

Impact of Macro-economic Environment on the Automotive Industry

ACMA

July 2019

Content



Macro-economic Analysis



Forecast



Cars and UVs



Two-wheeler



Commercial Vehicles



Tractors



Three-wheelers

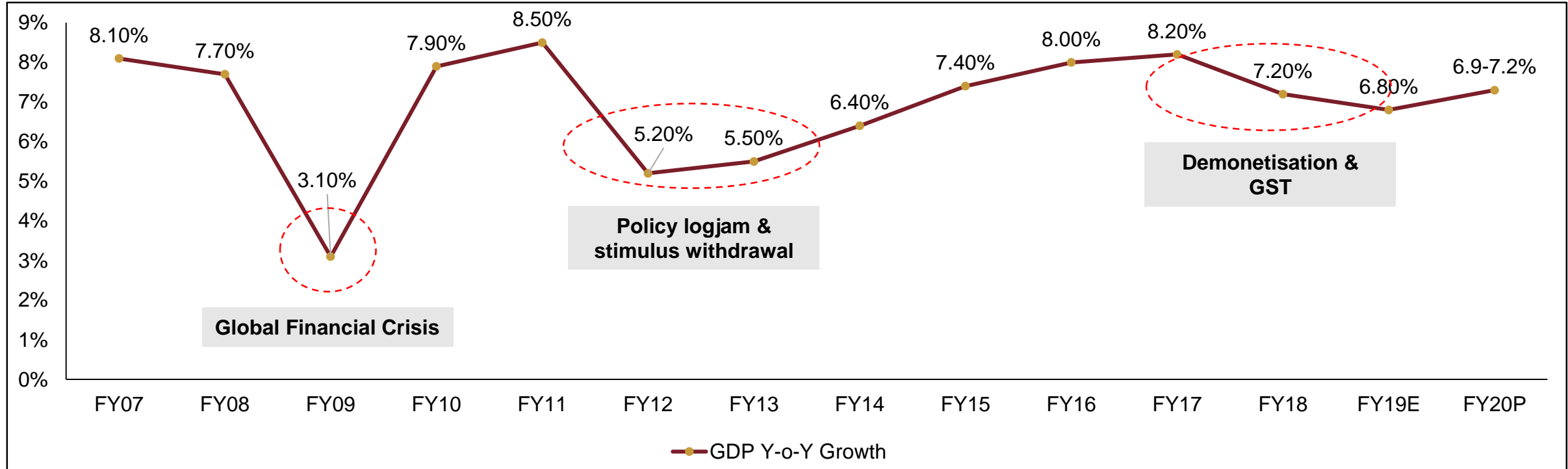


Inventory scenario



Macro-economic Analysis

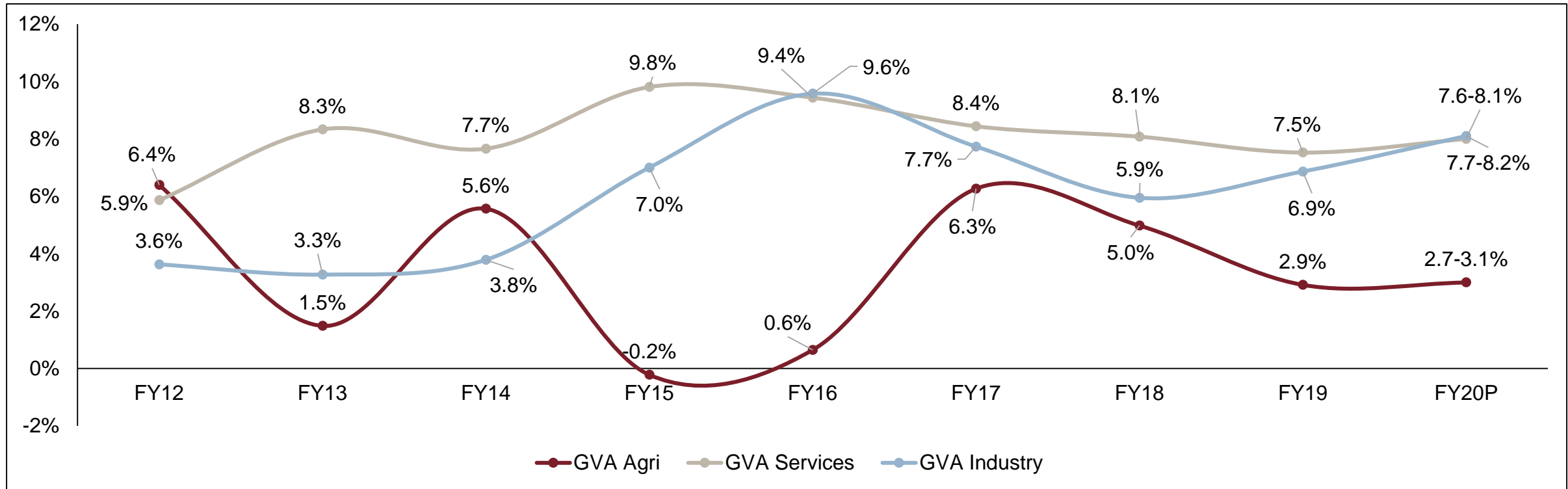
Growth to be supported by softer interest rates and budgetary measures that push consumption



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

- In fiscal 2020, we expect the GDP to grow by 6.9-7.2%, while maintaining a downward bias to this estimate.
- Growth will pick up if monsoons are normal and well distributed and crude prices remain below US\$ 70 per barrel.

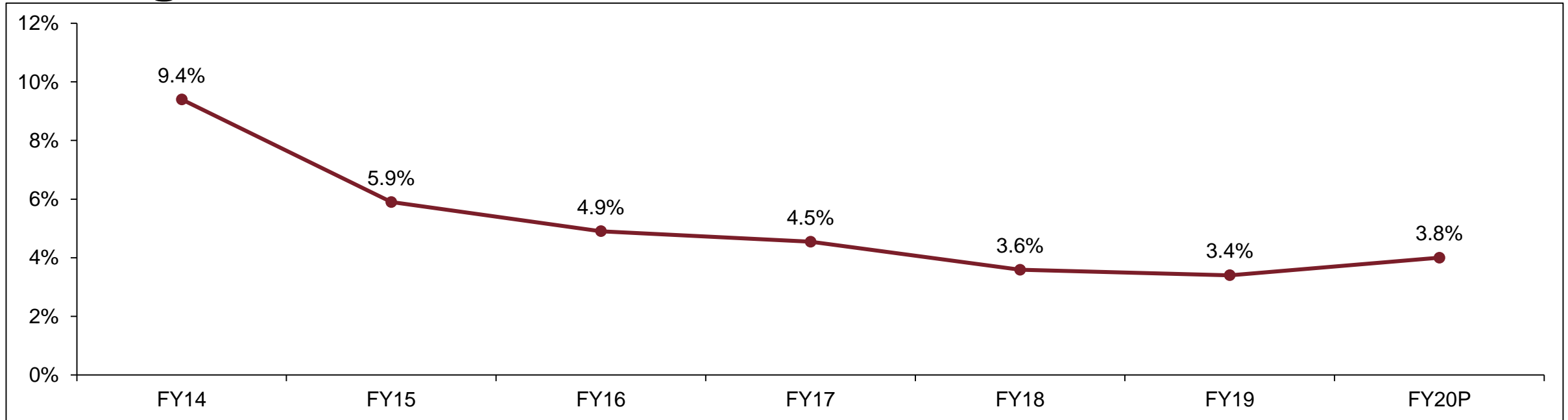
GVA registered a growth of 6.6% in fiscal 2019



Source: Central Statistical Office, MOSPI, CRISIL Research.
P=Projected

- In fiscal 2020, we expect the industry GVA to grow on the back of private investments and consumption. Private consumption should lead the pick up, supported by budgetary announcements.
- Given push to consumption and government spending taking backseat should lead to improvement in capacity utilization and private investments.

Low inflationary pressures, *accommodative* monetary policy stance leave further legroom for monetary policy easing and rate cut

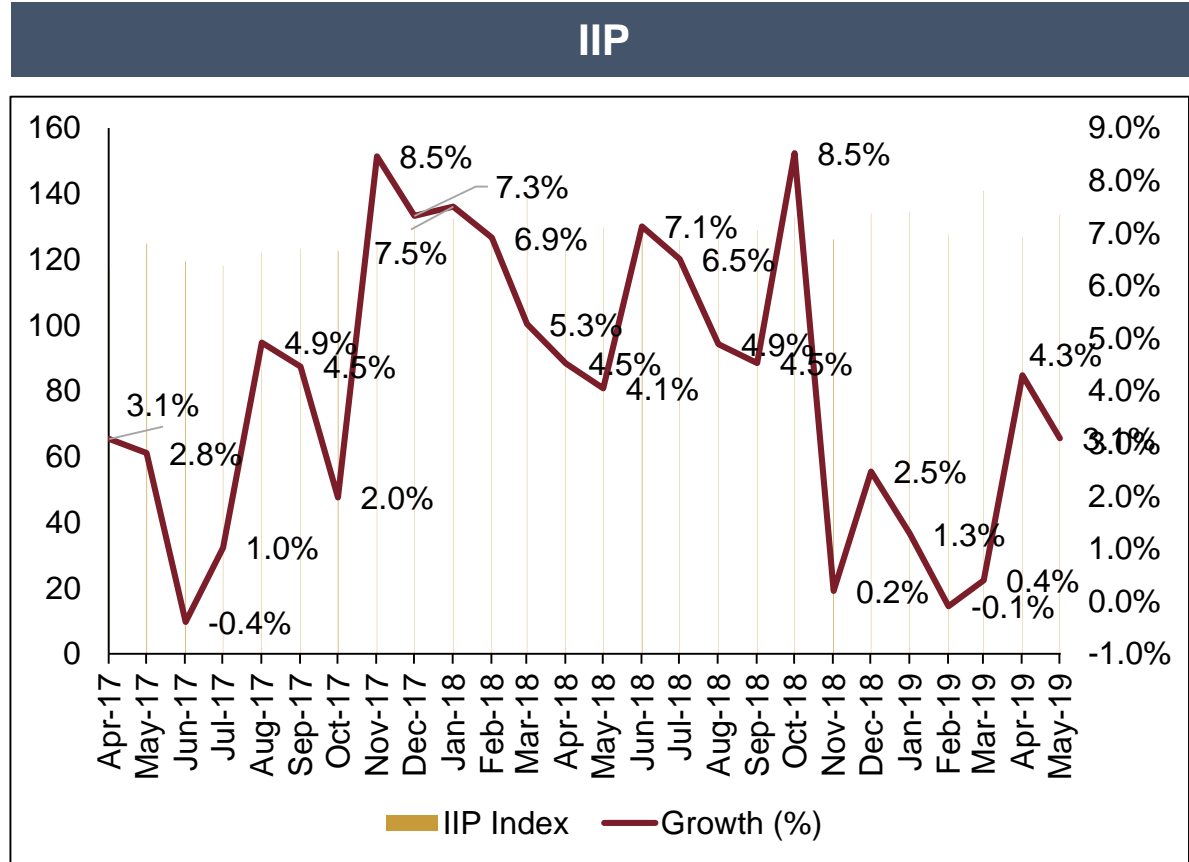


Note: CPI – Consumer Price Index

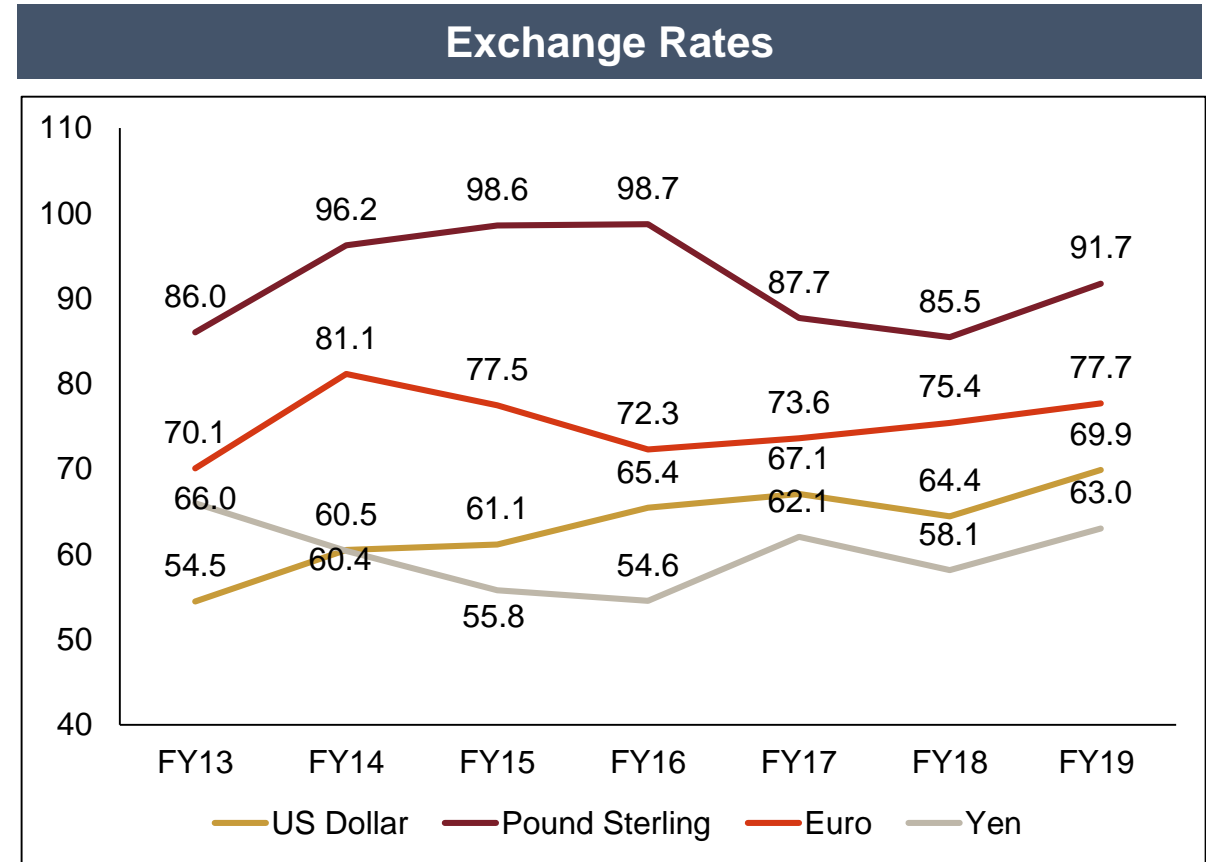
Source: Ministry of Statistics and Programme Implementation (MoSPI), CRISIL Research

- CRISIL forecasts CPI inflation to average 3.8% in fiscal 2020, up from 3.4% last fiscal, as-
 - Food inflation, which has remained unusually low, has started moving up, not only on account of a low base but also on sequential basis.
 - There exists a mild upside from a consumer-friendly fiscal policy and softer monetary policy stance.

First quarter of fiscal 2020 to continue to display some weakness. Second half to be slightly better



Source: MoSPI, Crisil Research

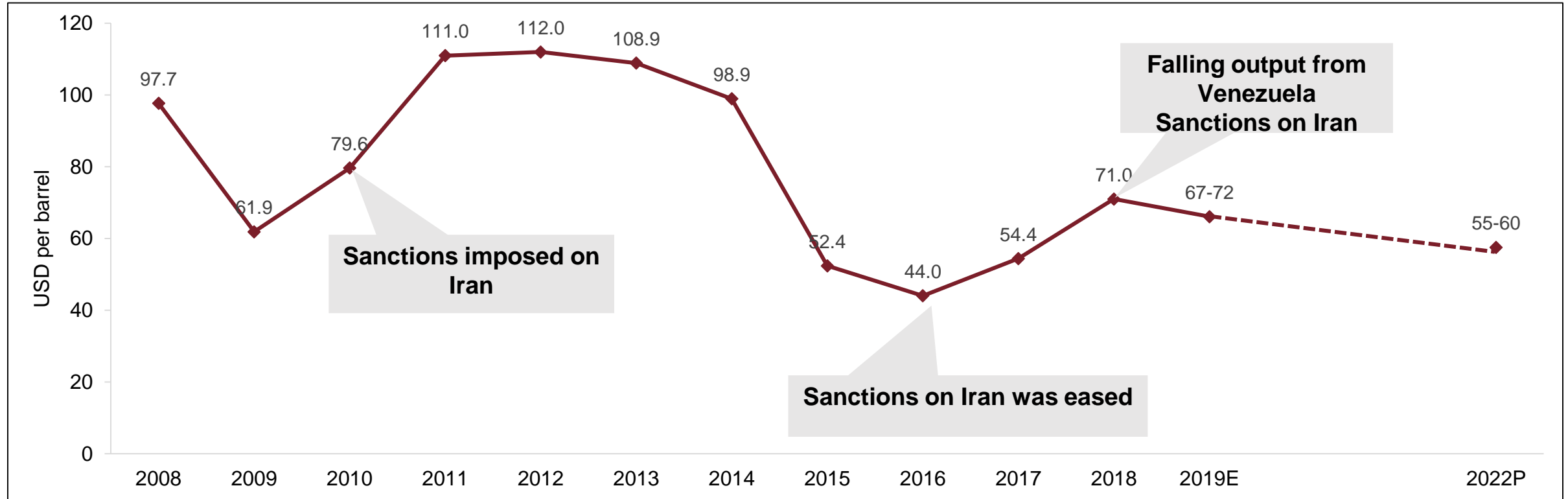


Source: RBI, FBIL, Crisil Research

Note – For Yen rupees value are per 100 Yen

Leading indicators suggest that Q1 of fiscal 2020 would continue to display some weakness. Improvement will be seen in second half due to softer interest rates, some pick-up in rural demand led by monsoon and minimum income support scheme by the Government.

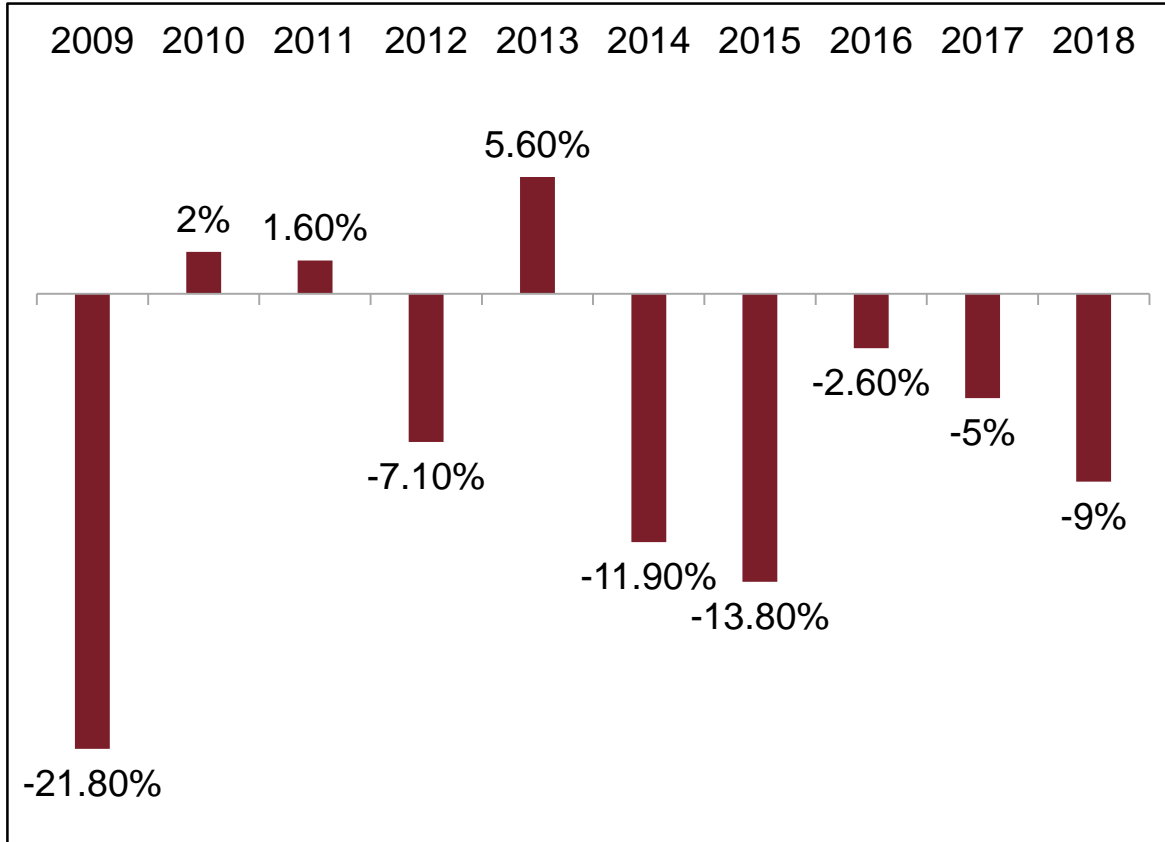
Shift to cleaner fuels, EV penetration, fuel efficiency to restrict crude oil demand growth



Source: CRISIL Research

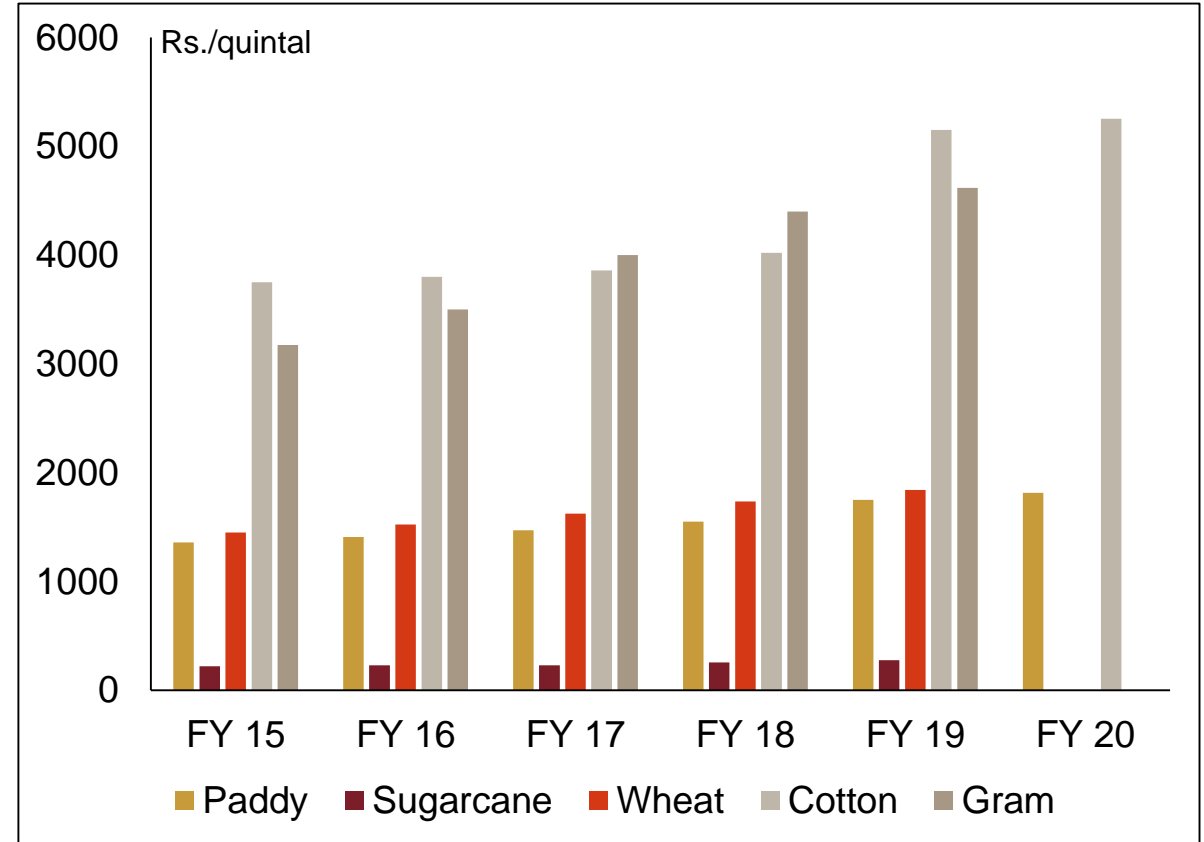
Consecutive normal monsoons & better MSP to support favorable farmer sentiments

Monsoon deviation from long normal rainfall levels



Note: Years mentioned are calendar years
Source: Indian Meteorological Department

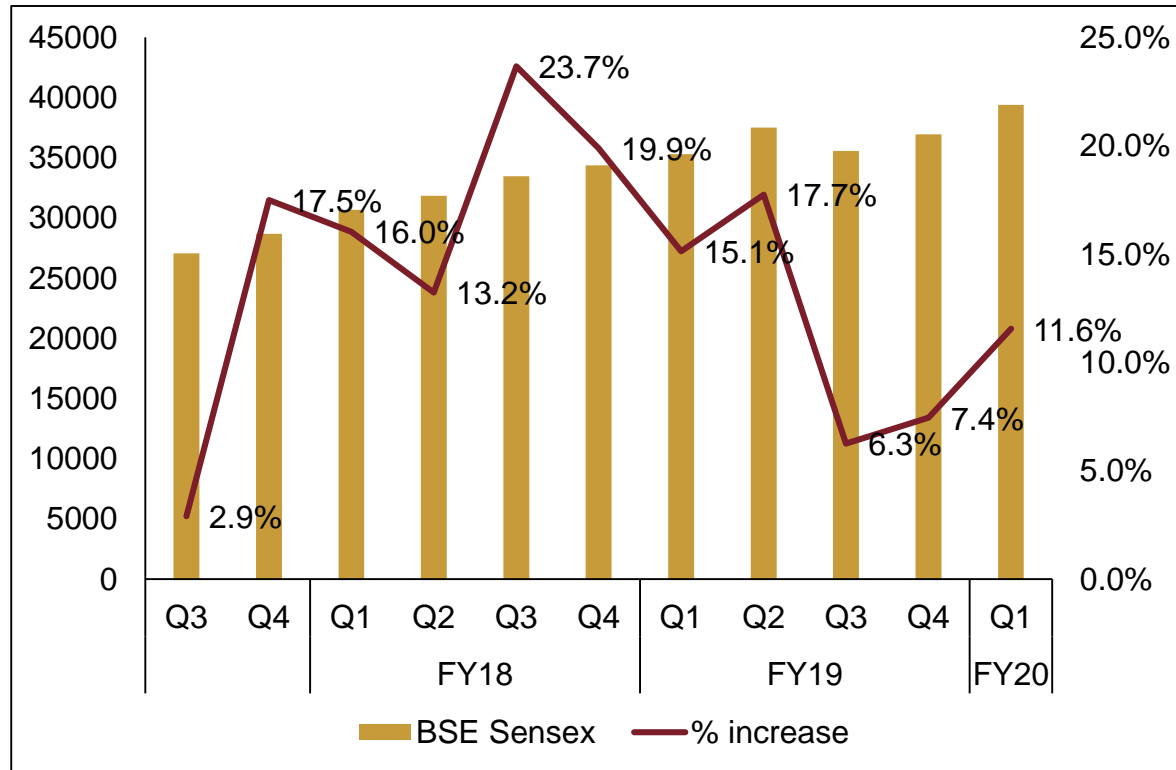
MSP of major crops in the last 5 years



Source: Ministry of Agriculture & Farmers Welfare

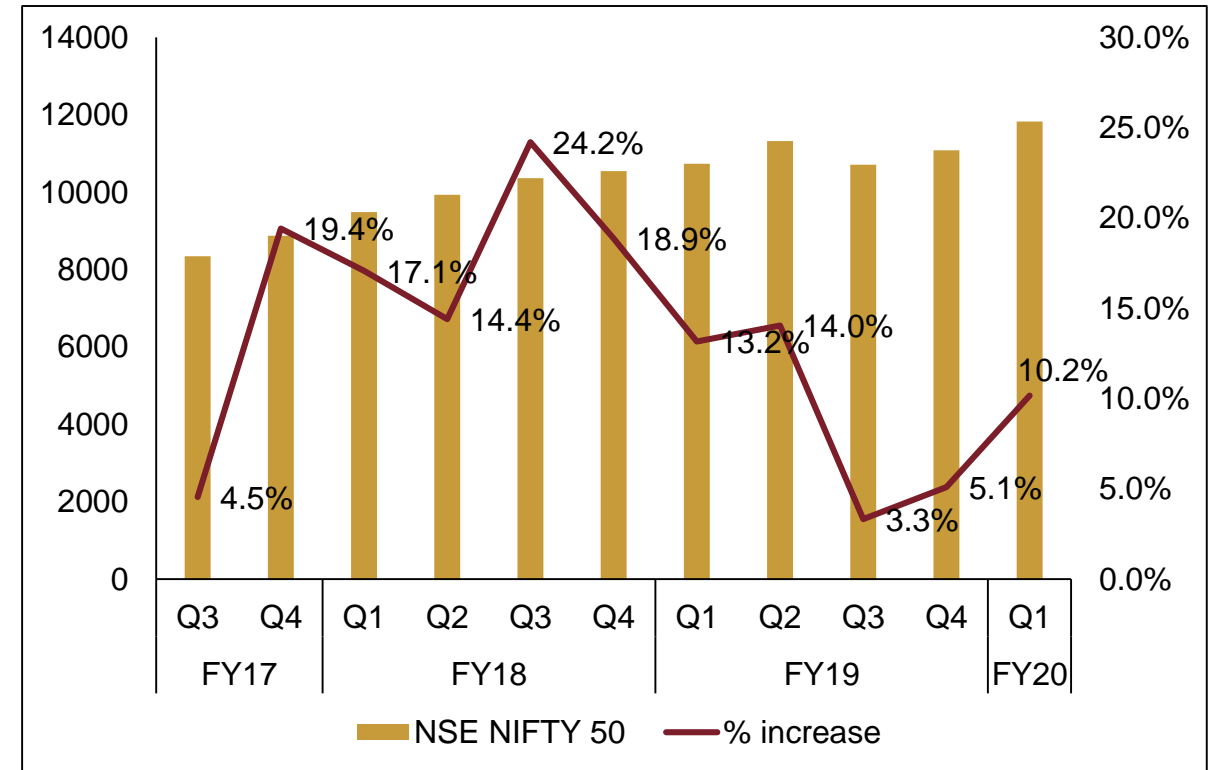
Uptick in Sensex and Nifty in Q1 of 2020

