

Impact of Macro-economic Environment on the Automotive Industry

ACMA

April 2019

Content



Macro-economic Analysis



Forecast



Cars and UVs



Two-wheeler



Commercial Vehicles



Tractors



Three-wheelers

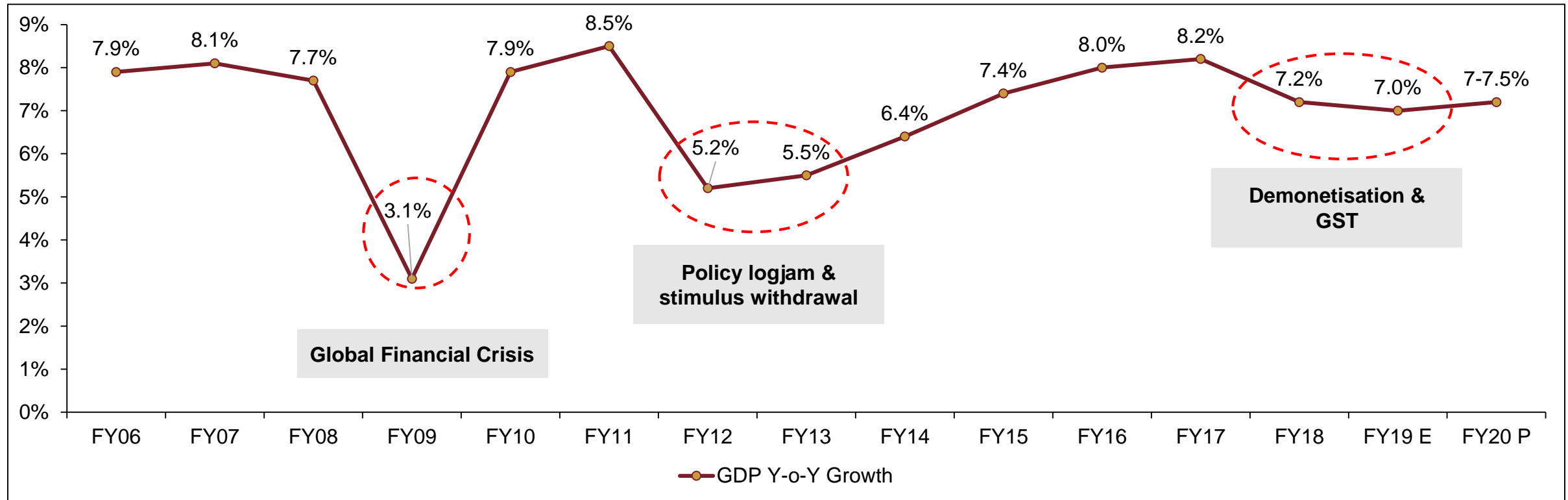


Inventory scenario



Macro-economic Analysis

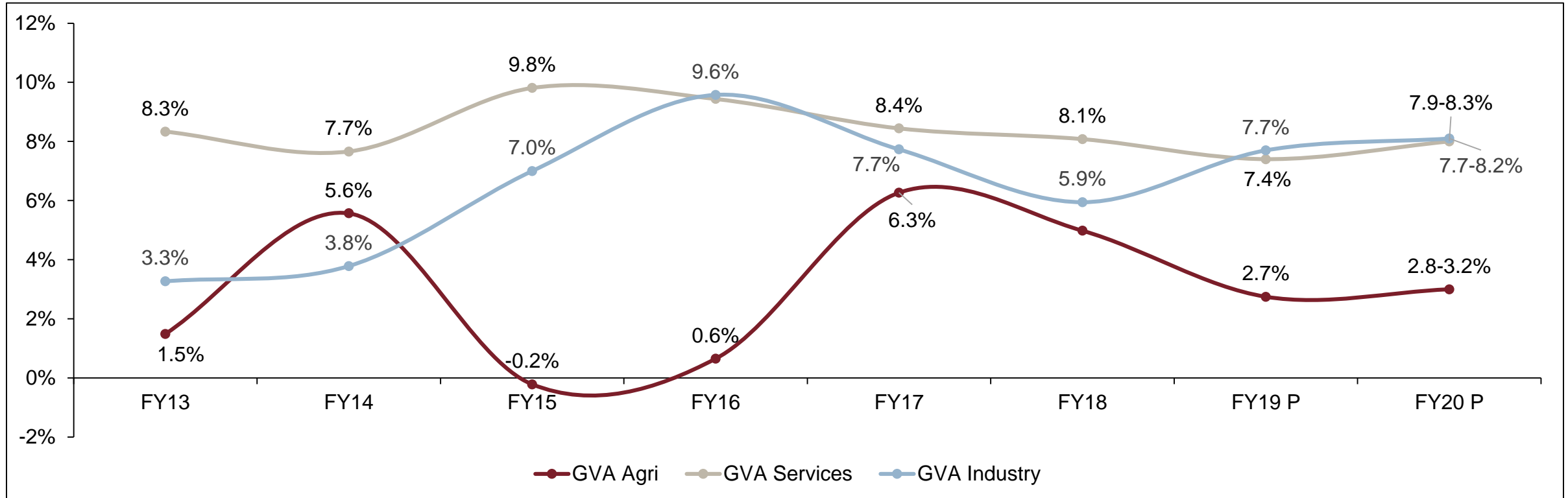
Consumption, investment and rural push to support GDP growth rate of 7-7.5% in FY20



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

- CRISIL expects GDP to grow 7-7.5% in fiscal 2020. Growth will be driven by budgetary announcements that is expected to push consumption, and supported by normal rains and benign inflation.

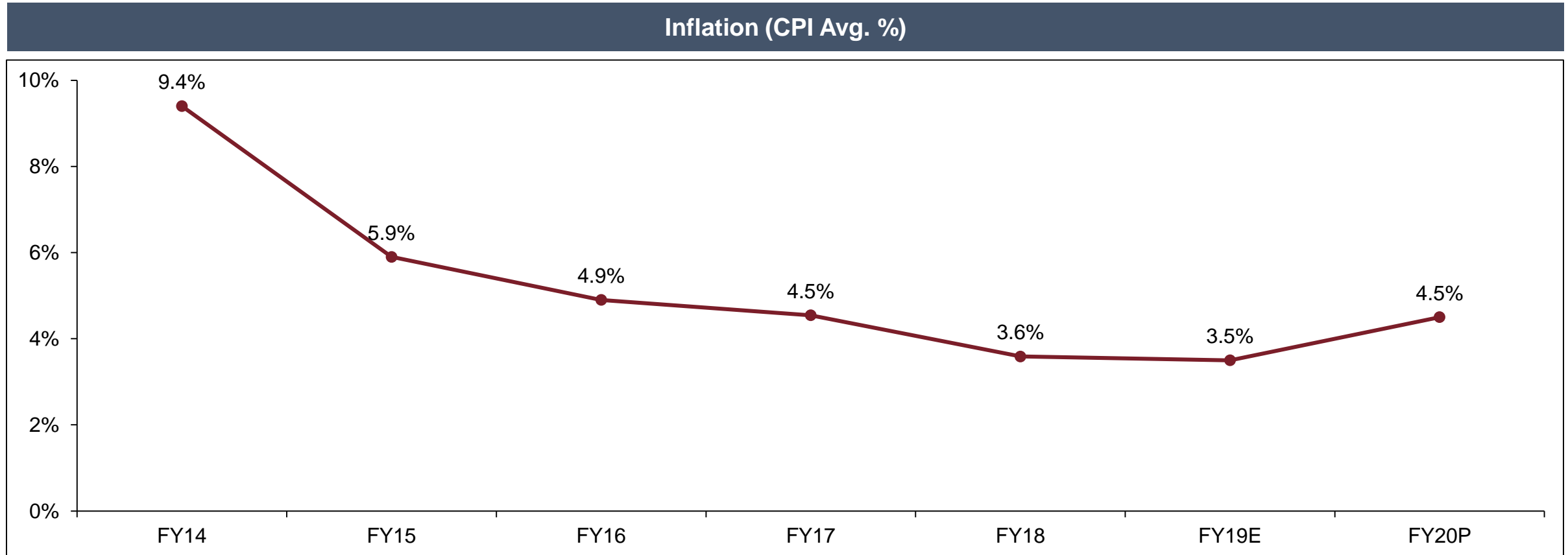
GVA growth in fiscal 2019 improves, led by manufacturing, financial, real estate and professional services



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.

CPI inflation expected to rise in fiscal 2020

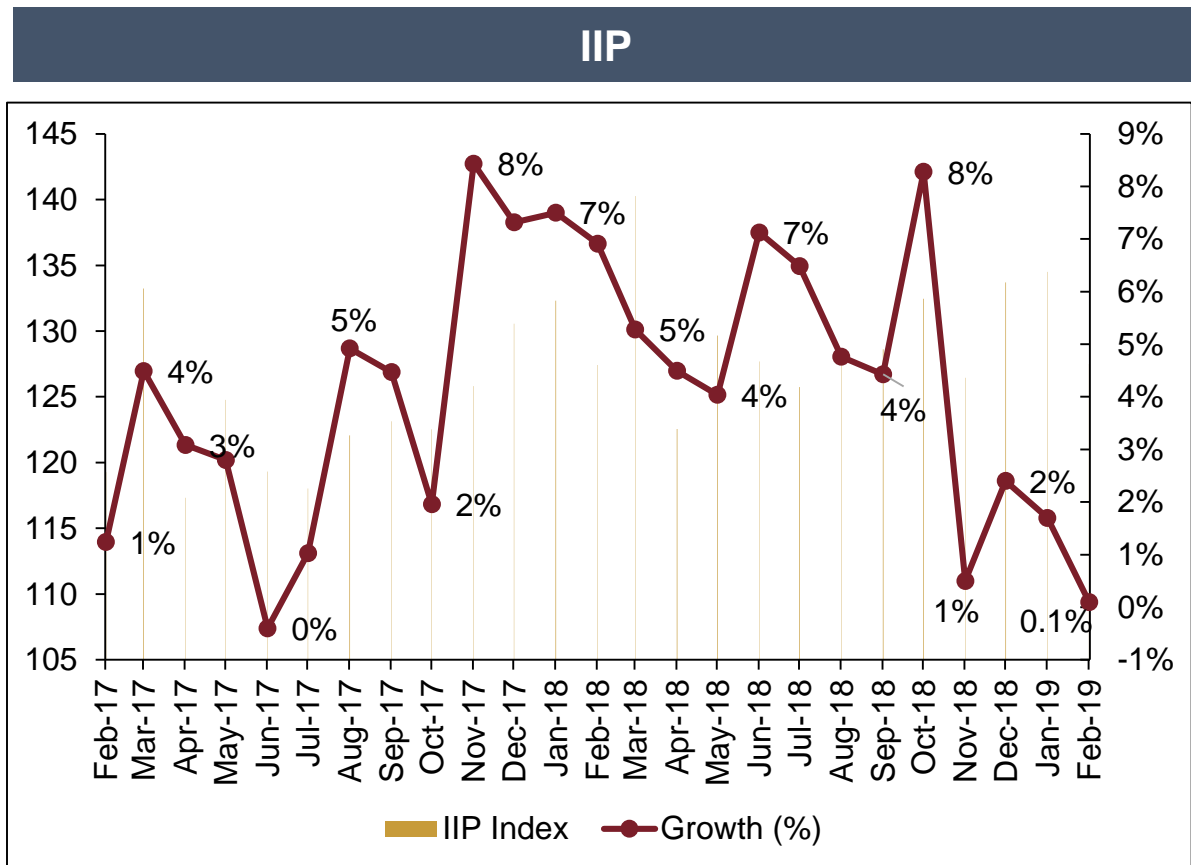


Note: CPI – Consumer Price Index

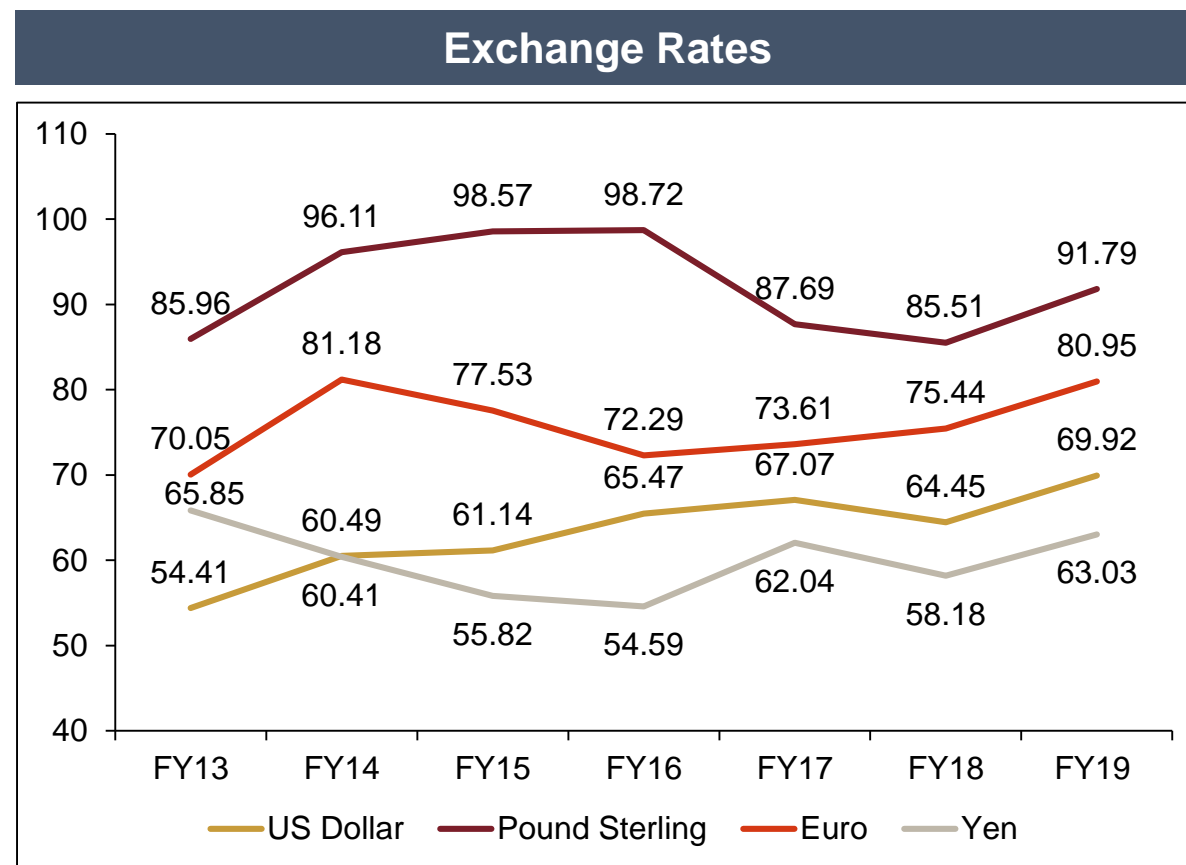
Source: Ministry of Statistics and Programme Implementation (MoSPI), CRISIL Research

