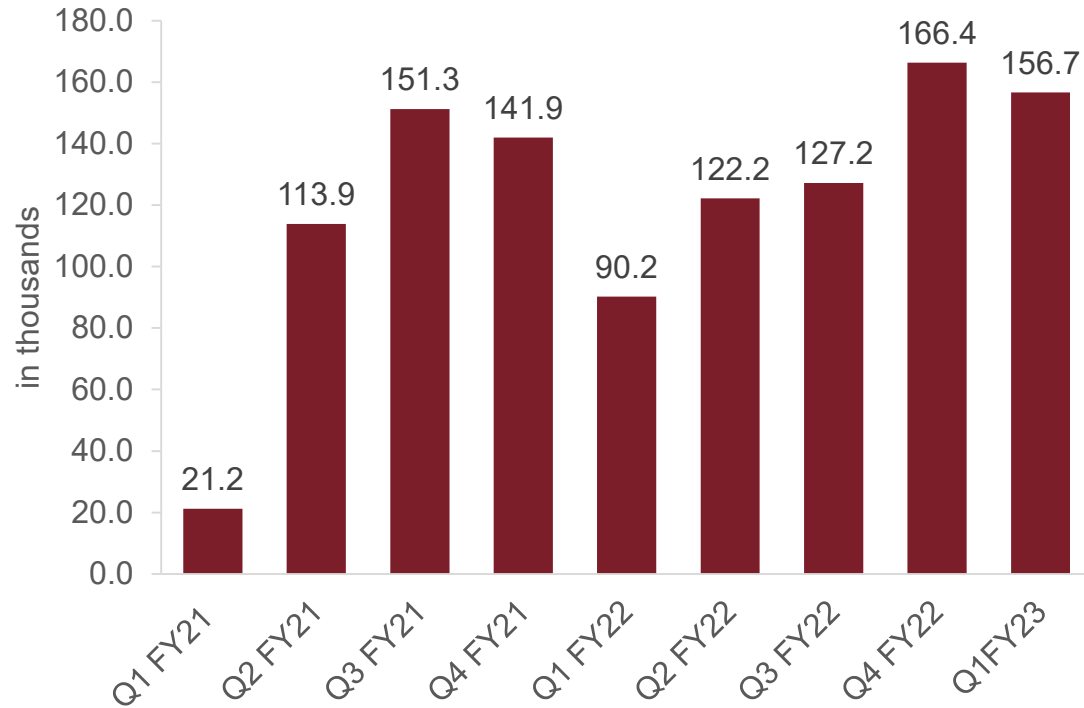
# Retail & offtake showing recovery on sequential basis



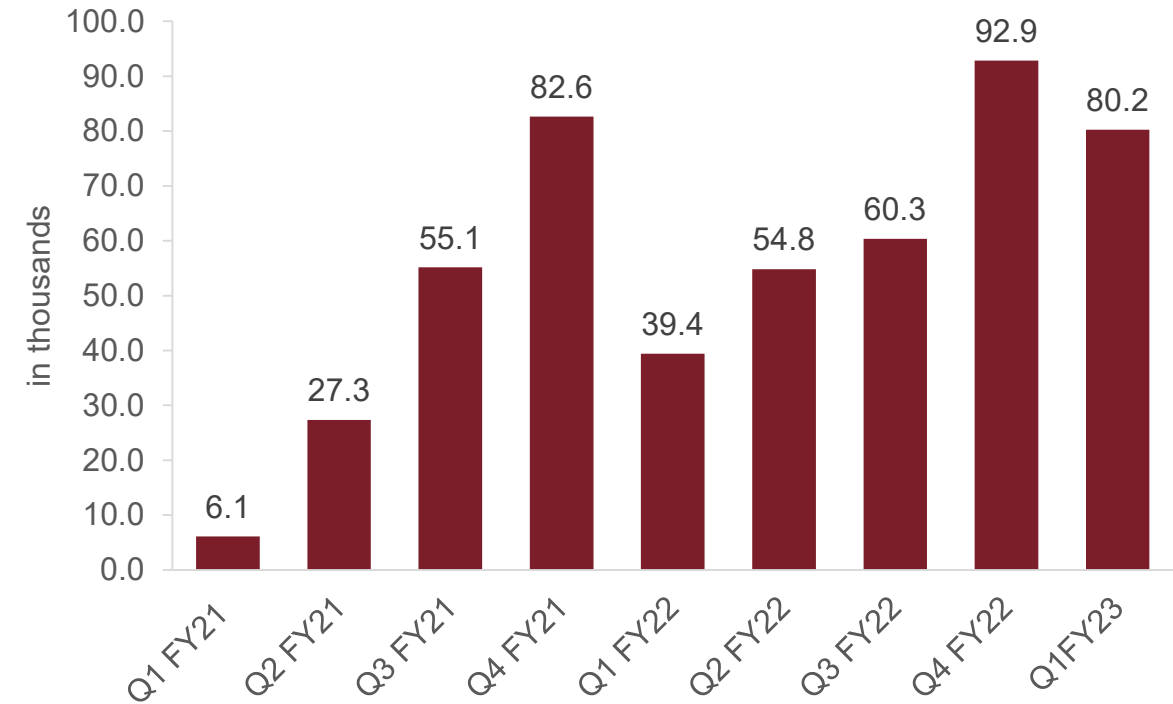
Source: SIAM, MoRTH, CRISIL Research

# Production of LCV and MHCVs

## LCV production levels



## M&HCV production levels

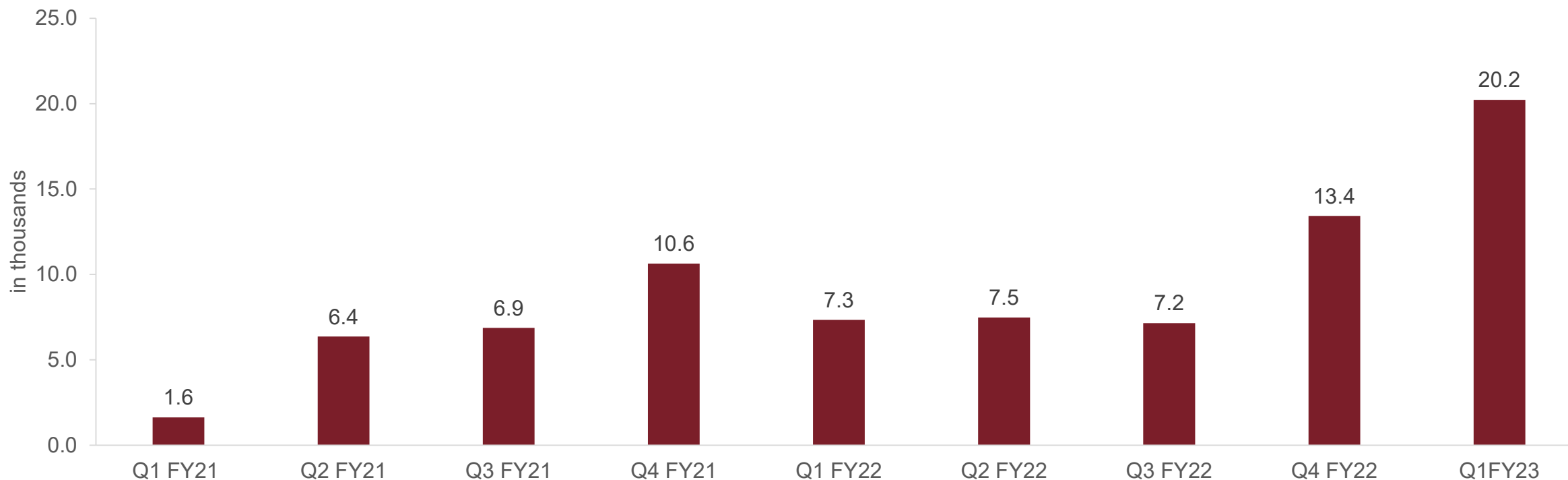


- Production for LCV and MHCV increased substantially in Q4 FY22 on account of a stock build up by OEM's as there was price increase expected in the market from 1<sup>st</sup> April 2022.
- Further, the production levels were at normal levels in Q1 FY23 as per seasonality and market demand.
- A low base of the CV industry is resulting in robust growth across segments

NOTE: Figures in thousands  
Source: SIAM, CRISIL Research

# Bus demand picking up

## Buses production levels



- Demand for buses has been exceptional in Q1 FY23 on account of opening up of schools and increasing tourism.
- Production saw a robust growth on-year in Q1 FY23 on account of a low base during the same period last year.

NOTE: Figures in thousands  
Source: SIAM, CRISIL Research

# Domestic – Annual Forecast (Base case)

	CV	LCV cargo	MHCV cargo	Buses
FY 21 volumes	566	395	154	17
YoY Growth in FY21	21%	12%	17%	80%
FY 22 volumes	721	458	227	30.7
YoY Growth in FY22	26%	16%	47%	79%
FY 23 volumes	854-871	532-543	257-263	55-56
YoY Growth in FY23P	19-21%	16-18%	14-16%	80-82%

NOTE: Volumes in thousands units;

YoY Growth in red indicates a negative growth

YoY Growth in green indicates a positive growth



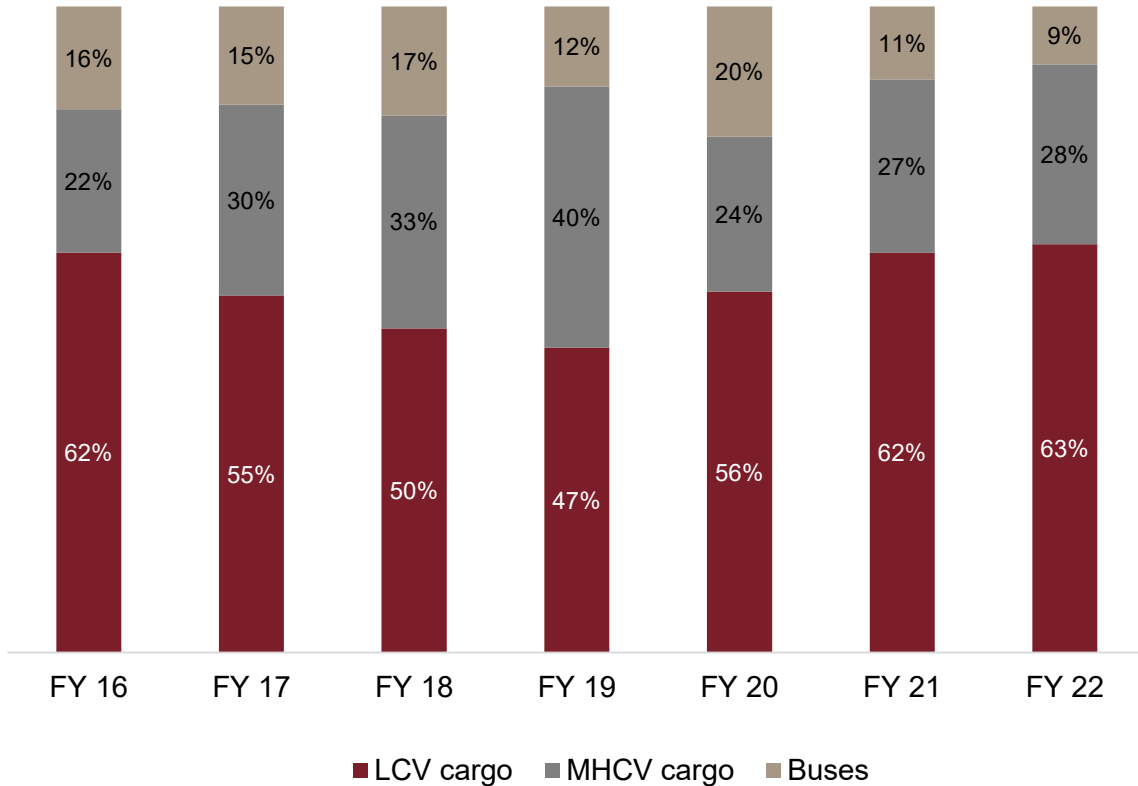
# Domestic – Quarterly Forecast (Base case)

Period		CV		LCV Cargo		IMHCV Cargo		Buses	
		Volume ('000)	YoY Growth	Volume ('000)	YoY Growth	Volume ('000)	YoY Growth	Volume ('000)	YoY Growth
FY22	Q2	167	24%	108	3%	51.3	115%	6.3	57%
	Q3	196	1%	127.6	(8)%	60.4	21%	6.9	67%
	Q4	250	19%	148.9	19%	88.1	16%	12.1	53%
FY23P	Q1	226	110%	136.6	86%	67.4	147%	19.1	256%
	Q2	221-226	33-35%	144-147	34-36%	61.5-62.5	20-22%	12.8-13	105-107%
	Q3	236-241	20-22%	149-152	17-19%	72-73	19-21%	12.5-12.7	81-83%
	Q4	173-177	(31)-(29)%	103.6-105.7	(31)-(29)%	58-59	(35)-(33)%	10.8-11.2	(11)-(9)%
FY24P	Q1	238-243	6-8%	143-146	5-7%	72-73	6-8%	20-20.4	5-7%

- **SCV & ULCV:** E-commerce, FMCG and Agri to see continuation of the traction in FY23 as well. Traction for CNG powered vehicles could see some challenges after rise in CNG prices. Some OEMs are planning to capitalize by planning to launch electric in this segment. OEMs across are introducing attractive schemes with easy financing to attract customers to offset the price hike. Demand from retail customers and MLO's to gain some momentum. SCV segment is expected to grow on account of record grain output
- **MHCV:** Replacement demand will spur growth which will be aided by construction projects. NIP projects to continue freight demand for goods such as cement and steel, production of these goods in turn, is expected to drive freight demand for minerals such as coal, iron ore, limestone/dolomite, etc. Aggregate transportation in some states positively affecting this segment to an extent. Retail participation is seeing momentum after ease of funding conditions. Car carrier could see improvement with the PV segment witnessing great demand on account of personal mobility
- **Buses:** Interactions with contract operators indicate non-manufacturing staff transportation may see some resumption in the months ahead. Interactions with financiers indicate that current deals happening mostly with fresh applicants who do not have restructuring history on their profiles