BSE Sensex



Source: BSE

NSE Nifty



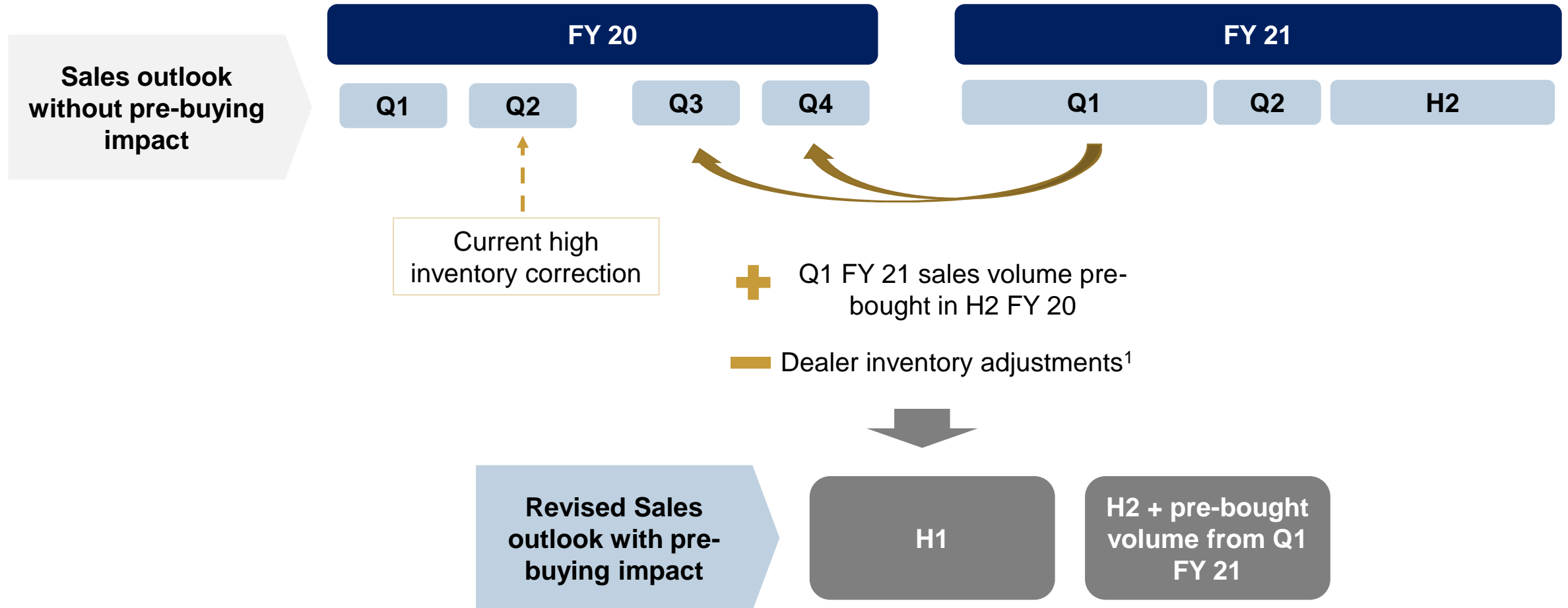
Source: NSE



Forecast

Pre-bought sales volume from Q1 FY 21 is adjusted in H2 FY 20 to arrive at sales outlook

Pre-buying impact calculation methodology



¹H2 FY 20 wholesale sale is also adjusted for change in inventories at dealership since BS IV stock needs to be liquidated before Apr 1st, 2020. OEMs are expected to start launching their BS VI vehicles in H2 of FY 20

Forecasts – domestic & exports

		Domestic					Exports
		Q2 FY 20	Q3 FY 20	Q4 FY 20	Q1 FY 21	FY 20	FY 20
Passenger vehicles	Cars	(7)-(9)%	16-18%	(3)-(5)%	(1)-1%	(4)-(6)%	3-5%
	UVs and vans	5-7%	9-11%	(13)-(15)%	4-6%	(1)-(3)%	3-5%
Two-wheelers	Motorcycles	(3)-(5)%	(1)-(3)%	(18)-(20)%	5-7%	(7)-(9)%	5-8%
	Scoters	(7)-(9)%	9-11%	(14)-(16)%	0-2%	(6)-(8)%	(5)-0%
	Mopeds	(4)-(6)%	(12)-(14)%	(8)-(10)%	1-3%	(10)-(12)%	(5)-(7)%
Commercial vehicles	LCV (<3.5T)	(6)-(8)%	15-17%	(20)-(22)%	(11)-(13)%	(4)-(6)%	(3)-(10)%
	LCV (3.5-7.5T)	(9)-(11)%	10-12%	(22)-(24)%	(15)-(17)%	(6)-(8)%	(12)-(18)%
	MHCV	(18)-(20)%	12-14%	(16)-(18)%	(24)-(26)%	(9)-(11)%	(35)-(40)%
	Buses	11-13%	45-47%	(25)-(27)%	(16)-(18)%	2-4%	(6)-(12)%
Tractors		(9)-(11)%	(17)-(19)%	(4)-(6)%	5-6%	(12)-(14)%	5-7%
Three-wheelers	Passenger	(13)-(15)%	3-5%	(19)-(21)%	6-8%	(9)-(11)%	(8)-(10)%
	Goods	4-6%	33-35%	(3)-(5)%	(10)-(12)%	7-9%	9-11%

Research NOTE: *For tractor exports of fiscal 2019, players such as Action-construction, Captain, IFEL, Kubota and Preet are not included because of unavailability of data
SOURCE: SIAM, TMA, CRISIL Research



Cars and UV

Fuel prices have turned adverse as compared to last year

Parameters	Impact		
	FY 18	FY 19	FY 20P
Demand side variables			
-- Real GDP growth	6.7%	6.8%	6.9-7.2%
-- CPI growth (%)	3.6	3.4	3.8
-- Crop Value index	N	N	F*
-- Car Price growth	5%	6%	3-5%
Cost of ownership			
-- Petrol Prices**	Rs 77.0/ liter	Rs 82/ liter	NF
-- Diesel Prices**	Rs 61.7/ liter	Rs 72/ liter	NF
-- Car finance rates	F	N	N
Supply side variables & financing			
-- Finance Penetration	76.6%	77.5%	77-79%
-- Model launches	N	NF	F
-- Regulations/taxes	F	N	N
-- Capacity expansion/constraints	NF	N	N

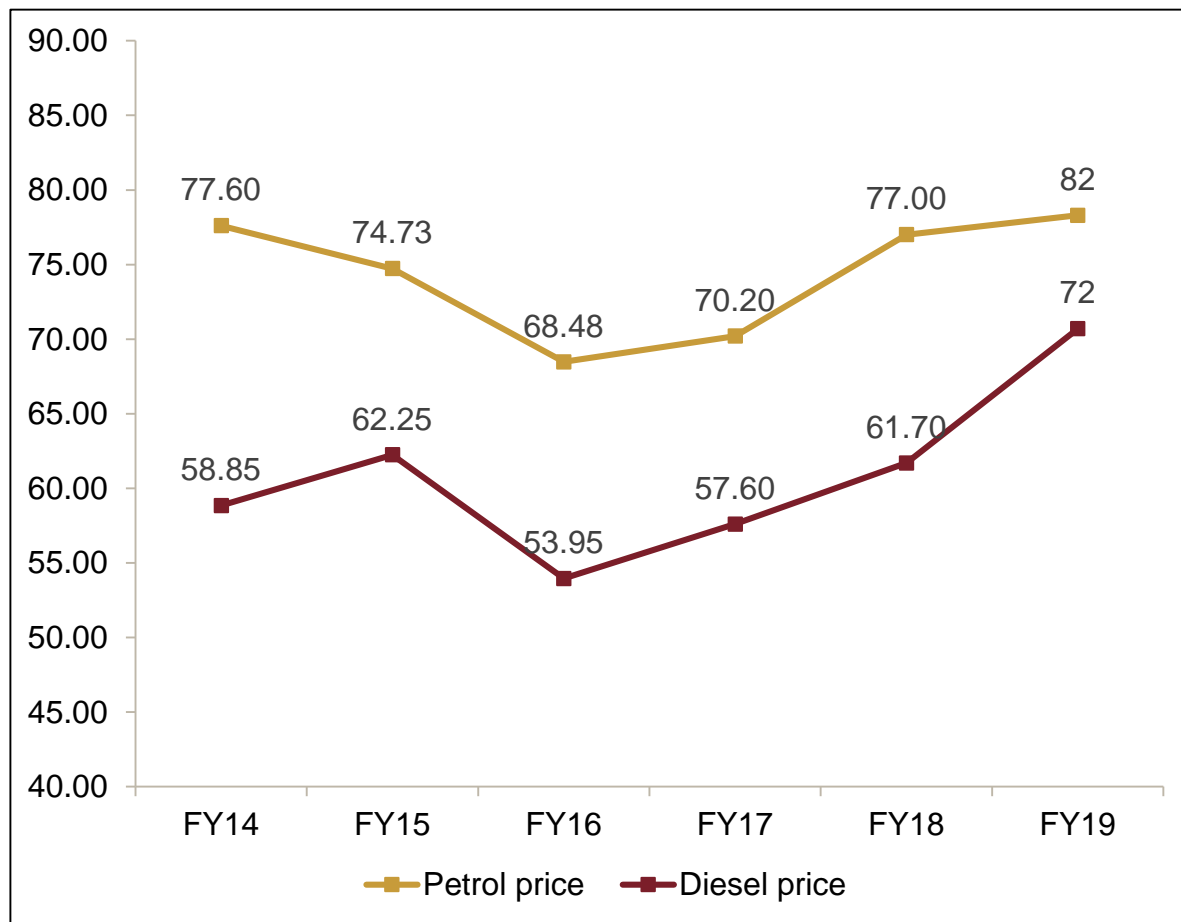
NOTE : CPI index base 2000-01 ; *Fiscal 2020 crop value index assumed neutral, assuming normal monsoon, **Assuming taxes stay at the current level and the benefit of reduction in crude oil prices is passed on to the customer

F: Favorable, N:Neutral, NF: Non-Favorable

Source: CRISIL Research

Industry banking on new model launches amidst increase in oil prices in the short term

Fuel prices significantly higher than past 5 year average



Source: CRISIL Research






Major Upcoming Launches and their contribution

Month	Company	Model	Segment	Impact
July	Mahindra	e20 NXT	Small Cars	Low
	Jeep	Renegade	UV	Low
	Jeep	Compass	UV	Low
	Hyundai	Eon Facelift	Small Cars	Low
	Tata	Tigor EV	Small Cars	Low
August	Hyundai	Grand i10	Small Car	High
	Hyundai	Elantra	Large Car	Low
	Hyundai	Kona Electric	Small Car	Low
	Renault	Kwid EV	Small Car	Low
	Renault	Duster Facelift	UV	Low
	Tata	Altroz	Small Car	Medium
	Renault	Triber	Small Car	Low
	Audi	A6 2019	Large Car	Low
September	Fiat	Argo	Small Car	Low
	Honda	Vezeal	Small Car	Low
October	Maruti	Alto 2019	Small Car	Medium
	Datsun	Cross	Small Car	Low
	Hyundai	Santafe 2019	UV	Low
	Tata	Buzzard	UV	Medium

Source: CRISIL Research

Cost of Ownership to rise; Rising fuel efficiency to reduce the effect

Cost of ownership to rise marginally in short term

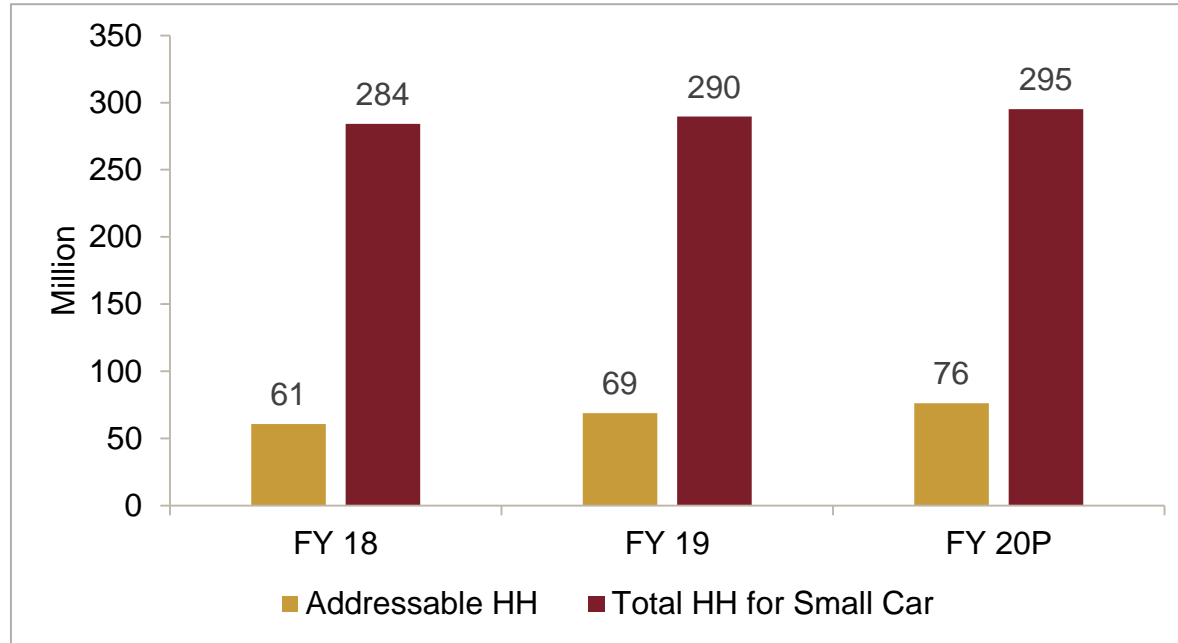
Total Cost in '000		216	219	218	219	225	231
Maintenance cost 		3	3	3	3	4	4
Insurance cost 		13	13	13	13	17	18
Fuel cost 		39	36	37	41	44	42
Loan repayment 		69	71	71	70	73	76
Down Payment 		92	95	94	93	87	91
		FY 15	FY 16	FY 17	FY 18	FY 19	FY 20P

Note: Above numbers represent annual expenditure (cost of ownership) for an entry level small petrol car (Maruti Alto 800). Annual Running : 10,000 km. Mileage : 16 km per litre

Source: CRISIL Research

Better income prospects and paced road development expected to help better demand

Expansion in Addressable market at faster pace

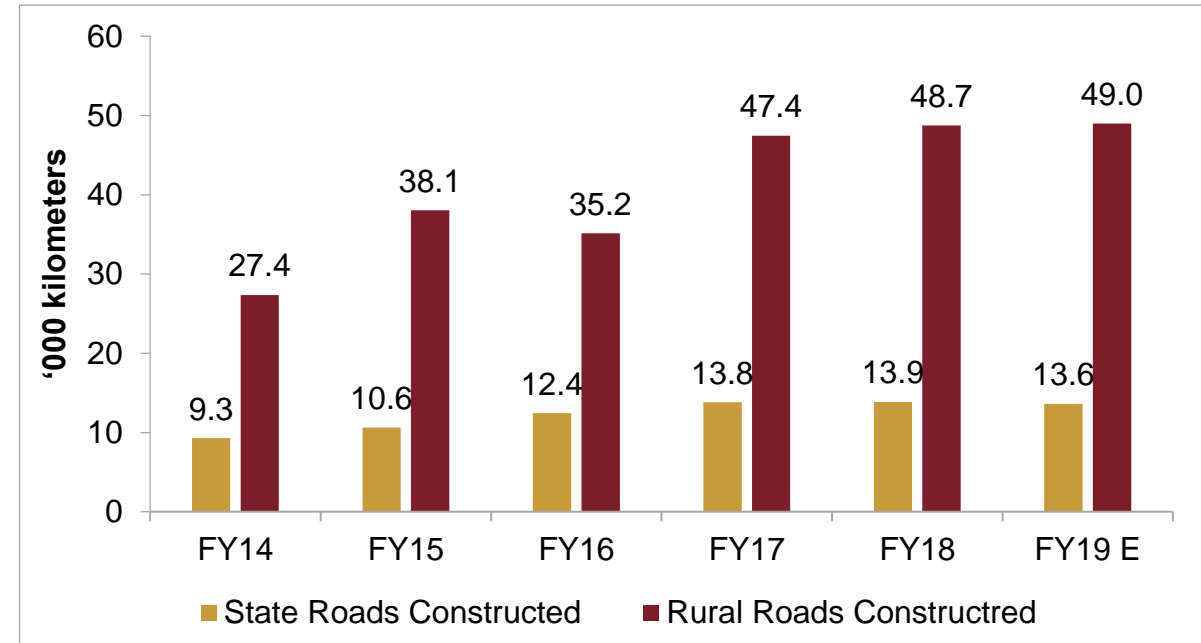


Source: CRISIL Research

Note – (1) In order to calculate addressable households, we have considered ability to purchase entry-level petrol car.

(2) The addressable market is estimated on the basis of cost of owning a vehicle at 30% of household income.

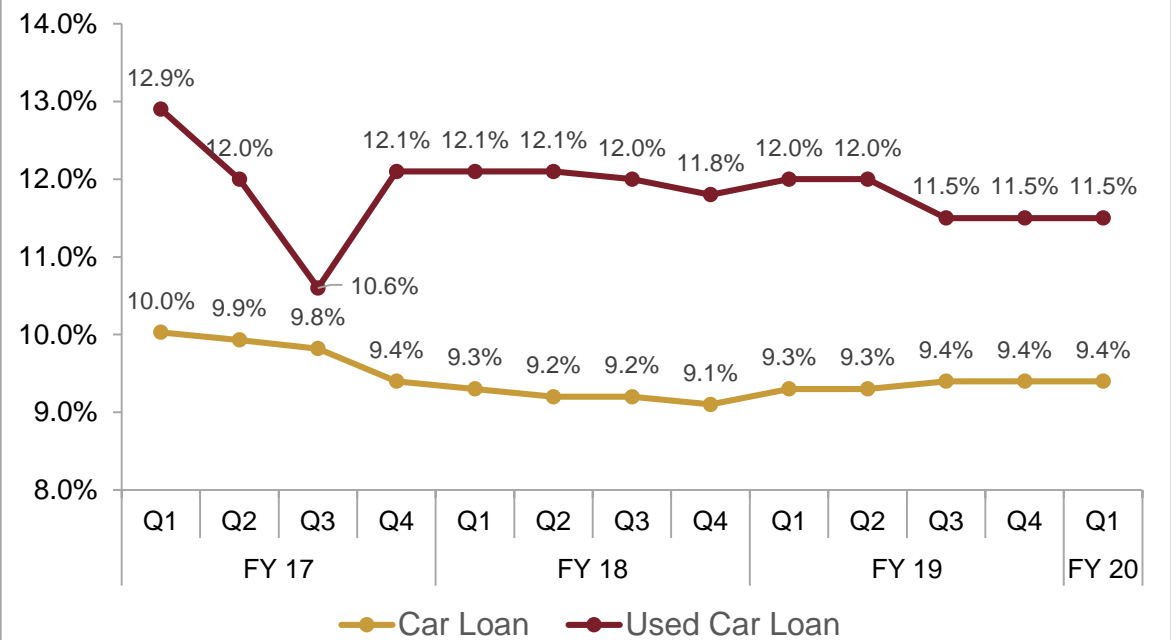
Construction of rural roads to stay strong over short-term



Source: OMMS (Online Management, Monitoring and Accounting System), CRISIL Research
P : Projected.

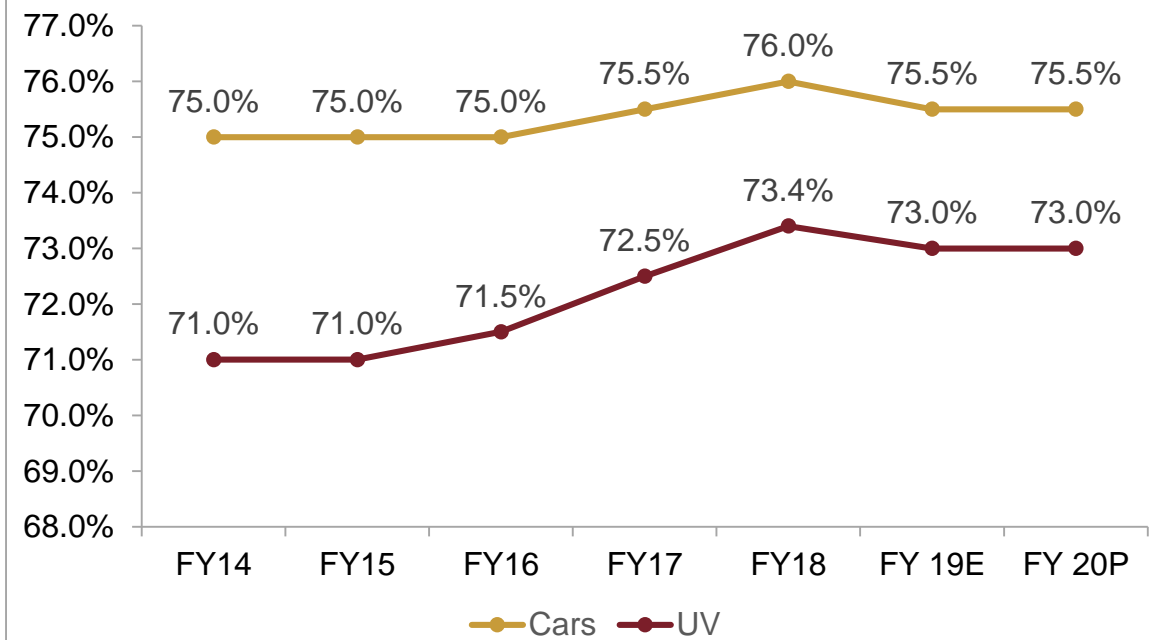
Interest Rates, Loan-to-Value to remain stable

Interest Rates for PV



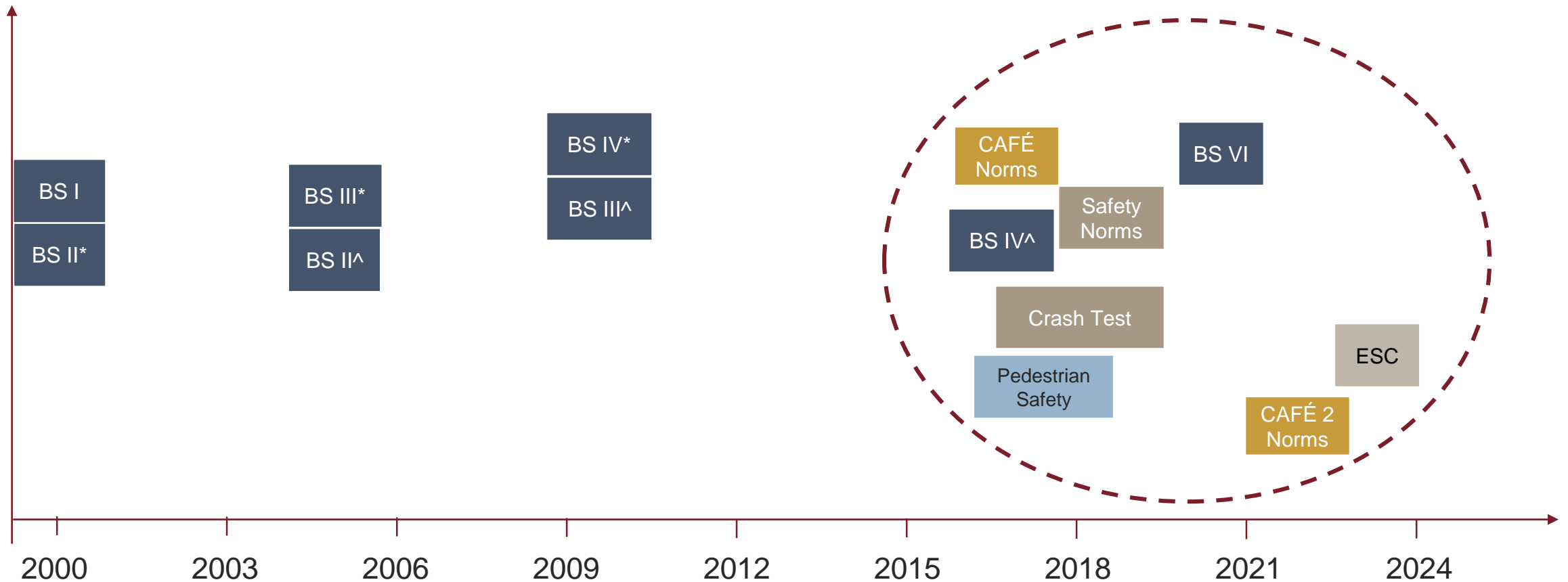
Source: CRISIL Research

Loan-to-Value for PV



Source: CRISIL Research

Regulations shaping Passenger vehicle industry in India



NOTE: *- Introduction of norm in NCR and 13 cities

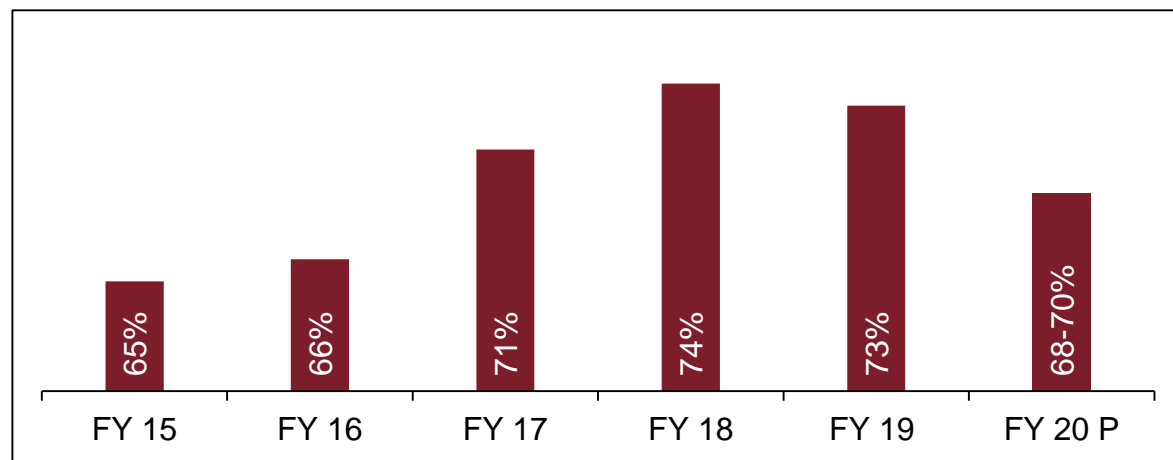
^ Nationwide implementation

BS – Bharat stage (Emission Regulations), CAFÉ- Corporate Average Fuel Efficiency, AEB - Autonomous Emergency Braking, ESC - Electronic Stability Control

Source: CRISIL Research

Poor sales in H2 FY19 has dampened utilization level

Utilization level has fallen due to lower domestic sales



Source: CRISIL Research Estimated

Planned Capacity Additions

Player	Location	Capacity lacs units pa	Investment	Commissioning
Kia Motors	Anantpur AP	3*	Rs 70 B	In progress
MG**	Halol, Gujarat	8	Rs 20 B	FY 20
Maruti Suzuki	Mehsana, Gujarat	2.5	Rs 100 B	FY20
PSA	Tiruvallur , TN	1	Rs 7 billion	FY20

* - Kia Motors' capacity will increase by 0.1 mn each year, ** - MG has taken over GM's Halol plant