- CRISIL Research expects CPI inflation to rise to 4.5% in fiscal 2020
- In fiscal 2020, however, inflation may see some upside due to consumer friendly budget, implementation of Pay Commission hikes by more states and other populist measures such as farm loan waivers

IIP posts a meagre 0.1% growth on y-o-y basis



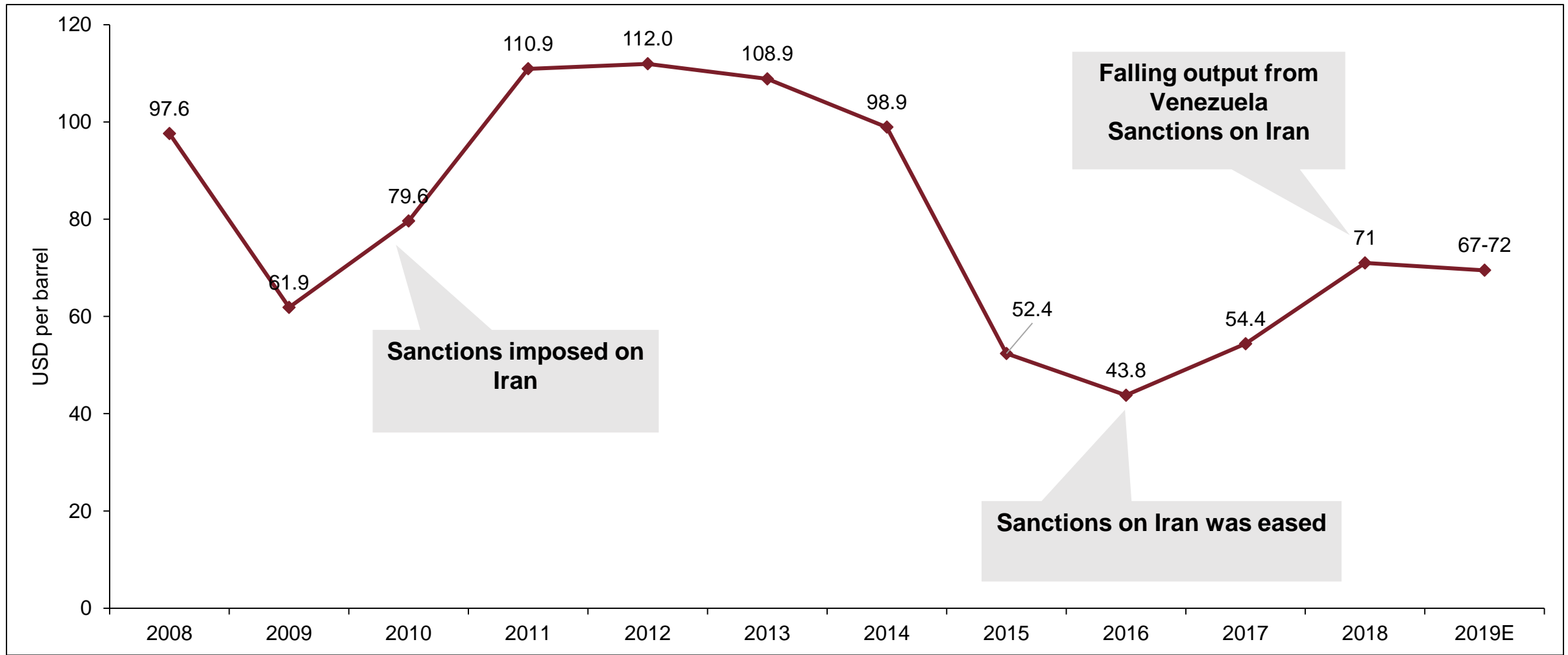
Source: MoSPI, Crisil Research



Source: RBI, FBIL, Crisil Research
Note – For Yen rupees value are per 100 Yen

- IIP growth decelerated to 0.1% in February 2019, lower than the 1.7% seen in January 2019. The slowdown was led by electricity and manufacturing sectors.
- The cumulative growth for the period April-February 2018-19 over the corresponding period of the previous year stands at 4.0 percent.

Crude oil prices expected to inch slightly lower



Source: CRISIL Research

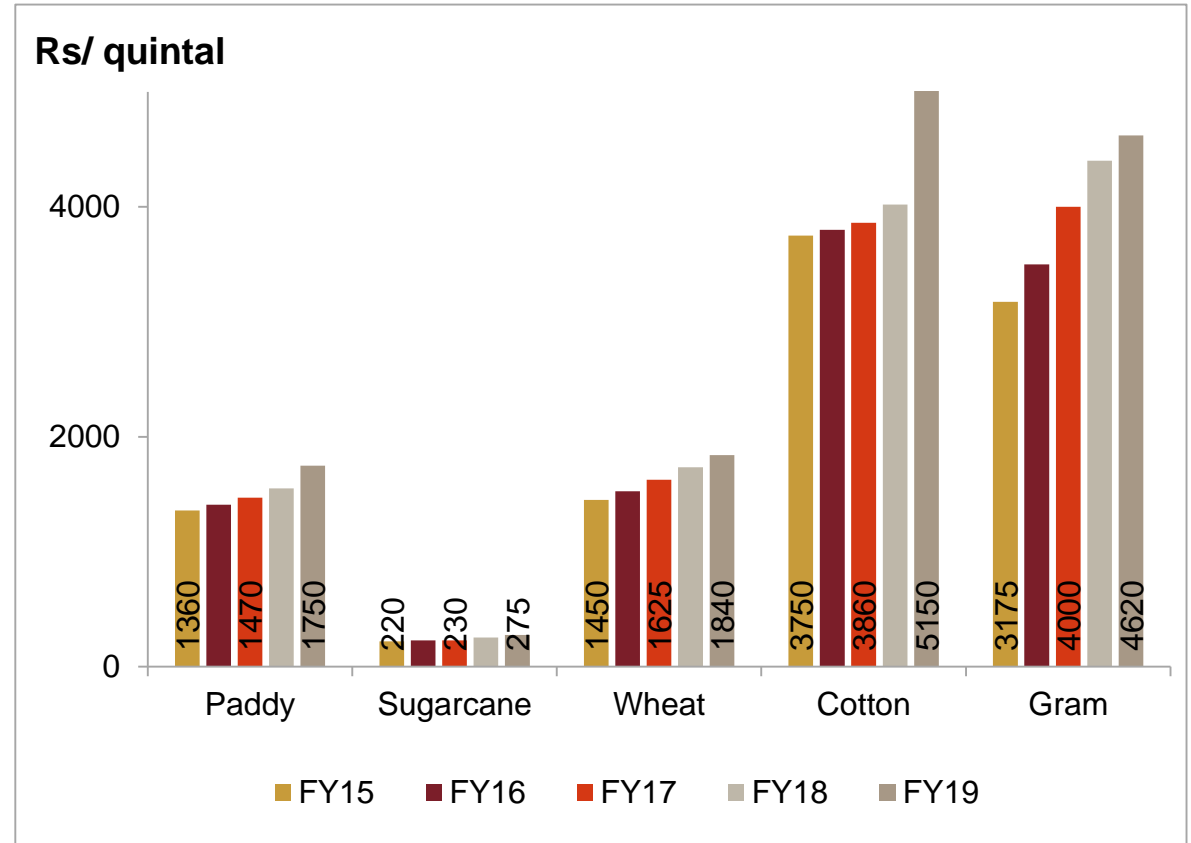
Consecutive normal monsoons & better MSP to support favourable farmer sentiments