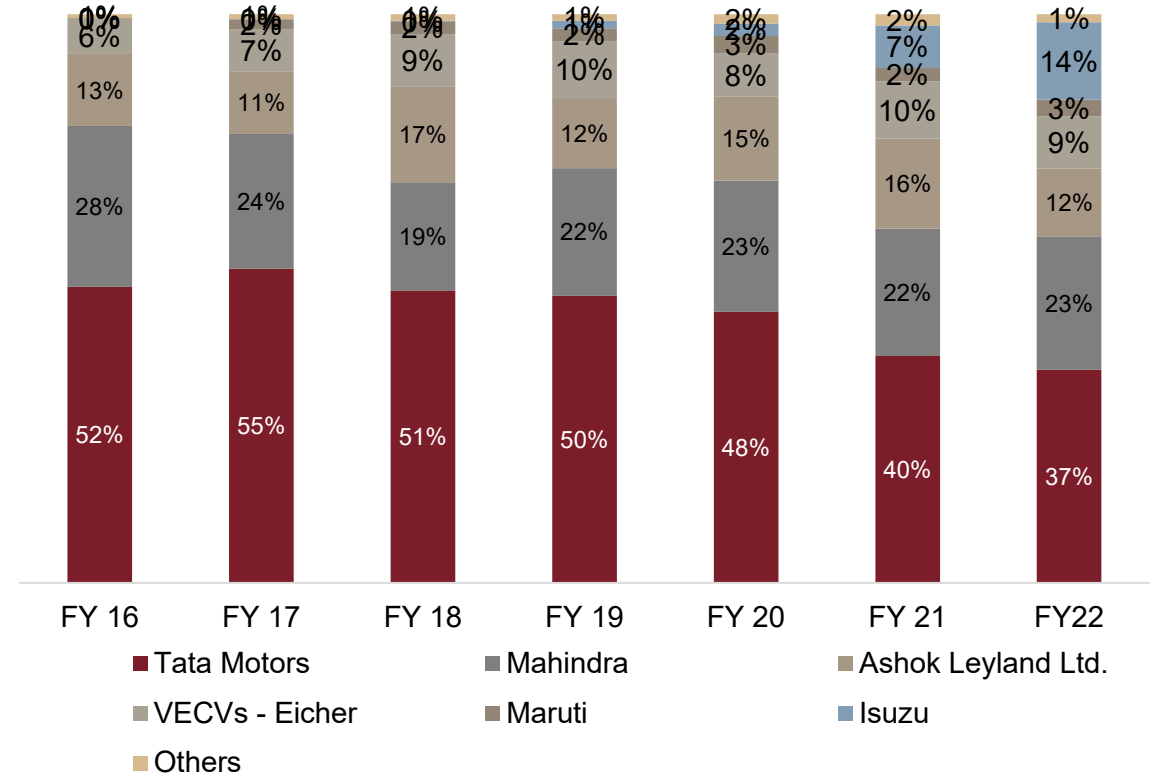
# Share of LCV cargo on an uptrend

LCV occupies ~2/3<sup>rd</sup> share



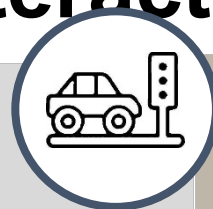
Source: SIAM, CRISIL Research

Share of leading players declines



# Stakeholder interactions

## OEM



## OEM

- Utilization levels for cargo segment showed some tapering off in June 22
- Utilisation in agri products, auto-carriers, FMCG/FMCD, petroleum tankers, and textiles declined at a faster rate. The remaining segments, such as market load, parcel/loose goods, mining (largely coal), and container saw, saw slower decline in utilisation.
- Regulatory norms and geopolitical issues is affecting states such as Orissa. Iron ore transportation affected in Orissa because of subdued demand from China and high excise duty
- Transporters with fixed route opts for more cost-effective CNG variant
- Announcement of multiple roads, bridges, and metro projects augment well for steel and cement transportation
- Preference for higher tonnage vehicles in trailers and tippers is becoming prominent among transporters

## Dealer



### Demand Story

- SCV Demand continues to be strong except in some states where absence of MLOs resulted in muted demand in rural areas.
- Attraction in CNG vehicles especially in both sub-1 tonne segment and 7.5 to 12T segment which was showing increasing signs has seen some tapering in last 5-6 months largely due to increasing CNG prices.
- Agri, FMCG and E-commerce continues to drive the demand. Supply improved for SCV CNG vehicles which witnessed some issues in last quarter.
- In case of ILCV E-commerce, FMCG and FMCD are now actively contributing in terms of freight demand. CNG variants preferred in 15T segment for short lead distance
- MHCV haulage seeing relatively slower ramp up on the retail side but LFO participation is robust. Demand slowed down for steel, cement sector due to monsoon. Trailer demand still not in full swing. Demands for tanker and concrete mixture vehicles are booming
- Tipper demand focused towards road construction, bridges, metro projects and infrastructure activities continues.

## Financier

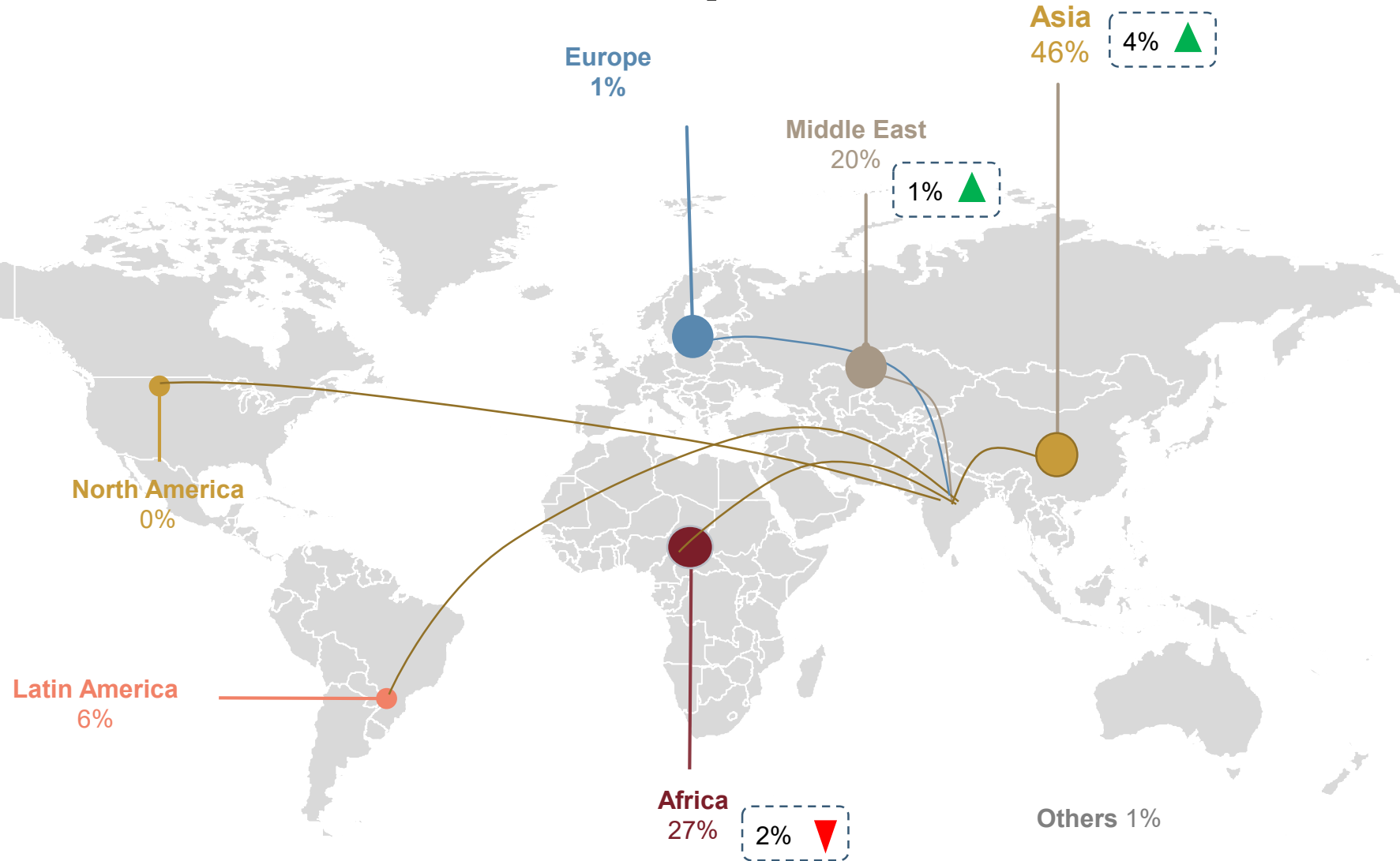


### LTVs and participation levels

- Retail customer funding in MHCV cargo and tippers has improved largely but still retail participation is slow in some segments. Most deals being closed are either LFO's or strategic customers.
- For some cases in retail funding, customer have been asked to present contract copy or guarantor.
- Buses segment has seen very good demand largely driven by school and tourism demand. Not all financiers ready to fund buyers who have availed moratorium earlier. Most of purchases from new buyers.
- In case of buses financiers have been cautious and have increased number of checks in getting a loan approved. LFOs who have not availed moratorium or paying instalments on time are getting better response and better interest rates than the SFOs who have availed moratorium. They require customers with CIBIL score of 700 and above.

# Commercial Vehicle exports

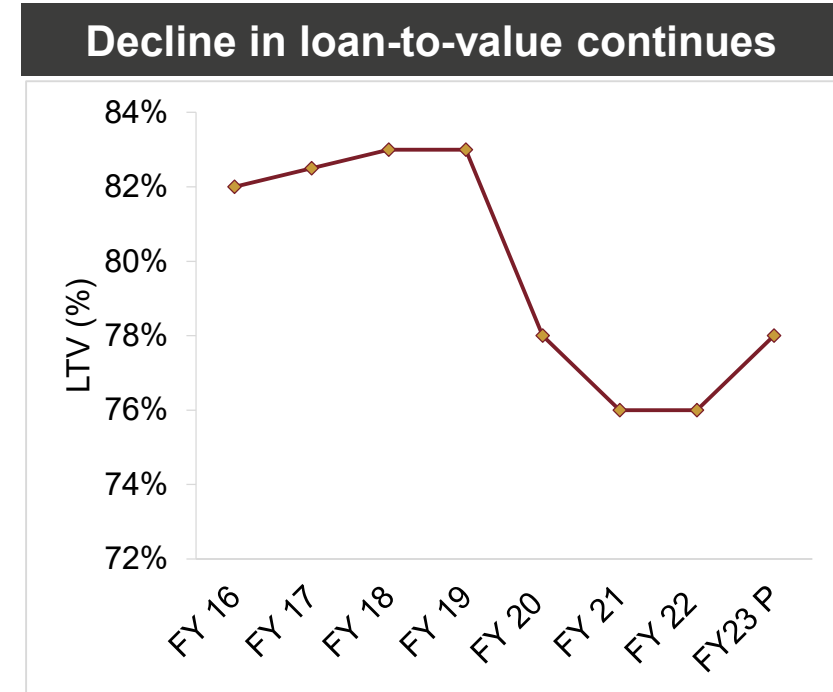
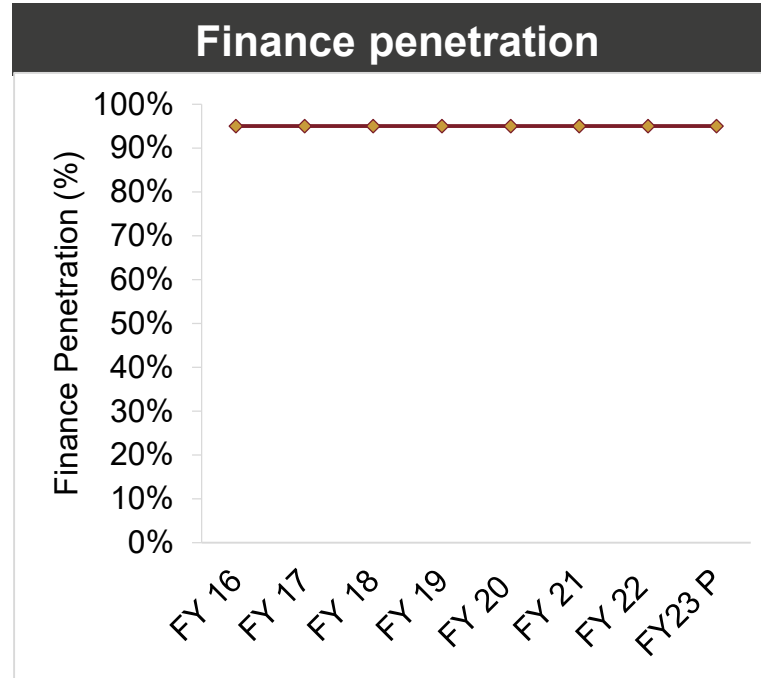
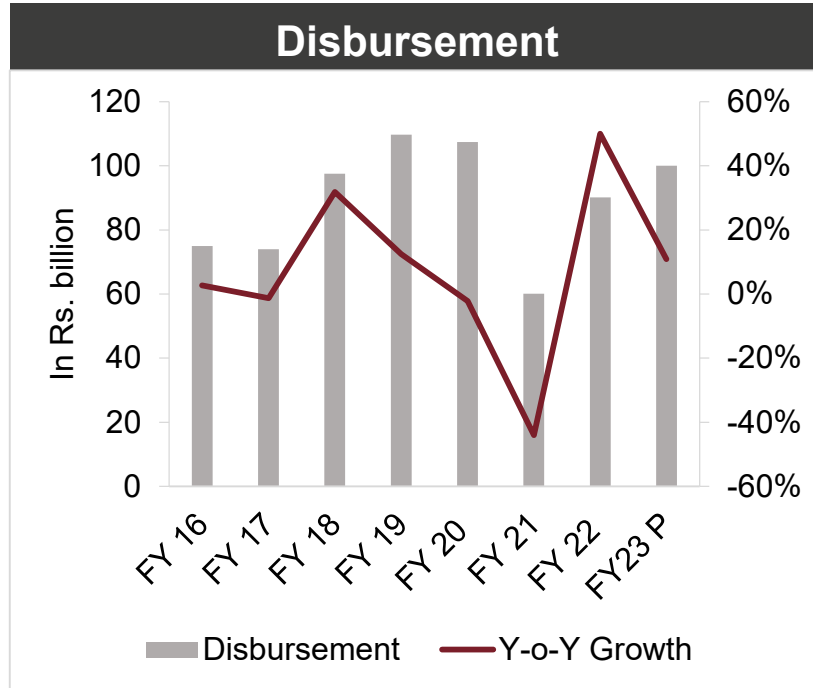
# Commercial vehicles exports