Player-wise capacity utilisation

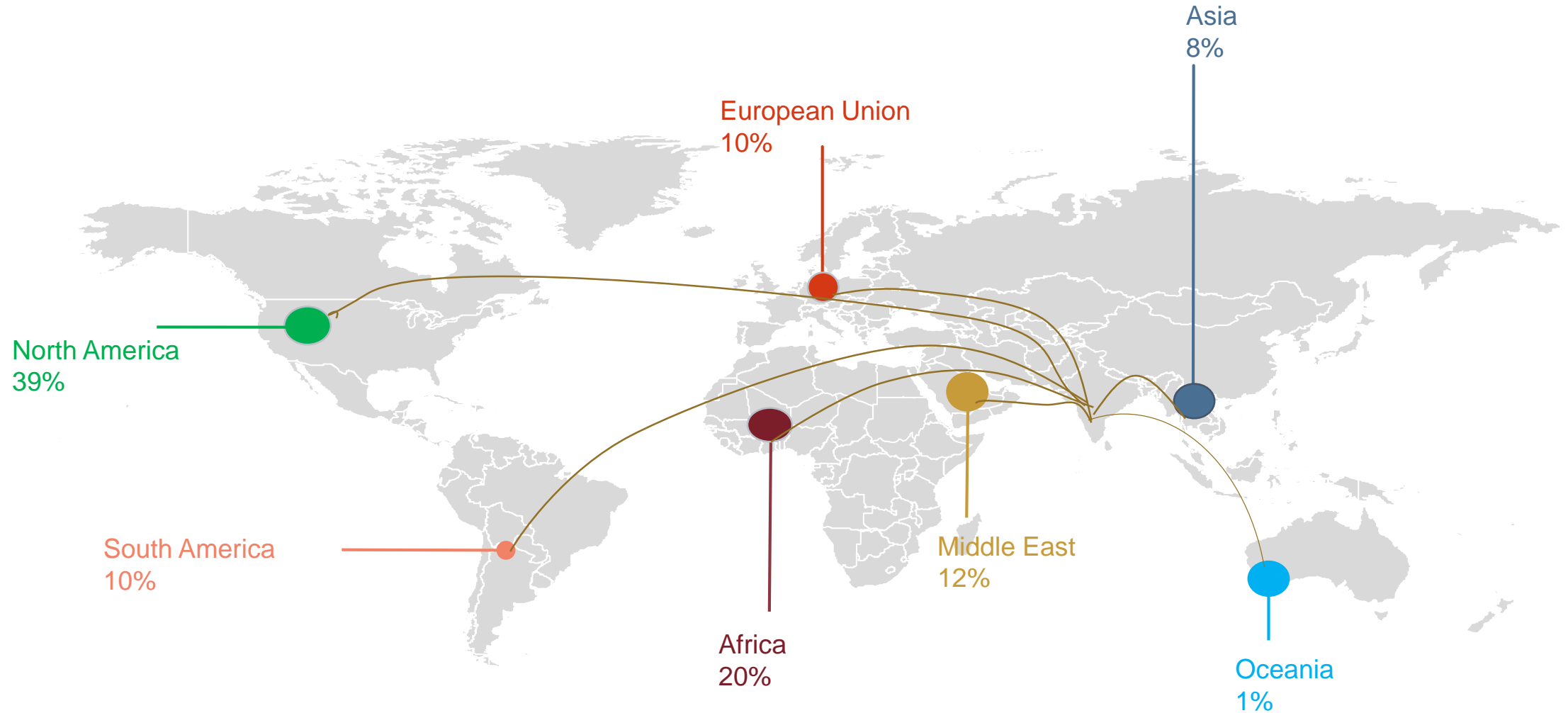
Player	Effective Capacity estimate (in '000) (as on 31st Mar 2019)	Production (FY19) (in '000)	Capacity utilization in FY19E
Maruti	1800	1825	101%
Hyundai	763	712	93%
Tata Motors	564	225	40%
Ford India	440	257	58%
Renault-Nissan	480	95	20%
General Motors	165	77	46%
Toyota	310	160	52%
Honda	300	180	60%
Volkswagen	179	91	51%
Other Players	551	432	78%
Industry Total	5552	4054	73%

Note : Maruti Suzuki plants are working in double shifts resulting in more than 100% utilization rates;

Note: Honda Cars acquired a 380 acre plot in Vithalpur, Gujarat in 2017

Source: SIAM, CRISIL Research

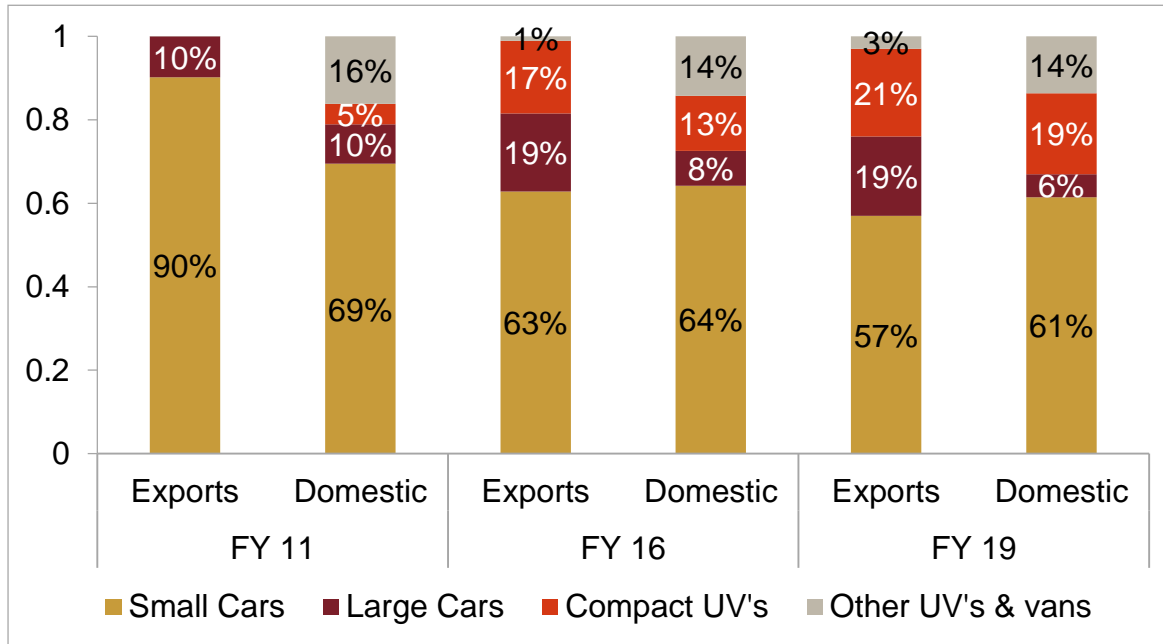
Passenger Vehicle Exports



Note: : Latest numbers available for FY 2019 on DGFT
Source: DGFT, CRISIL Research

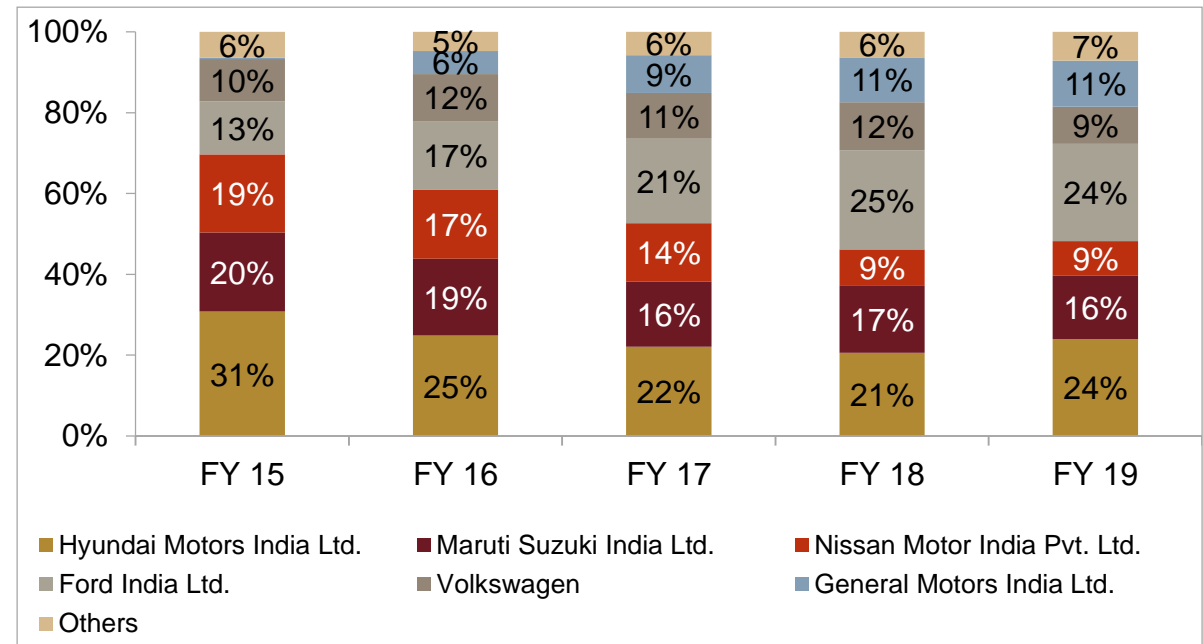
Global firms focused on exports while Maruti, Hyundai eyeing domestic market

Share Of Compact UV's in exports on the rise



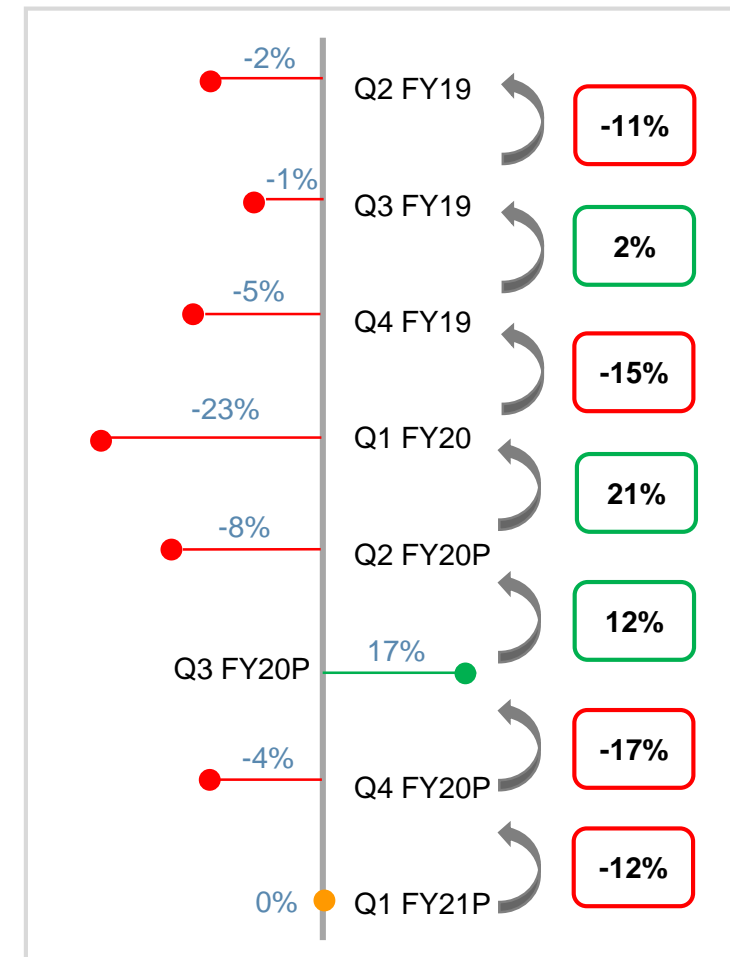
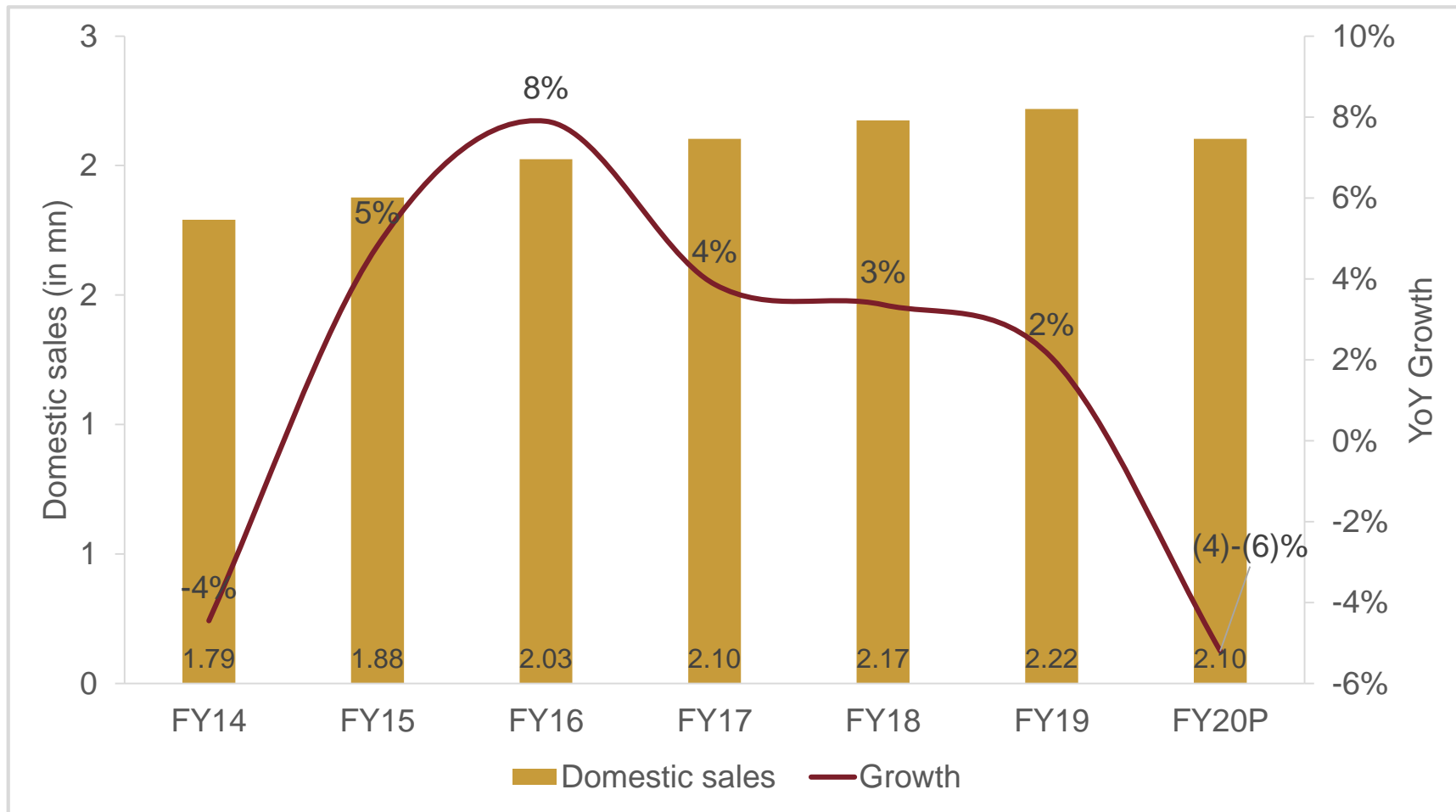
Source: SIAM, CRISIL Research

Hyundai market leader in fiscal 19, Volkswagen close second



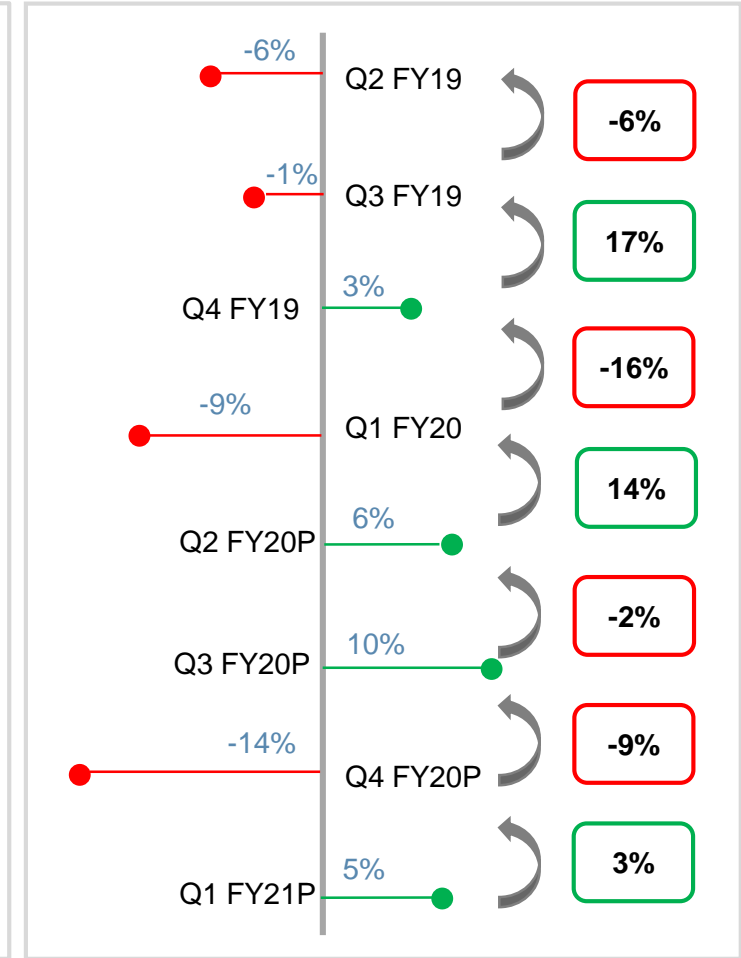
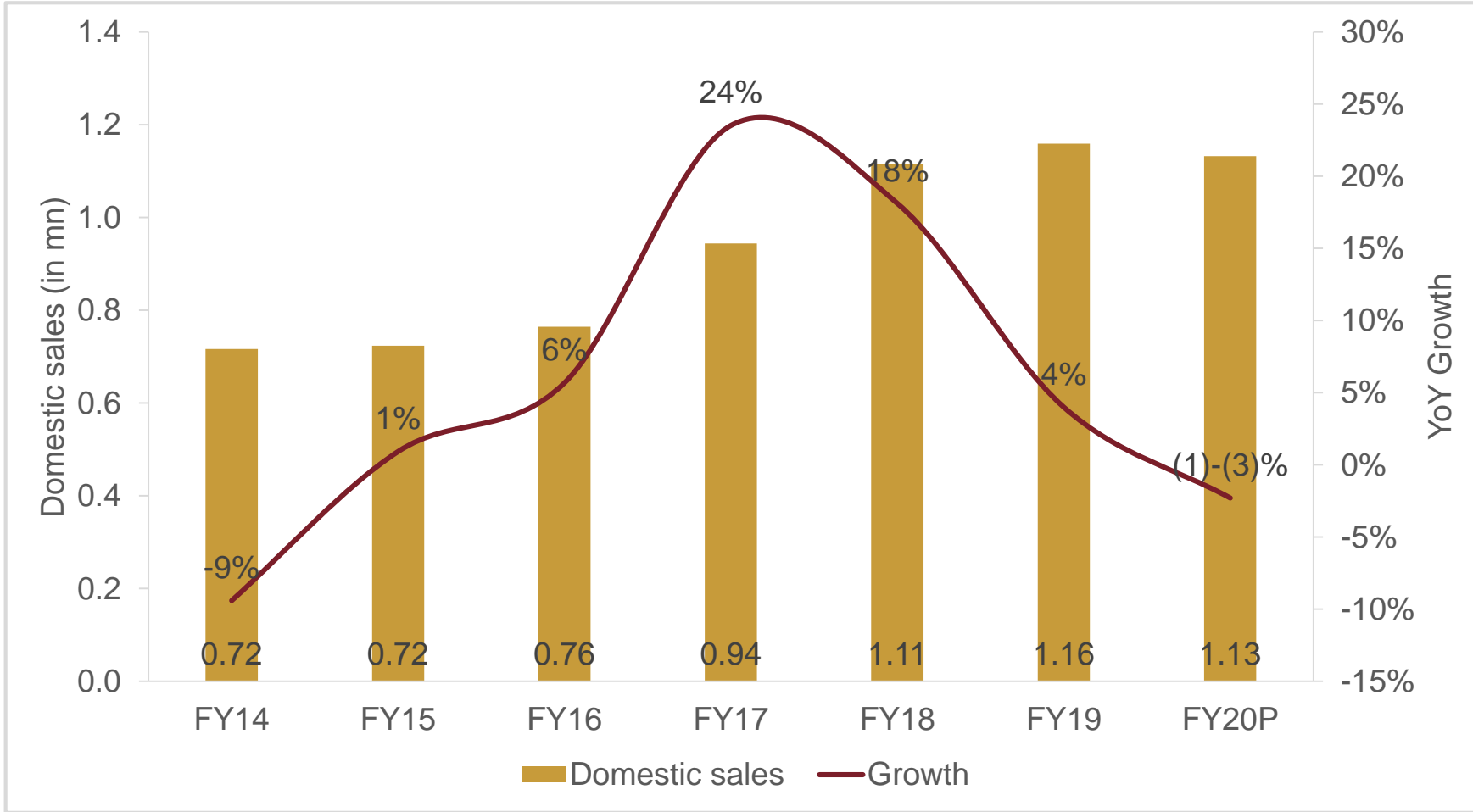
Source: SIAM, CRISIL Research

Domestic sales - Cars



- Car segment is expected to witness a de-growth in fiscal 2020 owing to slowdown in private consumption and lower consumer sentiments.
- Passenger car industry is expected to shrink due to correction of higher current inventory level and de-stocking of BS IV stocks before Apr 1st, 2020.

Domestic sales – UVs and vans



• We expect Uvs and vans market to fall at an extend expected of cars segment. Since, vans being used for commercial segment is expected to see higher pre-buying compared to car segment.



Two-Wheelers

Near term drivers not in favour of a robust growth in FY20

Parameters	Impact		
	FY 18	FY 19	FY 20P
Demand side variables			
-- Real GDP growth	7.2%	6.8%	6.9-7.2%
-- Rural Roadways Investments (INR bn)	~173	~200	F
-- Crop Value index	N	N	N
Cost of ownership			
-- Petrol Prices	Rs 77.0/ liter	Rs 82/ liter	NF
-- Interest rates	F	NF	N
Supply side variables & financing			
-- Finance Penetration	31.4%	32.8%	33.8%
-- Regulations/Taxes	F	N	F

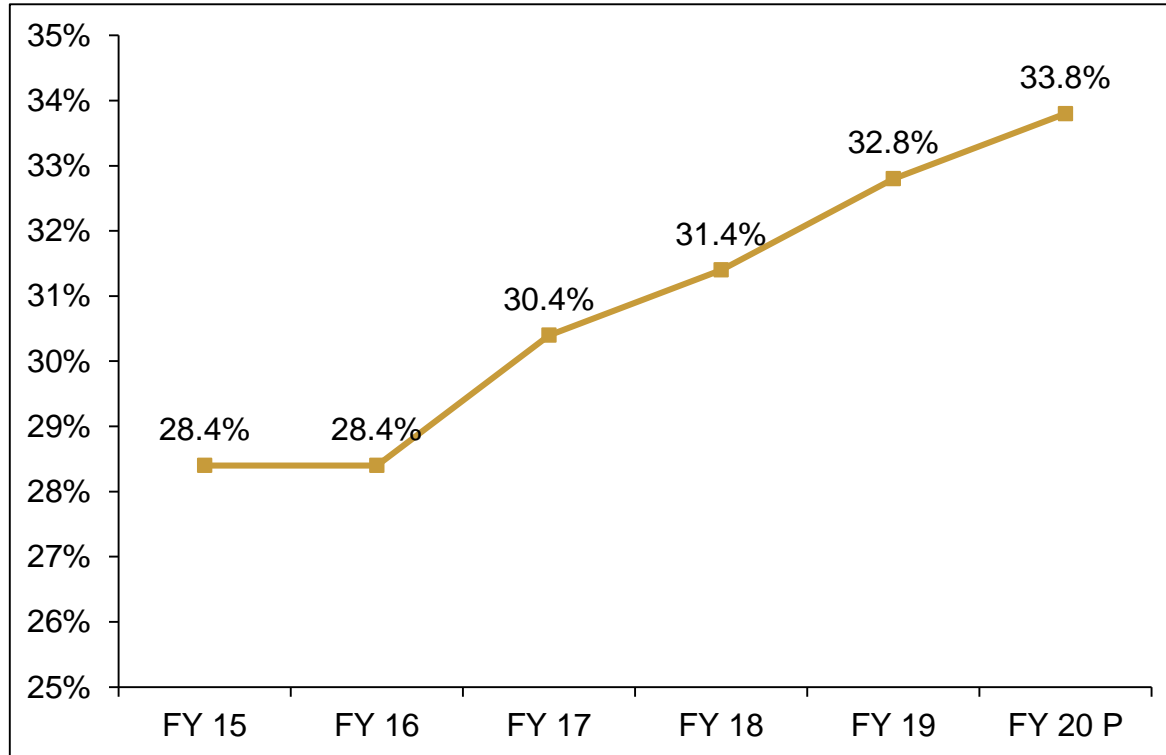
*Fiscal 2020 crop value index assumed neutral, assuming normal monsoon

NOTE : F: Favorable, N:Neutral, NF: Non-Favorable

Source: CRISIL Research

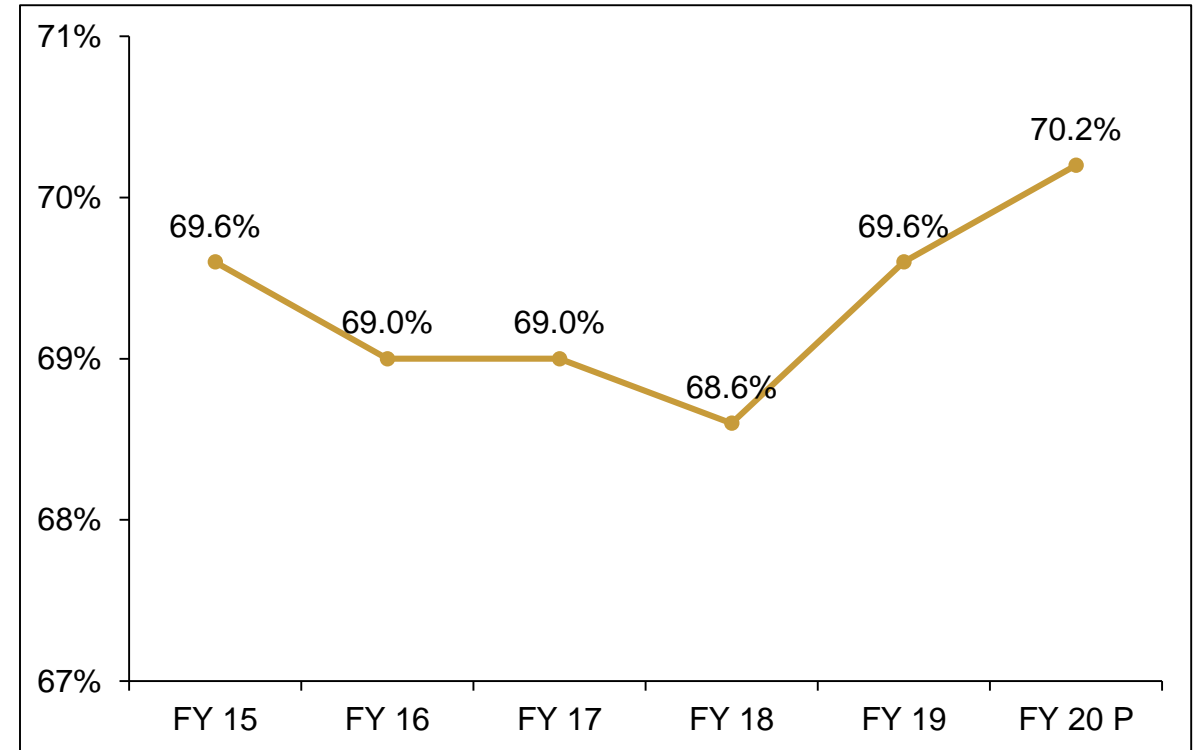
Increasing penetration of credit bureau and competition among financiers to boost LTV ratios

Auto Finance Penetration



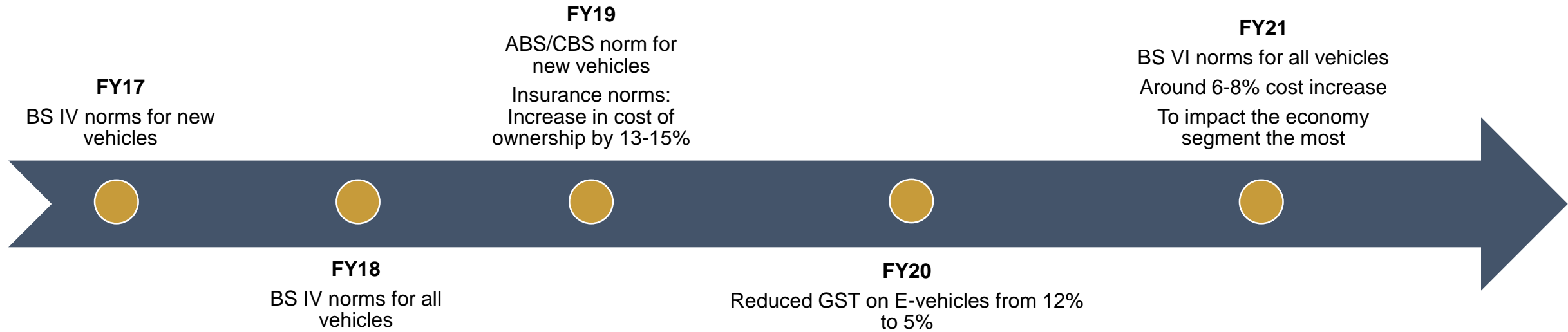
Source: Experian Credit Bureau, Company Reports, CRISIL Research