Monsoon deviation from long normal rainfall levels



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

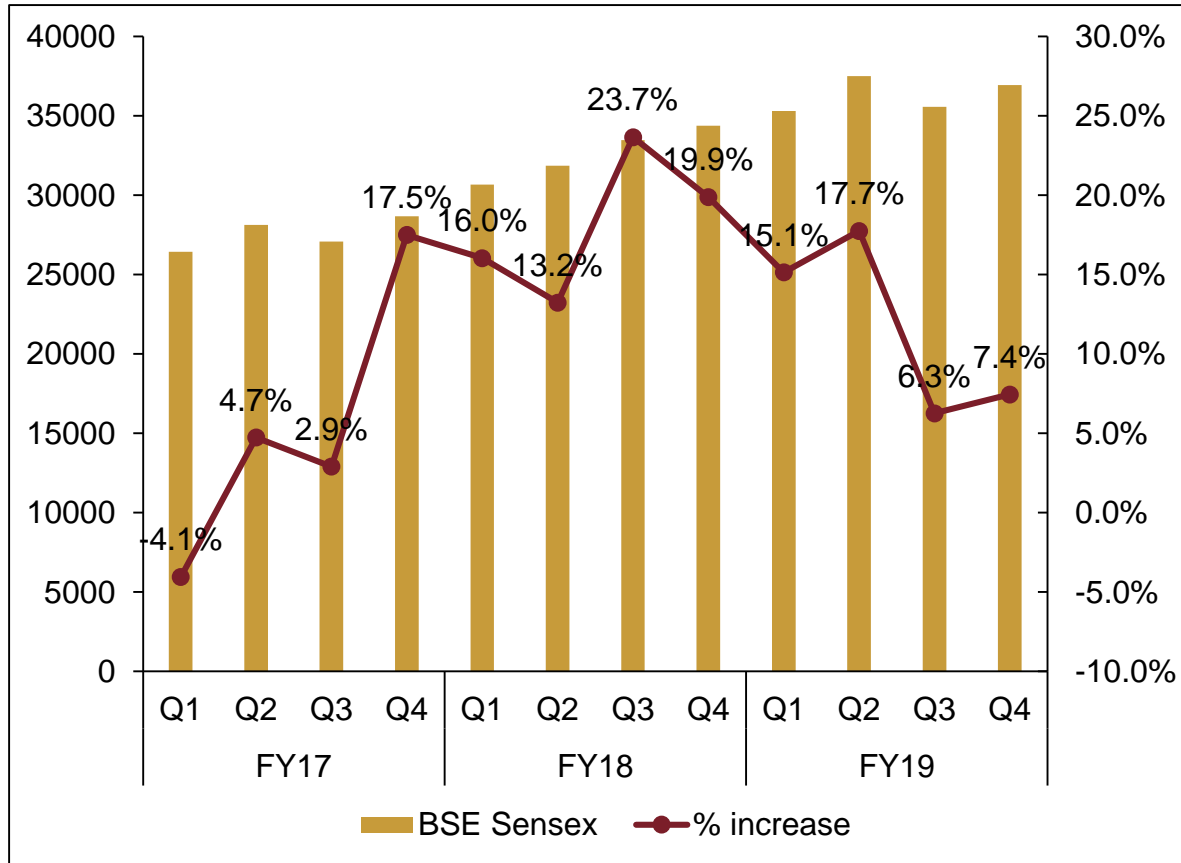
MSP of major crops in the last 5 years



Source: Ministry of Agriculture & Farmers Welfare

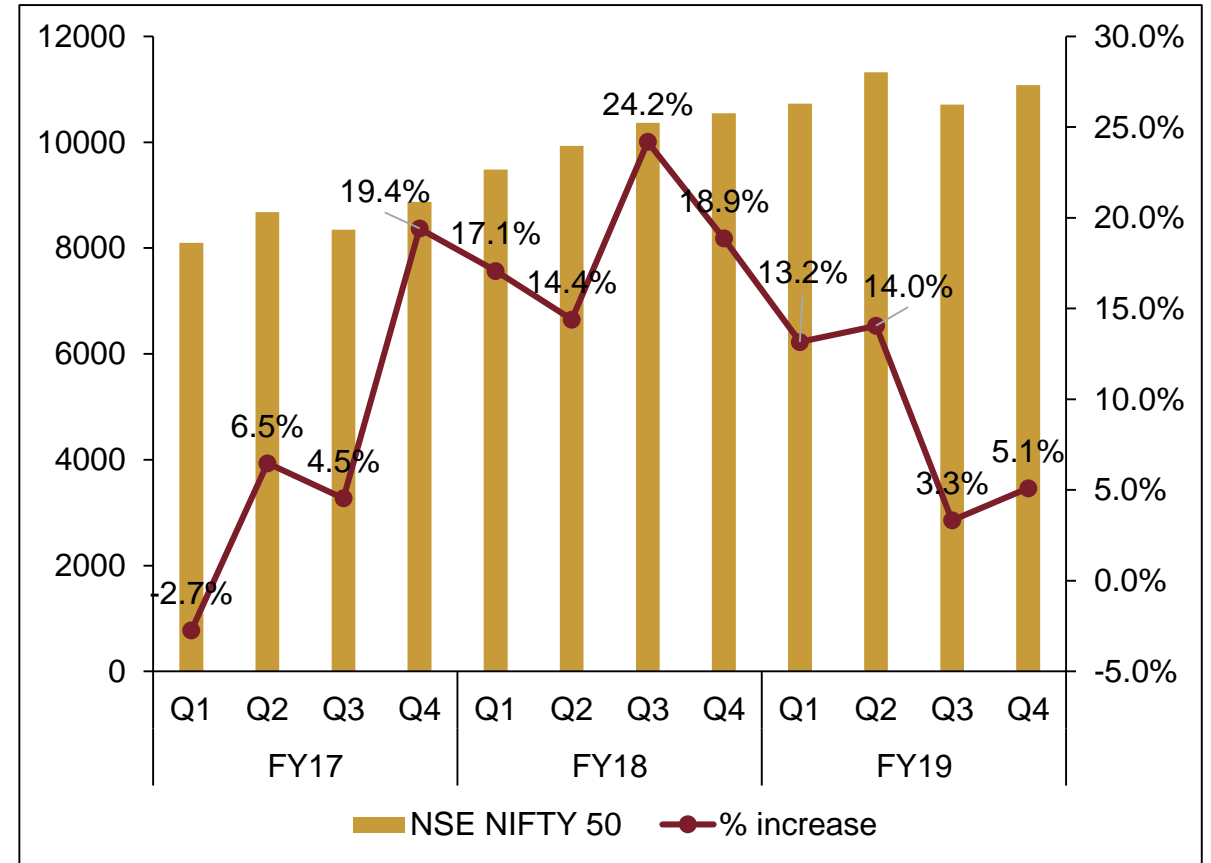
Uptick in Sensex and Nifty in 2019 Q4

BSE Sensex



Source: BSE

NSE Nifty



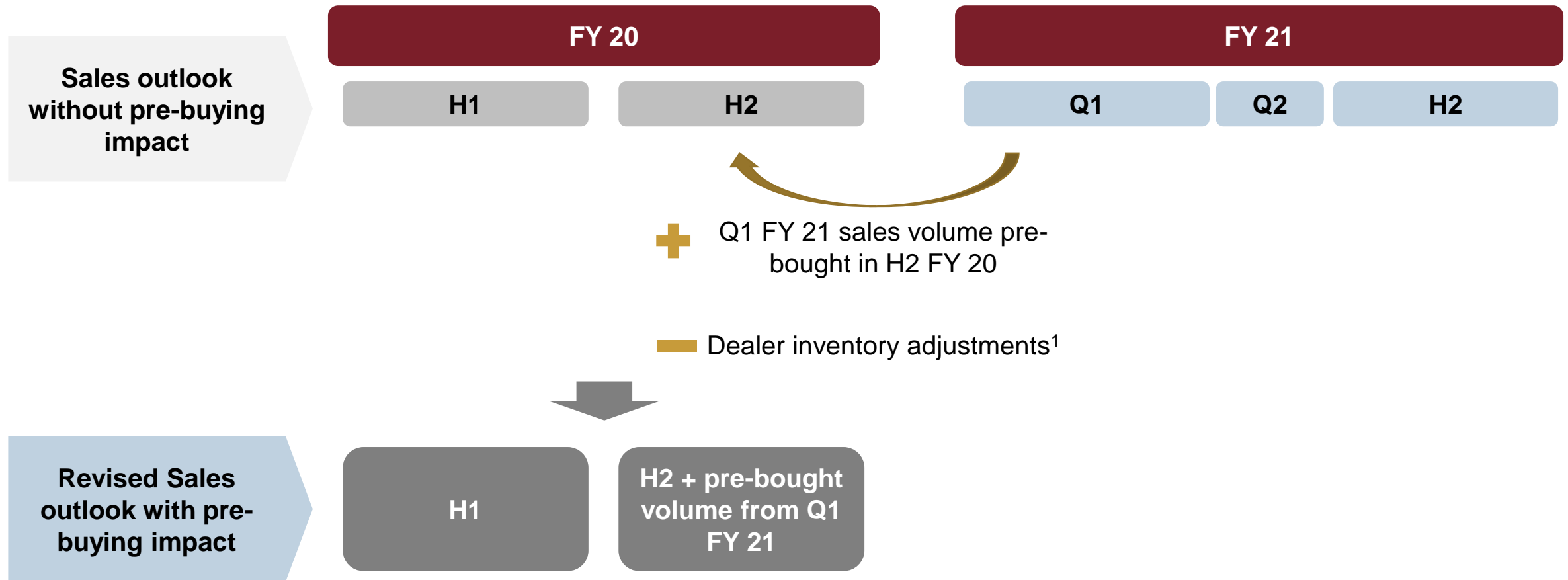
Source: NSE



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



Projected versus actuals (Domestic)

		FY19	
		Projected	Actuals
Passenger vehicles	Cars	3-5%	2%
	UVs and vans	4-6%	4%
Two-wheelers	Motorcycles	9-11%	8%
	Scooters	4-6%	0%
	Mopeds	4-6%	2%
Commercial vehicles	LCV (<3.5T)	21-23%	22%
	LCV (3.5-7.5T)	4-6%	7%
	MHCV	14-16%	15%
	Buses	4-6%	8%
Tractors		10-12%	8%
Three-wheelers	Passenger	9-11%	11%
	Goods	7-9%	9%

Projections for fiscal 2020 – domestic, exports and total sales

		Domestic		Exports		Total sales	
		FY 19	FY 20P	FY 19	FY 20P	FY 19	FY 20P
Passenger vehicles	Cars	2%	5-7%	(11)%	0-2%	(1)%	4-6%
	UVs and vans	4%	1-3%	(4)%	1-3%	3%	1-3%
Two-wheelers	Motorcycles	8%	3-5%	15%	10-12%	9%	4-6%
	Scoters	0%	1-2%	26%	9-11%	1%	1-3%
	Mopeds	2%	2-4%	(4)%	8-10%	2%	2-4%
Commercial vehicles	LCV (<3.5T)	22%	8-10%	2%	9-11%	21%	8-10%
	LCV (3.5-7.5T)	7%	(2)-(4)%	(27)%	4-6%	2%	(1)-(3)%
	MHCV	15%	9-11%	27%	10-12%	16%	9-11%
	Buses	8%	1-3%	(24)%	0-2%	3%	1-3%
Tractors		8%	2-4%	8%*	5-7%	8%	2-4%
Three-wheelers	Passenger	11%	9-11%	49%	9-11%	27%	9-11%
	Goods	9%	8-10%	47%	10-12%	10%	8-10%

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

Domestic sales forecasts across vehicle segments

		Q1 FY 20	Q2 FY 20	Q3 FY 20	Q4 FY 20	FY 20
Passenger vehicles	Cars	(9)-(11)%	2-4%	19-21%	10-12%	5-7%
	UVs and vans	(10)-(12)%	4-6%	24-26%	(8)-(10)%	1-3%
Two-wheelers	Motorcycles	(7)-(9)%	(2)-0%	16-18%	9-11%	3-5%
	Scooters	(16)-(18)%	(4)-(6)%	19-21%	14-16%	1-2%
	Mopeds	(1)-(3)%	(4)-(6)%	10-12%	7-9%	2-4%
Commercial vehicles	LCV (<3.5T)	5-7%	11-13%	24-26%	(6)-(8)%	8-10%
	LCV (3.5-7.5T)	4-6%	2-4%	8-10%	(25)-(27)%	(2)-(4)%
	MHCV	(1)-(3)%	8-10%	30-32%	1-3%	9-11%
	Buses	3-5%	3-5%	40-42%	(22)-(24)%	1-3%
Tractors		(5)-(7)%	3-5%	3-5%	11-13%	2-4%
Three-wheelers	Passenger	5-7%	5-7%	23-25%	3-5%	9-11%
	Goods	2-4%	6-8%	22-24%	3-5%	8-10%



Cars and UV

Fuel prices have turned adverse as compared to last year

Parameters	Impact		
	FY 18	FY 19E	FY 20P
Demand side variables			
-- Real GDP growth	6.7%	7.0%	7-7.5%
-- CPI growth (%)	3.6	3.7	4.5
-- Crop Value index	N	N	N*
-- Car Price growth	5%	6%	4%
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	NF	F
Supply side variables & financing			
-- Finance Penetration	76.6%	77.5%	78.0%
-- Model launches	N	N	F
-- Regulations/taxes	F	NF	N
-- Capacity expansion/constraints	NF	N	N

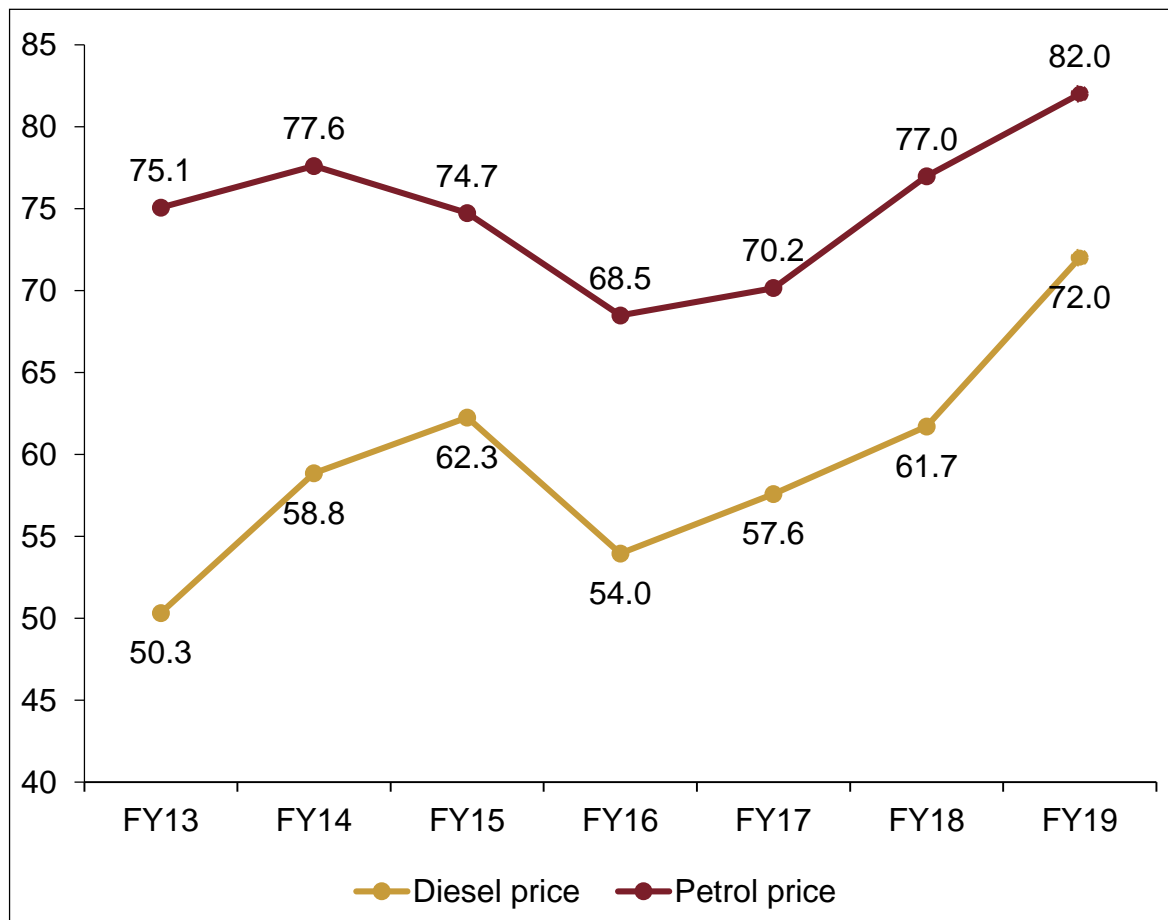
NOTE : CPI index base 2000-01 ; *Fiscal 2020 crop value index assumed neutral, assuming normal monsoon

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

Source: CRISIL Research

Expected fall in fuel prices and upcoming model launches are expected to turn PV sales sentiment

Fuel prices significantly higher than past 5 year average



Source: CRISIL Research






Major Upcoming Launches and their contribution

Year	Month	Company	Model	Segment	Impact
2019	April	Mahindra	eKUV100	UV	Low
2019		Hyundai	Carlino	UV	Low
2019		Jeep	Wrangler	UV	Medium
2019		Hyundai	Qxi	UV	Low
2019	May	Audi	A6 2019	Large Cars	Low
2019		Tata	Tigor EV	Small Cars	Medium
2019	June	Hyundai	Santa Fe 2019	UV	Low
2019		Renault	Duster 2019	UV	Low
2019		Renault	Arkana	UV	Low
2019		Mahindra	TUV 300	UV	Low
2019		Hyundai	Sonata 2019	Large Cars	Low
2019		Tata	Altroz	Small Cars	Low
2019		Skoda	Karoq	UV	Low
2019	July	MG	Hector	UV	Medium
2019		Mahindra	e20 NXT	Small Cars	Low

Source: CRISIL Research

Cost of Ownership

Cost of ownership to rise marginally in short term

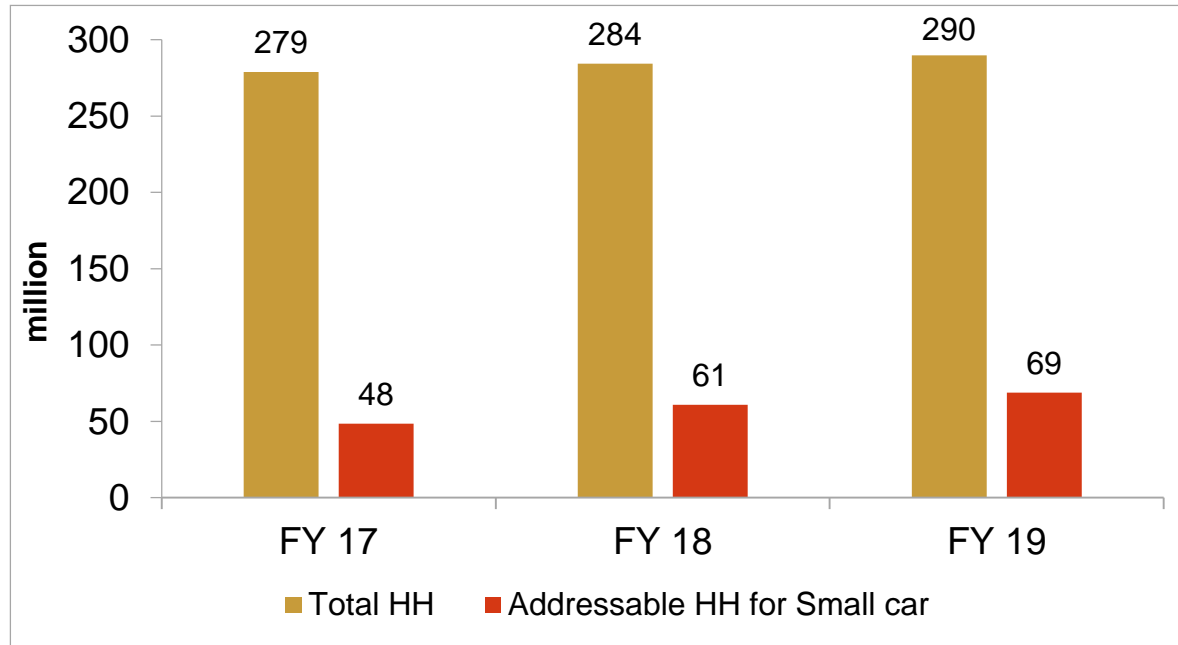
Total Cost in '000		216	219	218	219	225	234
Maintenance cost 		3	3	3	3	4	4
Insurance cost 		13	13	13	13	17	18
Fuel cost 		39	36	37	41	44	42
Loan repayment 		69	71	71	70	73	76
Down Payment 		92	95	94	93	87	91
		FY 15	FY 16	FY 17	FY 18	FY 19	FY 20P

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

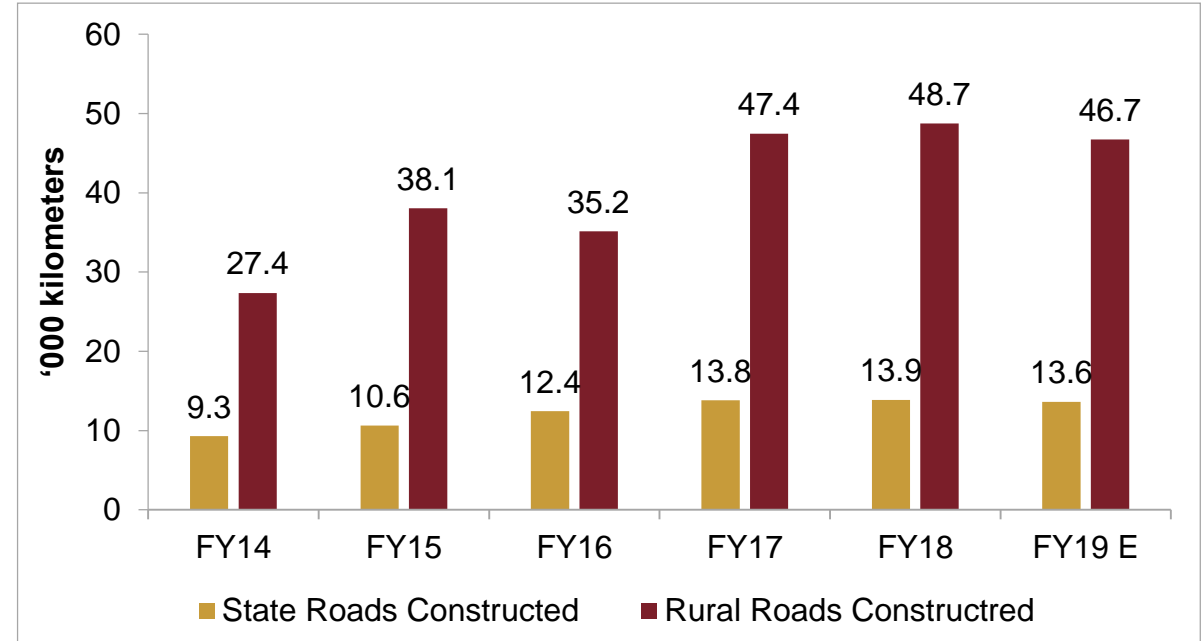


Source: CRISIL Research

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.