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

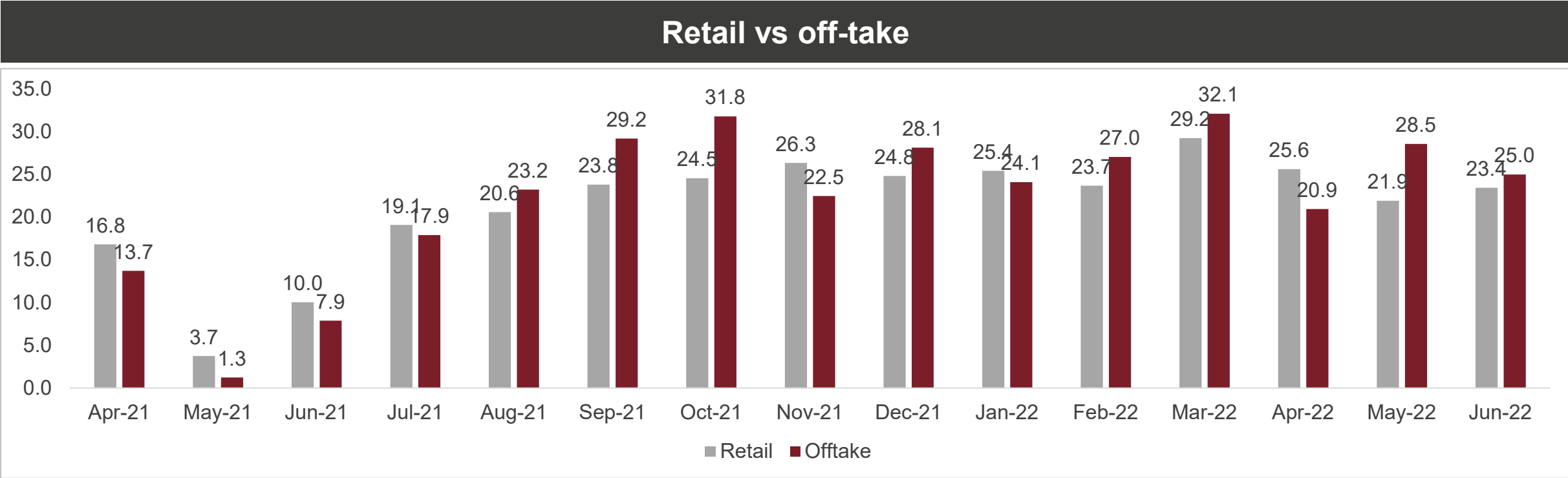
# Three-wheelers

# Three-wheeler disbursements to continue growth in fiscal 2023



- Three-wheeler disbursements bounced back in FY22 over a low base; disbursements to continue in fiscal 2023 as well.
- Sales volumes have also climbed back, where it clocked a triple digit growth of more than 150% in the second quarter of FY22, on a Q-o-Q basis.
- Three-wheeler financing market is expected reach Rs ~65 billion in fiscal 2023 and remain much lower than fiscal 2020 numbers, as lenders will take a cautious approach towards lending to this segment.

# Three-wheeler retail sales increased in Q1 FY23 on a low base last year.



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

- Three-wheeler industry volumes increased in Q1 FY23 on low base last year.
- Opening of schools, colleges and Offices has created some momentum in the passenger segment.
- However, the retail momentum might slightly decline in coming months especially for goods segment due to monsoon and demand slowly shifting towards E Rickshaws.



# Domestic – annual forecast

	Three wheelers	Cargo	Passenger
FY 21 volumes	216	82	134
YoY Growth in FY21	66%	26%	74%
FY 22E volumes	260	77	183
YoY Growth in FY22E	20%	7%	37%
FY 23P volumes	344-349	104-109	238-243
YoY Growth in FY23P	32-34%	37-39%	30-32%

# Domestic – quarterly forecast

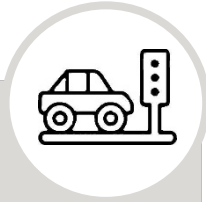
Period		Three-wheeler		Cargo		Passenger	
		Volume ('000)	YoY Growth	Volume ('000)	YoY Growth	Volume ('000)	YoY Growth
FY21	Q4	85.6	(66)%	28.3	15%	57.2	(46)%
FY22	Q1	24.4	91%	8.6	48%	15.2	128%
	Q2	70.9	52%	23.5	17%	47.4	79%
	Q3	82.4	14%	22.3	(21)%	60.1	37%
	Q4	83.2	(3)%	22.9	(19)%	60.3	5%
FY23 P	Q1	76.3	211%	21.4	147%	54.9	234%
	Q2	94.5-95.0	34-36%	29.8-30.3	30-32%	61.0-61.5	29-31%
	Q3	92.0-92.5	11-13%	27.0-27.5	21-23%	63.2-63.7	5-7%
	Q4	91.3-91.8	9-11%	26.8-27.3	17-19%	62.7-63.2	3-5%
FY24 P	Q1	96.5-97.0	29-31%	27.8-28.3	28-30%	68.5-69.0	30-32%

Source – SIAM, CRISIL Research

- After a long hiatus, passenger vehicle segment showed some improvement during FY22
- Passenger segment saw a 234% rise in Q1 FY23 on a y-o-y basis, and cargo segment witnessed a growth of 153% on-year. The high growth numbers are on account of a low base.
- Passenger segment is expected to get a push in FY23 with reopening of schools, offices & colleges and in turn the increased demand for last mile connectivity
- Three-wheeler growth is expected to continue at a robust pace on account of a low base in the previous years

# Stakeholder interactions

## OEM



- Primary passenger segment to witness robust growth in FY23
- Cargo sales also expected to pick up on account of economy revival and with opening of schools, colleges & offices.
- Urban movement has come back to normal which has helped the passenger three-wheeler segment revive.
- Growth is expected to continue through all quarters of fiscal 2023 as well on account of a low base
- Financers are more than willing to support which will further help improve retail momentum on-ground

## Dealer



- Three-wheeler sales slowing picking up pace as situation has returned to normalcy with schools, colleges and offices reopening.
- There is good demand for Passenger segment vehicles.
- Cargo segment witnessed similar push Q1. However, demand might be slightly sluggish in Q2 due to Monsoon.
- Most of the customers for Passenger vehicle is first time buyer.
- Moreover, Increased prices, higher fuel costs, has led customers to shift to CNG and electric vehicle
- There are supply issues for CNG vehicles as the demand is much higher for CNG vehicles.

## Financier

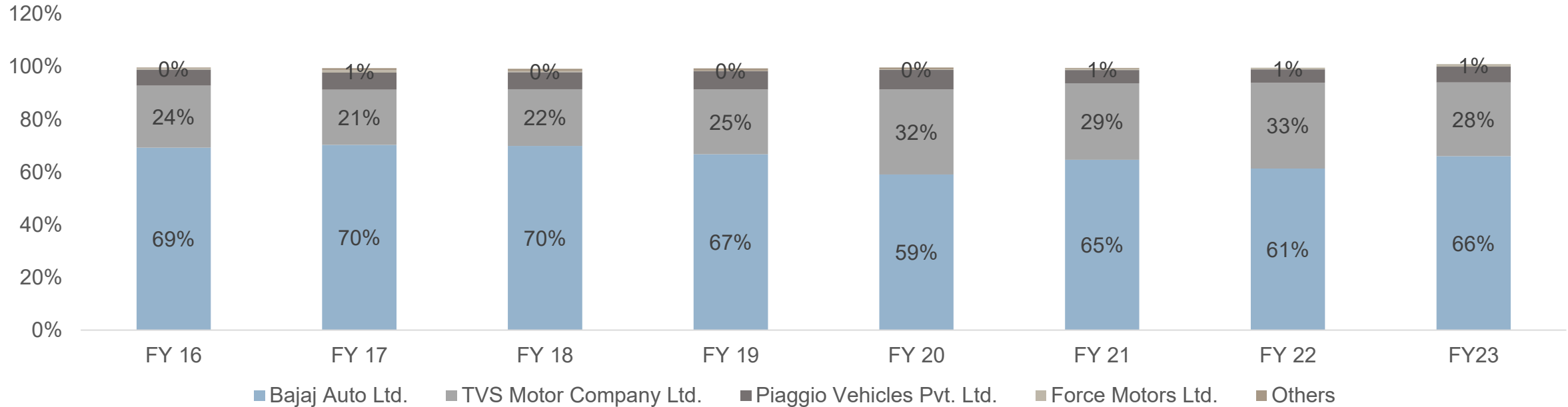


- Given the increased retail demand financiers are also changing their stance towards three-wheeler segment
- Financers support is expected to improve going forward, especially for passenger segment
- LTV expected to be in the range of 90-95% in the near term and ROI to be 10-14%

# Three-wheeler exports

# Exports witnessed healthy growth

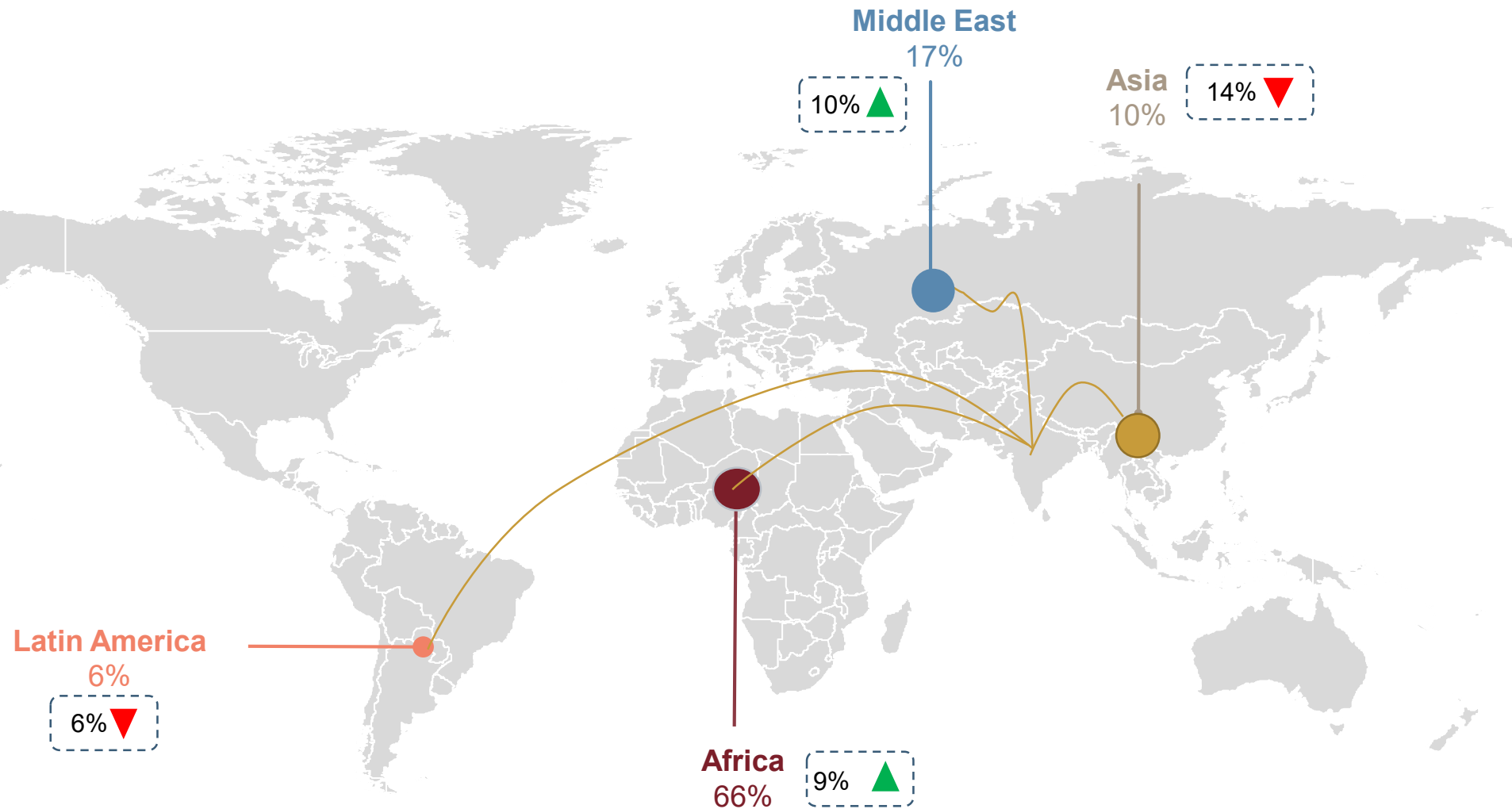
## Bajaj maintains its top position



Source: SIAM, CRISIL Research

- FY22 witnessed sharp improvement in exports, exports grew 27% y-o-y , with smaller cargo segment registering a sharp growth of 82% y-o-y.
- Q1 FY23 exports declined by 29% over high base last year.
- Bajaj continues to dominate the 3W exports.
- With retail sales improvement, OEMs are now focusing more in Domestic market.





