Loan-to-Value



Source: CRISIL Research

Regulations timeline and price impact

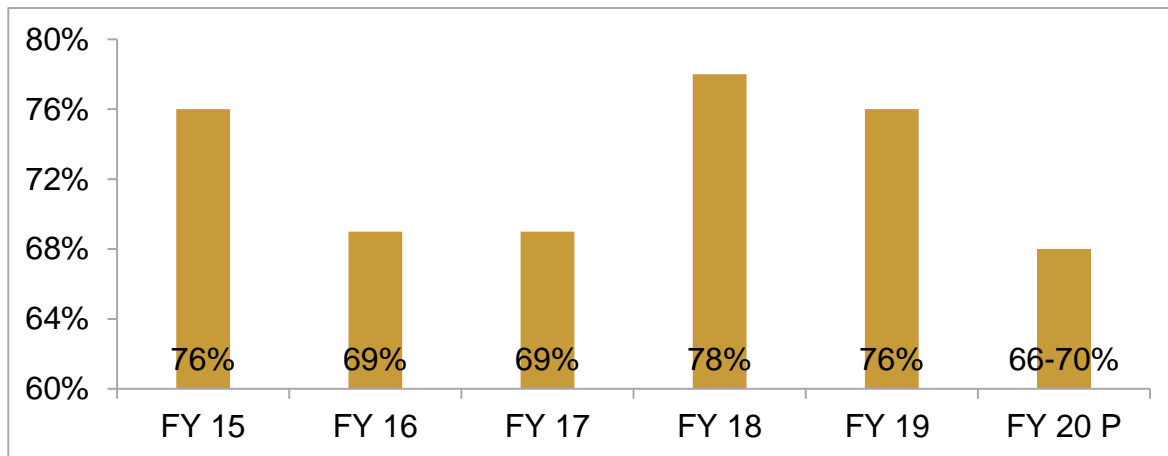


Segments	% increase in cost due to BS VI	Pre-buying expected
Motorcycle		
Economy	7%	Medium
Executive	6%	Medium
Premium	7%	Low
Scooter	8%	Medium
Mopeds	10%	Medium

Source: CRISIL Research

Utilisation rates to rise in fiscal 2020

Utilization rates to drop further in fiscal 20



Source: CRISIL Research

Expected capacity additions

Player	Location	Capacity Mns units	Investment	Commissioning
Hero Motocorp	Chittor	0.5	Rs 6.5 billion	Oct 19
Hero Motocorp	Chittor	0.5	Rs. 9.5 billion	Dec 20
Hero Motocorp	Chittor	0.8		Dec 23
Royal Enfield	Vallam Vadagal	0.125	Rs 8 billion	H2 FY 20
Royal Enfield	Vallam Vadagal	0.3	Rs 7 billion*	-

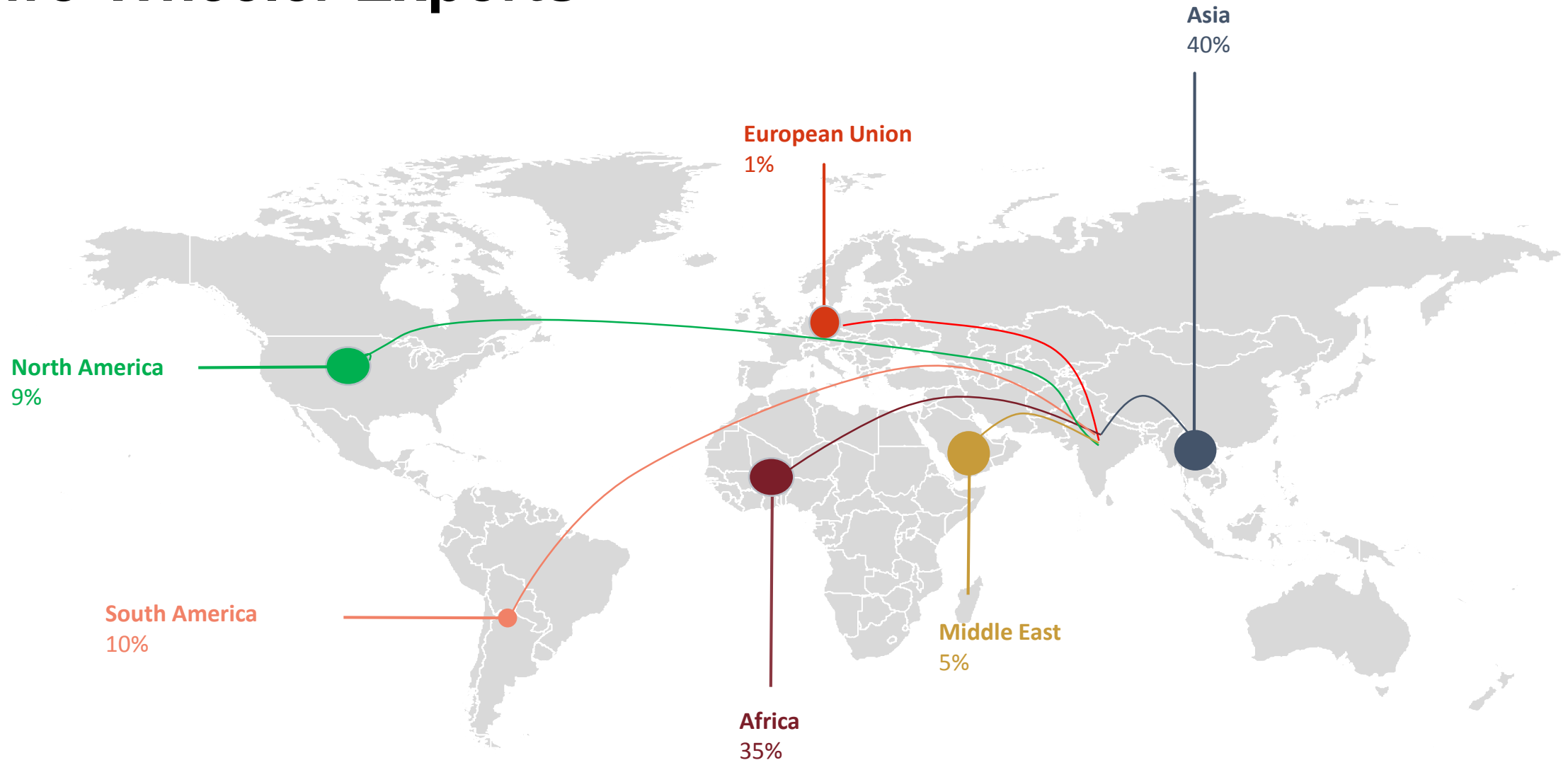
* Phase-II hence overall cost is low as compare to Phase I

Utilization rates declined in fiscal 19

Player	Effective Capacity estimate in mn (as on 31st Mar 2019)	Production (2018-19) (in mn)	Capacity utilization (%)
Hero Motocorp	11.0	7.83	71%
Bajaj Auto	5.4	4.23	78%
HMSI	6.4	5.9	92%
TVS Motor Company	3.9	3.7	95%
India Yamaha Motors	1.6	1.1	69%
Suzuki Motors	1.1	0.7	64%
Royal Enfield	0.95	0.84	88%
Piaggio Vehicles	0.3	0.09	30%
Other Players	1.55	0.01	0.6%
Industry Total	32.2	24.4	76%

Note : Capacity utilization estimates of Bajaj Auto and TVS Motor Co Ltd exclude three-wheelers
Source: CRISIL Research

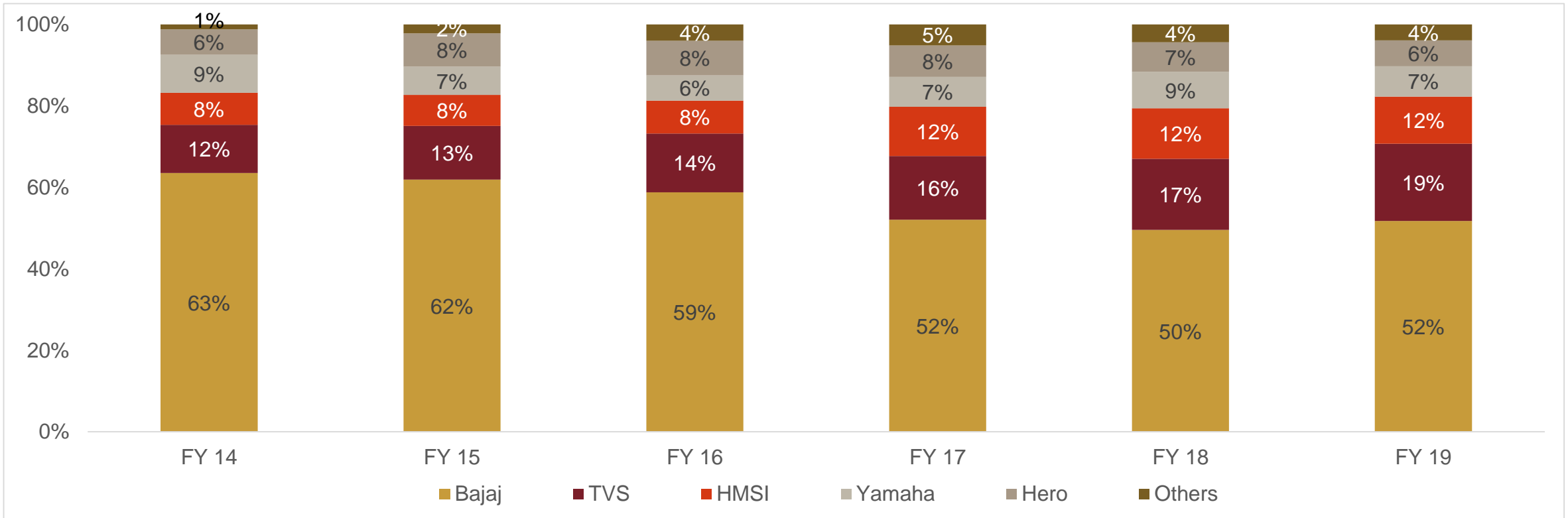
Two-Wheeler Exports



Note: : Latest numbers available for FY 2019 on DGFT
Source: DGFT, CRISIL Research

HMSI / TVS expand their share, but Bajaj maintains its clear lead

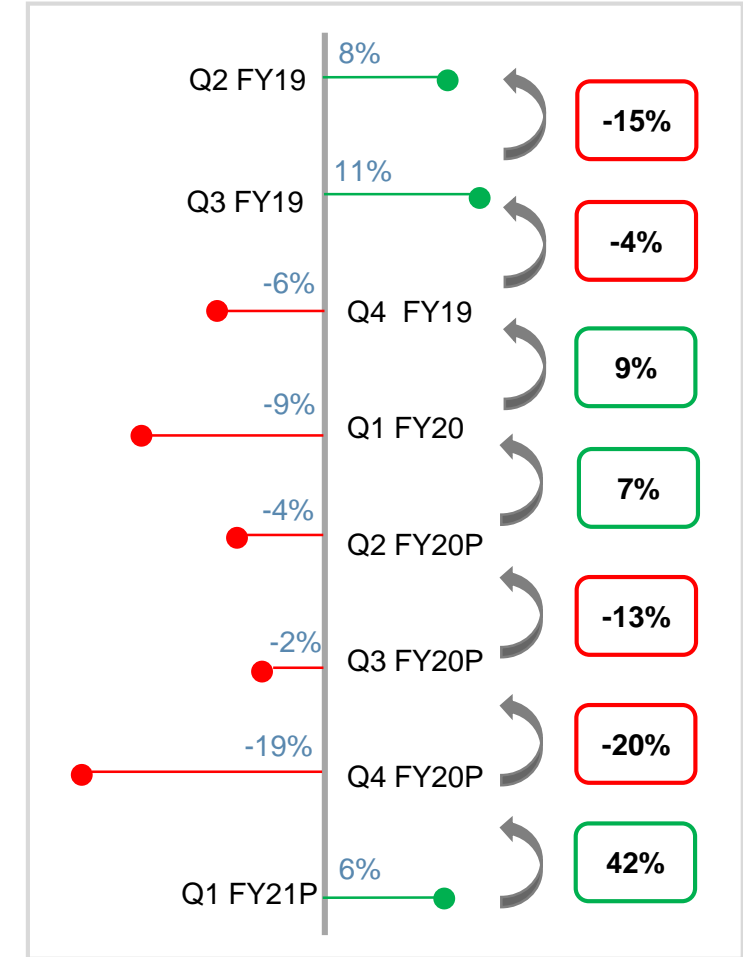
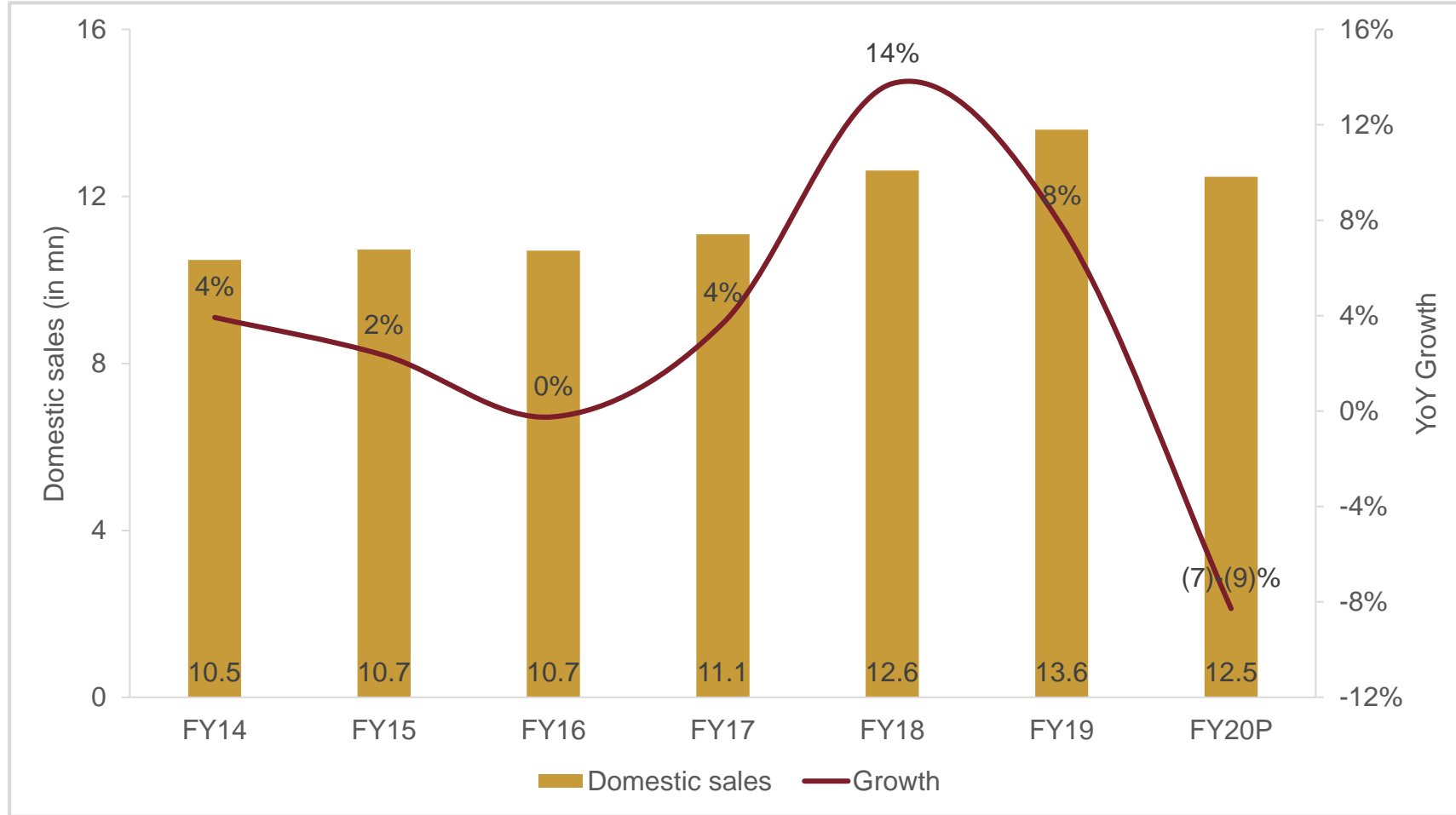
Bajaj dominates the export segment



Note: Others include Suzuki, Royal Enfield, Mahindra, Piaggio, Harley Davidson etc

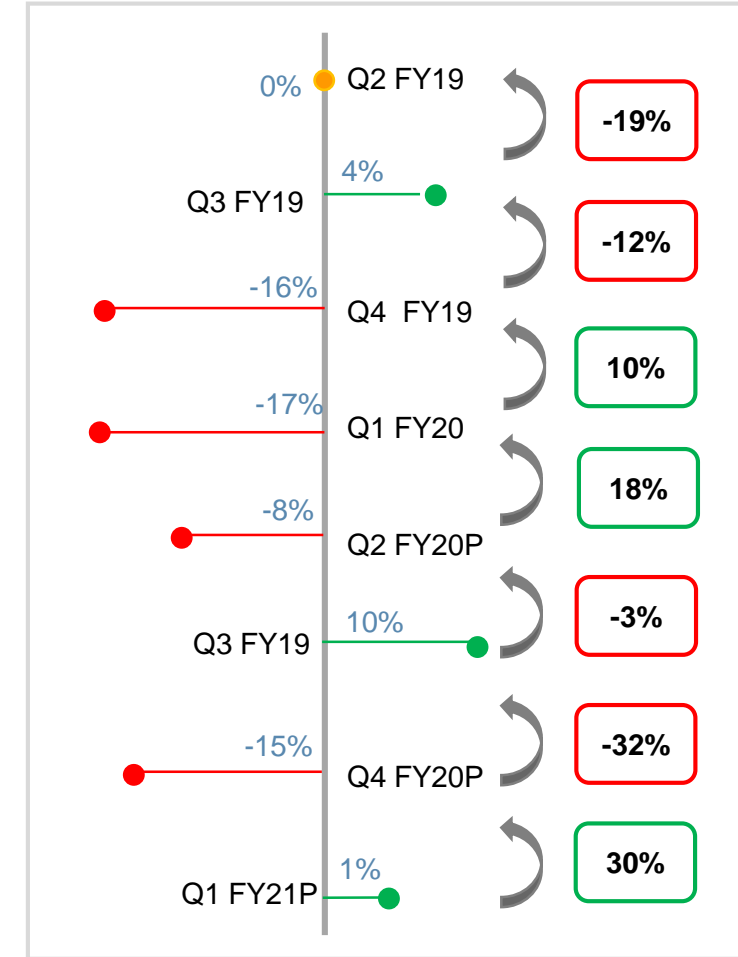
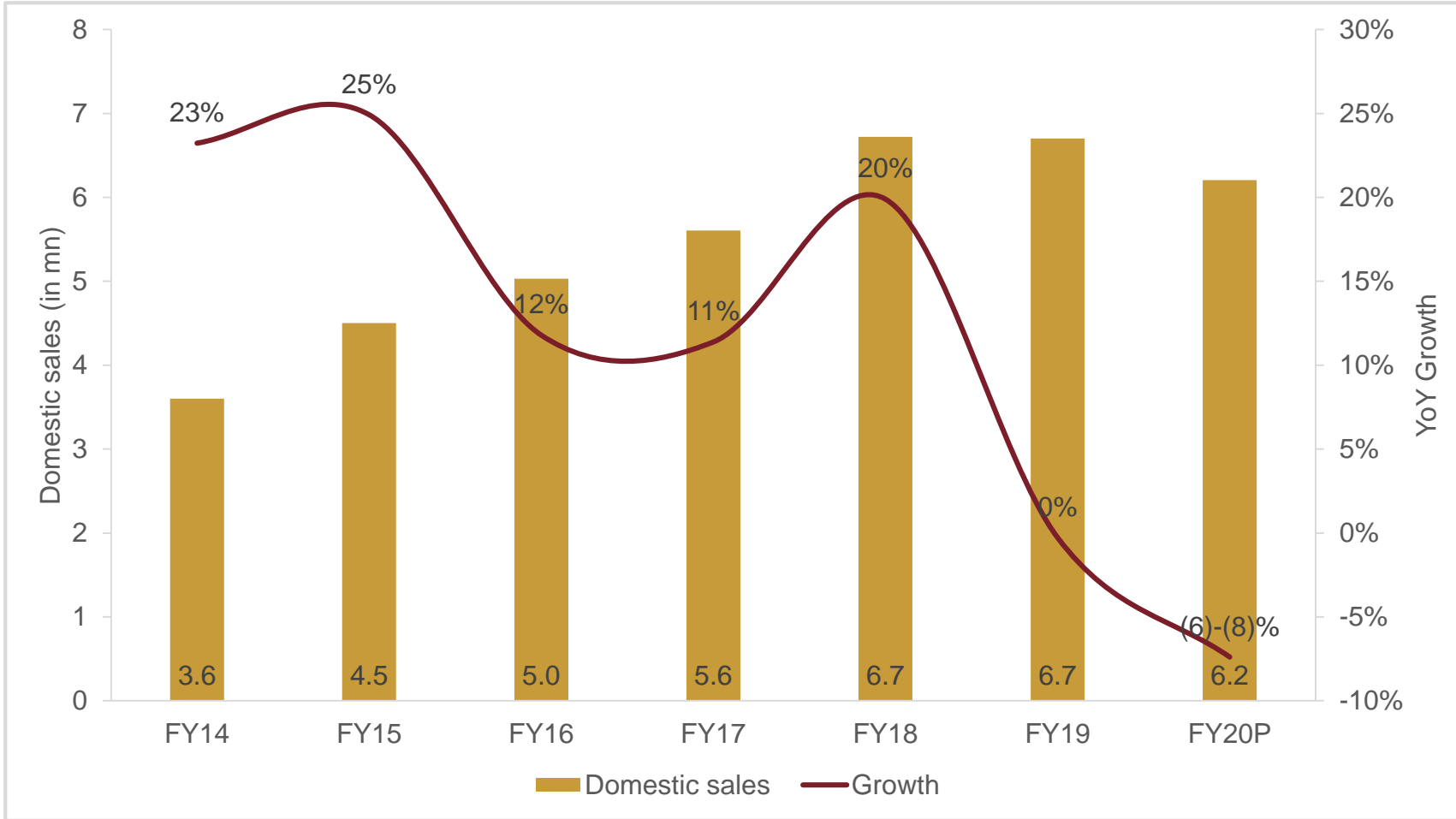
Source: SIAM, CRISIL Research

Domestic sales - Motorcycles



- Fiscal 2019 recorded a growth of 8% despite higher insurance cost, liquidity constraints and fuel price hike.
- In fiscal 2020, we expect motorcycles to degrow by 7-9% due to year starting with the higher inventory levels and lower quantum of pre-buying expected.

Domestic sales - Scooters

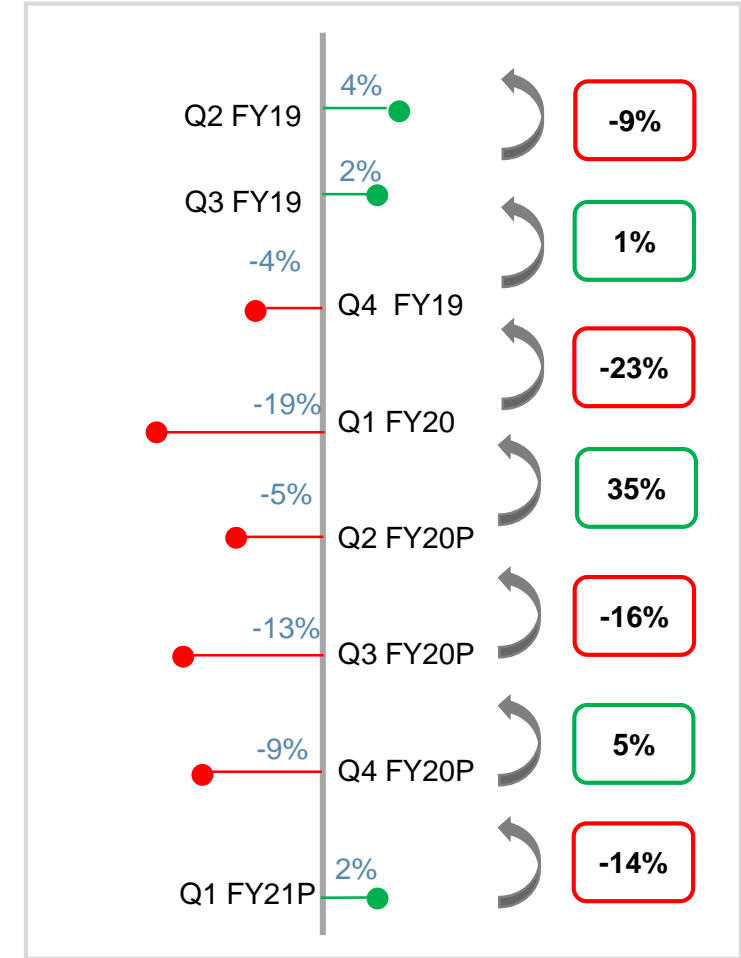
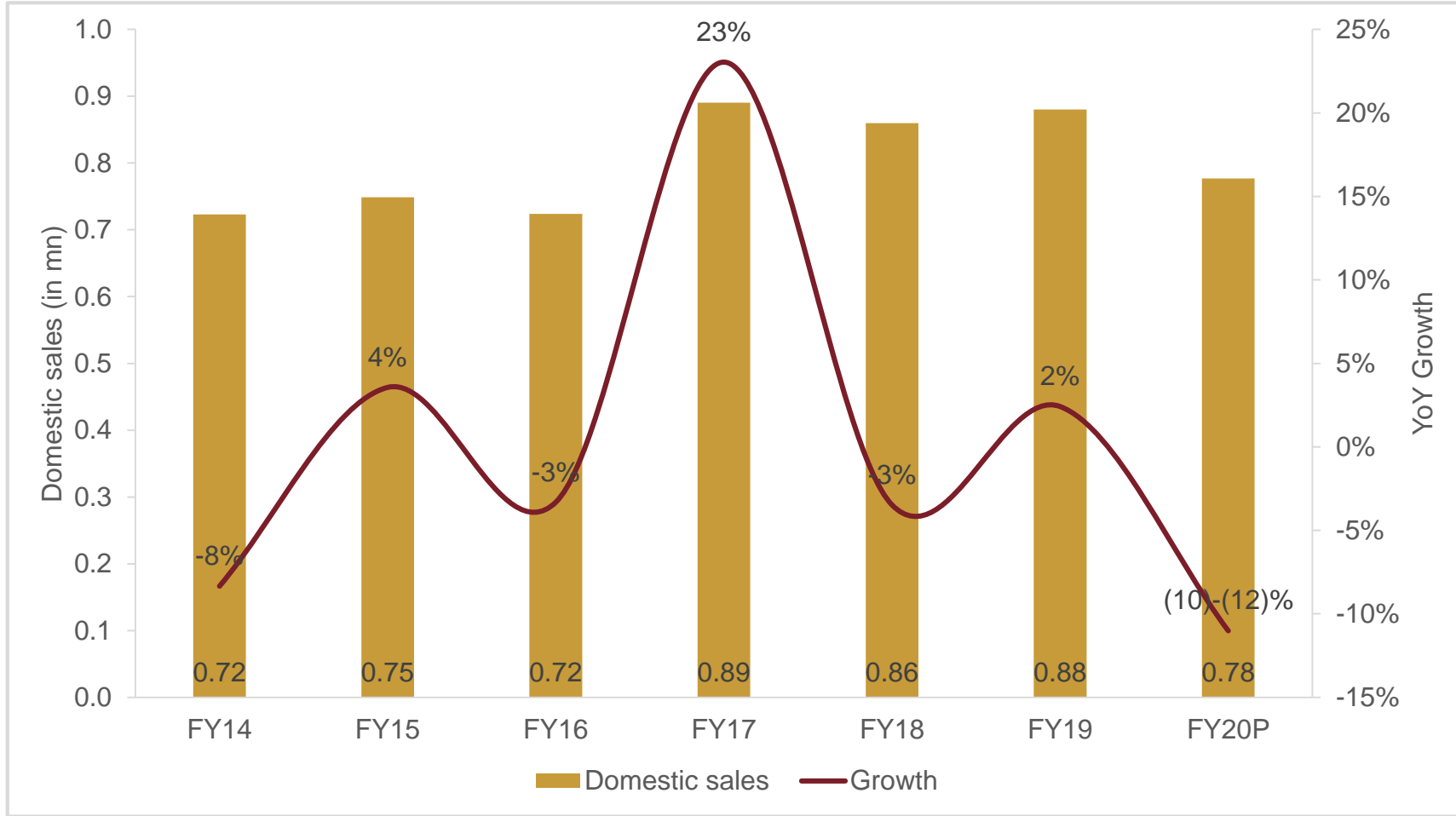


- Scooters registered a degrowth in fiscal 2019 by 0.27% mainly due to lower consumer sentiments in urban areas.
- Q1 of fiscal 2020 saw a degrowth of 23% mainly due to production cuts by OEMs.
- We expect scooter segment to degrow in fiscal 2020 due to inventory correction and BS IV stock liquidation and not much pre-buying sale expected.

Research

Source: SIAM, CRISIL Research

Domestic sales - Mopeds



- Mopeds expected to de-grow in the range of 10-12% on account of lower rural sentiments.