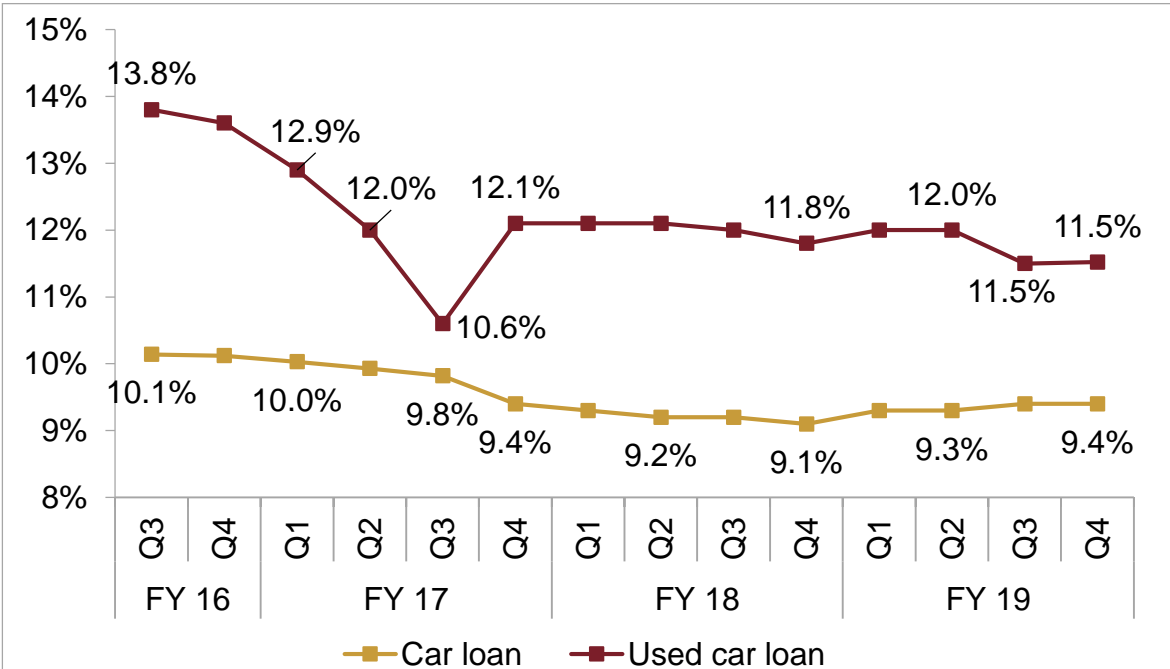
Construction of rural roads to stay strong over short-term



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

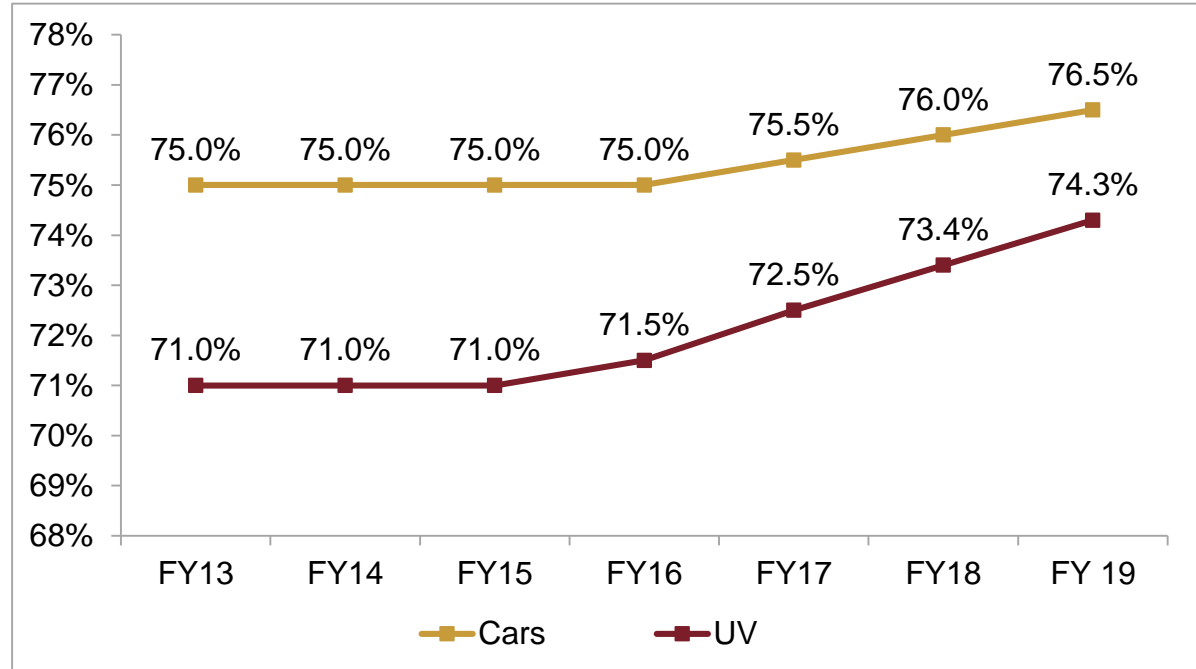
Loan-to-Value on upward trajectory since last few years

Interest Rates for PV



Source: CRISIL Research

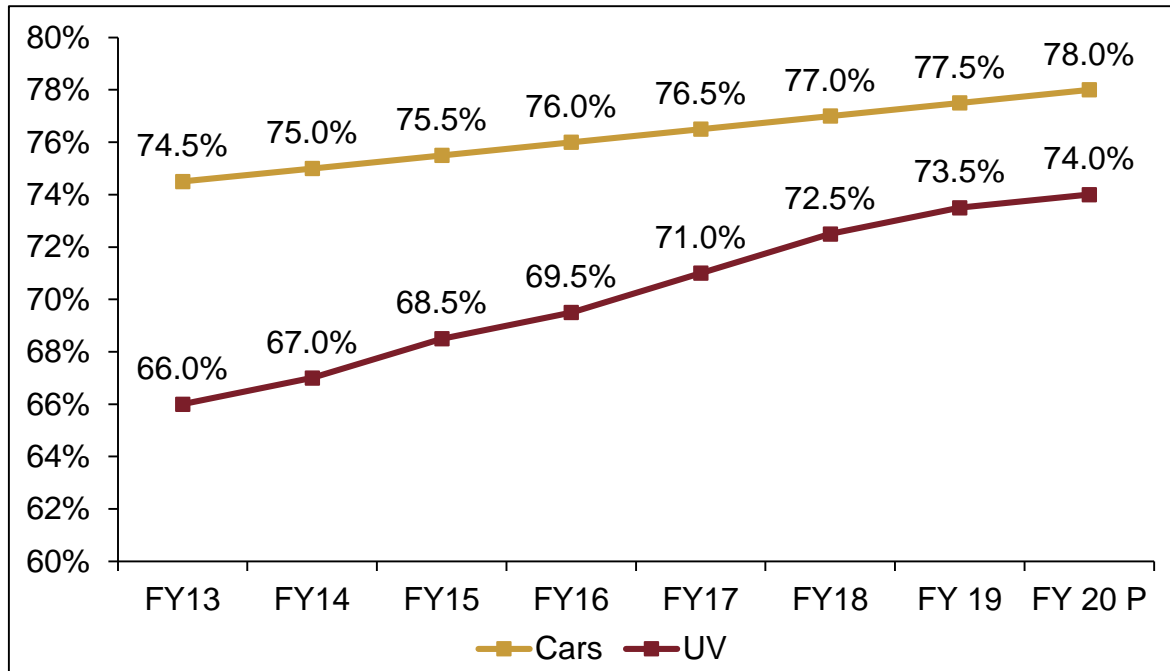
Loan-to-Value for PV



Source: CRISIL Research

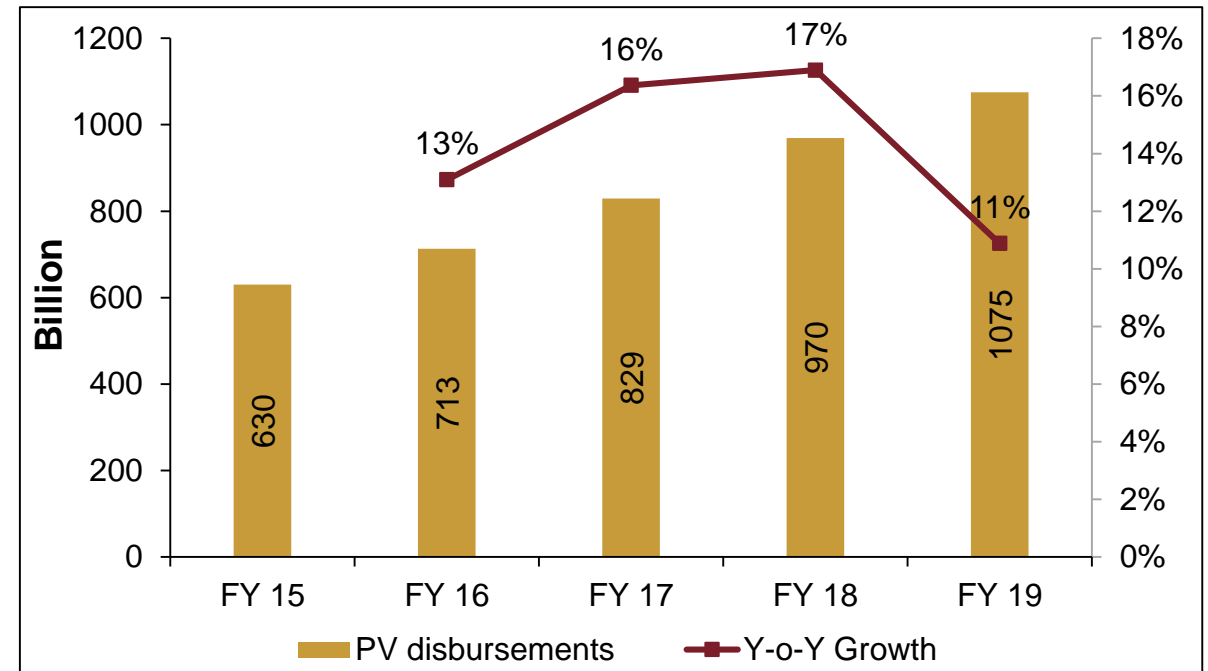
Disbursement towards UVs to continue to drive PV disbursement