# Three-wheeler exports



- Exports share of African and Middle East countries increased
- In FY23
- Substantial recovery is expected to be seen in exports to Egypt after the ban of auto-rickshaw was lifted which has aided exports growth.
- Demand from Iraq has supported expansion of Middle East share

# Tractors

# Demand to rise in fiscal 2023 after declining in fiscal 2022

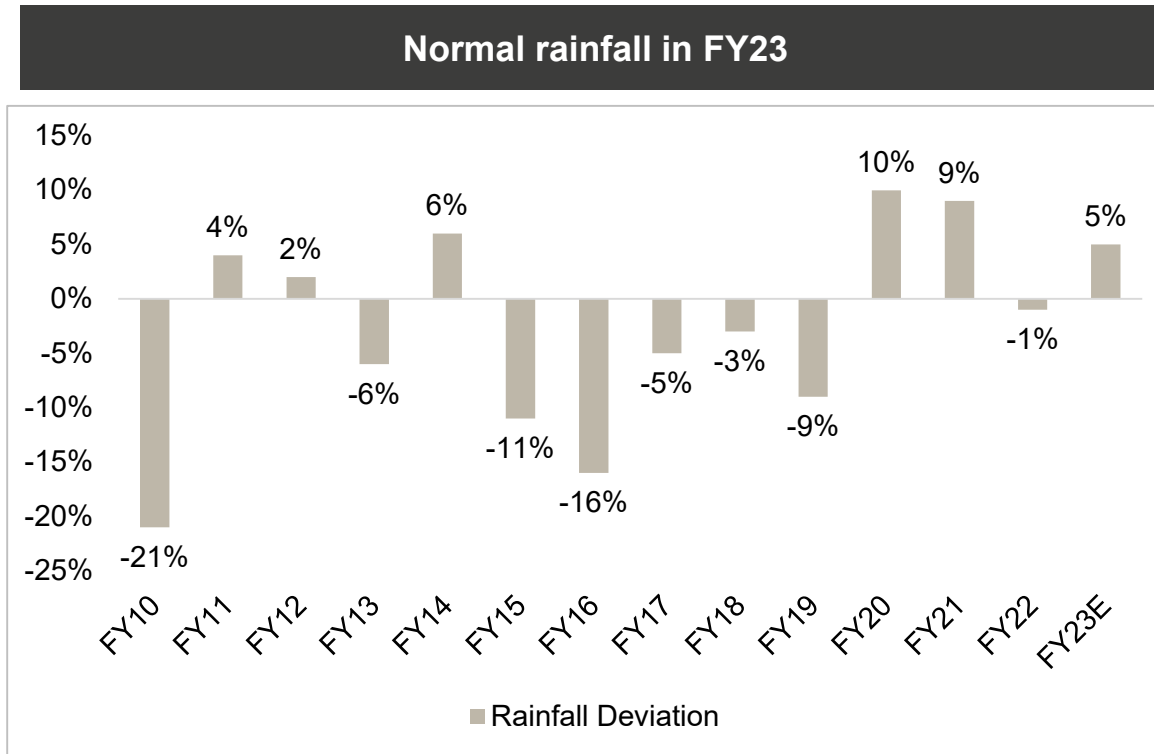
Parameters	Impact		
	FY 21	FY22	FY23E
<b>Farm Income**</b>			
-- Crop Prices			
-- Crop Output			
-- Kharif Output			
-- Rabi Output			
<b>Demand Indicators</b>			
-- Infrastructure Development			
-- Sand Mining			
<b>Supply side variables &amp; financing</b>			
-- Finance Availability			
-- Channel Inventory			
-- Player Action			



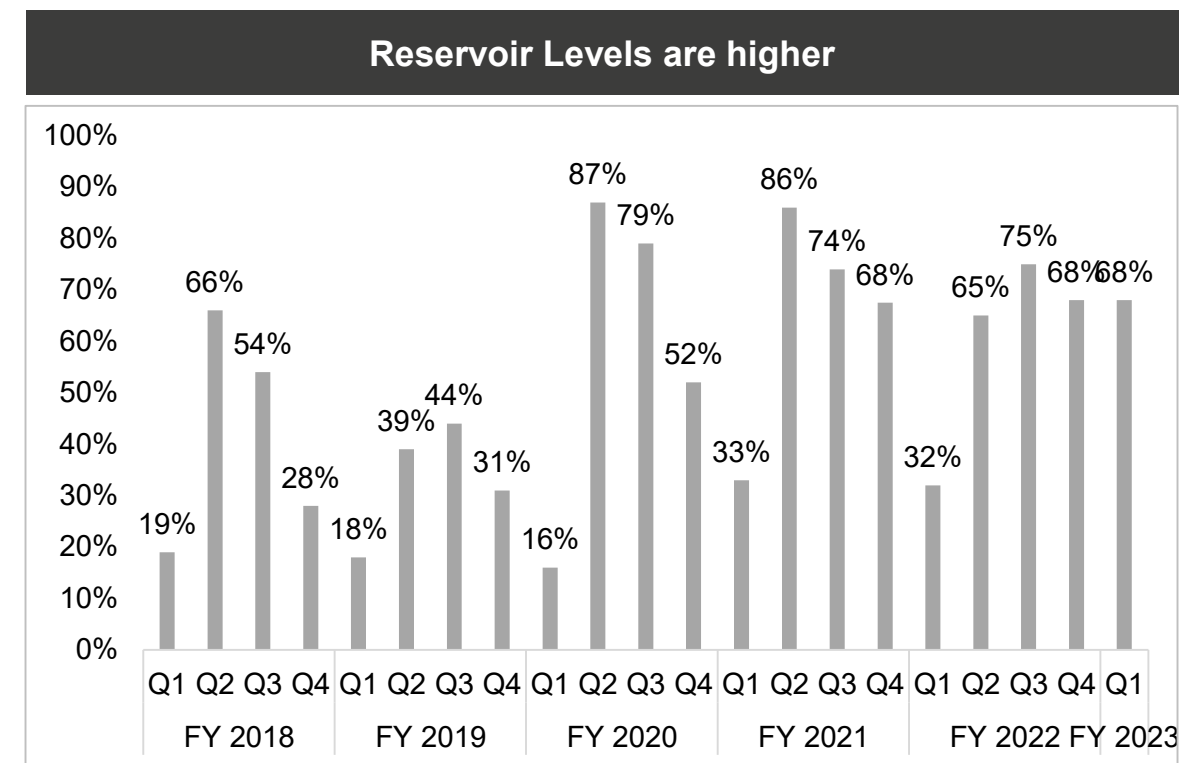
NOTE : \*\* FY23 assumed neutral assuming normal monsoon,  
 Source: CRISIL Research



# Normal Rains Forecast for Southwest Monsoon in FY23



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

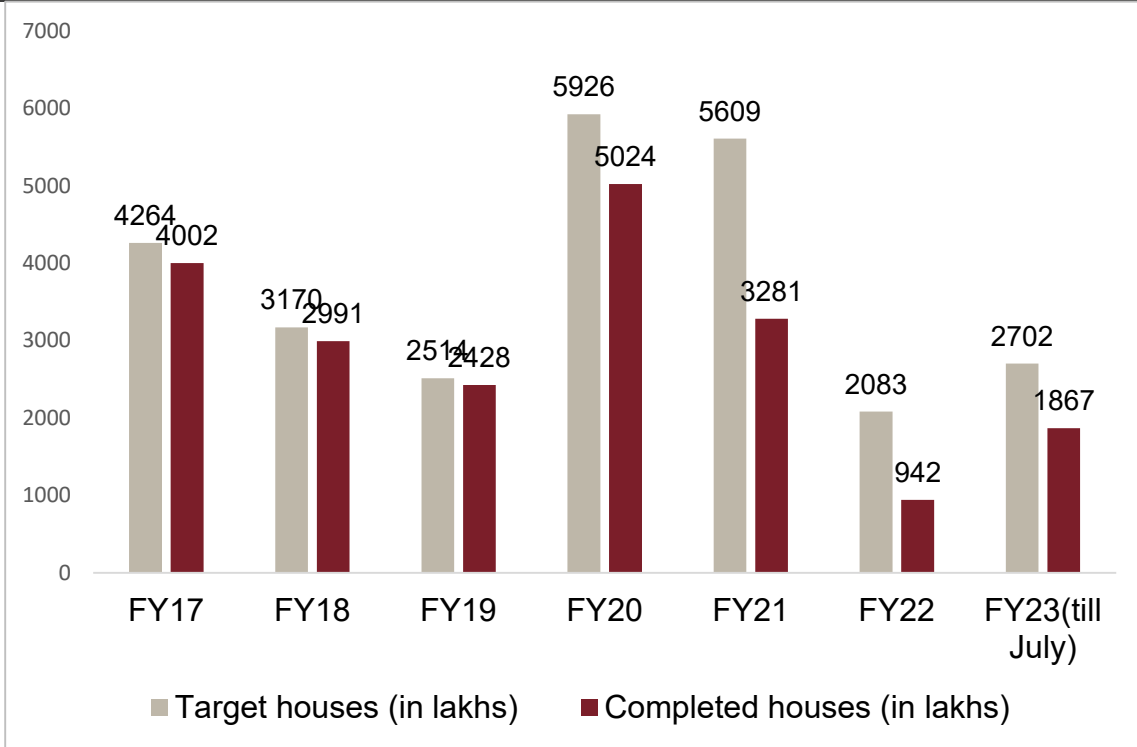


Notes: Storage Status of 140 Reservoirs of the Country

- The IMD forecast says that June-Sept 2022 rainfall is likely to be normal.
- The spatial distribution suggests normal to above normal seasonal rainfall is most likely over many areas of northern parts India and adjoining Central India, over foothills of the Himalayas and some parts of Northwest India.
- States having better storage than last year for corresponding period are Himachal Pradesh, Rajasthan, Nagaland, Bihar, Madhya Pradesh, Andhra Pradesh and Tamil Nadu.

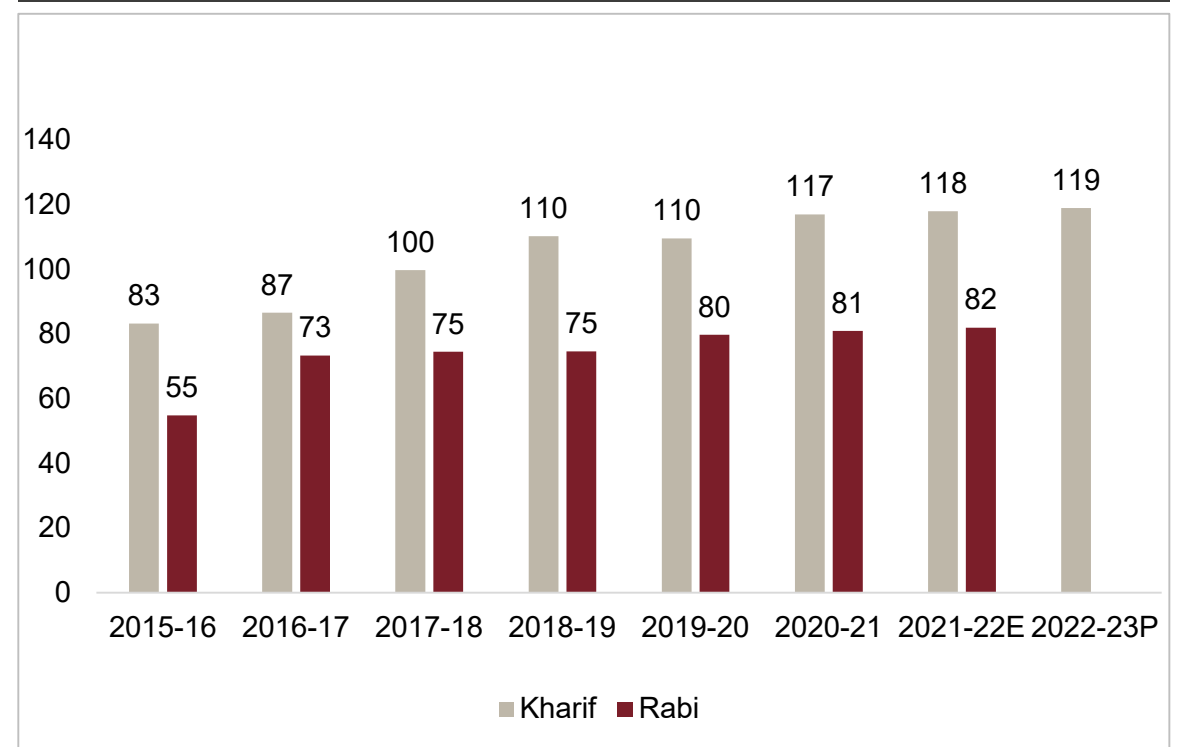
# Agricultural sentiments are good owing to a healthy crop outlook for the current kharif season

**PMAY-G**



Source: Ministry of Rural Development, CRISIL Research

**Crop production growth higher for MY22**



MY: Marketing year, P: Projected

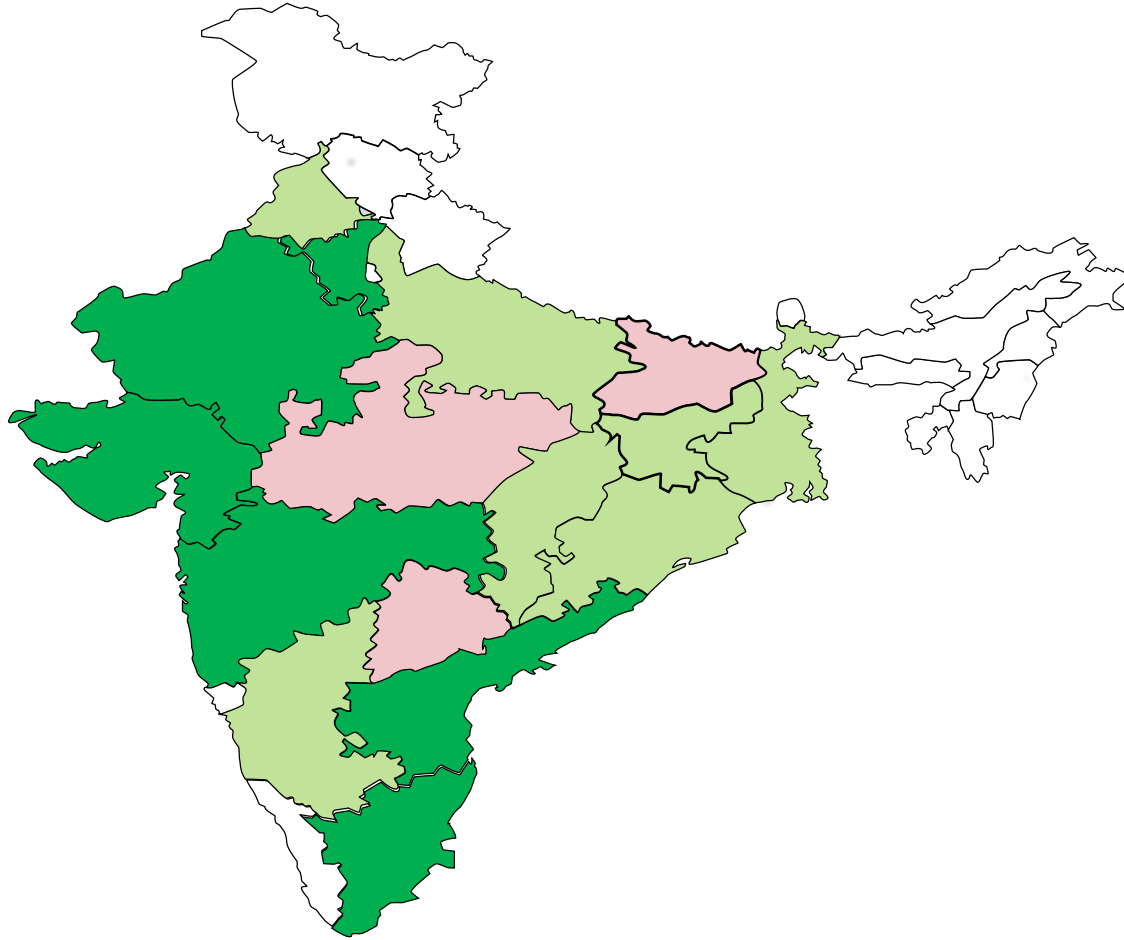
Notes: 1) Base of 100 for Index (kharif and rabi) taken in MY Jan-Dec 2015