Commercial Vehicles

Freight demand looks negative in FY20

Variables (common factors across Commercial vehicles)	FY 18	FY 19	FY 20P
Diesel prices	Rs 61.7/ liter	Rs 72/ liter	NF
Regulatory (BSIV to BSVI)	N	N	F
Availability and cost of finance	F	NF	N

Variables LCV	FY 18	FY 19	FY 20P
Freight demand (LCV) – PFCE	N	F	NF
Replacement demand (LCV)	F	F	N
Overall demand (LCVs)	F	F	F

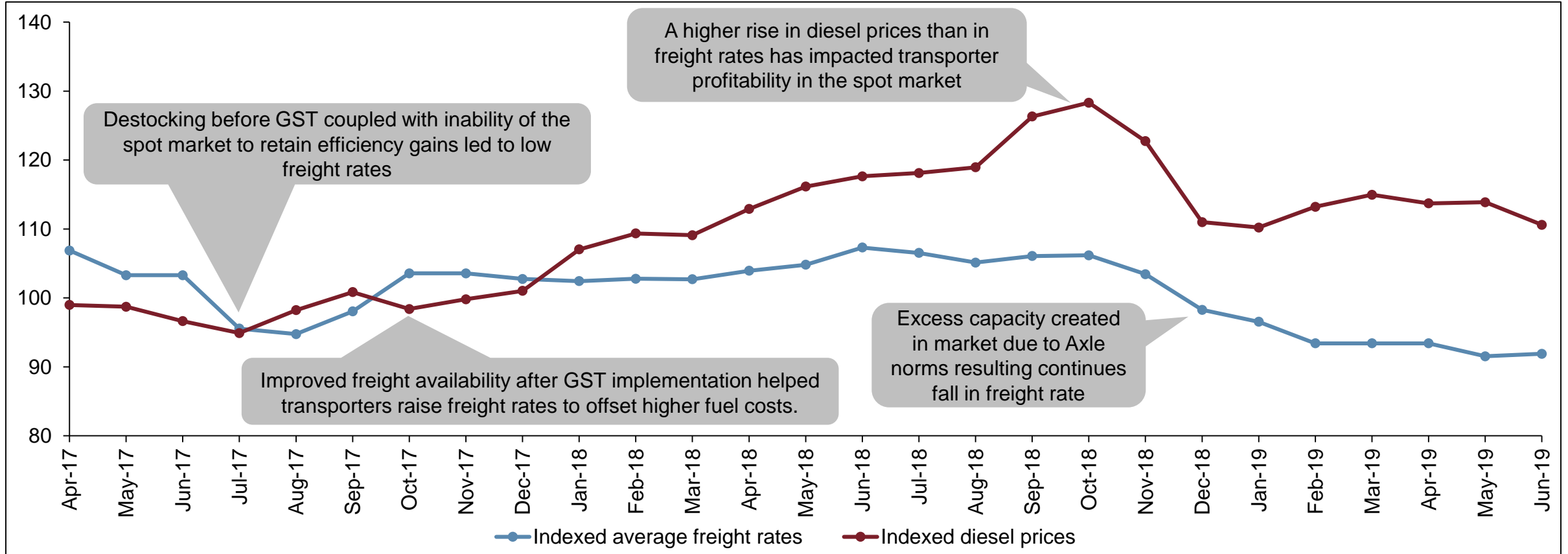
Variables MHCV	FY 18	FY 19	FY 20P
Freight demand	N	F	NF
Industrial GDP	N	F	F
Replacement demand	F	N	N
NHAI Road Execution	F	F	F
Impact of Axle load norms	----	NF	N
Overall demand	F	F	F

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

Source: CRISIL Research

Freight rates on an downward trend due to falling diesel price

Freight rates Vs Diesel rates



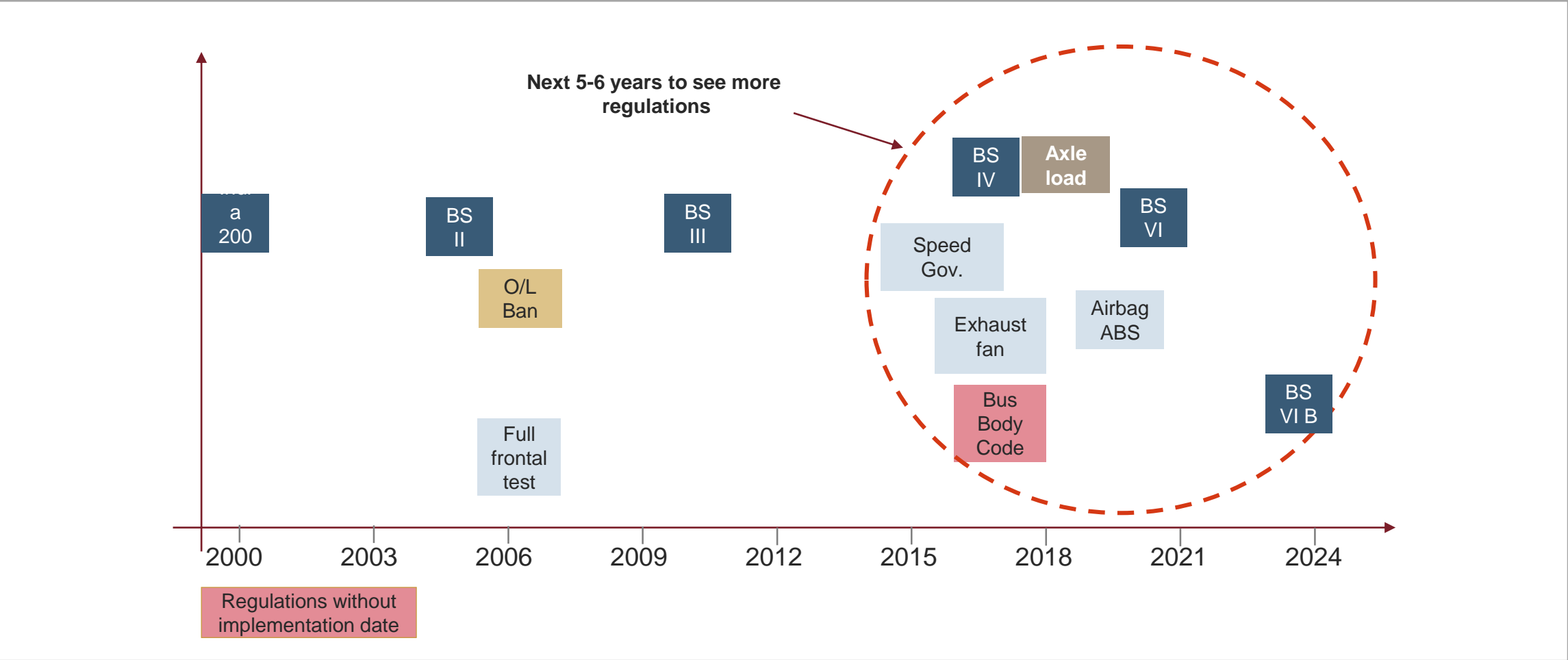
Note: Freight rate indexed by considering base 100 as on April-14
 The estimated freight rate data is a representative of average freight rates from Delhi to 24 locations across India for a 9T payload truck
 Source: CRISIL Research

Overview of end-use segments - Cargo

Segments (% Growth Y-o-Y)	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20P
Coal (Production)	2	9	5	3	3	7.0	6-8
Iron ore (Production)	12.1	(15.4)	20.9	23.1	9.4	2.9	5-7
Steel (Consumption)	0.8	3.9	5.8	3.1	8.0	4.9	5-6
Cement (Consumption)	3.4	4.9	4.7	1.9	9.1	13.3	5.5-7.5
Roads (Construction)	(34.4)	(3.2)	40.1	19	17.0	20.7	0-2
Consumer durables (Consumption)	2	8.8	6.6	6.6	6.7	7	5-6
E-commerce	46	71	68	22	35	35-37	34-36

Source: CRISIL Research

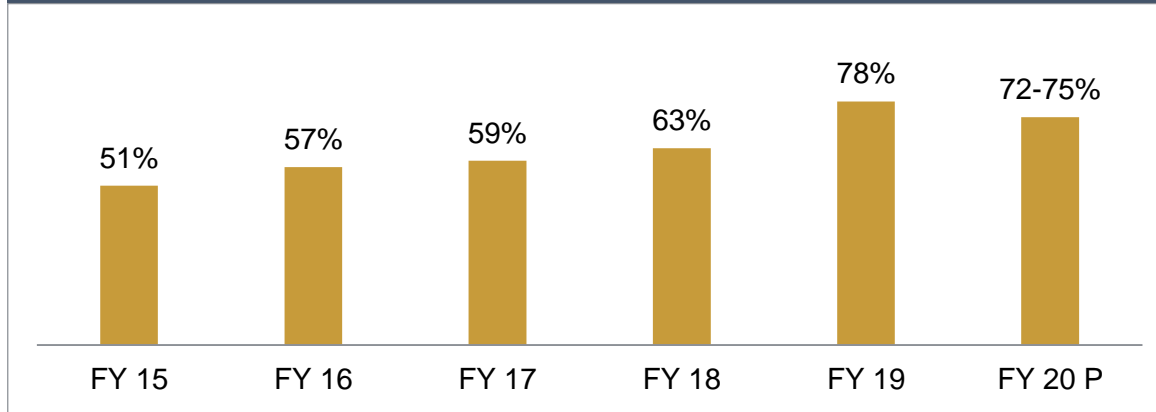
Regulations shaping commercial vehicle industry in India



Source: CRISIL Research

Higher capacity utilization to help improve margins

Utilization levels to drop in fiscal 20



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

Source: CRISIL Research

Capacity additions

Player	Location	Capacity '000 units	Investment	Status
Ashok Leyland Ltd.	Medak, Telangana	20	Rs 5 billion	Planning
Ashok Leyland Ltd.	Krishna, AP	4.8	Rs 1.7 billion	Under implementation
VECV Ltd.	Bhopal, MP	40	Rs 4 billion	Planning
Volvo Buses India Pvt. Ltd.	Bengaluru, Karnataka	1.5	Rs 3 billion	Planning
Sino Truck	Medak, Telangana	1.45	Rs 1 billion	Planning

Source: Industry, CRISIL Research

Player-wise capacity utilisation

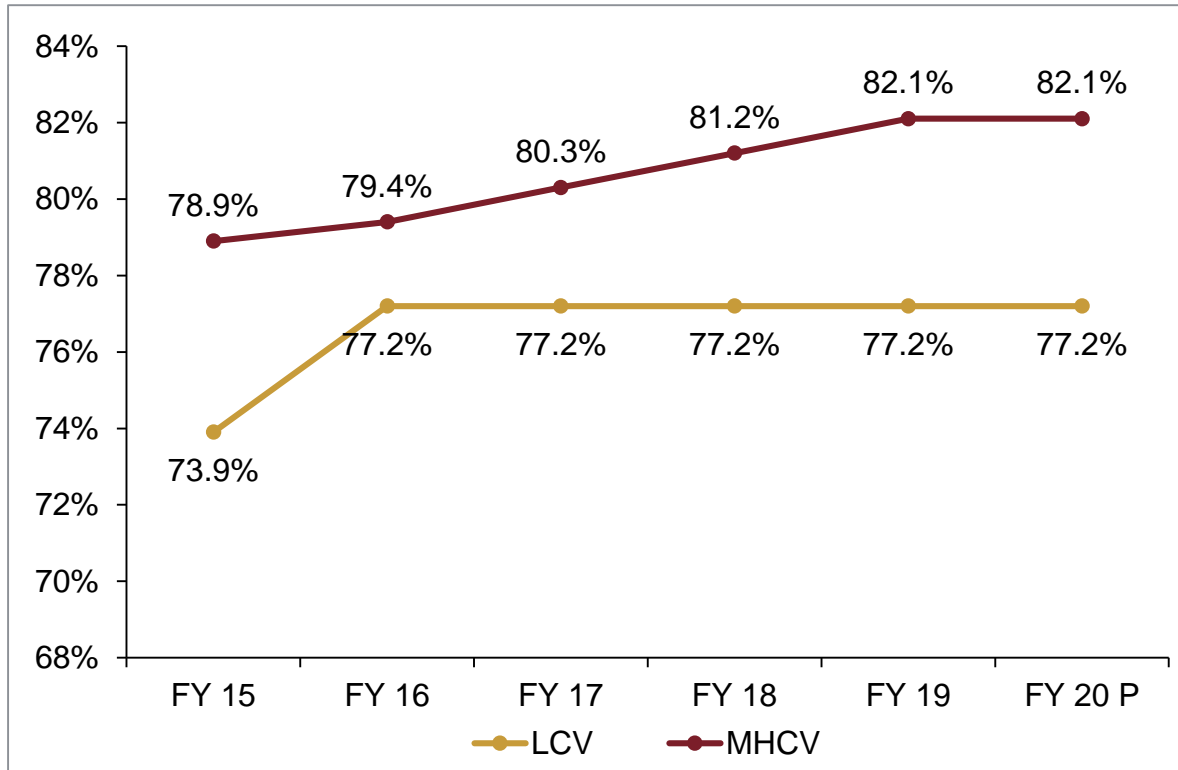
Player	Effective Capacity estimate (as on 31st Mar 2019)	Capacity utilization
Ashok Leyland	186500	89%
Eicher Motors	93000	94%
Tata Motors	762000	49%
Mahindra & Mahindra	292000	80%

Source: Crisil Research

- Higher sales amid marginally higher capacity additions is expected to aid capacity utilization levels, driving margins in fiscal 2020.
- The capacity utilisation of the top four players - Tata Motors (standalone), Ashok Leyland, Eicher, and Mahindra & Mahindra - which was at ~63% in fiscal 2018, is projected to rise to ~78% in fiscal 2019 and rise further to ~82% in fiscal 2020.
- OEMs have already incurred capital expenditure for BS VI transition and with an expectation of lowering of demand sentiments from fiscal 2021 (owing to increase in price of vehicles) OEMs are expected to go slow for any capacity expansion, despite high capacity utilization levels. However, smaller OEMs might still add capacity in the short term

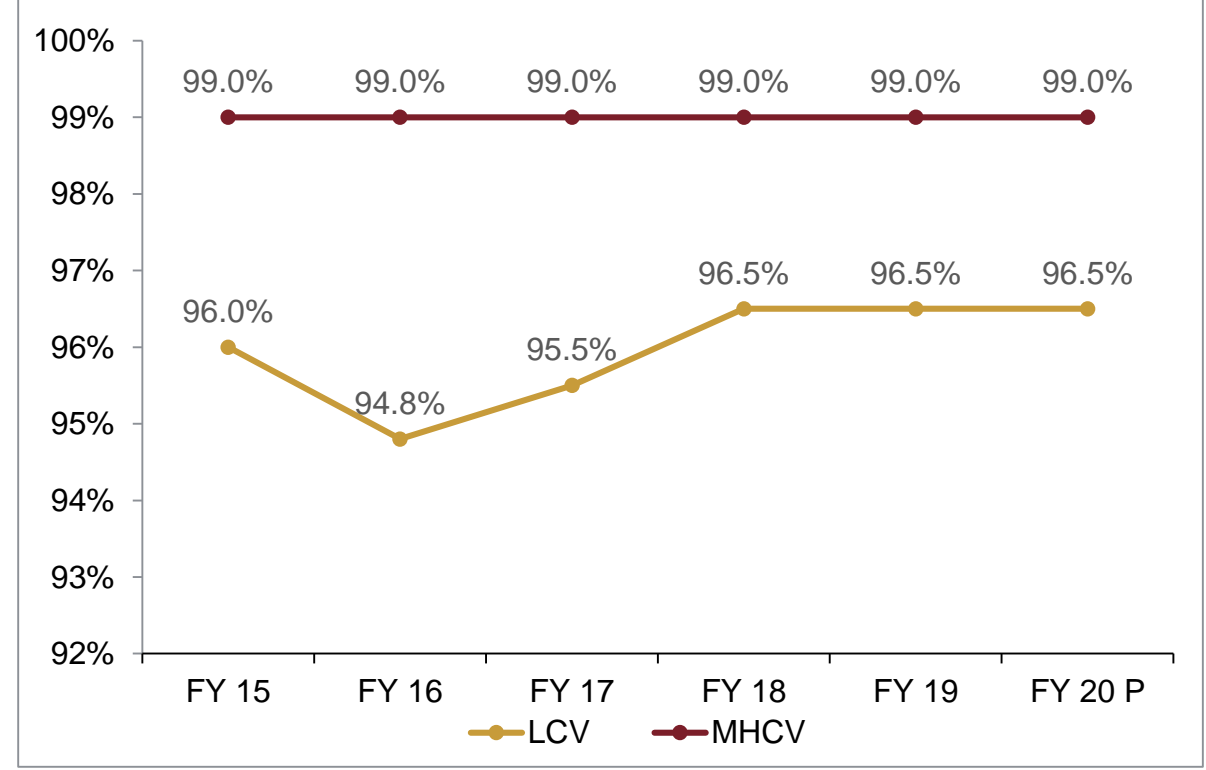
CV finance industry hits road to recovery, to show robust growth in medium term

Loan-to-Value for CV



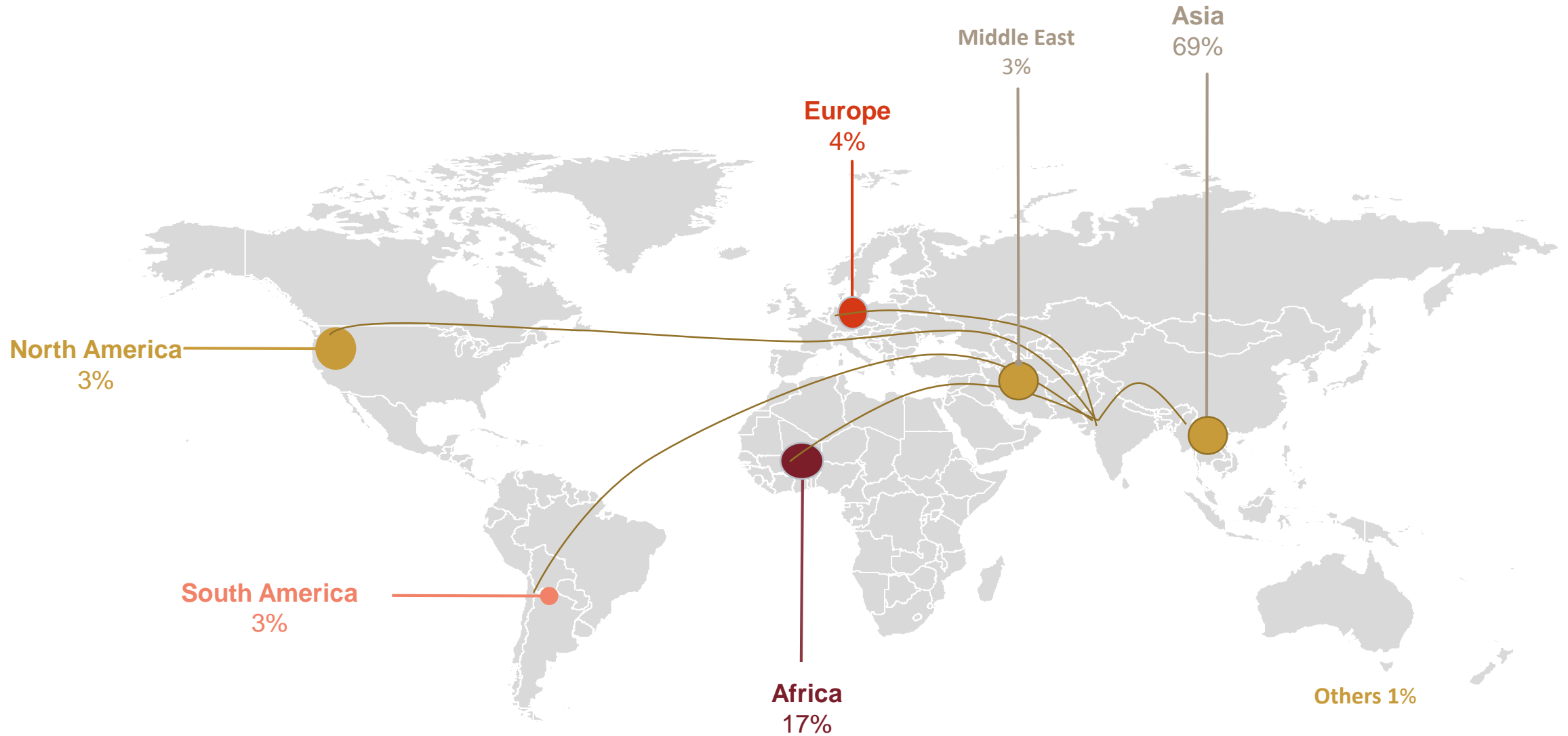
Source: Crisil Research

CV Finance Penetration



Source: Crisil Research

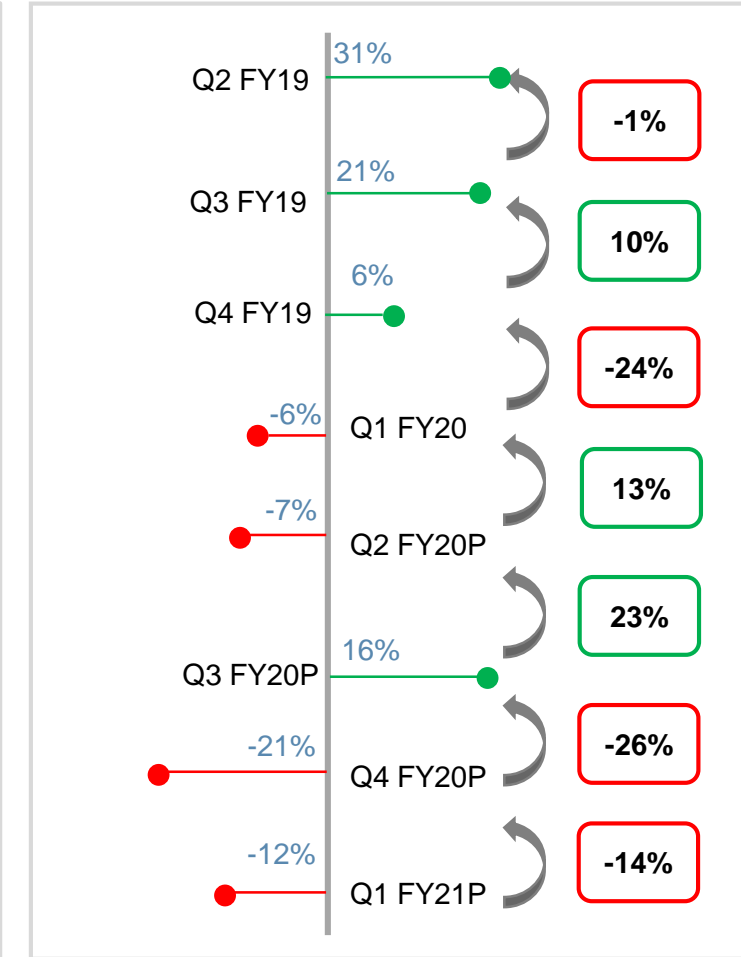
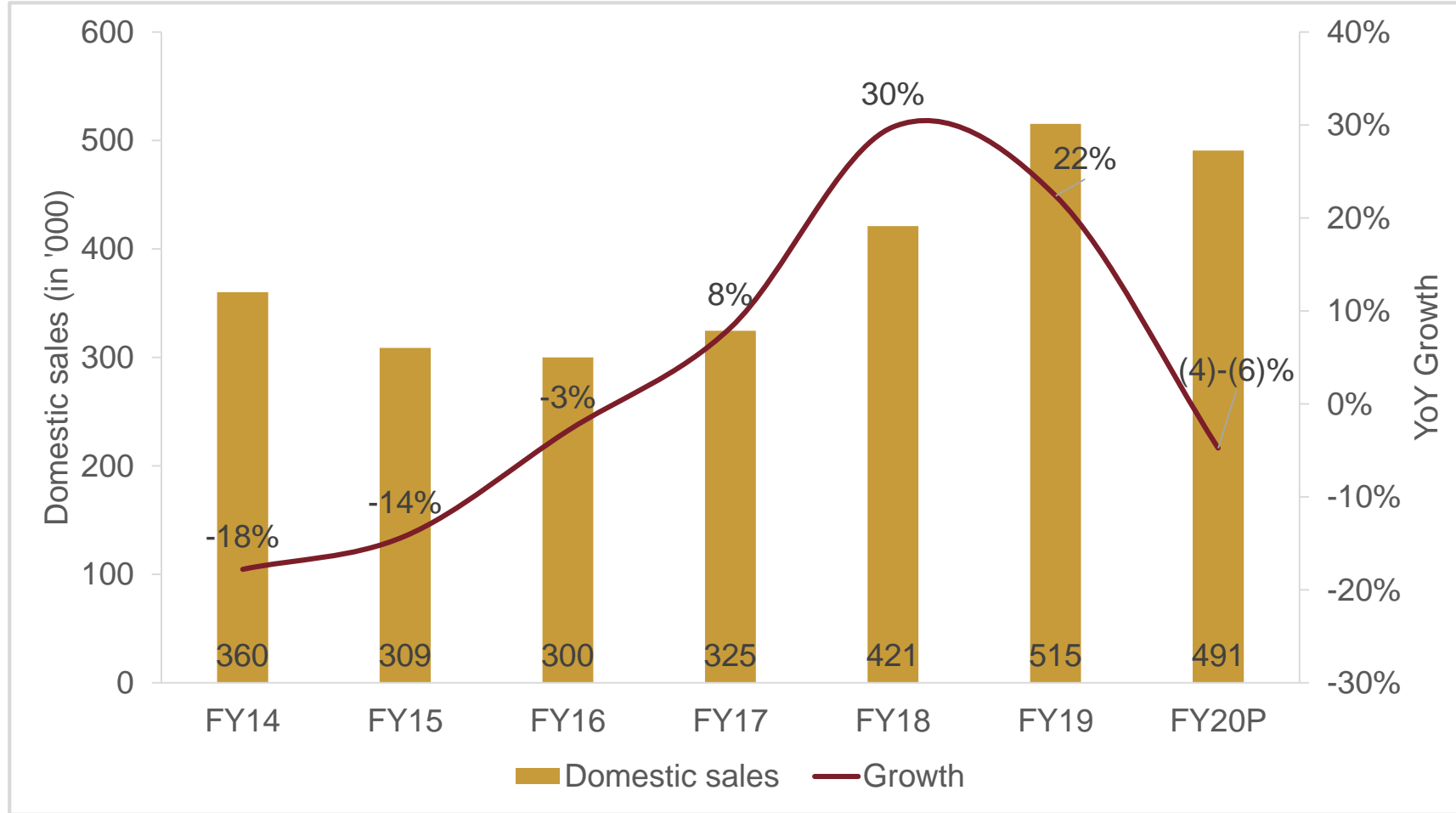
Commercial vehicles exports



NOTE: Latest numbers available for FY 2019 on DGFT

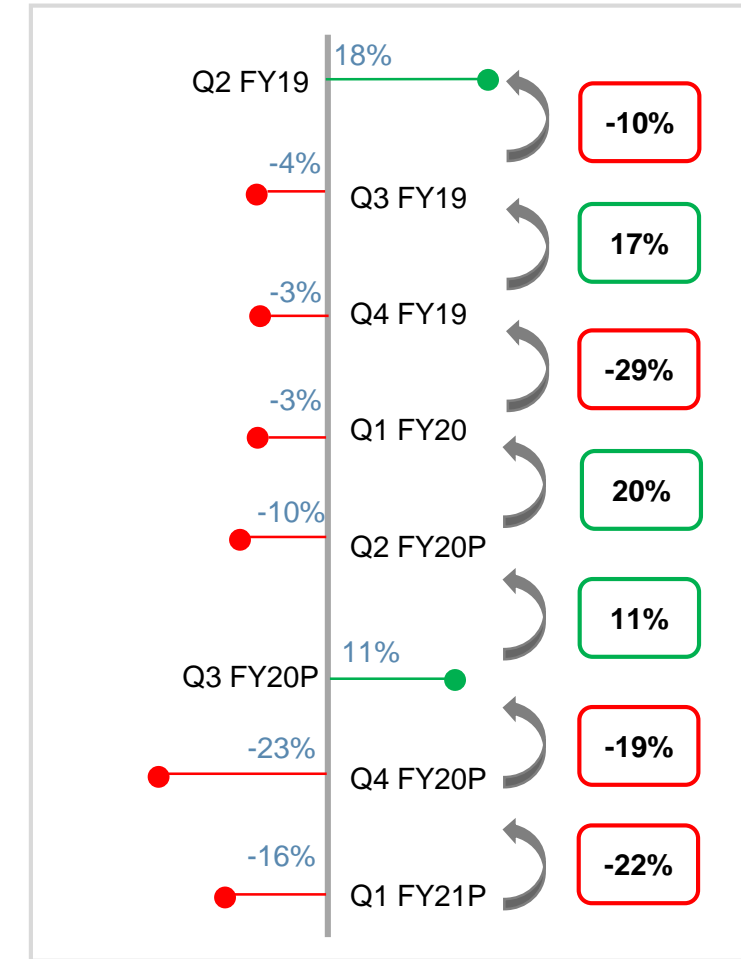
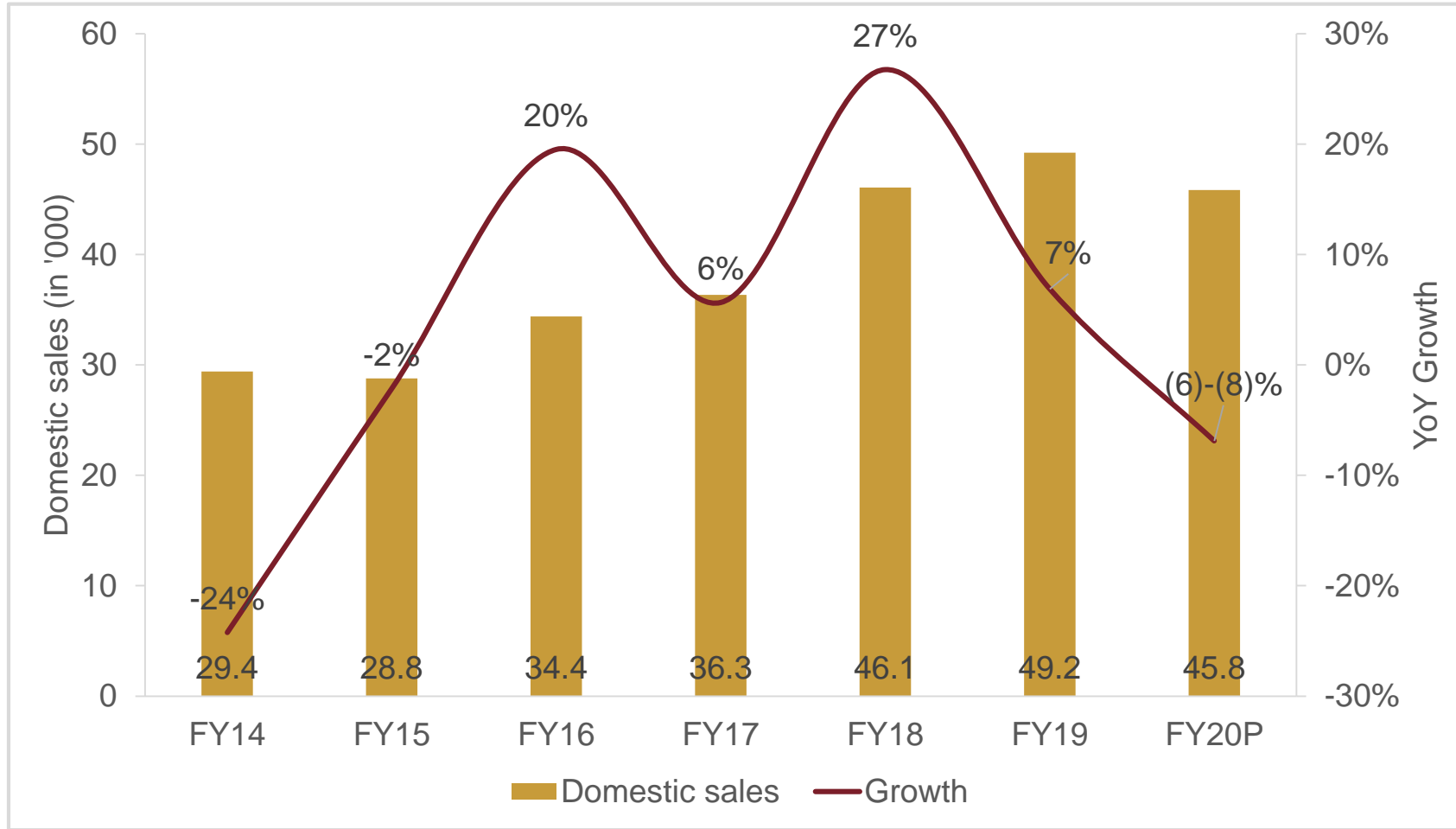
Source: Directorate General of Foreign Trade (DGFT), CRISIL Research