Auto Finance Penetration



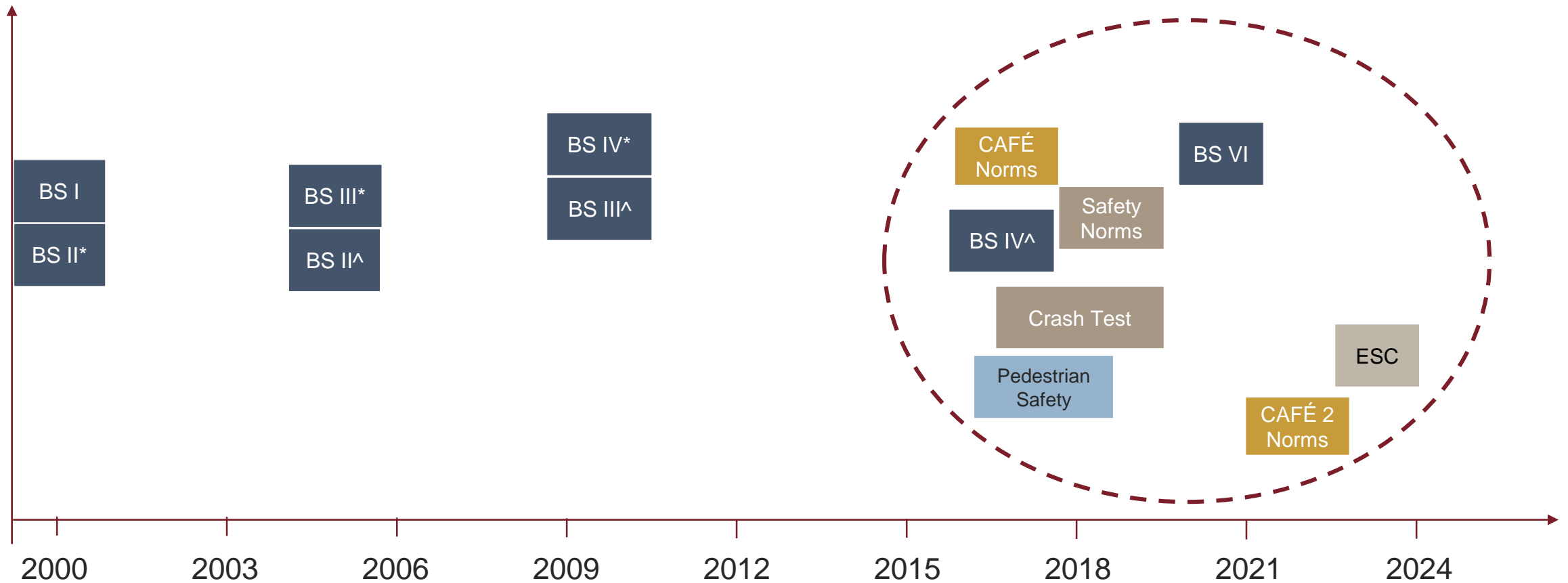
Source: CRISIL Research

PV Disbursements



Source: SIAM, CRISIL Research

Regulations shaping Passenger vehicle industry in India



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

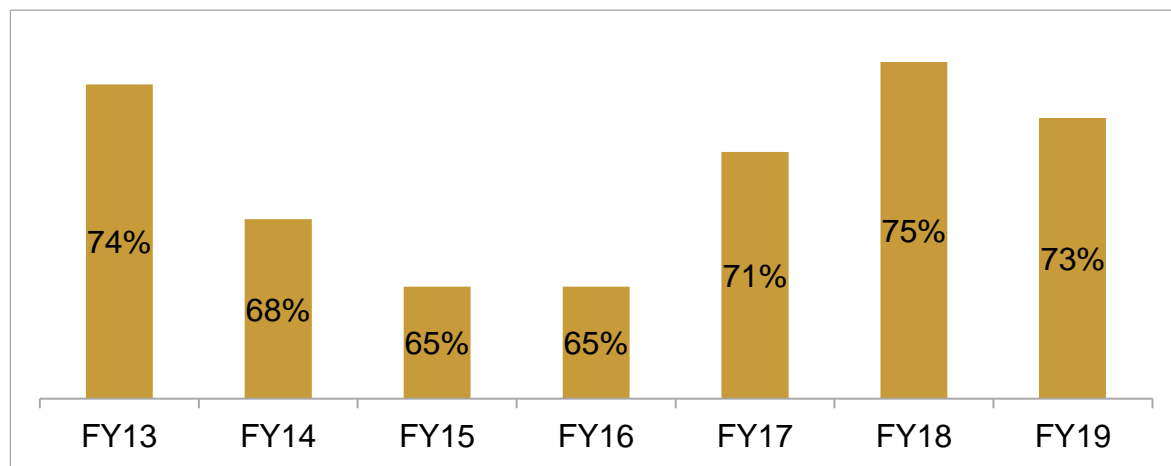
^ Nationwide implementation

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 Addition's

Player	Location	Capacity lacs units pa	Investment	Commissioning
Kia Motors	Anantpur AP	3	Rs 65 B	FY 19
Maruti Suzuki	Mehsana Gujarat	1.5	Rs 85 B	FY 20
Maruti Suzuki	New Plant	2.5	Not disclosed	~ FY20
PSA	Tiruvallur , TN	1	Rs 7 billion	FY20

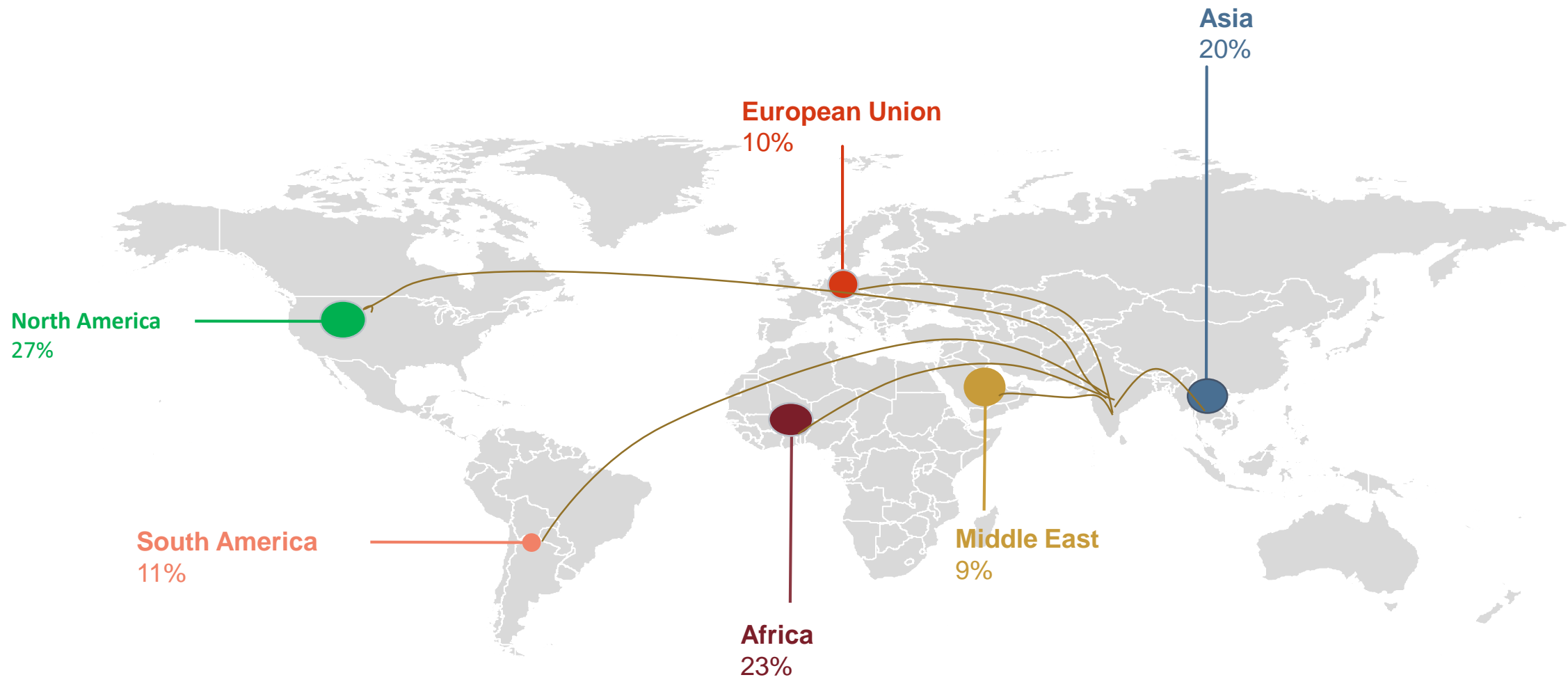
Top players running on optimum capacity

Player	Effective Capacity estimate (in '000) (as on 31st Mar 2019)	Production (FY19) (in '000)	Capacity utilization in FY19
Maruti	1800	1825	104%
Hyundai	763	716	96%
Tata Motors	564	225	40%
Ford India	440	256	59%
Renault-Nissan	480	185	40%
General Motors	165	77	47%
Toyota	310	160	55%
Honda	300	180	59%
Volkswagen	179	91	53%
Other Players	551	299	54%
Industry Total	5552	4026	73%

Note : Maruti Suzuki plants are working in double shifts resulting in more than 100% utilization rates; Source: SIAM, CRISIL Research

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

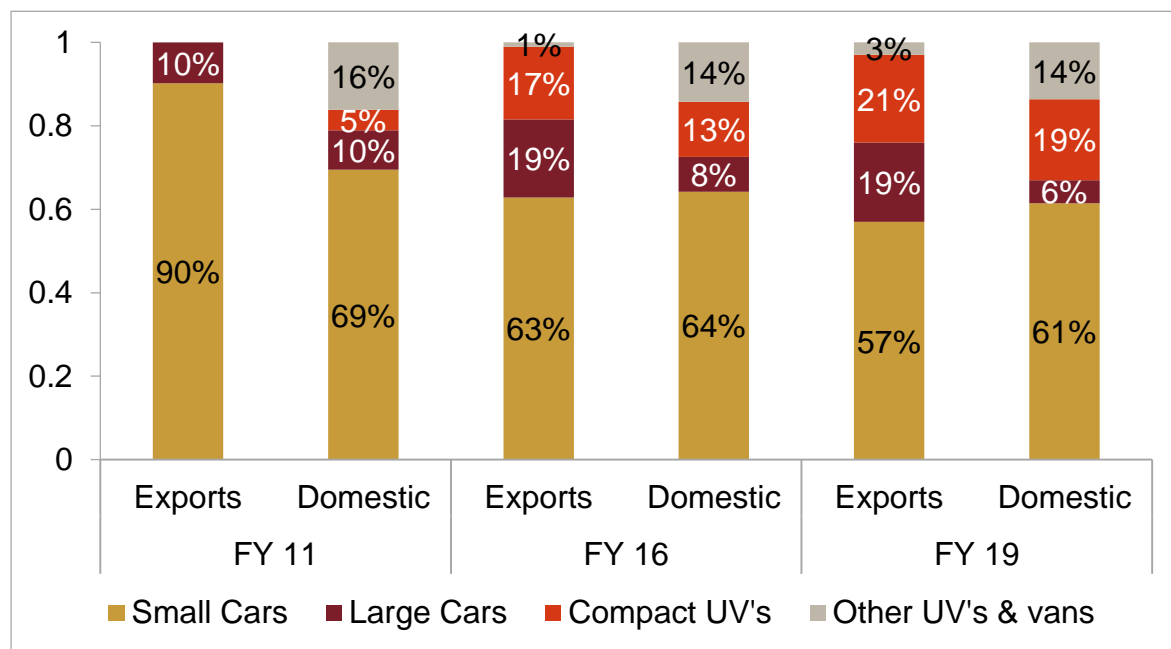
Passenger Vehicle Exports



Note: : Latest numbers available for FY 2018 on DGFT
Source: DGFT, CRISIL Research

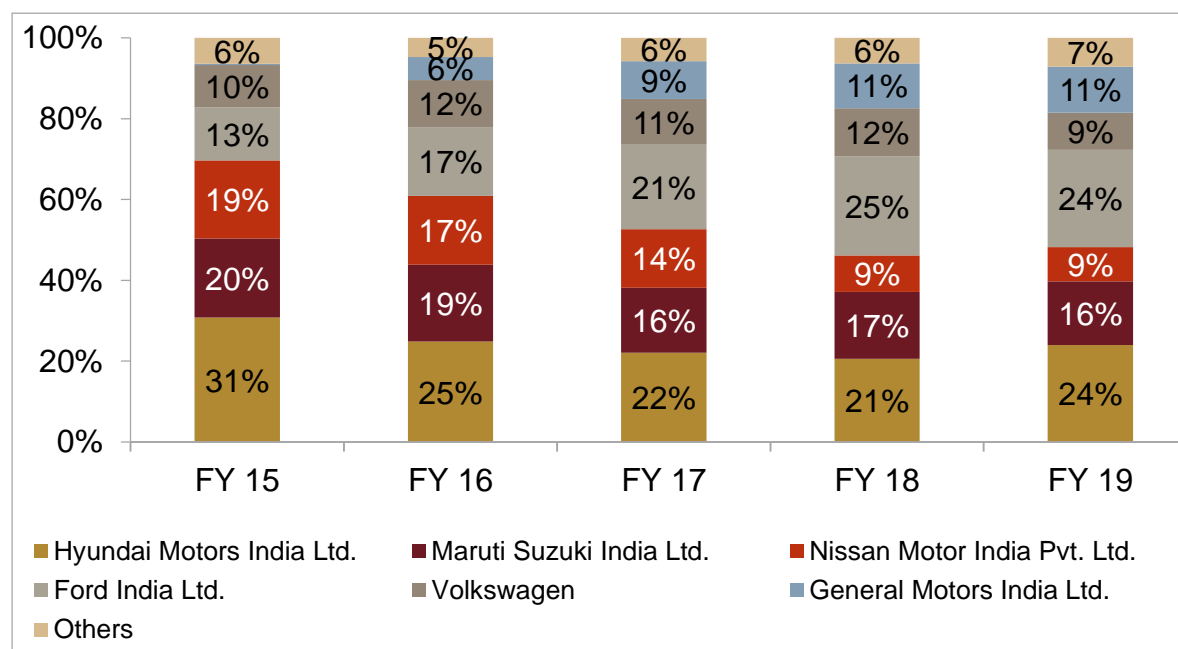
In FY19, small cars share has improved

Share Of Compact UV's in exports on the rise



Source: SIAM, CRISIL Research

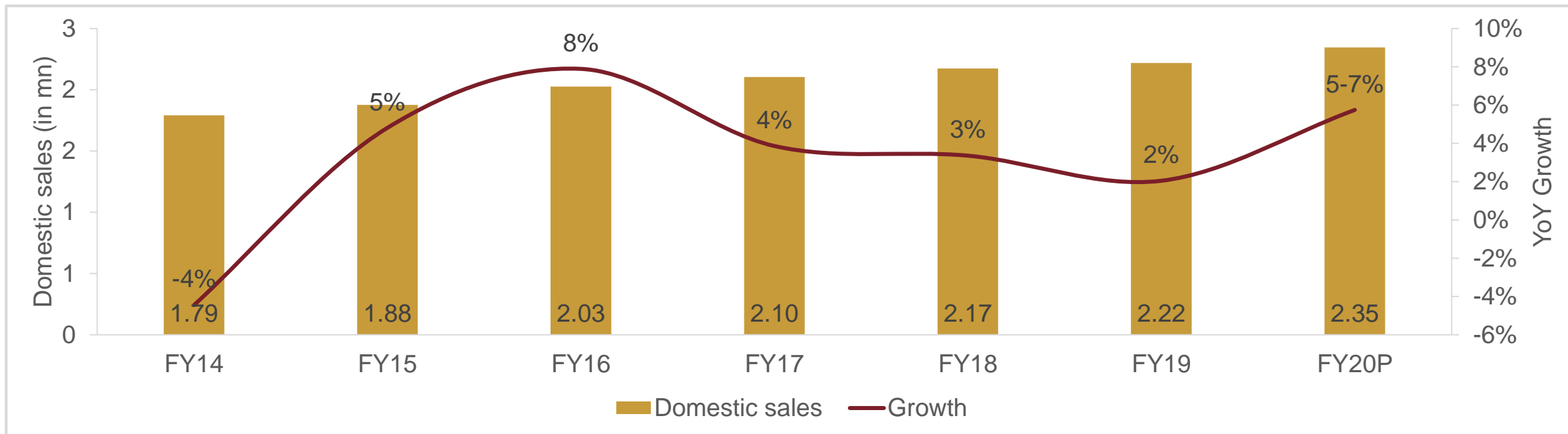
Top 2 domestic players gaining share in India's exports