Source: Ministry of Agriculture, CRISIL Research

- Harvesting for rabi season is over in all the states and have started generating income for farmers in all parts of the country
- Higher commodity prices and normal monsoon prediction to support demand.
- Commercial demand expected to pick up in H2 FY23 with increase in construction activities

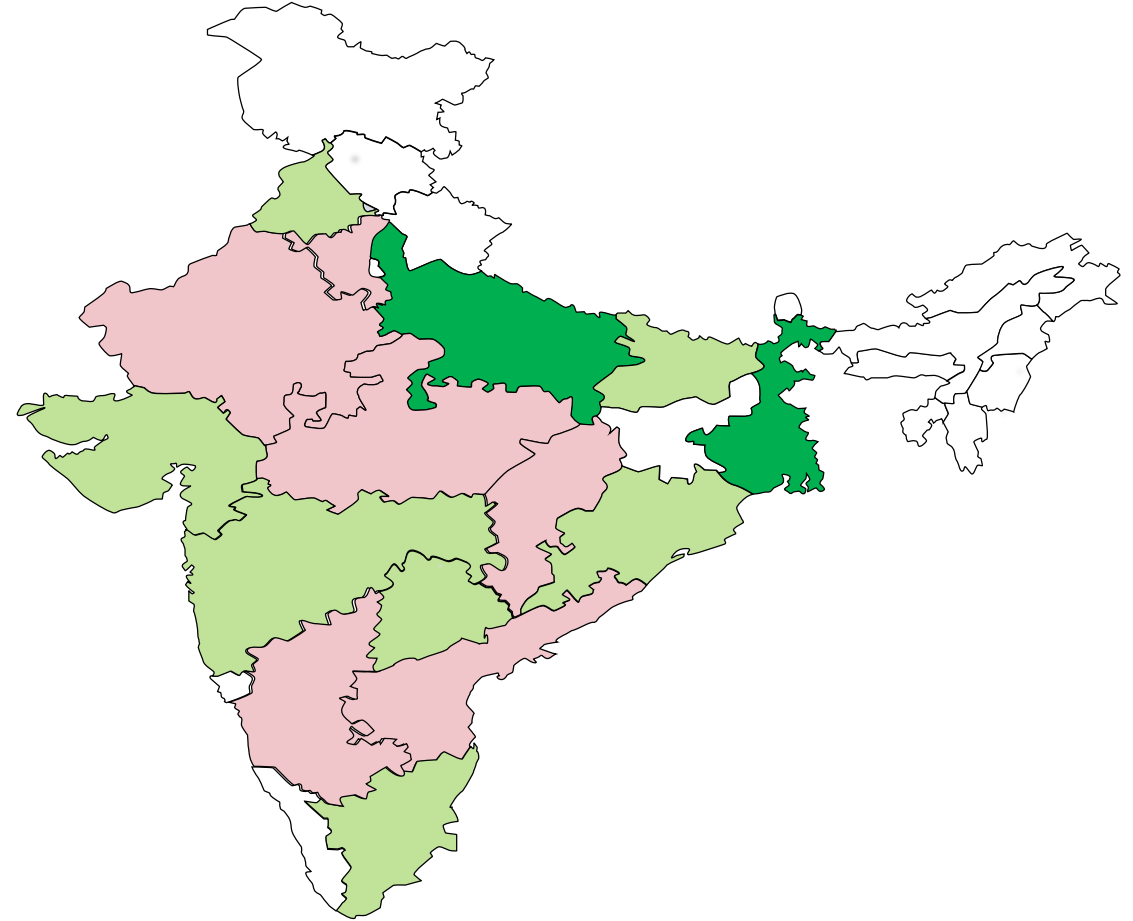
# State wise Crop Value Index

Kharif CVI heat Map for FY23



Source: CRISIL Research

Rabi CVI heat map for FY22

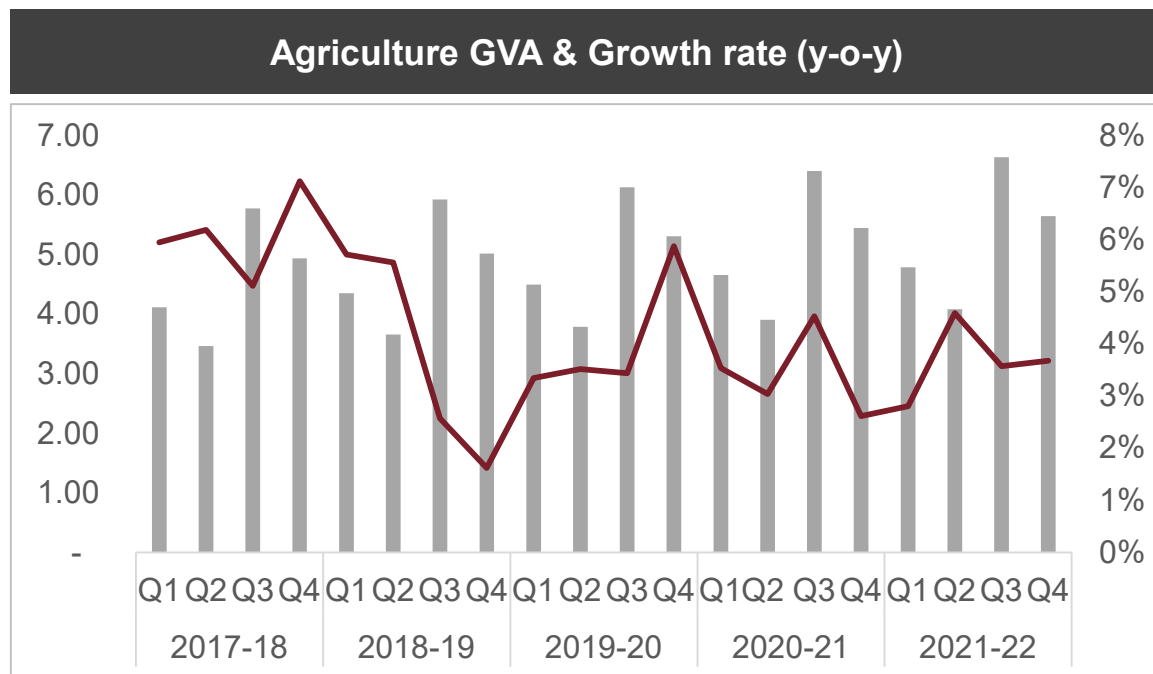


Source: CRISIL Research

Colours indicate % change on-year

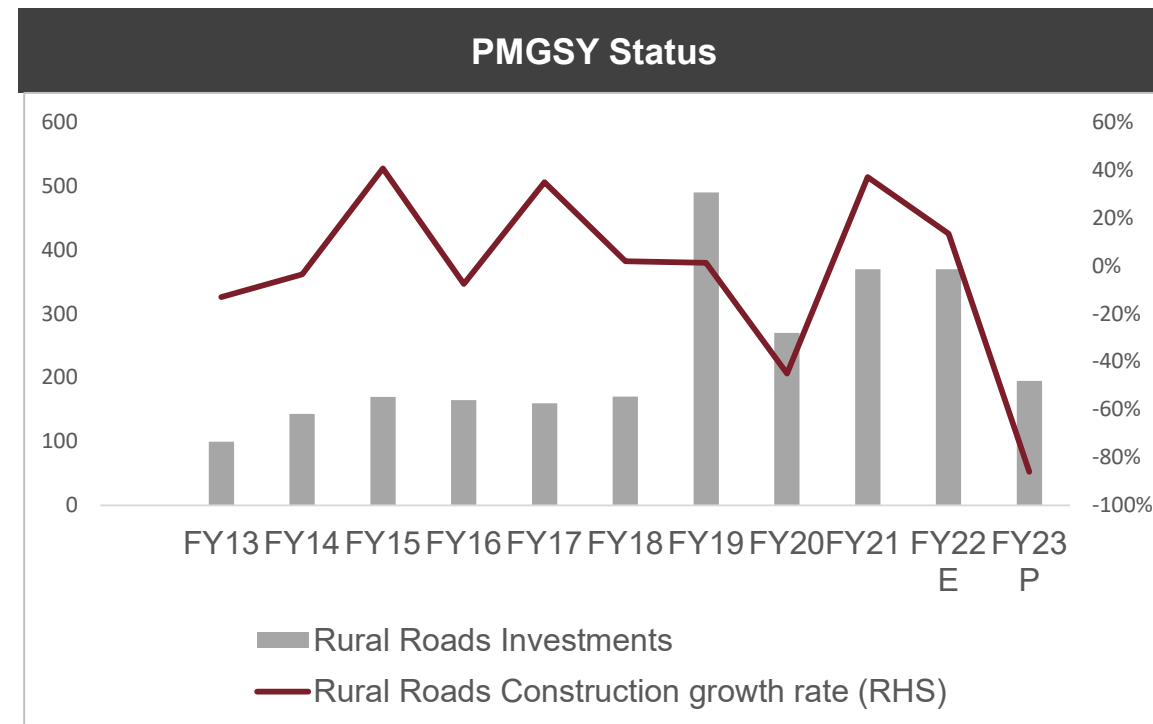


# Agriculture GVA is expected to maintain growth momentum



Note: GVA at basic prices (constant 2011-12)

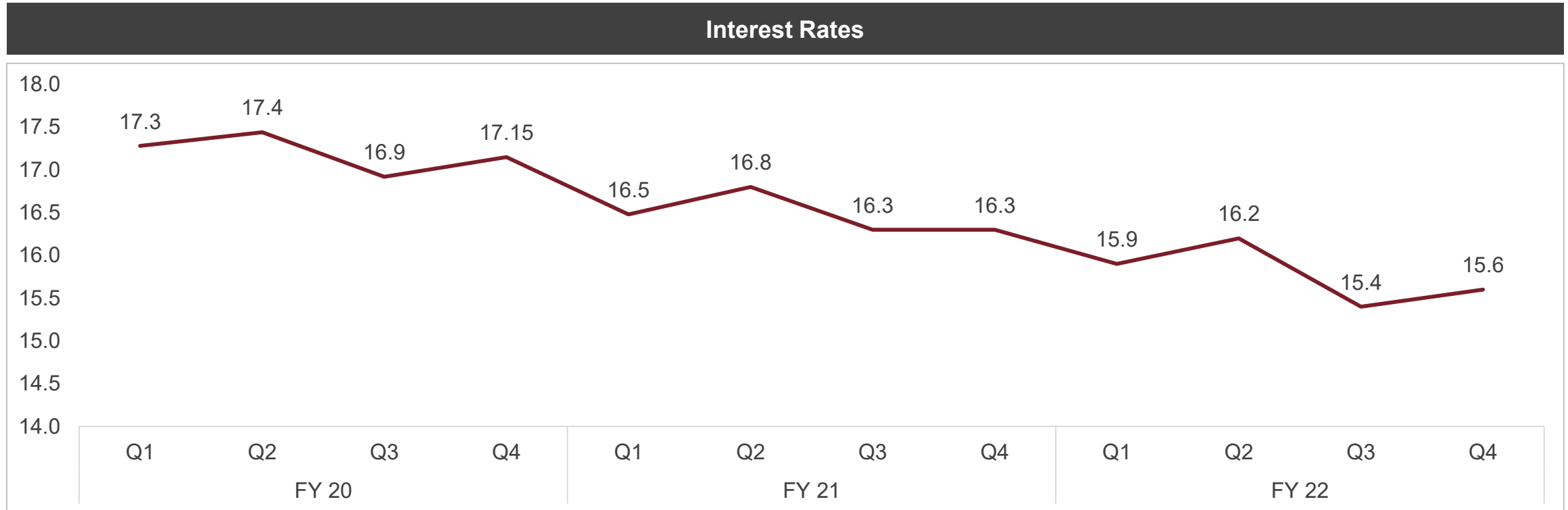
Source: Ministry of Statistics and Programme Implementation, CRISIL Research



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

- The Omicron wave-induced restrictions and high commodity prices have affected economic activities.
- Economic activities were first curbed at several places due to the Omicron wave of the Covid-19 pandemic and later the Russian invasion of Ukraine led to a rise in the prices of all commodities and also disrupted their supplies. The epidemic has waned, but the Russia-Ukraine war shows no signs of coming to an end.