Domestic sales – LCV (<3.5T)



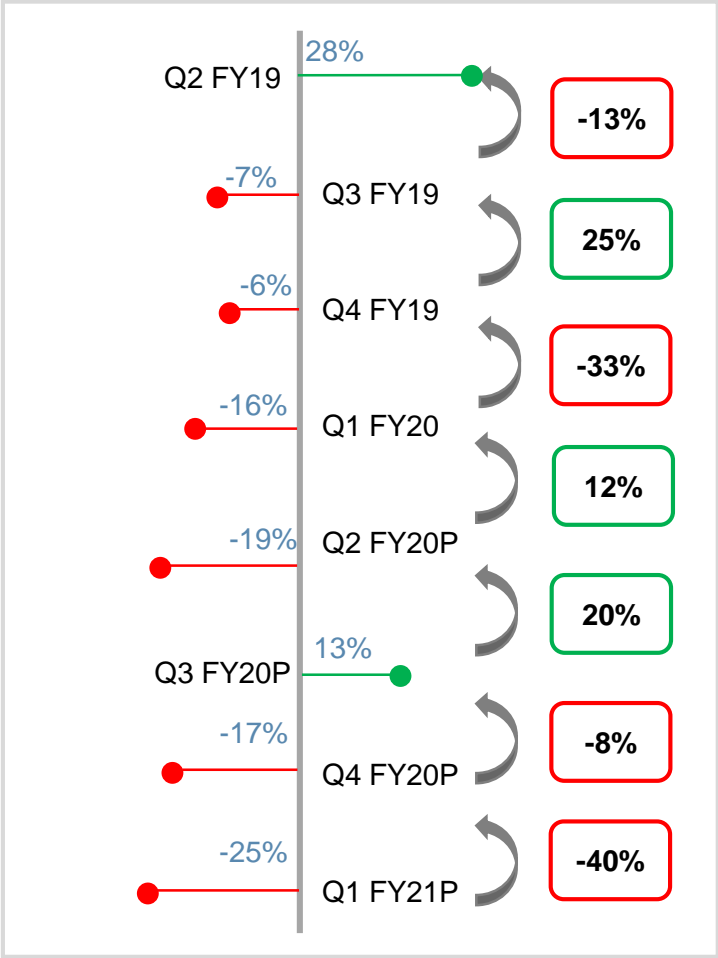
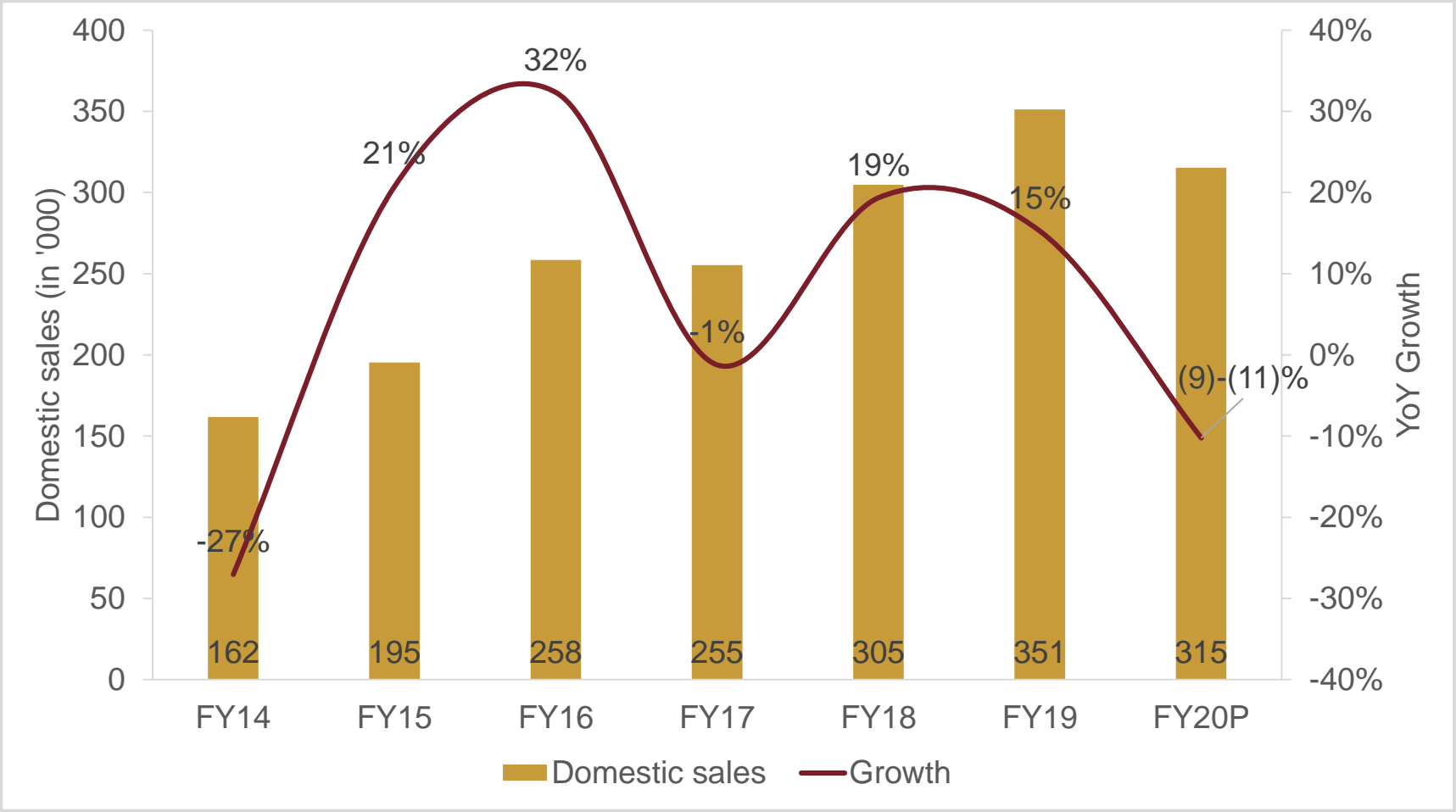
- LCV <3.5T is expected to degrow on a high base of last 3 years.
- Crop output to remain a key monitorable.

Domestic sales – LCV (3.5-7.5 T)



- Growth to decline in fiscal 2020 by 6-8% on account of lower cash available with the transporter due to lower freight availability, leading to postponement in vehicle purchase.

Domestic sales – MHCV (>7.5T)

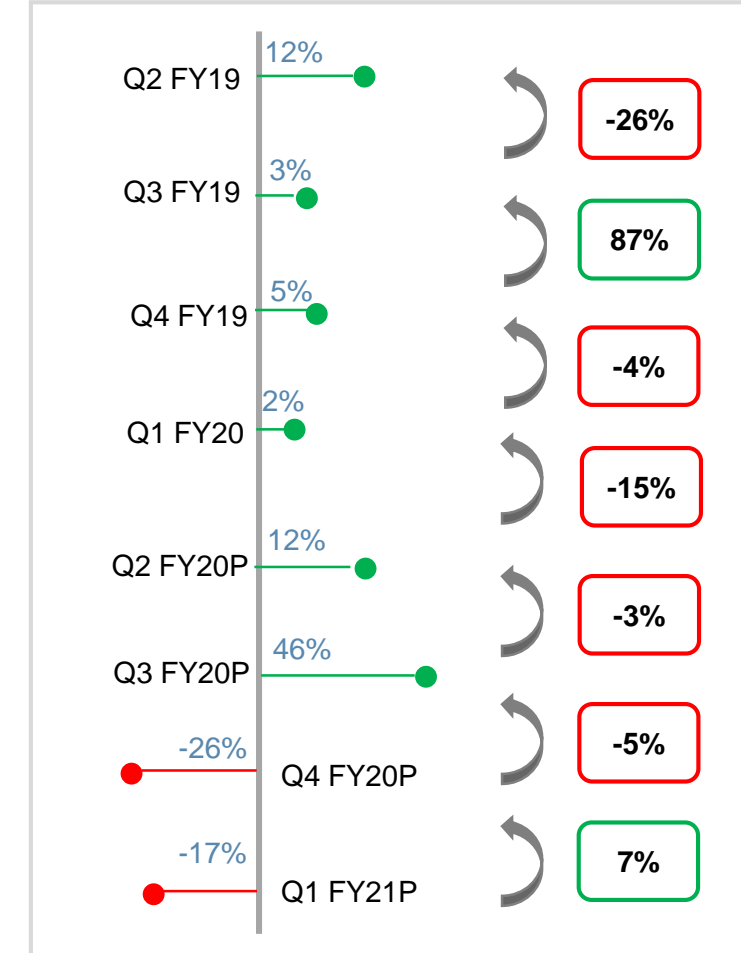
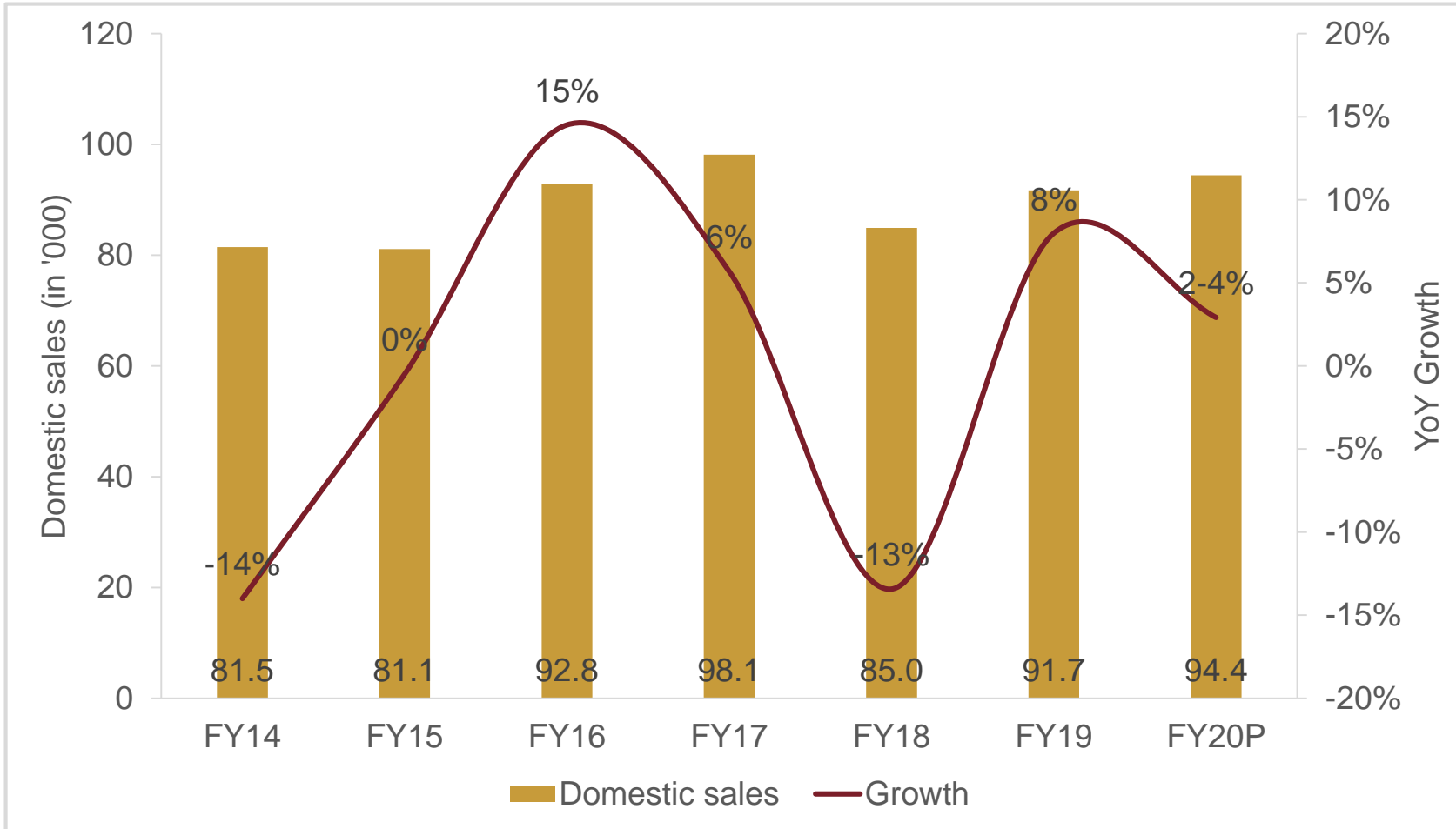


- Lower road and infrastructure activities in H1 of fiscal 2020.
- Demand to improve in H2 from bulk commodity - steel, cement, etc.
- New axle load norms led to lower demand of new trucks.

Research

Source: SIAM, CRISIL Research

Domestic sales – Buses



- Demand in F1 of fiscal 2020 to be driven by school segment. However, STU demand to see a marginal growth.
- Tourism to support growth in fiscal 2020.



Tractors

Unfavorable demand indicators to lead to degrowth in FY20

Parameters	Impact			
	FY 17	FY 18	FY 19	FY 20P
Farm Income**	F	F	F	N
-- Crop Prices	N	F	F	F
-- Crop Output	F	F	F	N
-- Kharif Output	F	N	F	NF
-- Rabi Output	N	F	F	N*
Demand Indicators	F	F	F	NF
-- Infrastructure Development	F	F	F	NF
-- Sand Mining	F	N	F	N
Supply side variables & financing	N	F	N	N
-- Finance Availability	N	F	N	N
-- Channel Inventory	N	N	N	N
-- Player Action	N	N	F	N

NOTES: ** Fiscal 2020 assumed neutral assuming deficit monsoon

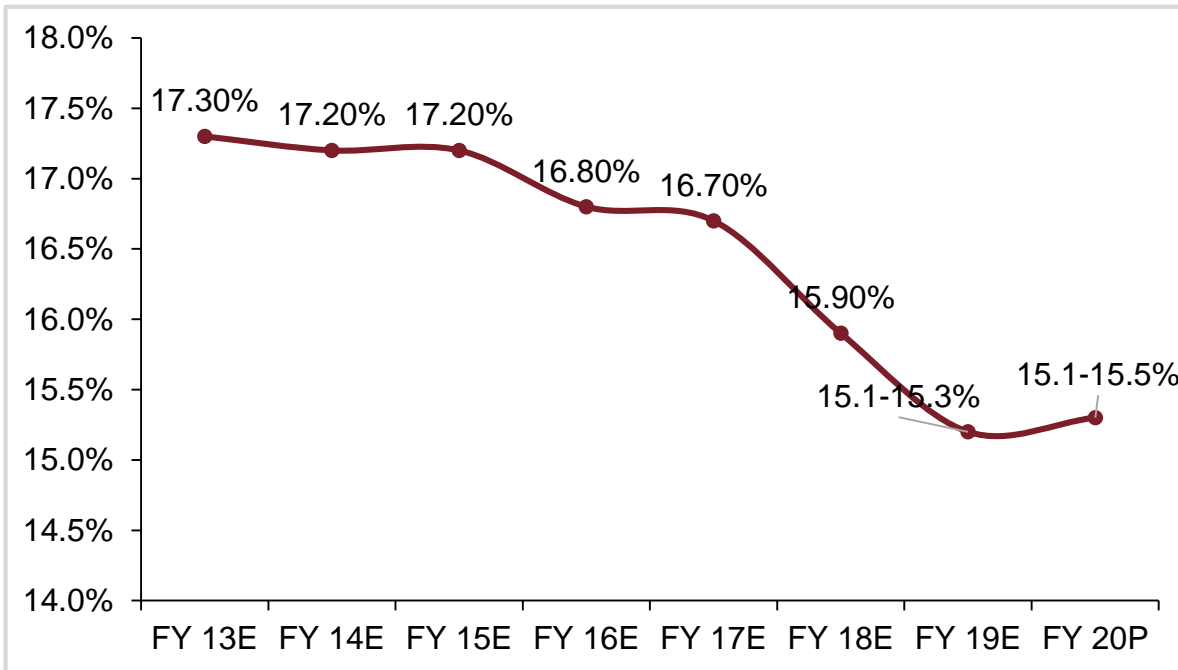
* Could become unfavorable if monsoon declines further

Source: CRISIL Research

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

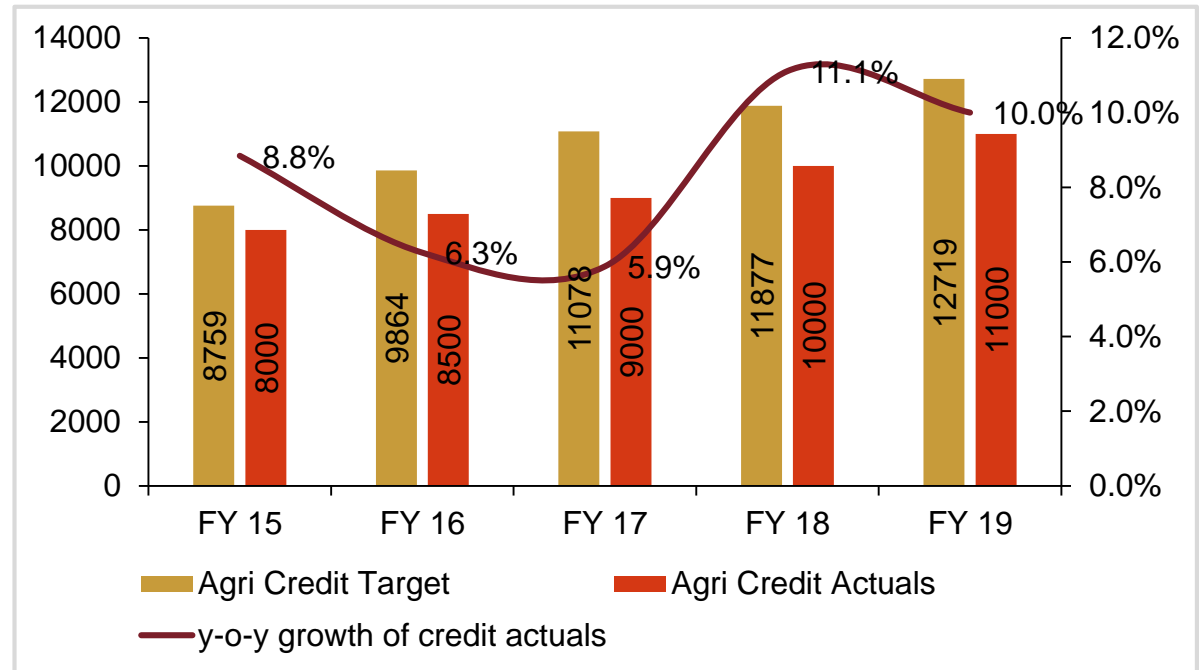
Actual agri credit disbursal higher than target in last five years. Bank interest rates expected to remain low in fiscal 2020

Bank Interest rate expected to remain lower



Source: Crisil Research

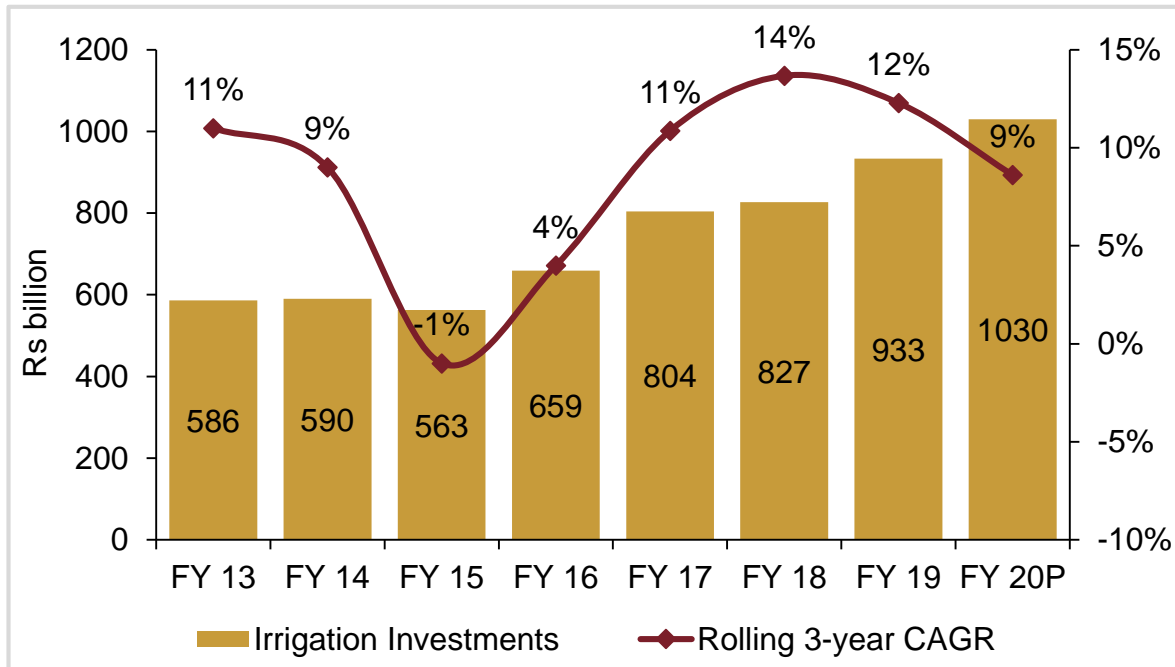
Credit Availability for Tractors



Source: Crisil Research

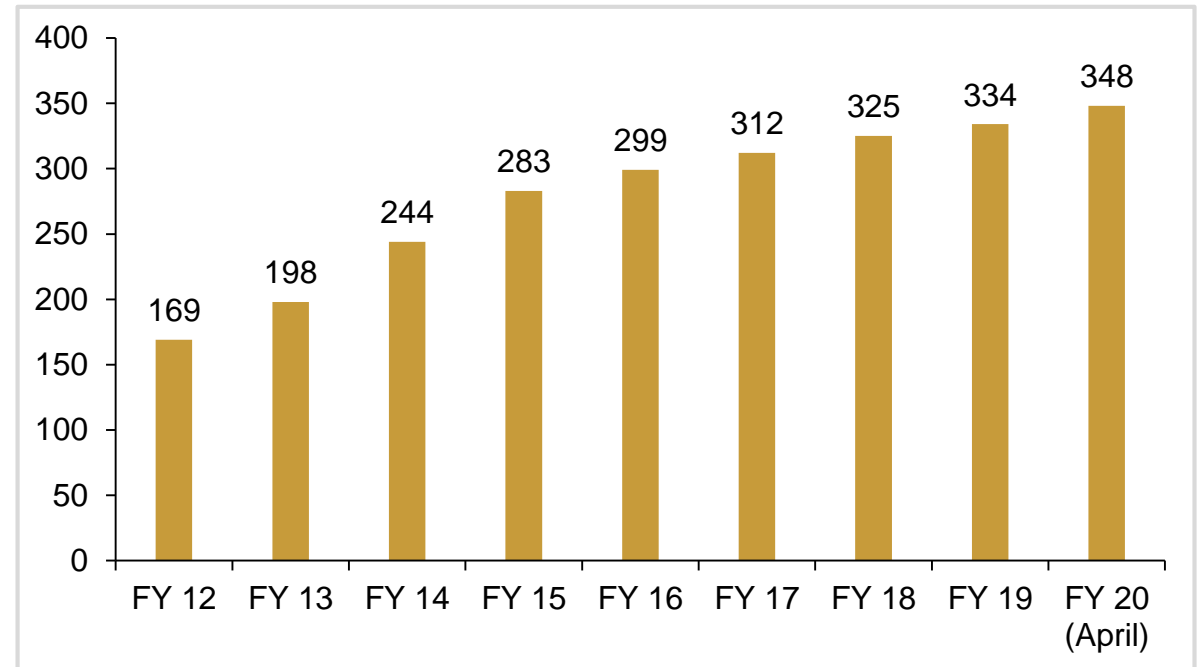
Higher irrigation intensity will boost usage of higher hp tractors

Irrigation spending on an uptrend at a faster pace



Source: Department of Agriculture, Cooperation & Farmers Welfare, Crisil Research

Rural Wages (Non-Farm)

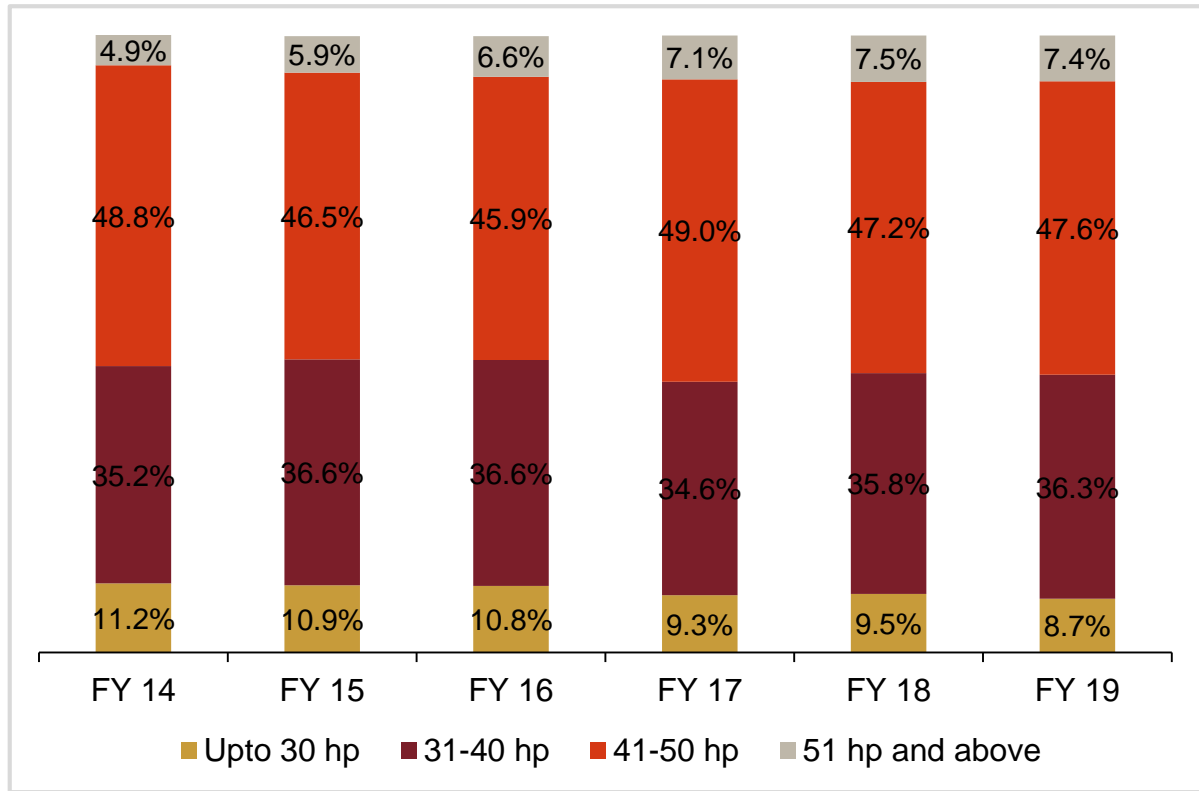


Rural wages includes general non-agricultural labour.
Source: Ministry of Labour and Employment, Crisil Research