Source: SIAM, CRISIL Research

Domestic sales - Cars

Q1 FY20P	Q2 FY20P	Q3 FY20P	Q4 FY20P
(10)%	3%	20%	11%

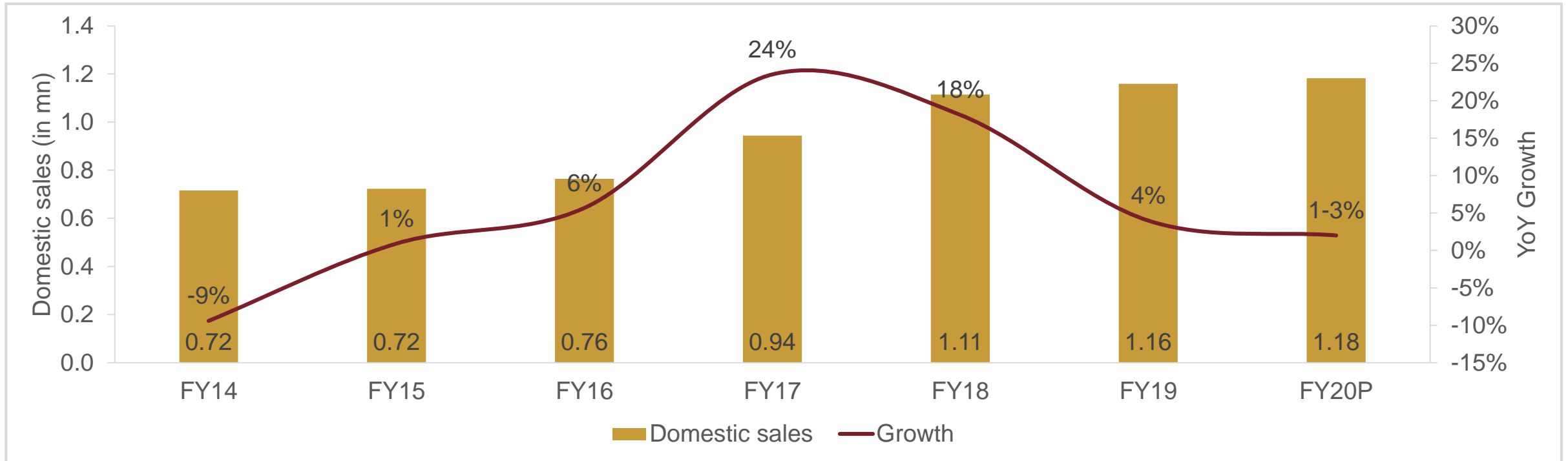


Source: SIAM, CRISIL Research

- Domestic sales began to weaken in fiscal 2019 after devastating floods in Kerala, followed by poor festive due to higher fuel and regulatory cost and liquidity crunch. Higher insurance cost and volatile oil prices led to lower consumer sentiments.
- Amid uncertainty of elections, we expect domestic sales of cars to register a growth of 5-7% in fiscal 2020 with above normal inventory in the start of the year.
- However, H2 of Fiscal 2020 is expected to see incremental growth aided by preponement due to implementation of BS VI.

Domestic sales – UVs and vans

Q1 FY20P	Q2 FY20P	Q3 FY20P	Q4 FY20P
(11)%	5%	25%	(9)%



Source: SIAM, CRISIL Research

- Similar to cars, utility vehicles and vans has recorded a sluggish growth in fiscal 2019 due to lower sentiments on the ground plus higher cost of ownership due to mandatory insurance
- From fiscal 2021 onwards, Omni model is expected to be discontinued due to higher cost of upgradation.



Two-Wheelers

Improvement expected across most parameters

Parameters	Impact		
	FY 18	FY 19E	FY 20P
Demand side variables			
-- Real GDP growth	6.7%	7.2%	7-7.5%
-- Rural Roadways Investments (INR bn)	170	183	F
-- Crop Value index	N	N	N*
Cost of ownership			
-- Petrol Prices	Rs 77.0/ liter	Rs 82/ liter	NF
-- Interest rates	F	NF	F
Supply side variables & financing			
-- Finance Penetration	30%	31%	32%

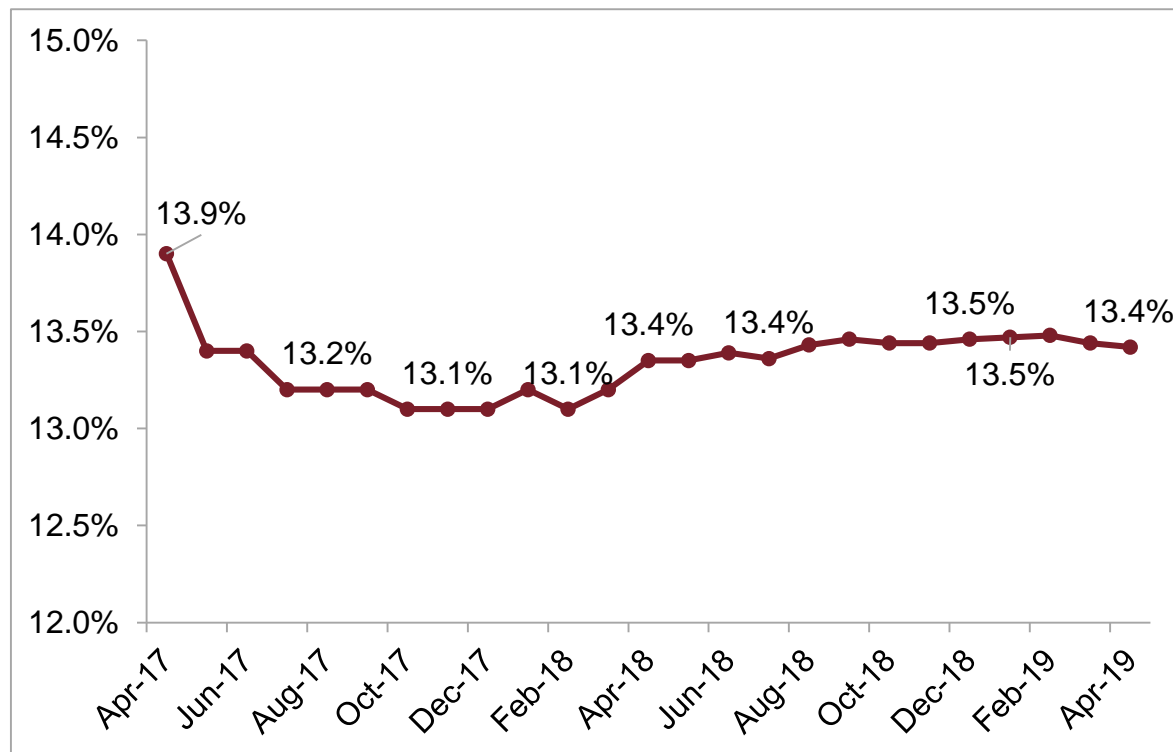
NOTE : CPI index base 2000-01 ; *Fiscal 2020 crop value index assumed neutral, assuming normal monsoon

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

Source: CRISIL Research

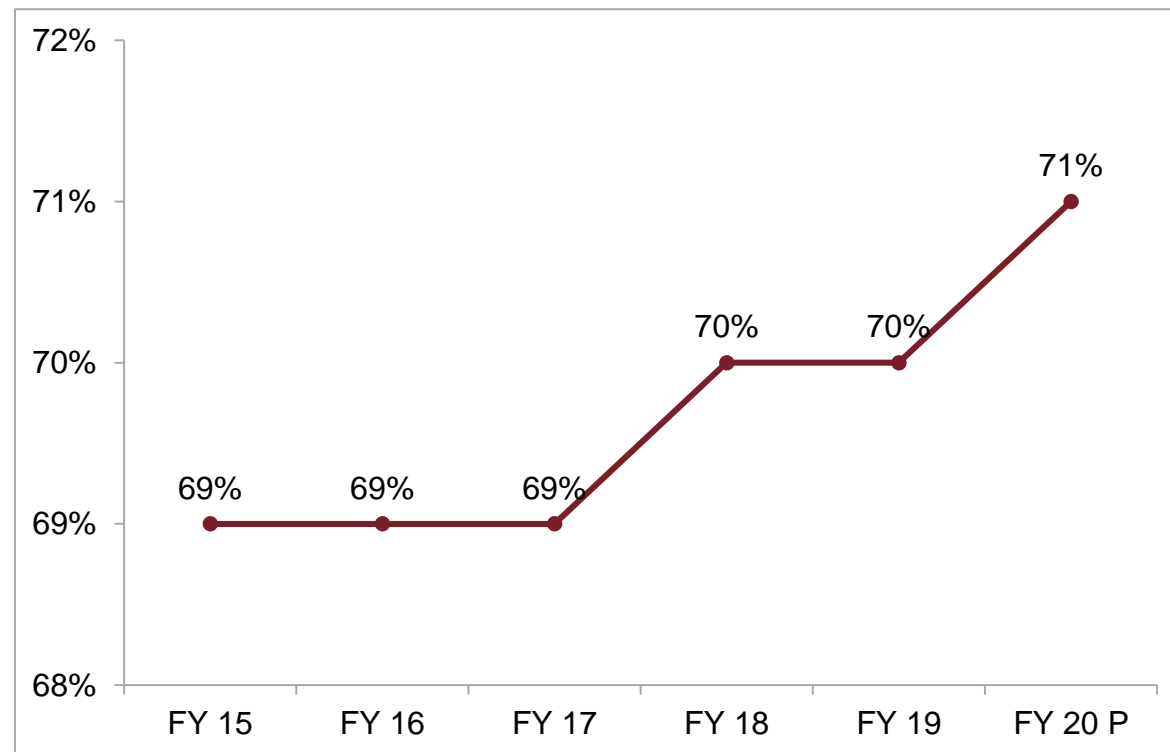
Increasing penetration of credit bureau and competition among financiers to boost LTV ratios

Interest Rates



Source: CRISIL Research, Estimated from Jan onwards as one of the banks rate not available

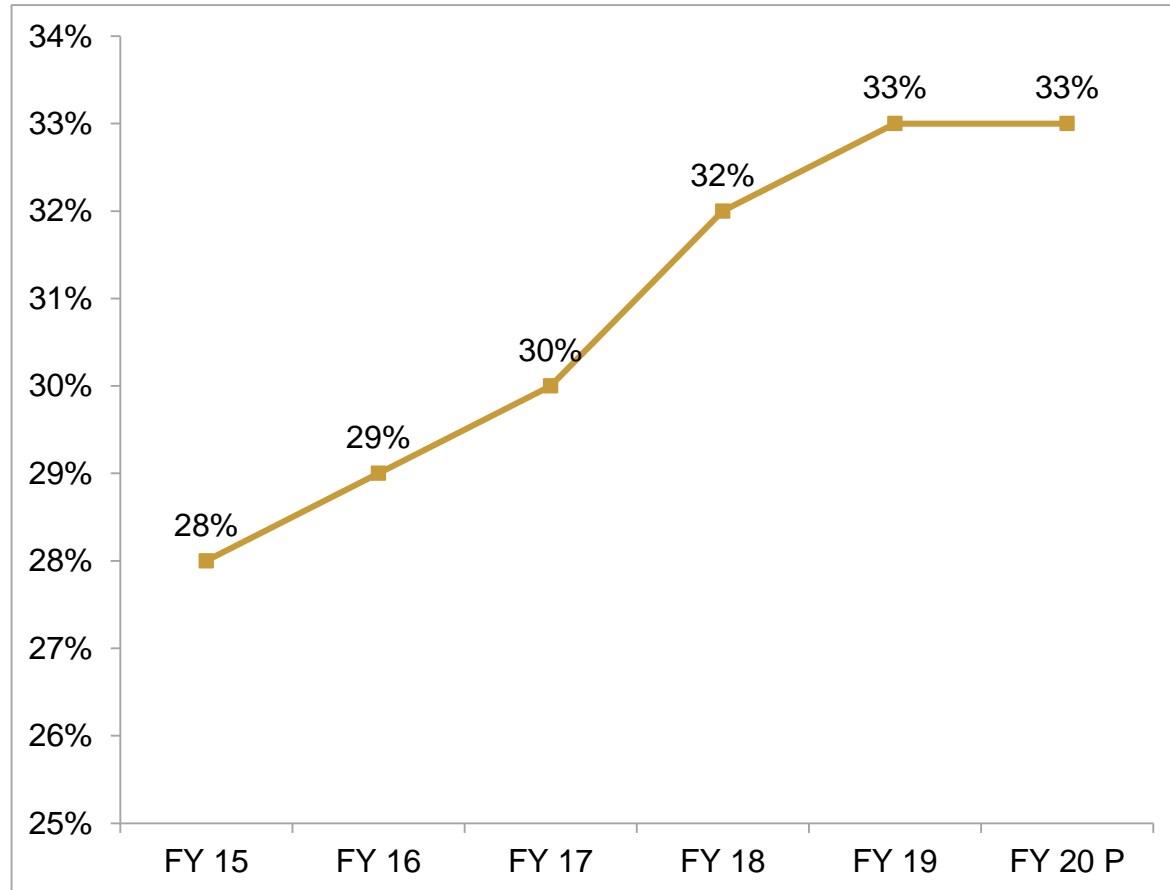
Loan-to-Value



Source: CRISIL Research

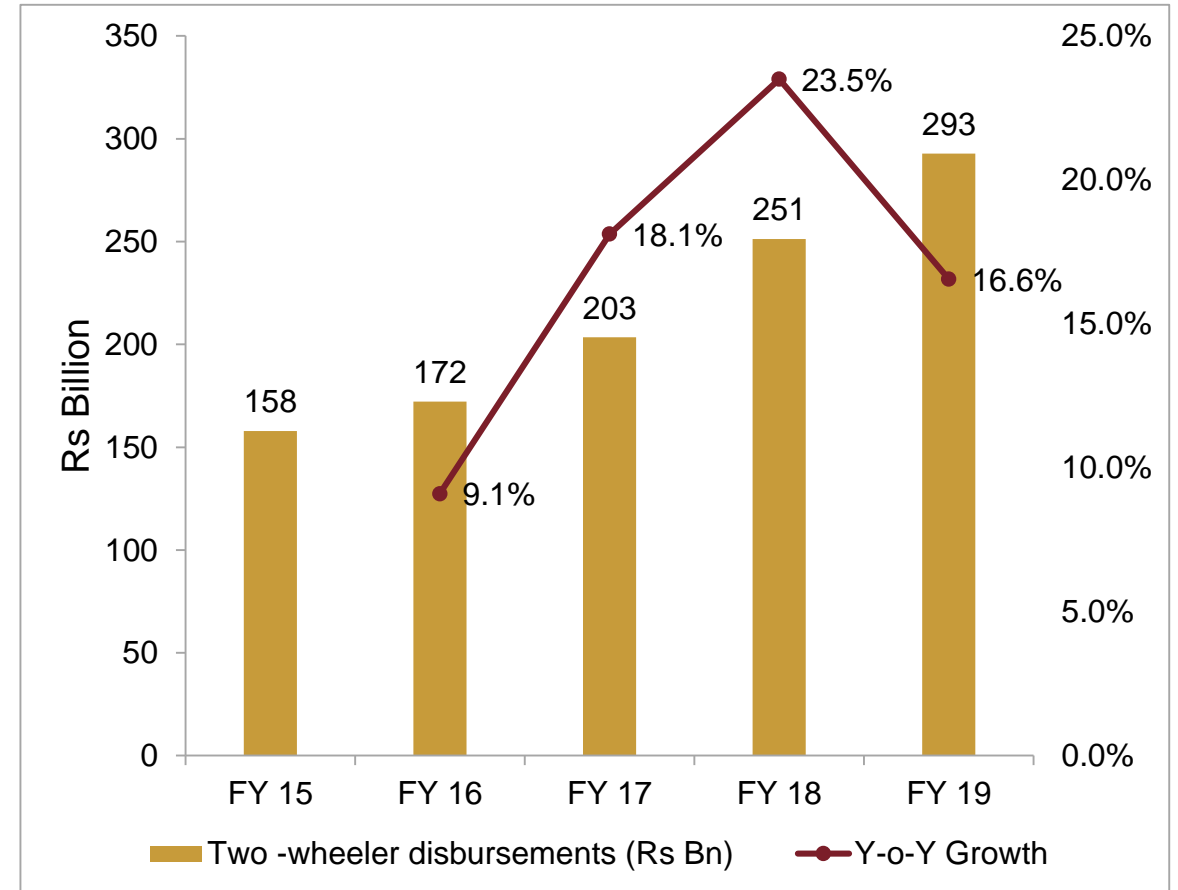
Finance penetration to remain at current levels