# Disbursements increased at a moderate pace in FY22 on a high base

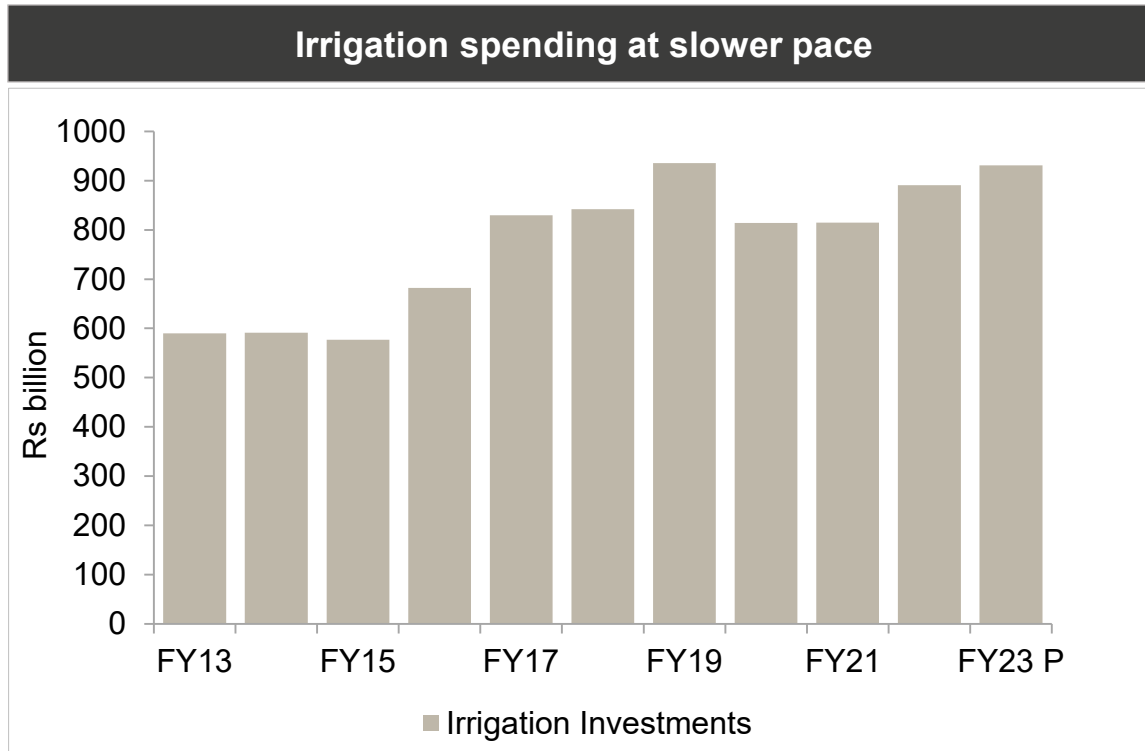


*NOTE: Interest rates for Q1FY23 is not yet released by leading financiers*

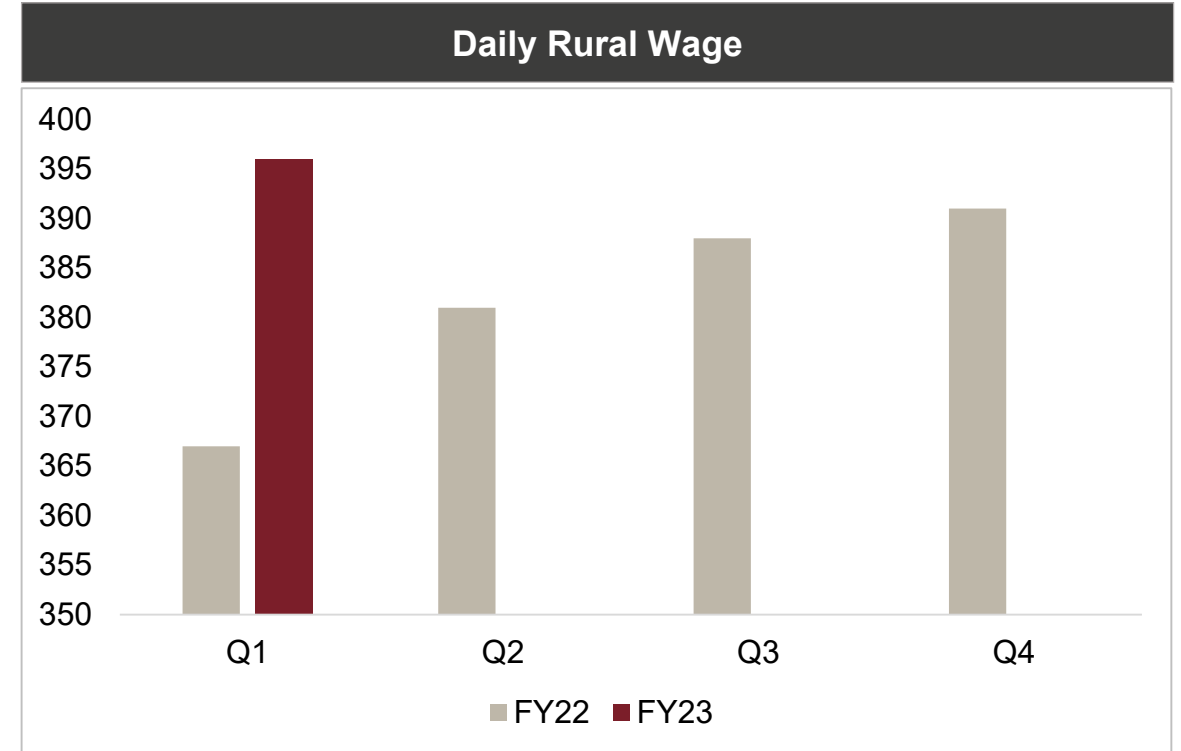
*Source: CRISIL Research*

- With 70-75% of tractors purchased on credit, credit availability is a key demand driver, and indirectly boosts tractor sales.
- However, non-performing assets are higher in public banks as compared with private banks and NBFCs.
- LTVs are estimated to have grown from 75.5% in fiscal 2021 to 76% in fiscal 2022.

# Irrigation investments to get back to pre-Covid levels in FY23



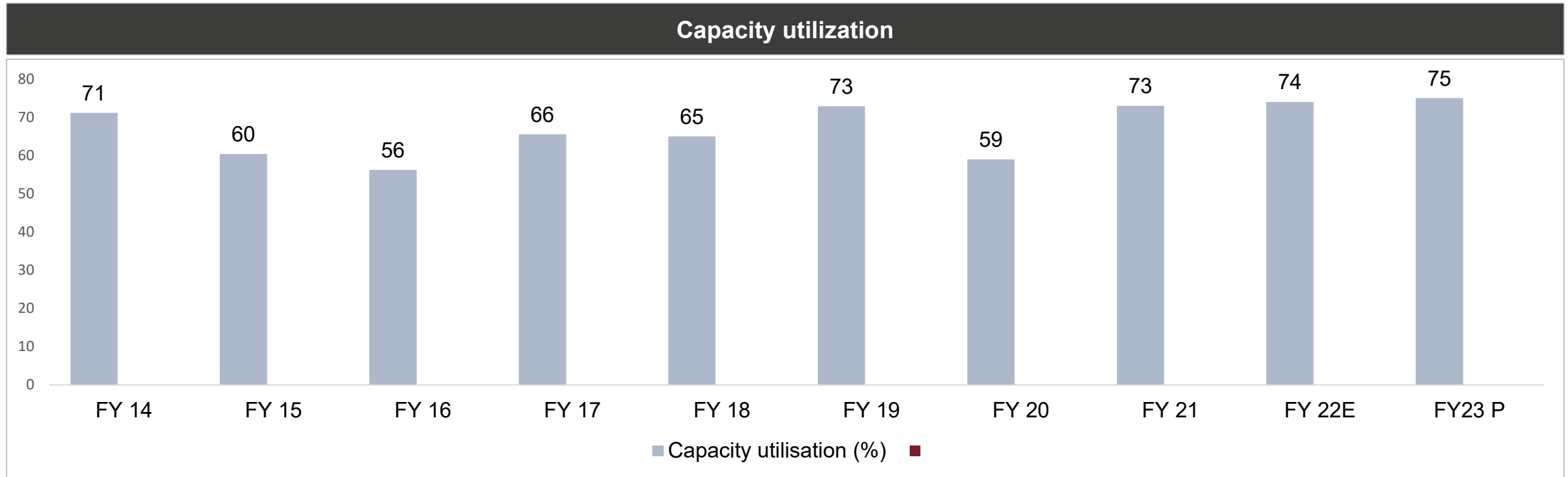
Source: Department of Agriculture, Cooperation & Farmers Welfare, CRISIL Research  
P: Projected



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

- The government's renewed thrust on enhancing irrigation intensity and making the nation more drought-proof is expected to support agriculture growth and increase mechanization.
- Irrigation investments are expected to be growing at a 6% CAGR over the next 3 years (FY22-FY25).
- As irrigation facilities improve in the rest of India, tractor penetration will see corresponding increase

# Capacity utilization to increase in FY23

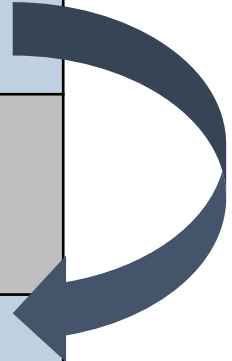


E: Estimated  
Source: CRISIL Research

- In FY23, due to capacity addition by Mahindra, we expect capacity utilization to increase despite anticipated increase in volumes in the fiscal.
- In FY22, despite ~6% decline in domestic demand capacity utilization of the players increased due higher exports.
- Capacity utilization increased significantly in FY21 due to lack of capacity additions with production volumes increasing

# TREM IV norms to come into effect from 1st October'22.

Emission standard stage	Engine Power	Market share	Date	CO	HC+Nox	PM
	HP			g/kWh		
Trem Stage III A	11 to 25HP	9%	1st April 2010	5.5	8.5	0.8
	25 to 50HP	84%	1st April 2010	5.5	7.5	0.6
	50 to 75 HP	7%	1st April 2010	5	4.7	0.4
Trem Stage IV	11 to 25HP	8%	No change			
	25 to 50HP	84%				
	50 to 75 HP	8%	1st April 2022	5	4.7	0.025



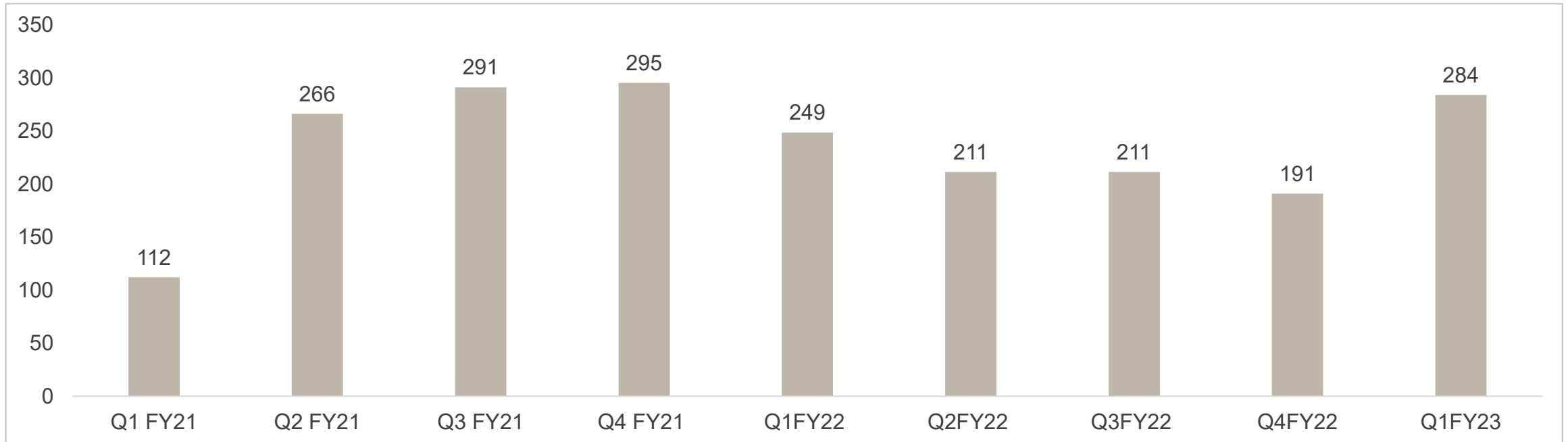
Source: Industry, CRISIL Research

- TREM IV norms applicable only on 50HP and above tractor segment forming ~10% of domestic sales, thus we expect limited impact on tractor industry.
- Although major technological changes are available with OEMs, the pass through of the incremental cost, related to the technological changes, to the farmers is likely to be a challenge.
- Given the price sensitive nature of the farming community. Cost escalations to the tune of 10-12% is expected.



# Production levels are high as the demand continues

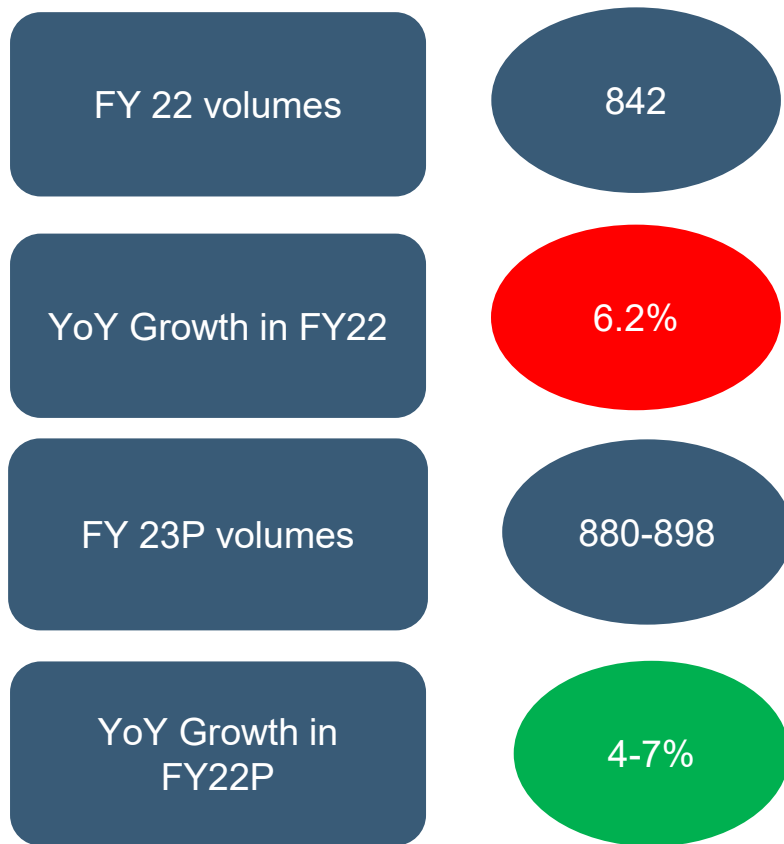
## Production Levels



Source: CRISIL Research

- FY22 saw a production declined by 15% y-o-y.
- That mainly accounted to high inventory in the system leading to moderate push of wholesale industry
- Production in Q1 FY23 witnessed a growth on account of increasing demand as farm income improved with timely rabi payments. Further, there was constant push in the industry to compete for market share which has led to high inventory in the system.