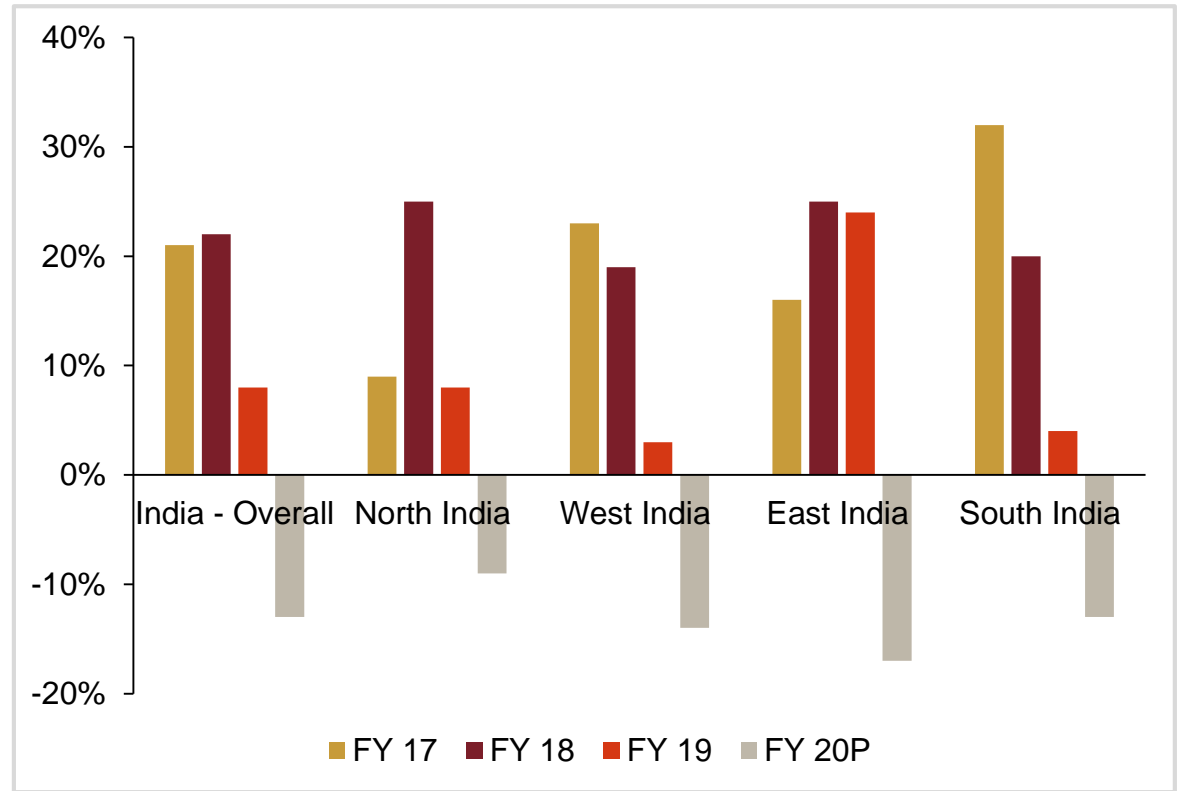
- Irrigation intensity is highest in northern region, followed by the southern and eastern regions
- Irrigation investment is expected to increase two times from fiscals 2019 to 2024 compared with investments during fiscals 2013 to 2018
- Irrigation intensity is expected to improve the most in Andhra Pradesh, Chhattisgarh, Madhya Pradesh, Gujarat, and Karnataka

41-50 hp segment continued to maintain dominant share. The move towards 51 hp and above to be gradual

Segment-wise tractor sales



Regional growth

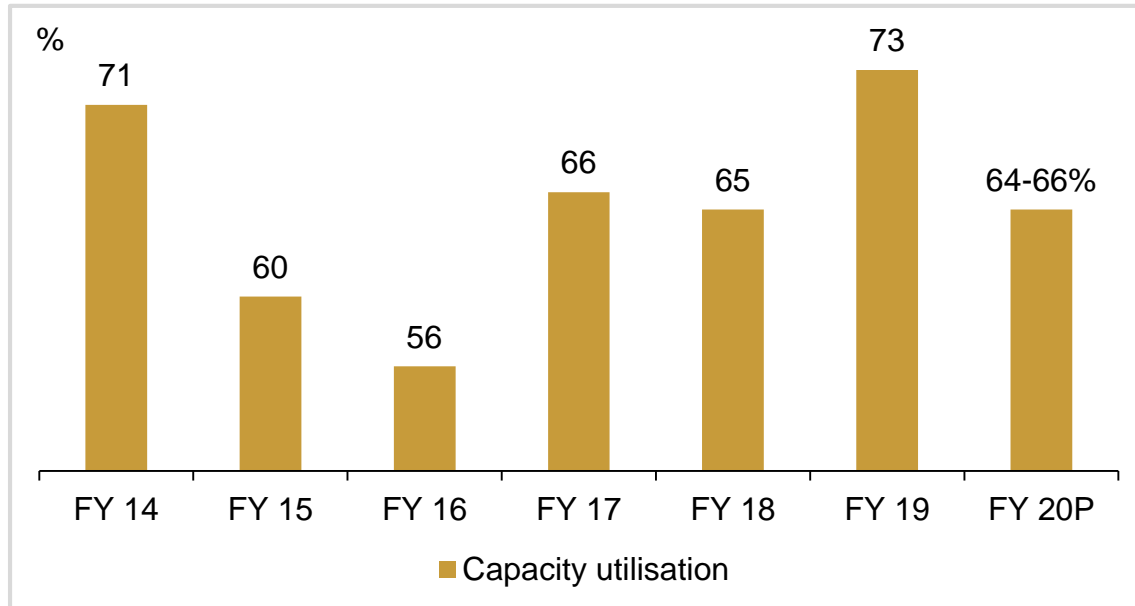


Source: Crisil Research

As the number of new buyers increase, small farmers (who were unable to afford tractors previously), are purchasing 31-40 hp tractors, which witnessed uptick in its share in fiscal 2019 as compared to last year.

Capacity additions by players and moderate growth in tractor production will lead to a decline in capacity utilisation to 70-72% levels in fiscal 2020

Utilisation to fall in fiscal 2020



Source: TMA, Crisil Research

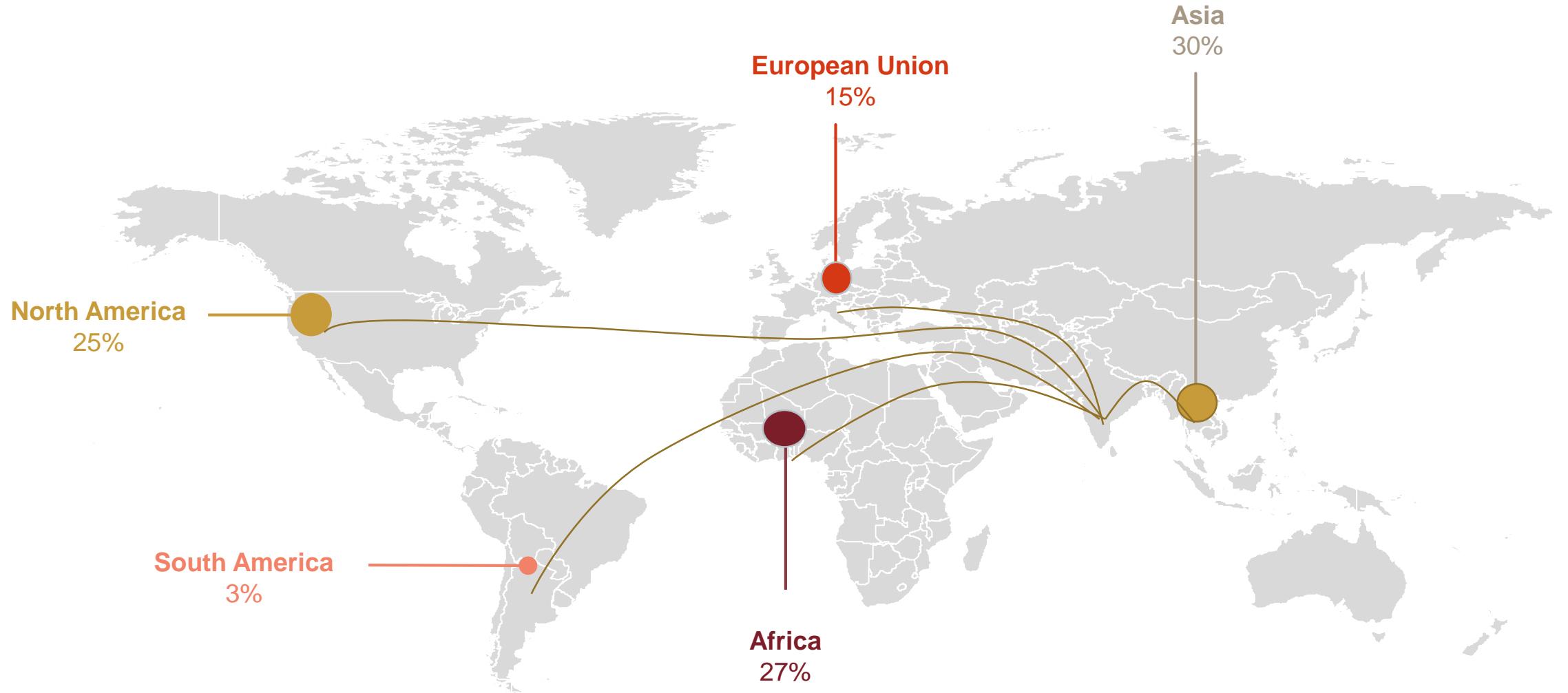
- Fiscal 2020 will witness capacity addition of ~76,000 units.
- Production is expected to fall by 10-12% in fiscal 2020. Thus, capacity additions by players and moderate growth in tractor exports will lead to a decline in capacity utilisation to 64-66% levels in fiscal 2020.

Capacity utilisation

Player	Production (in units)	Capacity (in units per annum)	Capacity utilisation (%)
Escorts Ltd.	100991	98940	102.1
Force Motors Ltd.	3856	24000	16.1
International Tractors Ltd.	107813	300000	35.9
Johndeere	94956	130000	73.0
Mahindra & Mahindra Ltd.	338236	376000	90.0
New Holland India	42889	60000	71.5
SAME DEUTZ-FAHR	9938	15000	66.3
TAFE	159915	158000	101.2
VST	8451	37000	22.8
Industry Total	867045	1198940	72.9

Tractor Exports

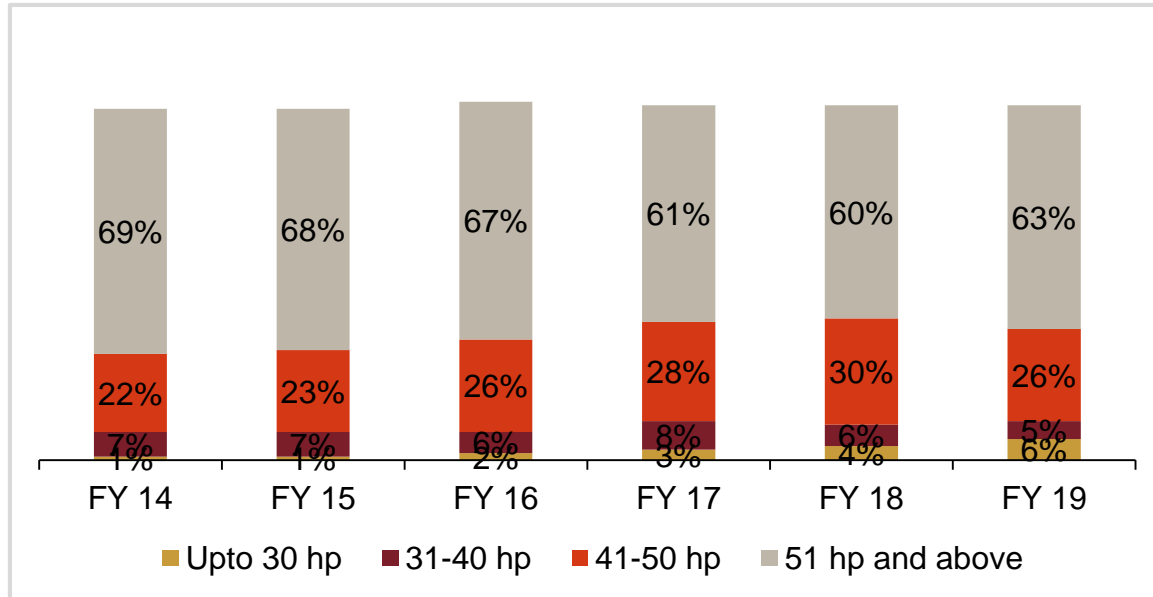
Proportion of tractors exported in 2018-19



Source: Directorate General of Foreign Trade (DGFT), CRISIL Research

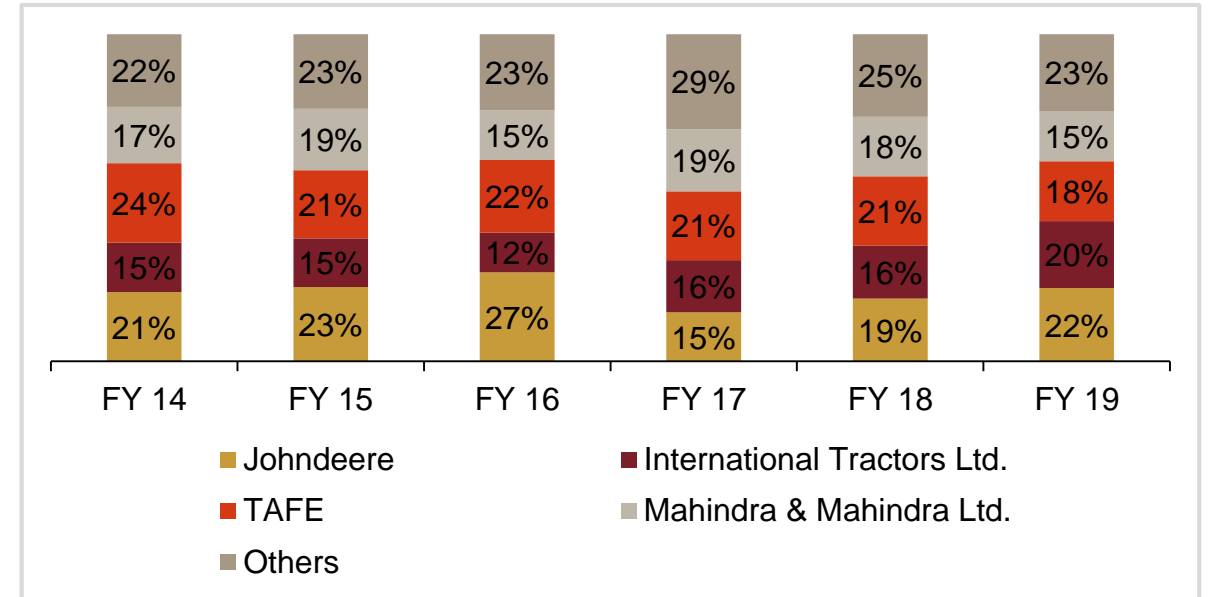
Tractor exports to grow at a moderate 6-8% in fiscal 2020. >51 hp segment dominates tractor exports

Segment wise market share of exports



Source: TMA, CRISIL Research

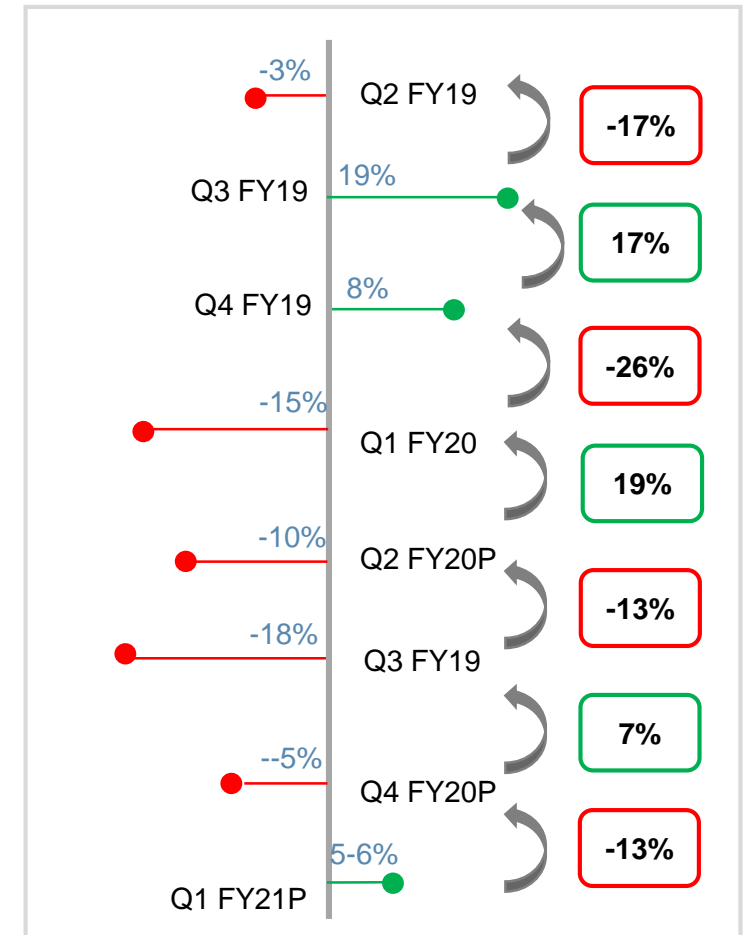
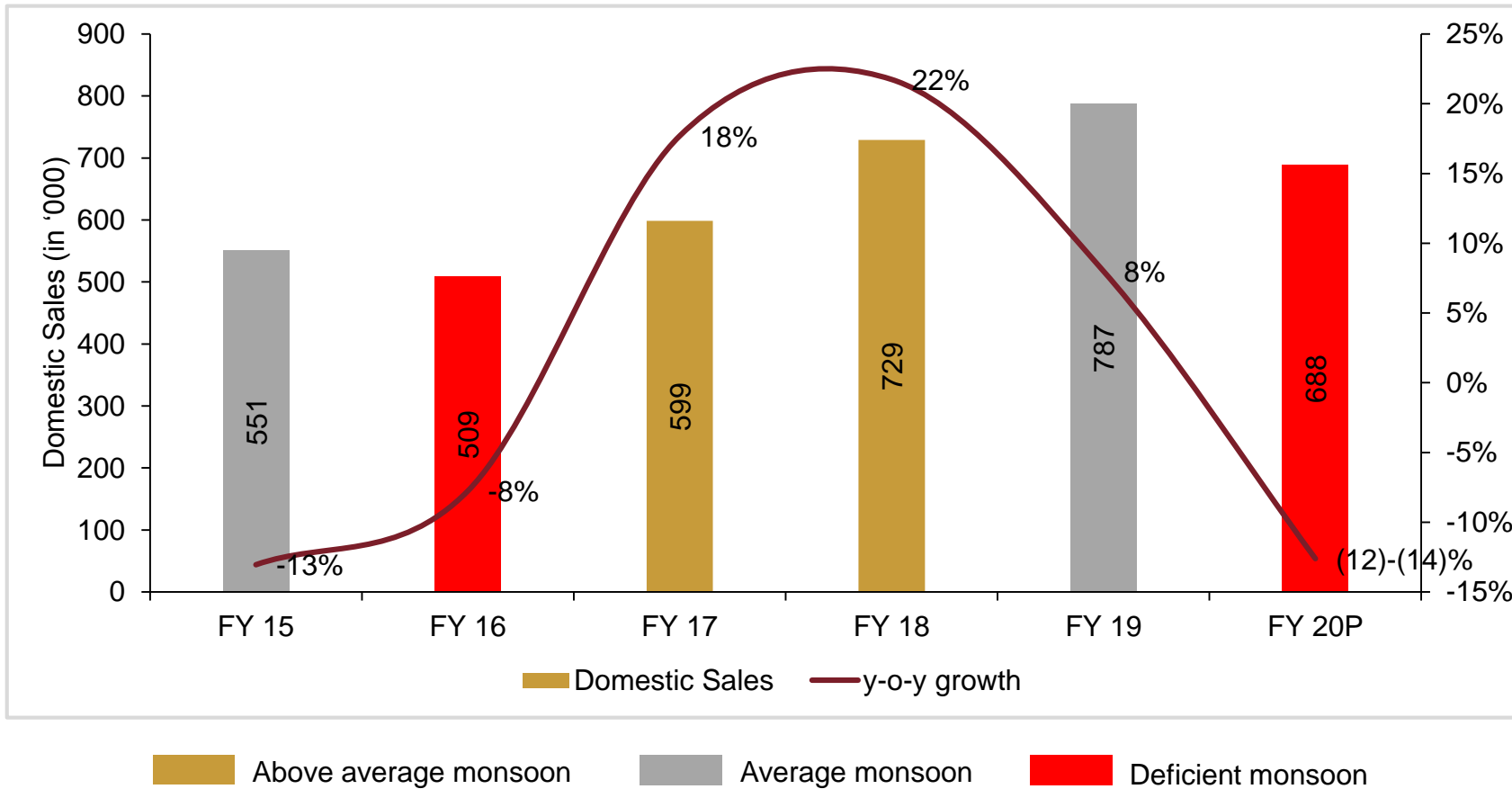
Player wise market share of exports



Source: TMA, CRISIL Research

- Tractor exports witnessed a healthy growth in fiscal 2019. CRISIL Research expects growth in tractor exports to continue the growth momentum for fiscal 2020.
- Africa, Europe and Asia will continue to remain important export markets for Indian tractor manufacturers, while stricter regulatory requirements would moderate growth in the United States.
- John Deere tops tractor exports from India

Deficient rainfall, low reservoir levels, high inventory levels and weak commercial demand to lower demand in FY20



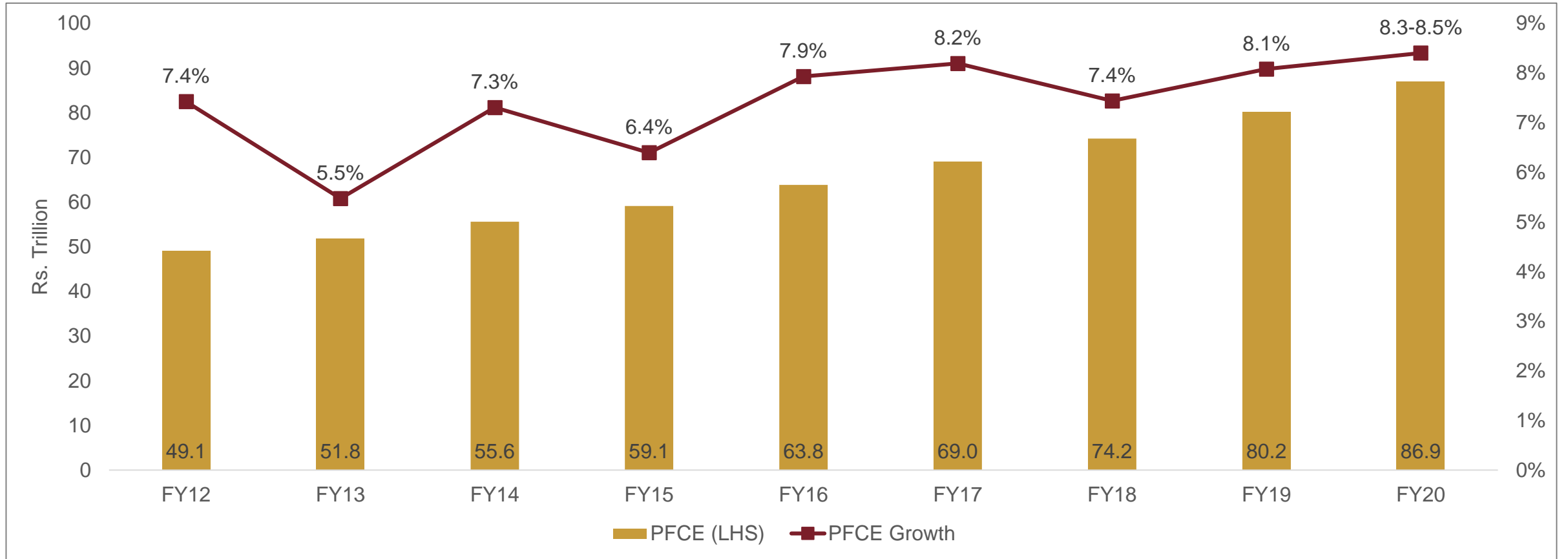
- Below normal monsoon in fiscal 20 post three consecutive good monsoons is expected to drive down the growth of tractors by 12-14%.



Three-wheeler

Private consumption on an uptrend

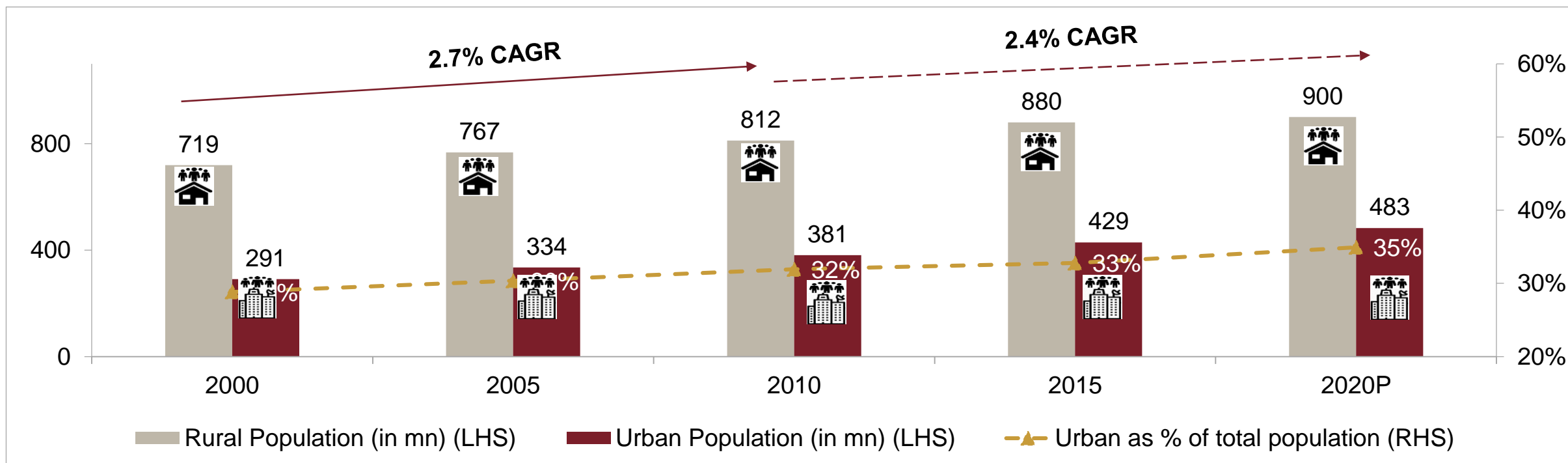
Private final consumption expenditure (PFCE) to grow at 7.5-8% in FY20



Source: Ministry of Statistics and Programme Implementation (MoSPI), CRISIL Research

Urban population to rise 2.4% until fiscal 2020

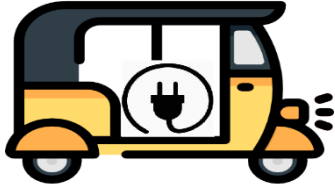
Urban areas to house 35% of total population by 2020



Source: United Nations, Department of Economic and Social Affairs, Population Division (2018)

- Between fiscals 2010 and 2020, the urban population growth is estimated to slow down marginally to 2.4% from 2.73% seen during fiscals 2000-2010
- Urbanization makes cities larger, pushing up motorization and economic growth that lead to better travel infrastructure boosting urban mobility which is expected to drive the sales of three-wheeler passenger vehicles.

Future Demand Drivers



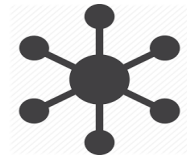
- Mahindra Electric recently launched lithium-ion battery powered electric three-wheeler, Treo range
- Piaggio is planning to launch fully electric three-wheeler by the end of 2019.
- Atul Auto has entered into a joint venture with JBM Industries to develop the business of electric auto rickshaws
- Bajaj is expected to launch electric three-wheeler under its sub-brand 'Urbanite'.