Auto Finance Penetration



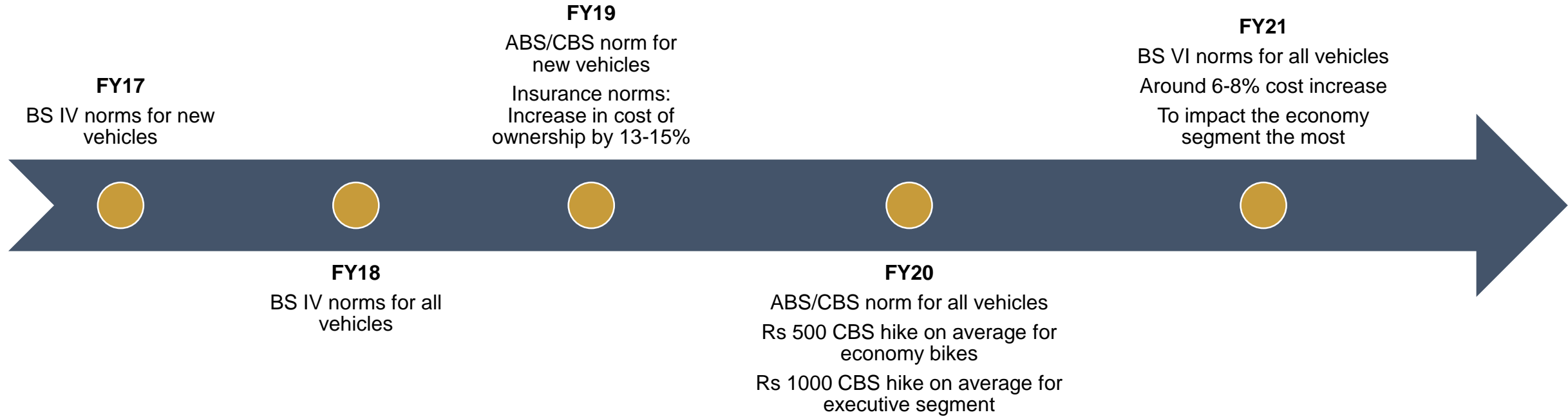
Source: CRISIL Research

Two-Wheeler Disbursements



Source: SIAM, CRISIL Research

Regulations timeline and price impact

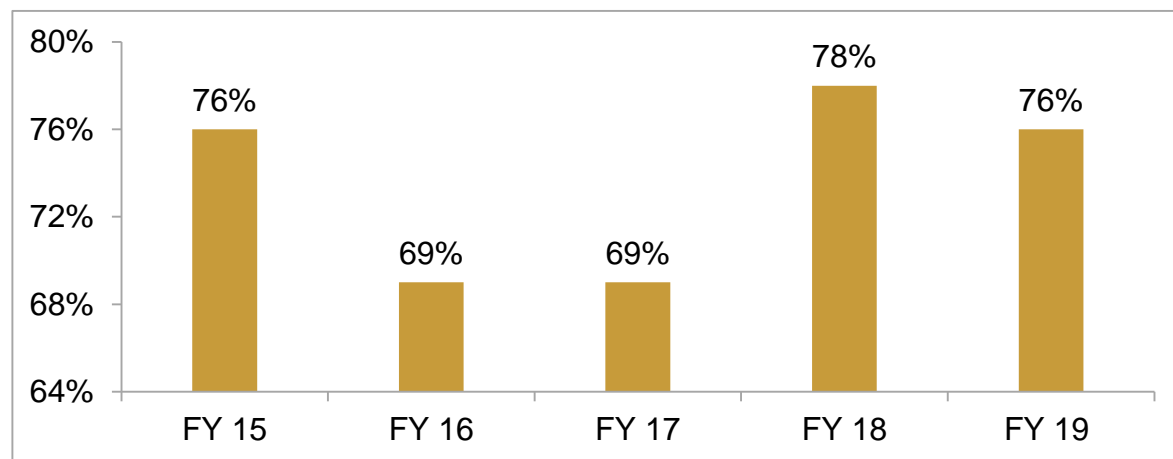


Segments	% increase in cost due to BS VI	Pre-buying expected
Motorcycle		
Economy	7%	Medium
Executive	6%	Medium
Premium	7%	Low
Scooter	8%	Medium
Mopeds	10%	Medium

Source: CRISIL Research

Utilisation rates to rise in fiscal 2020

Utilization rates decreased in fiscal 19



Source: CRISIL Research

Expected capacity additions

Player	Location	Capacity lacs units	Investment	Commissioning
Hero Motocorp	Chittor	0.5	Rs 16 billion*	Dec 20
Hero Motocorp	Chittor	0.8		Dec 23
Royal Enfield	Chennai	0.1	Rs 8 billion	FY 20

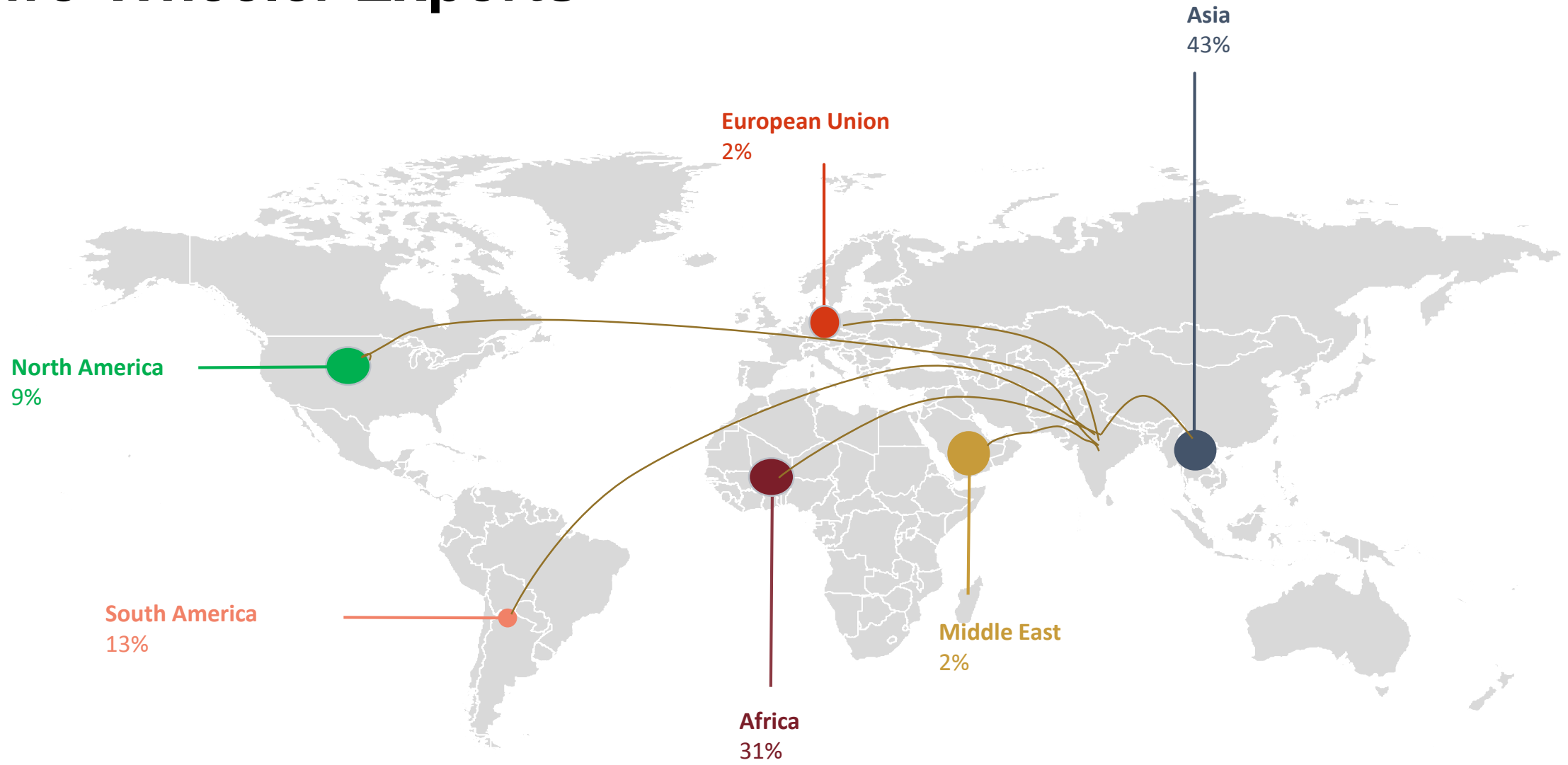
* Includes earlier investment made on expansion of 0.5 mn capacity which is operational from Dec 18

Improved demand to help boost utilization rates

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

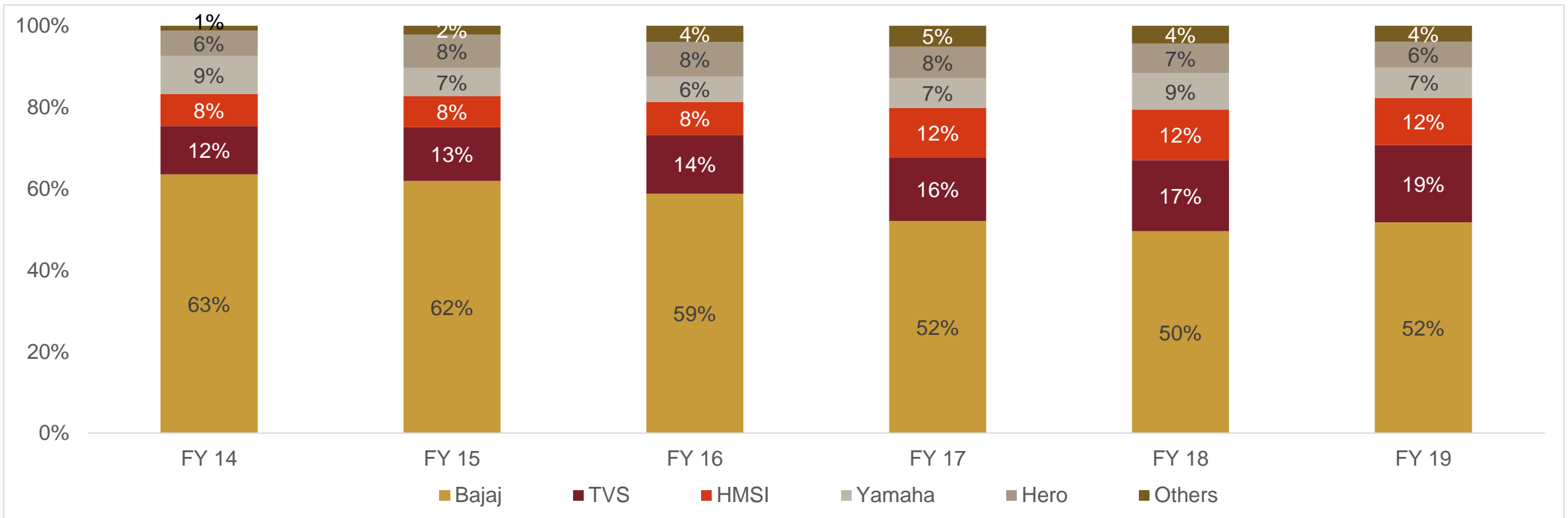
Two-Wheeler Exports



Note: : Latest numbers available for FY 2018 on DGFT
Source: DGFT, CRISIL Research

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

Bajaj dominates the export segment

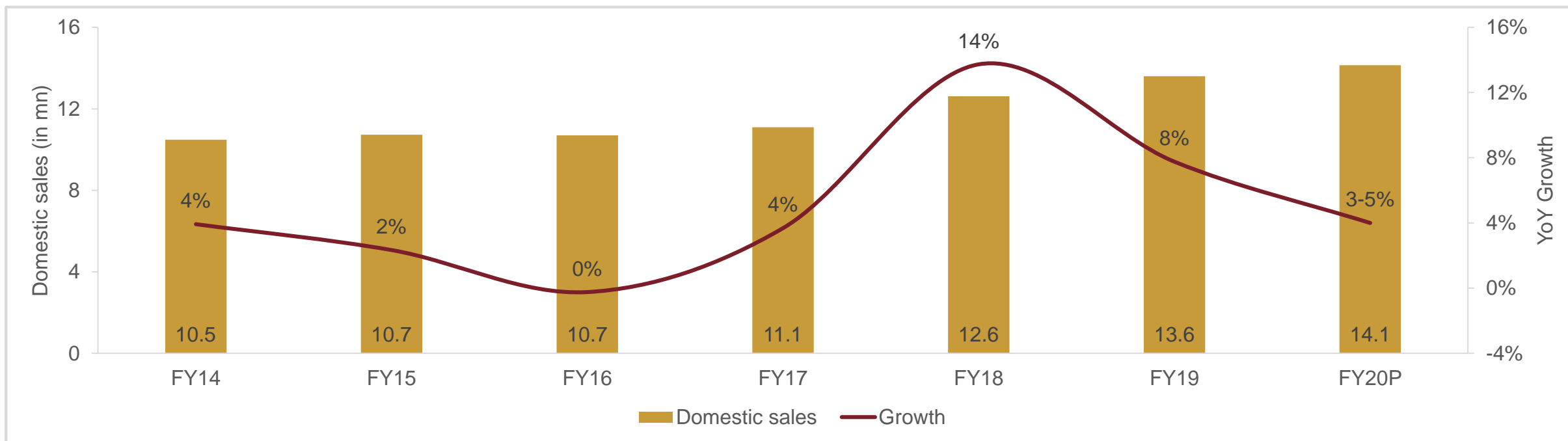


Note: Others include Suzuki, Royal Enfield, Mahindra, Piaggio, Harley Davidson etc