# Domestic – Annual & Quarterly Forecast



Period	Tractors	
	Volume ('000)	YoY Growth
FY22	Q2	211 (10.5%)
	Q3	223 (13%)
	Q4	177 (26%)
FY23 E	Q1	265 (15%)
	Q2	226-231 (7-9%)
	Q3	212-216 (5)-(3)%
	Q4	178-182 (1-3%)
FY24 P	Q1	241-246 (9)-(7)%

Source – CRISIL Research

- Domestic tractor demand is expected to clock 5-7% on-year growth in fiscal 2023 after declining by 6.4% on-year in fiscal 2022.
- Higher commodity prices and normal monsoon prediction to support demand.
- Retail sales have been at an all-time high for April-May 2022 at 1,25,000 units.
- Healthy demand expected in H1 FY23; while slower growth in H2 FY23 to limit growth for the fiscal.
- However, lower replacement demand, higher inventory levels to prevent further growth.

# Stakeholder interactions

## OEM



- Agricultural sentiments are good owing to a healthy crop outlook for the current kharif season
- Sowing is however delayed due to a delay in the spread of rainfall, which is expected to catch up in the coming weeks
- High stock level has become the norm across many states and inventory is at a consistently higher-level post festive season
- Legalization of sand mining has led to a lackluster commercial demand in states like Bihar, Jharkhand and Rajasthan and a rise in raw material prices is affecting the pace of construction activities
- Tractor prices have increased multiple times this year and yet another hike has caused a stock increase across many states

## Dealer



- Harvesting for rabi season is over in all the states and have started generating income for farmers in all parts of the country
- Payment from wheat procurement is slow in coming causing a slight delay in purchase sentiments, especially in northern states
- Horticulture crop prices like grapes pomegranate price are not doing good.
- Onion prices are also low.
- Sugarcane production has been more this time because of which there is delay in harvesting.
- Stock levels are very high, and players are in push mode.
- Dealers are taking hit in their margins due to consequent tractor price hikes undertaken by OEMs

## Financier

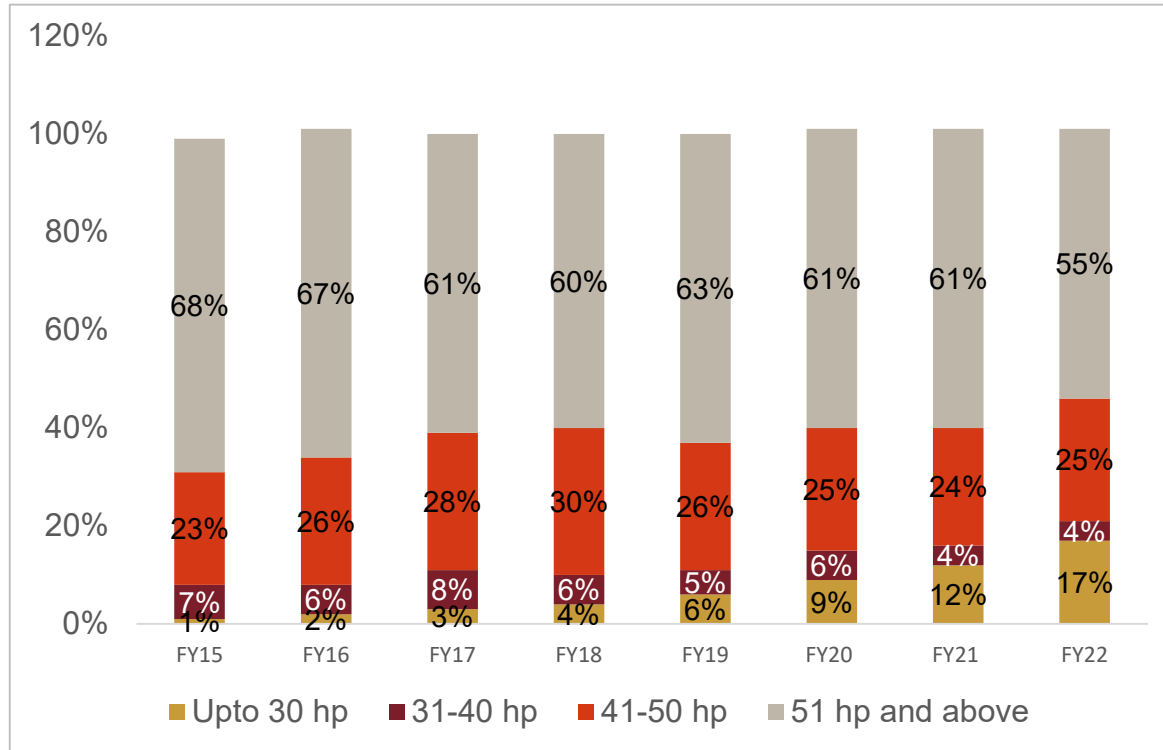


- Disbursements to increase at a moderate pace in FY22 on a high base.
- Non-performing assets are higher in public banks as compared with private banks and NBFCs.
- LTVs are estimated to have grown from 75.5% in fiscal 2021 to 76% in fiscal 2022.
- Financing situation in certain states are worrisome with rising NPA levels and is a key monitorable in the coming months as funding levels could be significantly impacted

# Tractor exports

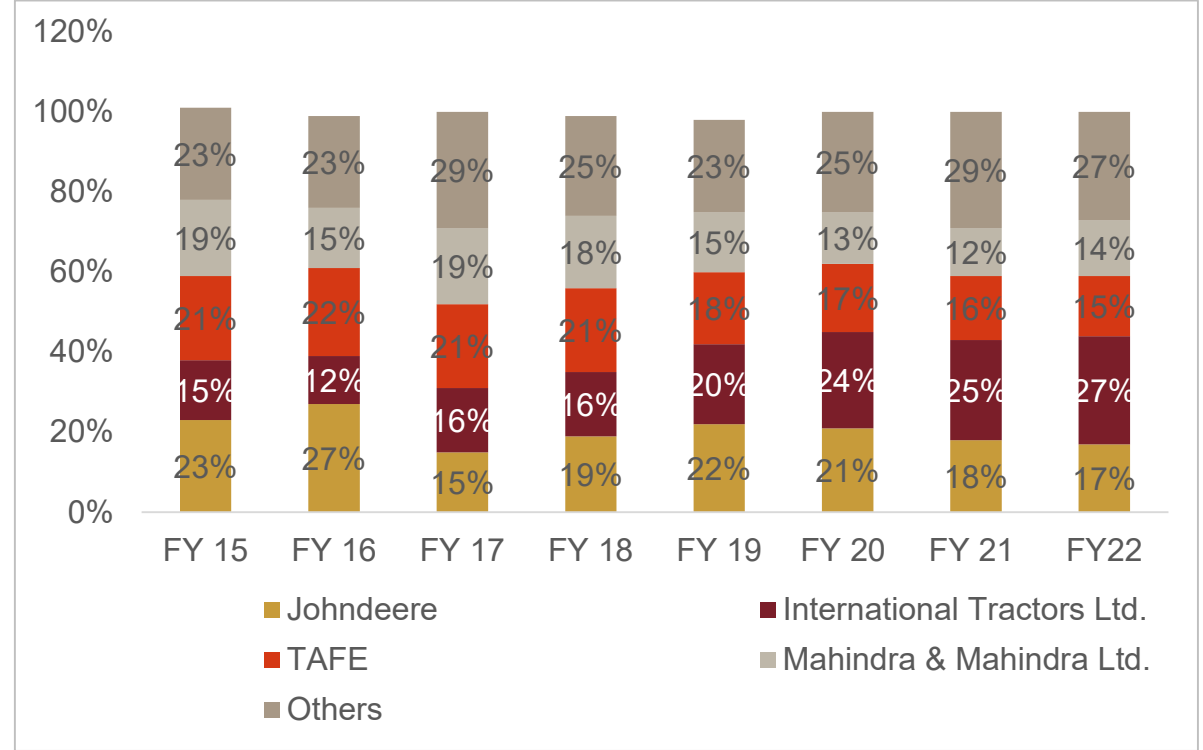
# Tractor exports to remain buoyant in fiscal 2023

## Segment wise market share of exports



Source: CRISIL Research

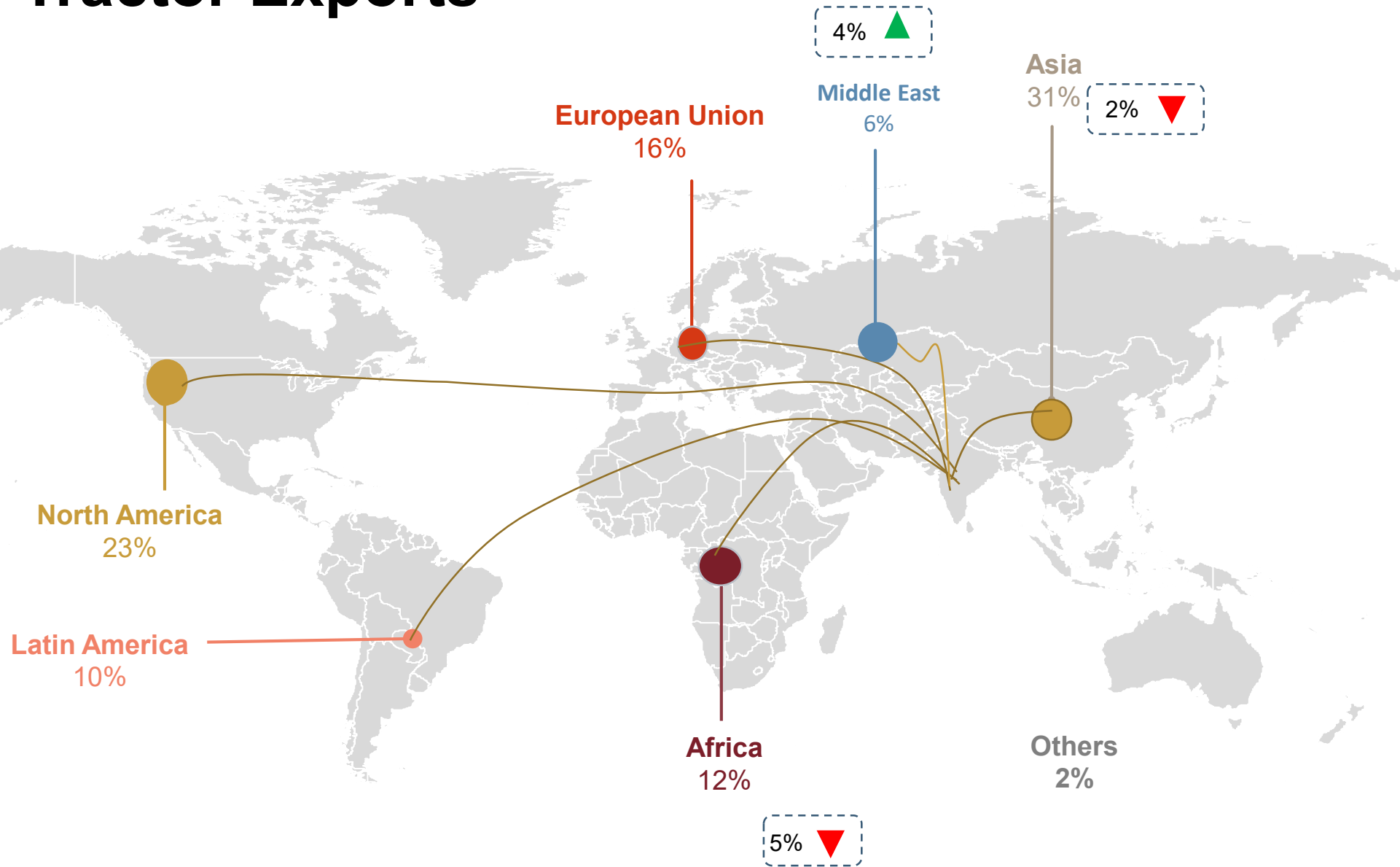
## Player wise market share of exports



Source: CRISIL Research

- Exports are expected to clock a healthy growth in fiscal 2023 over a substantial high base of fiscal 2022.
- ITL and Escorts have been focusing on growing exports to insulate themselves from the cyclic domestic market demand. Market share of ITL has increased from 25% in fiscal 2021 to 27% in fiscal 2022. Escorts reduced exports from its Poland factory and has started exporting from India. Mahindra is a dominant player in exports to the United States and Asian nations.