- 1.5 lakh tax deduction on interest component for Electric Vehicle (EV) loans
- 125,000 km road to be upgraded with an investment of 80000 crores
- GST on EVs slashed from 12% to 5%. Acquisition Cost of EVs 5% less for aggregators



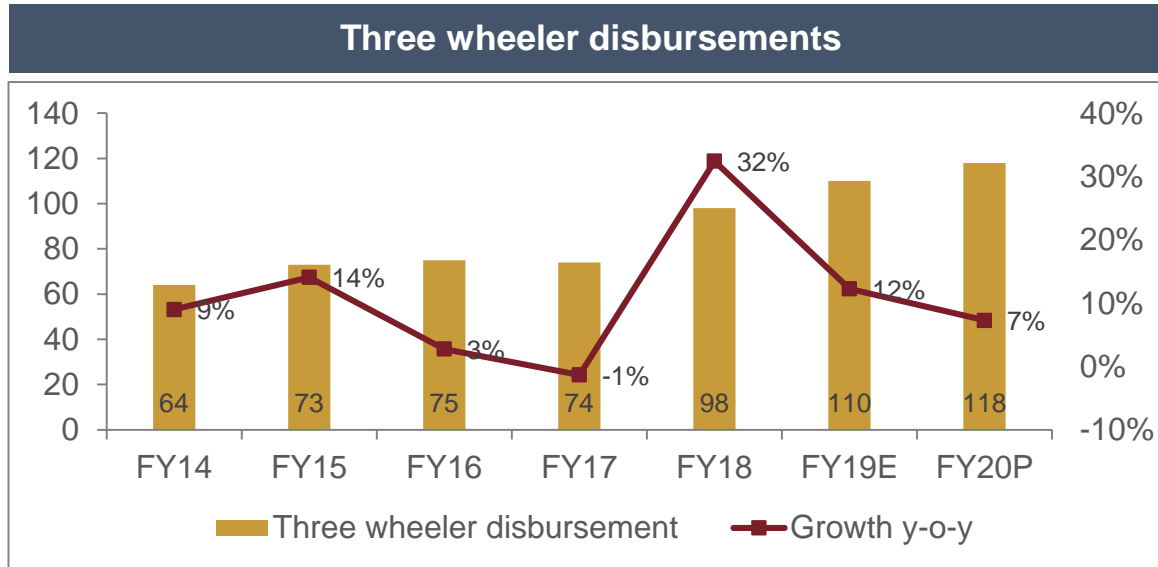
- Traffic Congestion in urban areas along with the last mile connectivity

- Hub and spoke model is expected to increase cargo three wheeler sales



- Growth of E-commerce and their delivery setup to increase cargo three-wheeler sales
- Ola is betting big on EVs. It aims to deploy 10000 electric 2W & 3W by March, 2020

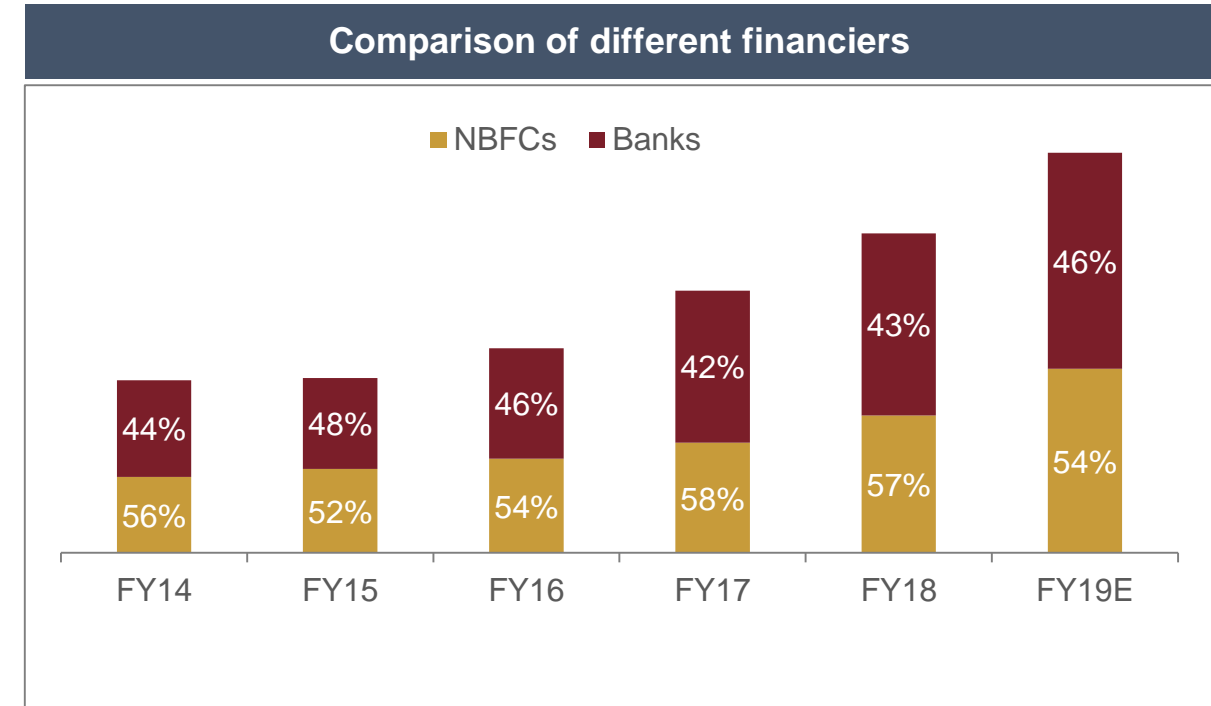
Growth in disbursements shows promising picture for three-wheeler industry



Source: CRISIL Research

- The passenger segment accounts for 80-85% of disbursements.
- The market is expected to grow at ~10-12% CAGR between fiscals 2019 and 2024
- The three-wheeler financing market is catered by private financiers only, with public sector banks having a negligible presence in the segment.

Source: CRISIL Research



Note – Values include data for NBFCs, banks and small finance banks

- NBFCs dominate the market, because they give higher LTV offerings to customers and have strong linkage with dealers which help them in sourcing business
- Within non-banking financial companies (NBFCs), the captive-financing arms of original equipment manufacturers (OEMs) account for a significant market share.

Bharat Stage VI Norms : 1st April 2020

Three-wheeler vehicles fitted with PI Engines

	CO (mg/km)	HC+Nox (mg/km)	Nox (mg/km)	EVAP (mg/test)	OBD
Limit	440	435	130	1500	Stage I & II*
D.F.	1.2	1.2	1.2		

Three-wheeler vehicles fitted with CI Engines

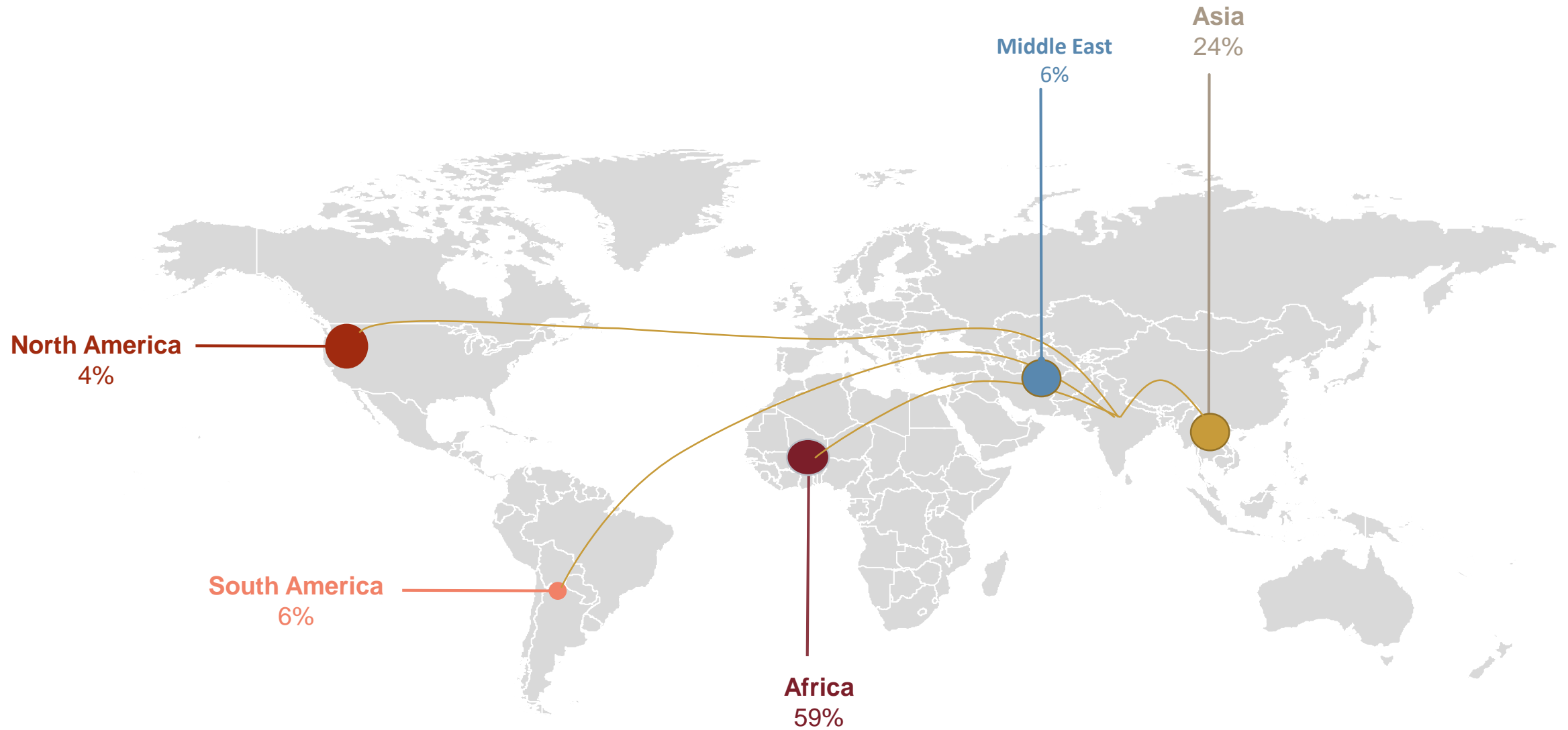
	CO (mg/km)	HC+Nox (mg/km)	Nox (mg/km)	PM	OBD
Limit	220	200	160	25	Stage I & II*
D.F.	1.10	1	1	1.2	

Note:CO: Carbon monoxide; HC: Hydrocarbon; NOx: Nitrogen oxide, PM: Particulate matter, PI: Positive Ignition, CI: Combustion Ignition, D.F.: Deterioration Factor

*OBD Stage will be applicable from 1st April 2023

Source: The Automotive Research Association of India (ARAI), CRISIL Research

Three-wheeler exports

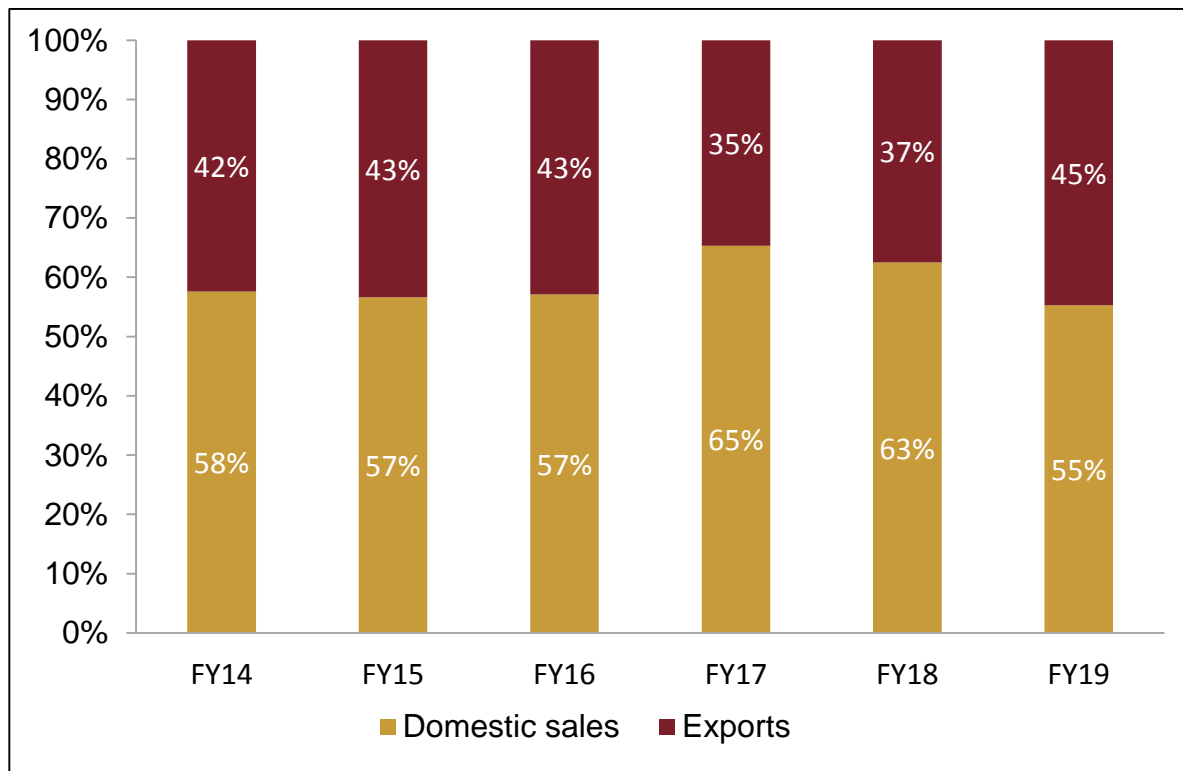


NOTE: Latest numbers available for FY 2019 on DGFT

Source: Directorate General of Foreign Trade (DGFT), CRISIL Research

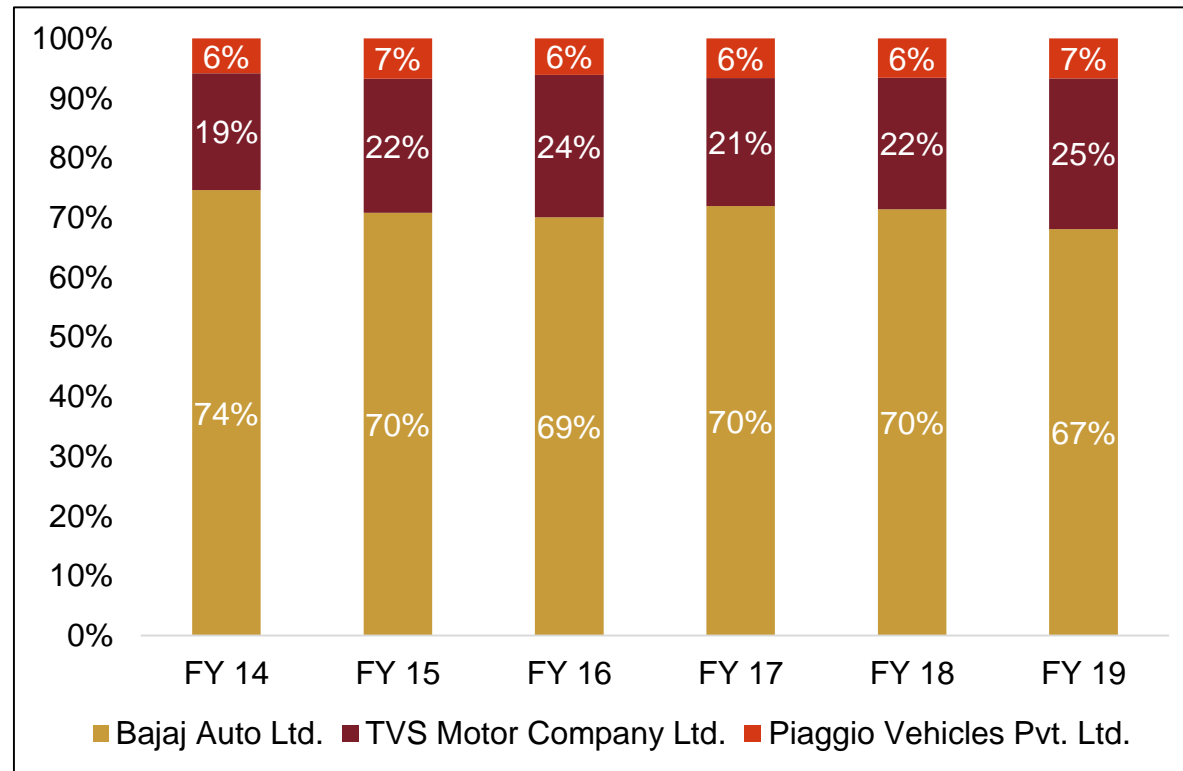
Exports grown at a CAGR of ~10% from FY 14 to FY 19

Share of exports in total sales



Source: SIAM, CRISIL Research

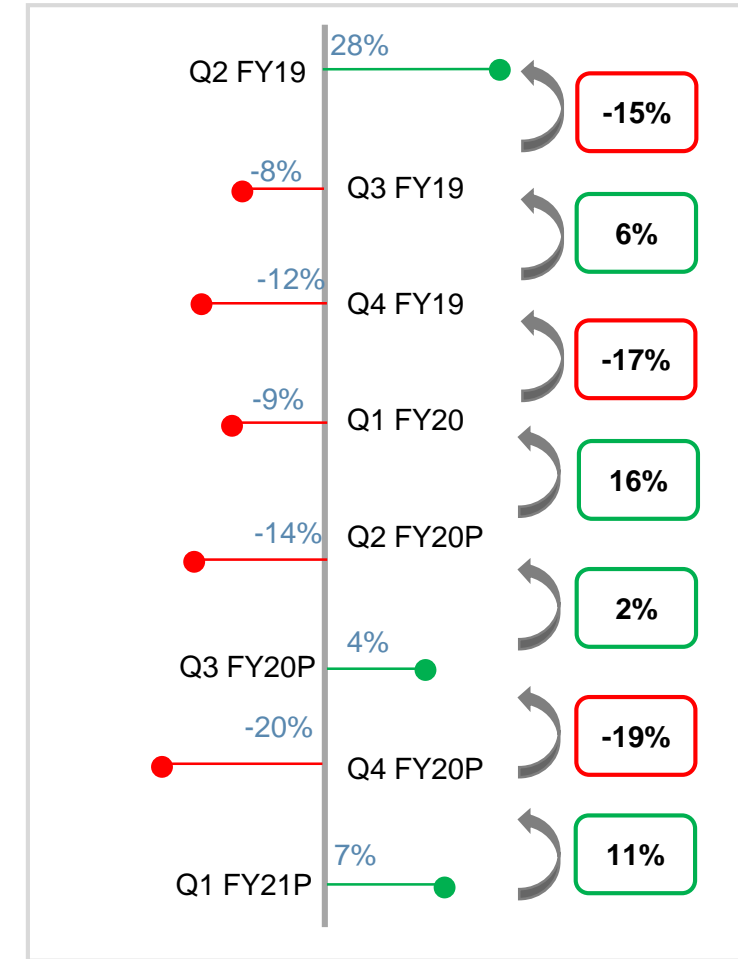
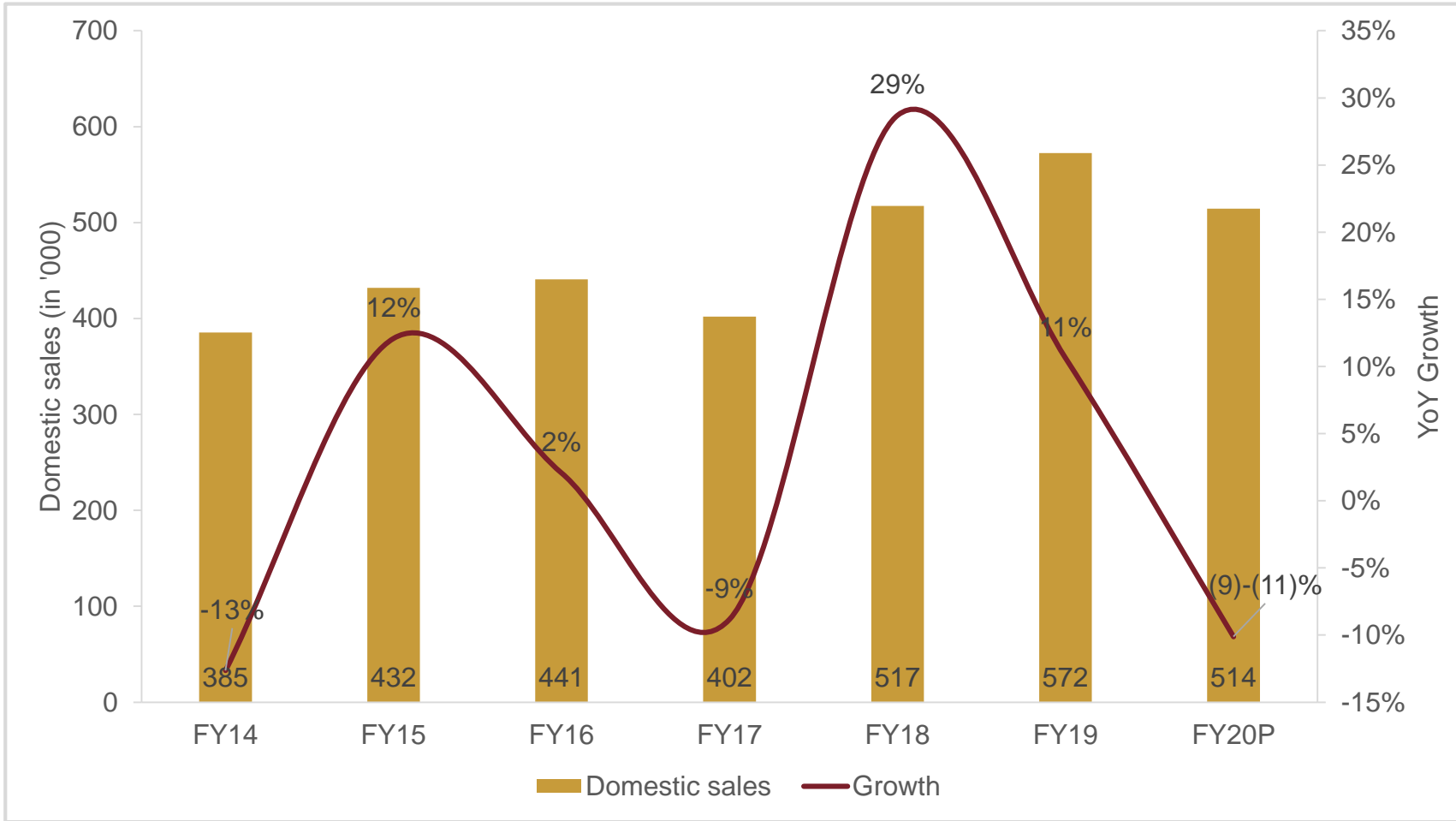
Bajaj dominates the share in exports from FY 14



Note : Exports of Bajaj Auto, TVS and Piaggio represents 98% of exports as of FY18

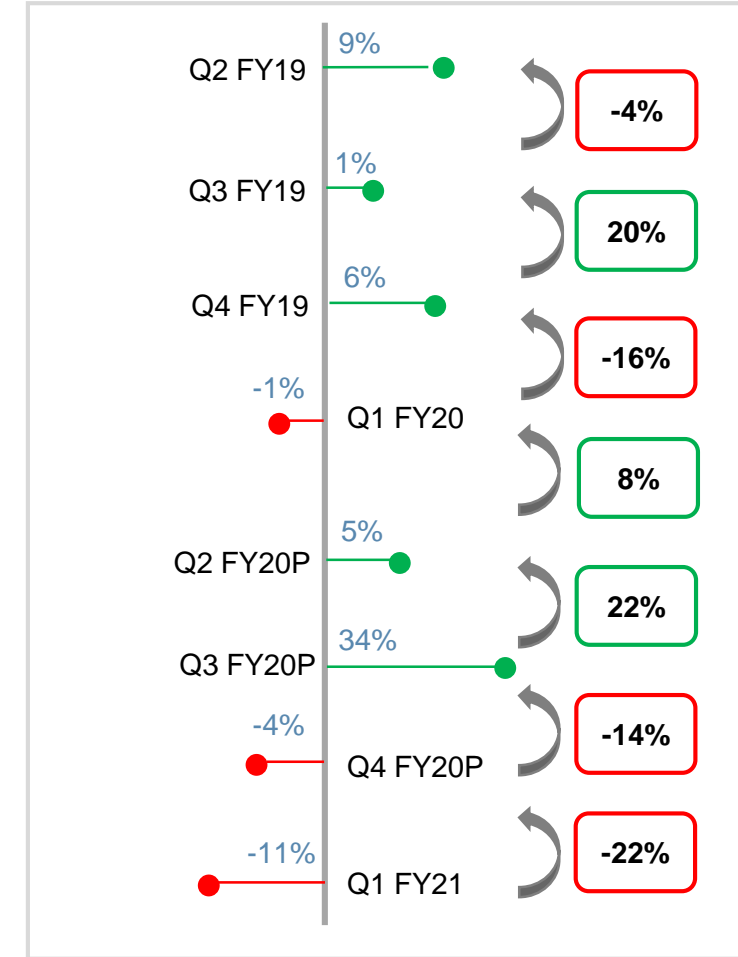
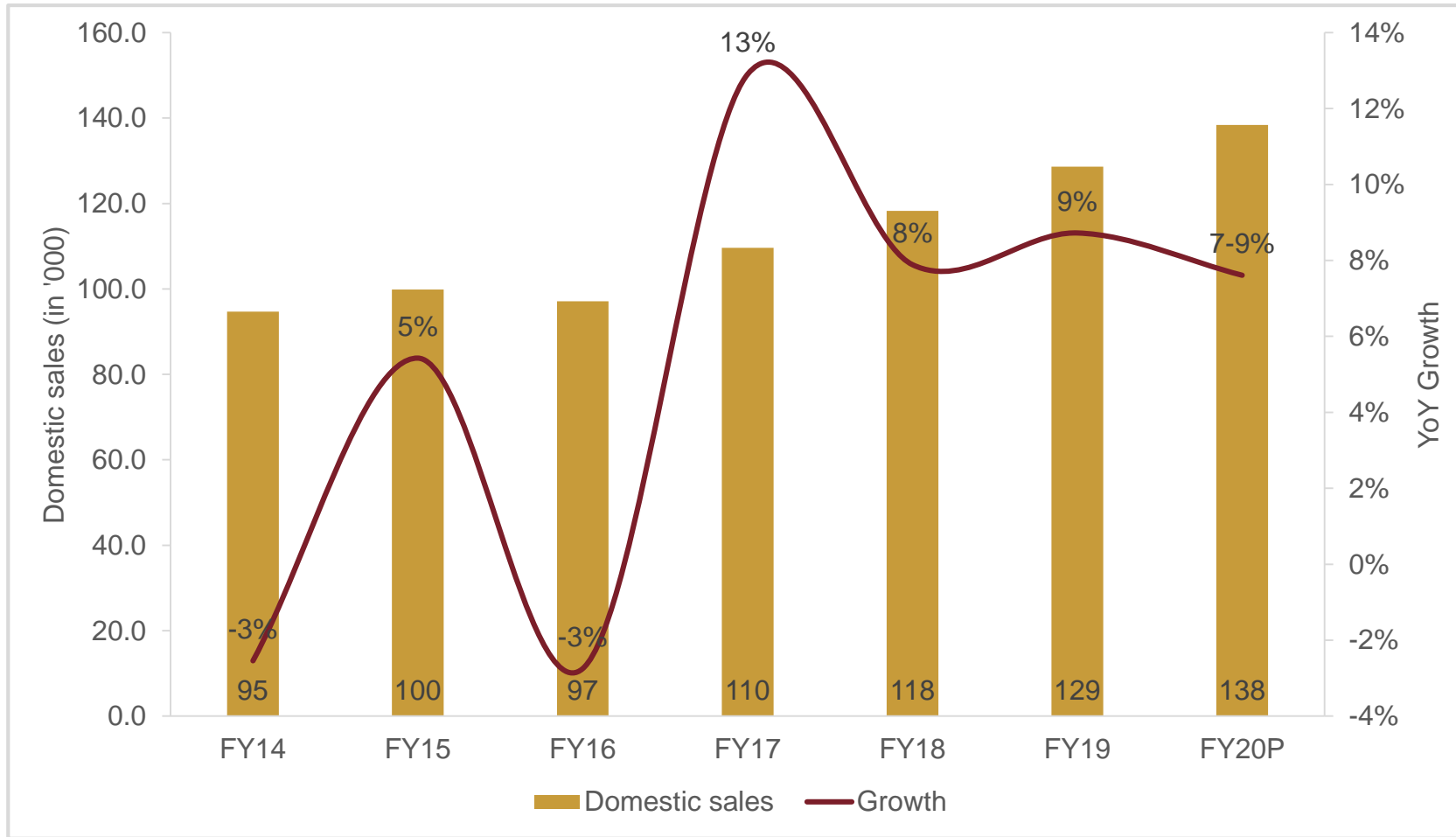
Source: SIAM, CRISIL Research

Domestic sales – Three-wheeler Passenger



- Fiscal 2018 and 2019 saw a growth due to opening of permits in states like Maharashtra, Karnataka, Andhra Pradesh and Delhi.
- Fiscal 2020 to see a de-growth since no new permits expected and lower impact of prebuying.

Domestic sales – Three-wheeler Goods



- Rural areas still prefer three-wheeler for the transport of goods due to lack of infrastructure.
- The shift from three-wheeler goods to SCV is expected to slowdown since much of the shift has already taken place.

Inventory scenario

Inventory levels a concern across segments

Vehicle segment	Normal inventory in days	Current inventory levels	Actions being taken
Passenger Vehicles	25-30	30-35	OEMs have corrected its inventory in last quarter by cutting down the production.
Two Wheelers	30-35	45-55	Production cuts along with higher discounts in the form of cashback and exchange offers are announced by the dealers.
Commercial Vehicles	25-35	30-40	-
Tractors	30-35	42-48	Players are expected to push stock in Q2 of fiscal 2020 for festives.
Three-wheeler	15-20	15-20	-

NOTE: Inventory days for passenger three-wheeler is 10-20 days and for goods three-wheeler is 25-30 days

Source: Industry, CRISIL Research

Thank you

For any further queries please contact:

Mr. Hemal N Thakkar & Ms. Aditi Mehta

Associate Director and Analyst – CRISIL Research

hemal.thakkar@crisil.com / aditi.mehta@crisil.com