# Tractor Exports

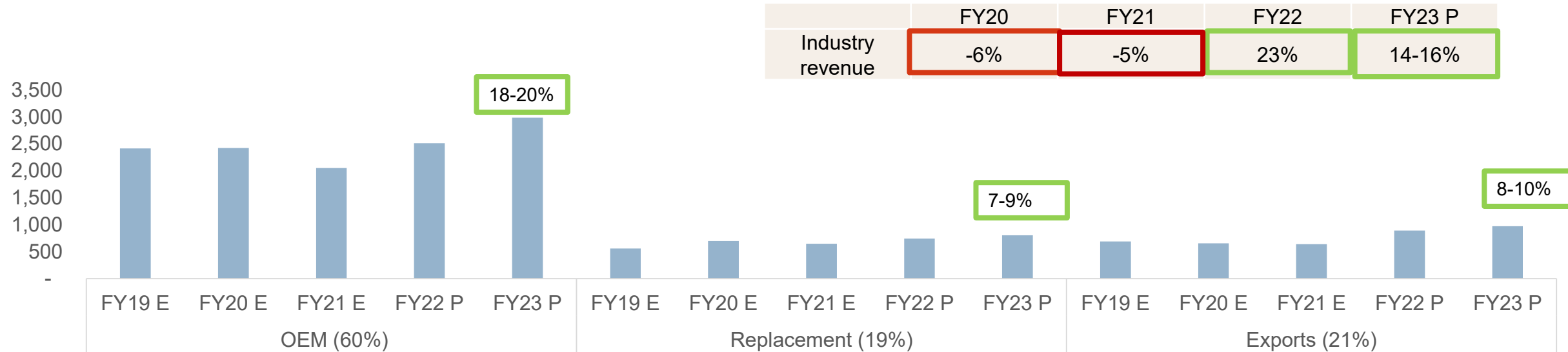


- Demand for India tractors has been high in Bangladesh, the USA, Mexico and European countries. In fiscal 2022, exports rose by 45% on-year after registering a 17% on-year growth in fiscal 2021.
- Favorable diplomatic relationship with Bangladesh and logistical ease between both countries has led to rise in exports to the nation. Strategic push, such as setting up base in foreign countries, by players to cater to the global demand is also expected to push export sales

# Auto Components

# Auto components industry production revenue to grow by 14-16% in fiscal 2023 on high base

Demand from OEMs to drive auto component growth in FY23



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

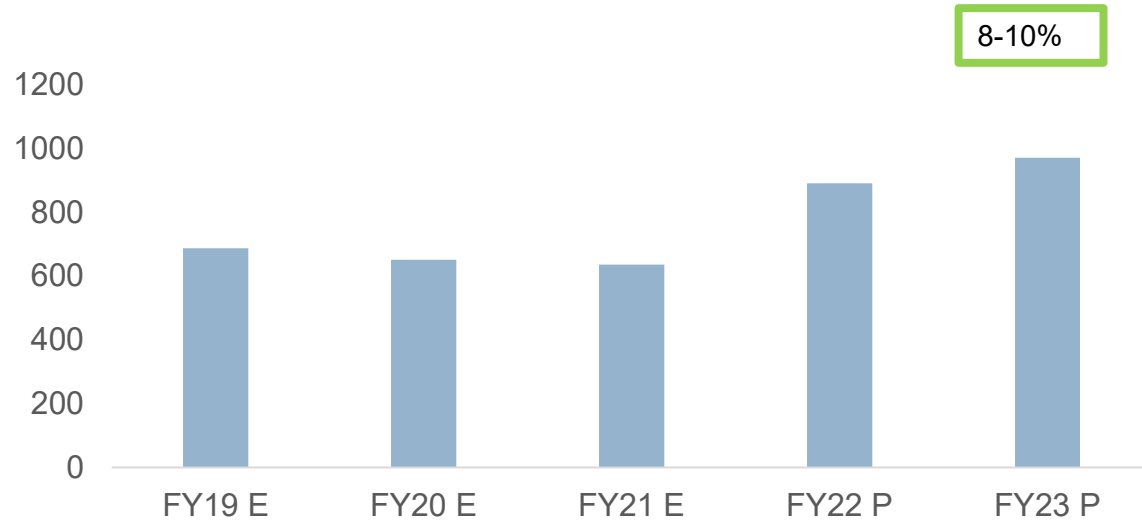
Source: CRISIL Research

- Domestic auto component production revenue to grow in fiscal 2023, on high base of FY22.
- Auto component revenue is expected to increase by 14-16% on-year.
- This can be attributed to a 18-20% increase in OEM demand, driven by the recovery in commercial vehicles (CV) and passenger vehicle demand.
- In fiscal 2023, domestic demand from passenger vehicles and commercial vehicles is likely to recover as the economy recovers. However, production growth across OEM segments is estimated to have been affected by persistent semiconductor shortages



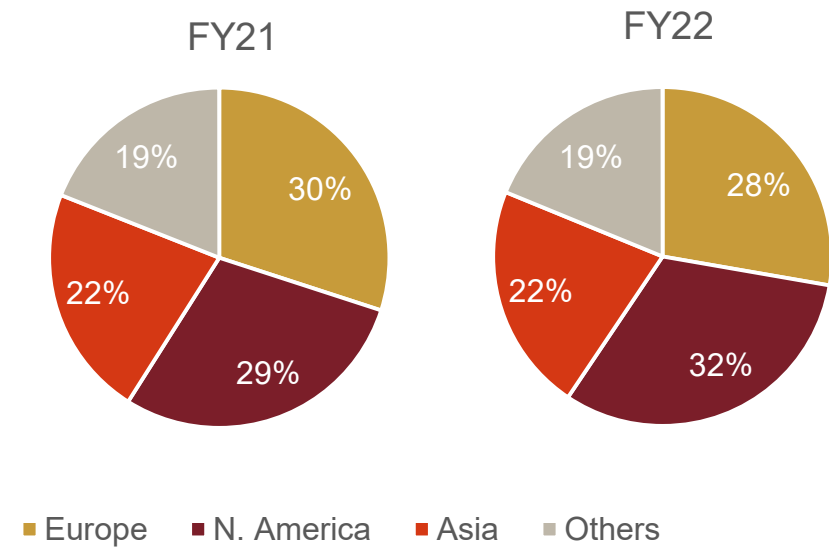
# Exports to increase by 8-10% in fiscal 2023 on the back of robust growth in key global automotive markets

## Export demand expected to grow in FY 23



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

## Developed nations support exports

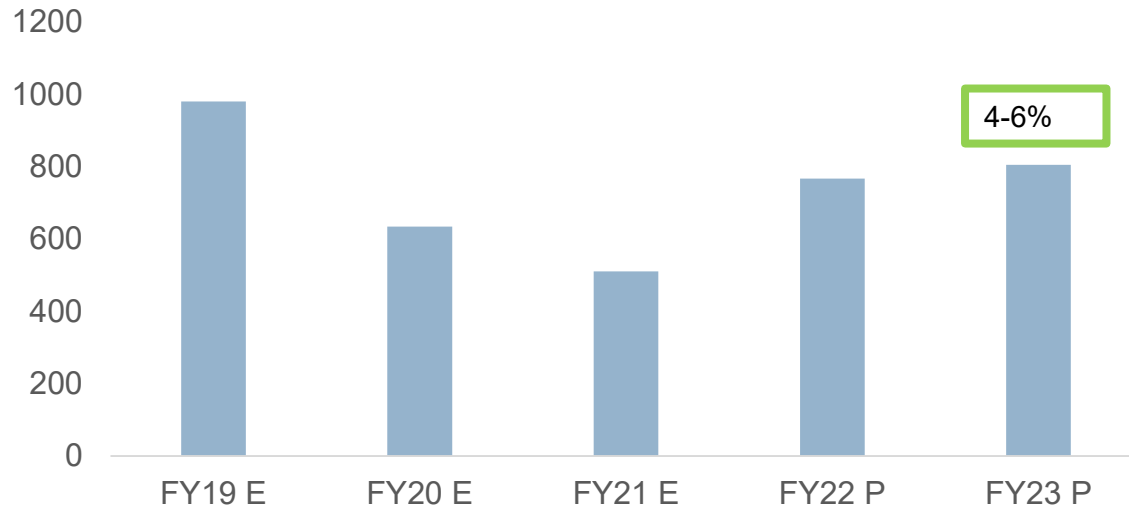


Source: DGFT, CRISIL Research

- Exports are projected to witness strong growth post higher double-digit growth in FY22E.
- The growth would be on the back of healthy demand from North America and Europe which together contributed 60% to the export demand during April-January 2022.
- Global light vehicle sales are expected to increase in calendar year 2021. This coupled with a lower base translated to a healthy demand in the first half of fiscal 2022.
- Export revenues are also expected to be supported by increased global demand and China +1 strategy.

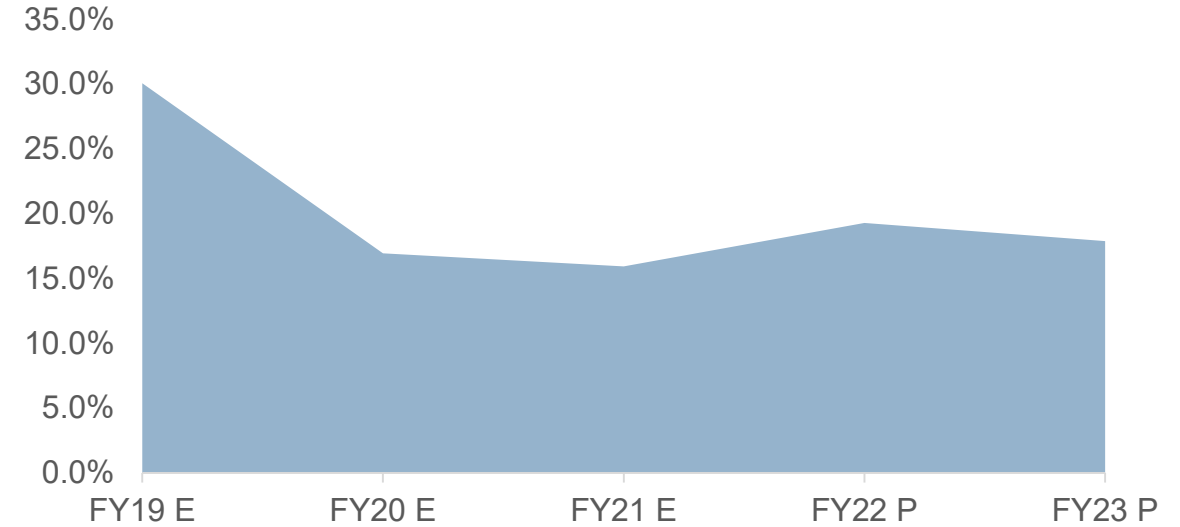
# Auto component imports to improve in fiscal 2023 with improving domestic production

## Import demand is likely to grow



Source – DGFT, CRISIL Research

## Imports Share to increase on a low base

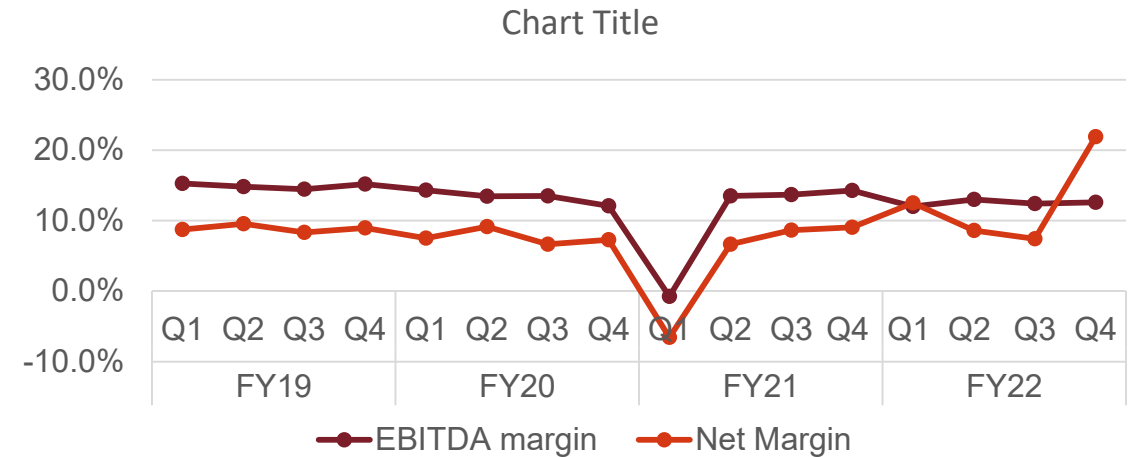
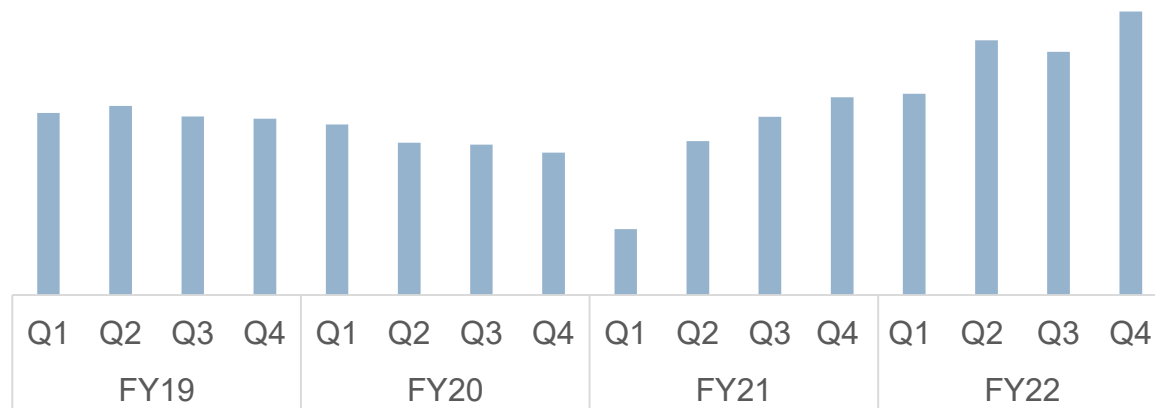


Source: DGFT, CRISIL Research

- In fiscal 2021, imports declined by ~20% owing to subdued demand from OEMs and aftermarket.
- The domestic auto component manufacturers also operated at below-normal utilization levels in the first half owing to subdued demand.
- FY22 saw big spike in imports on lower base of FY21.
- Going ahead in FY23, import demand is likely to grow led by a recovery in domestic market

# Margins to expand by 10-40 bps in FY23, despite a sharp rise in input costs

## Company financials



Source: Company financials, CRISIL Research

- Profitability to improve in FY22 and 23, led by a recovery in demand and increasing realizations to partially offset the rise in input costs.
- Utilization levels of players had dropped to an all-time low in FY21. This coupled with higher input costs took a toll on profitability during the year.
- In FY23, we expect margins of auto component manufacturers to improve by ~10-40 bps
- In terms of cost, one-third of the workforce is contractual offering flexibility in managing employee cost in periods of low production. Lower share of fixed cost (less than 20%), too, is expected to have helped large auto-component manufacturers weather the impact of COVID-19.

# Thank You

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