Source: SIAM, CRISIL Research

Domestic sales - Motorcycles

Q1 FY20P	Q2 FY20P	Q3 FY20P	Q4 FY20P
(8)%	(1)%	17%	10%

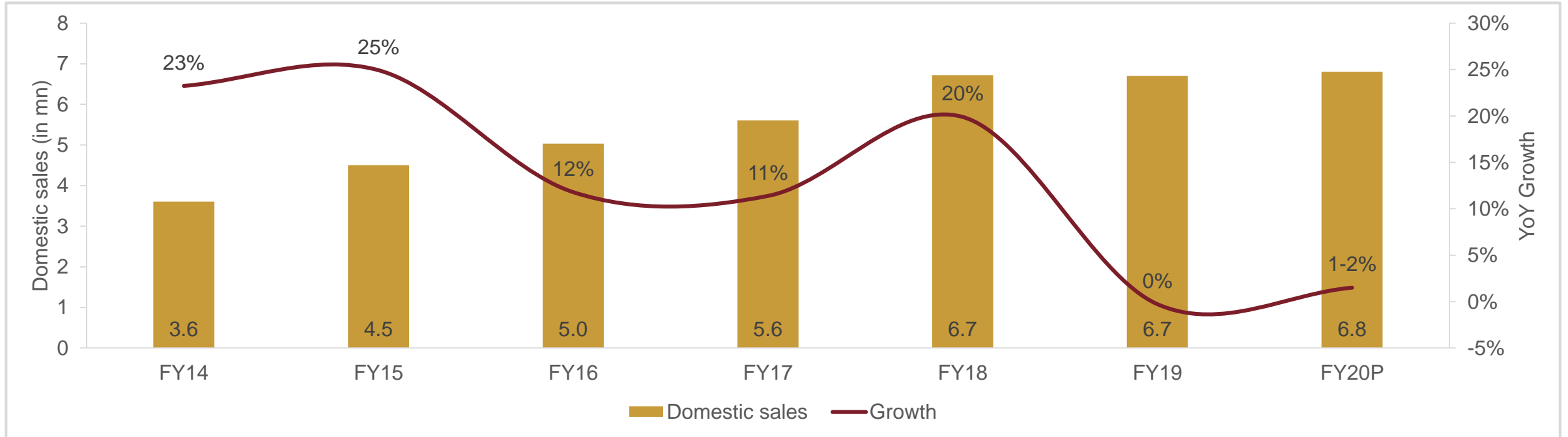


Source: SIAM, CRISIL Research

- Fiscal 2019 recorded a growth of 8% despite higher insurance cost, liquidity constraints and fuel price hike.
- In fiscal 2020, we expect motorcycles to remain subdued due to year starting with the higher inventory levels. However, pre-buying due to BS VI is expected to set off this impact.

Domestic sales - Scooters

Q1 FY20P	Q2 FY20P	Q3 FY20P	Q4 FY20P
(17)%	(5)%	20%	15%

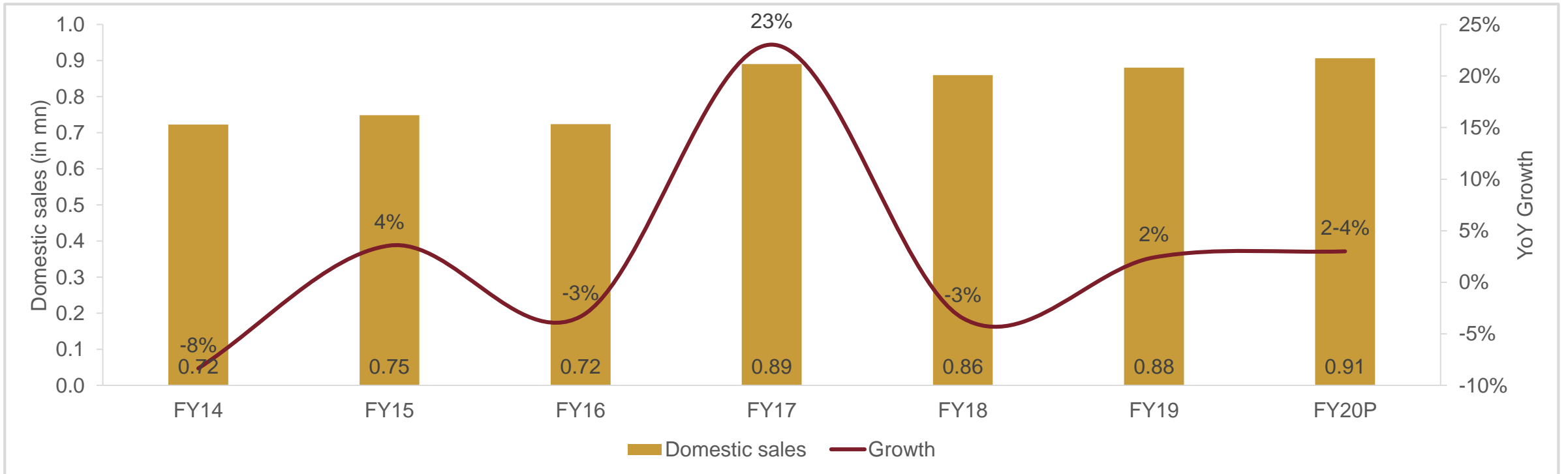


Source: SIAM, CRISIL Research

- Scooters registered a degrowth in fiscal 2019 by 0.27% mainly due to lower consumer sentiments in urban areas.
- Honda has announced production cut by almost 15-20% in Q1 of fiscal 2020.
- Due to uncertainty of election outcome, we expect the scooter segment to remain stagnate in fiscal 2020.

Domestic sales - Mopeds

Q1 FY20P	Q2 FY20P	Q3 FY20P	Q4 FY20P
(2)%	(5)%	11%	8%



Source: SIAM, CRISIL Research

- Sale of mopeds registered a growth of 2% in fiscal 2019.
- Mopeds are expected to log a sluggish growth of 2-4% in fiscal 2020 due to lower rural sentiments.



Commercial Vehicles

Demand to remain robust across CV segments

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

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

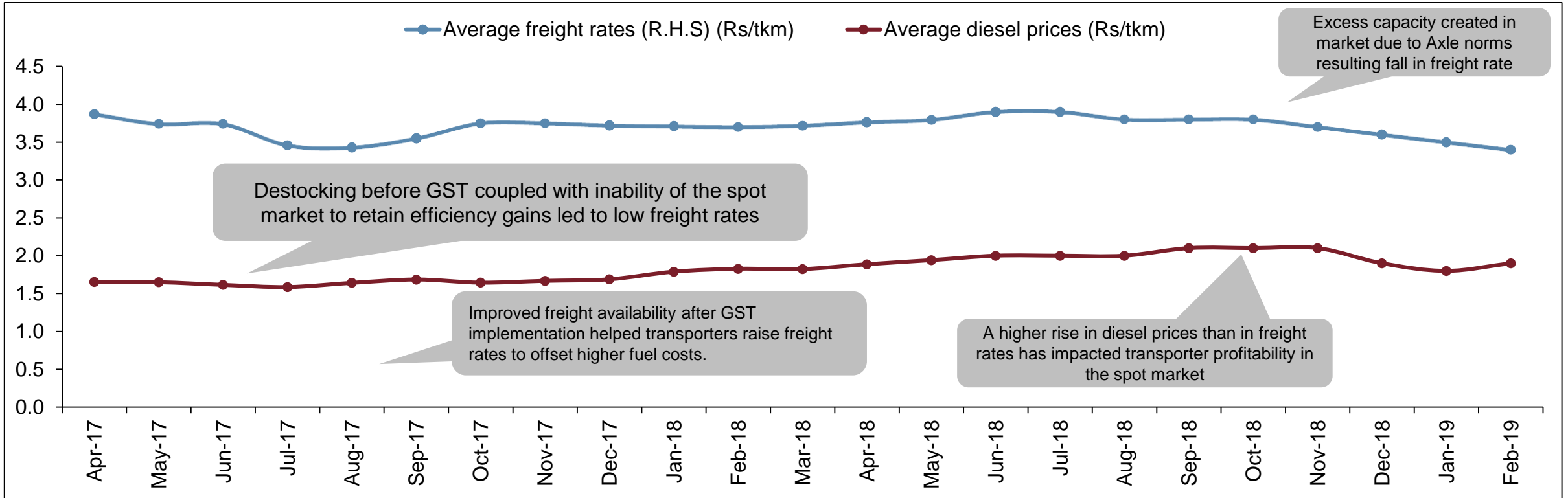
Variables MHCV	FY 18	FY 19E	FY 20P
Freight demand	N	F	F
Industrial GDP	N	F	F
Replacement demand	F	N	N
NHAI Road Execution	F	F	F
Impact of Axle load norms	----	NF	N
Overall demand	F	F	F

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: Represent freight rate for a MCV truck, Diesel price per tkm is representative for a 10T payload with and fuel efficiency 3.5 kmpl

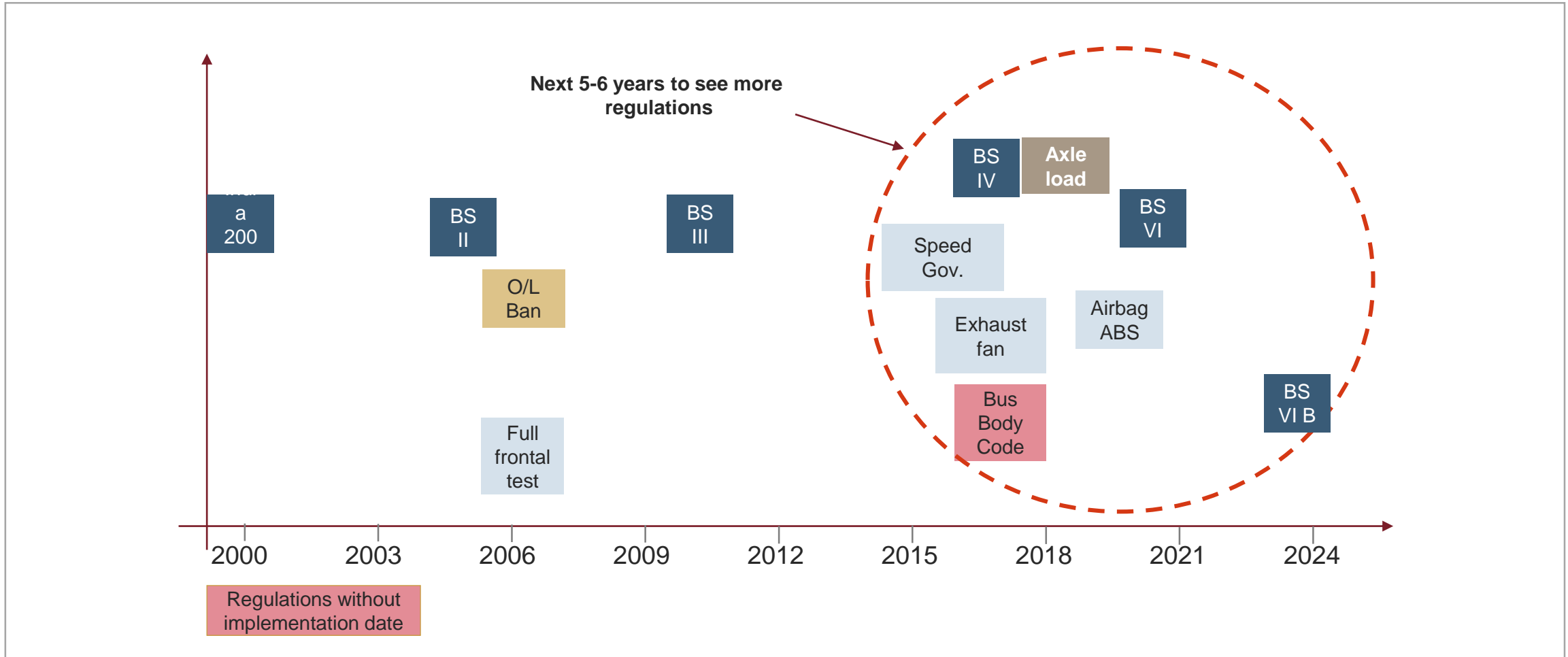
Source: CRISIL Research

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	8.9	7-8
Iron ore (Production)	12.1	(15.4)	20.9	23.1	9.4	4	6-8
Steel (Consumption)	0.8	3.9	5.8	3.1	8.0	8.0	5-6
Cement (Consumption)	3.4	4.9	4.7	1.9	9.1	11.7	5-7
Roads (Construction)	(34.4)	(3.2)	40.1	19	17.0	21	11-13
Consumer durables (Consumption)	2	8.8	6.6	6.6	6.7	8-9	9-10
E-commerce	46	71	68	22	35	35-37	34-36

Source: CRISIL Research

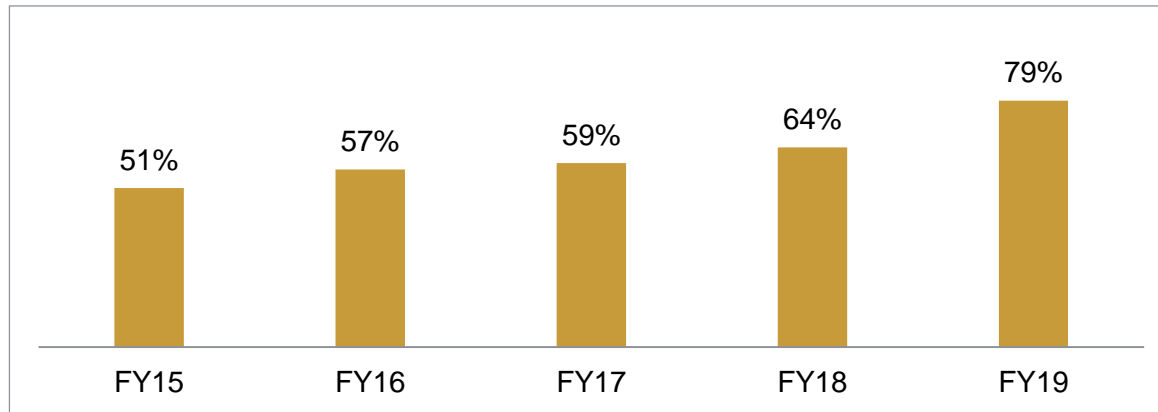
Regulations shaping commercial vehicle industry in India



Source: CRISIL Research

Higher capacity utilization to help improve margins

Utilization levels on a rising trend



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

Top players running on optimum capacity

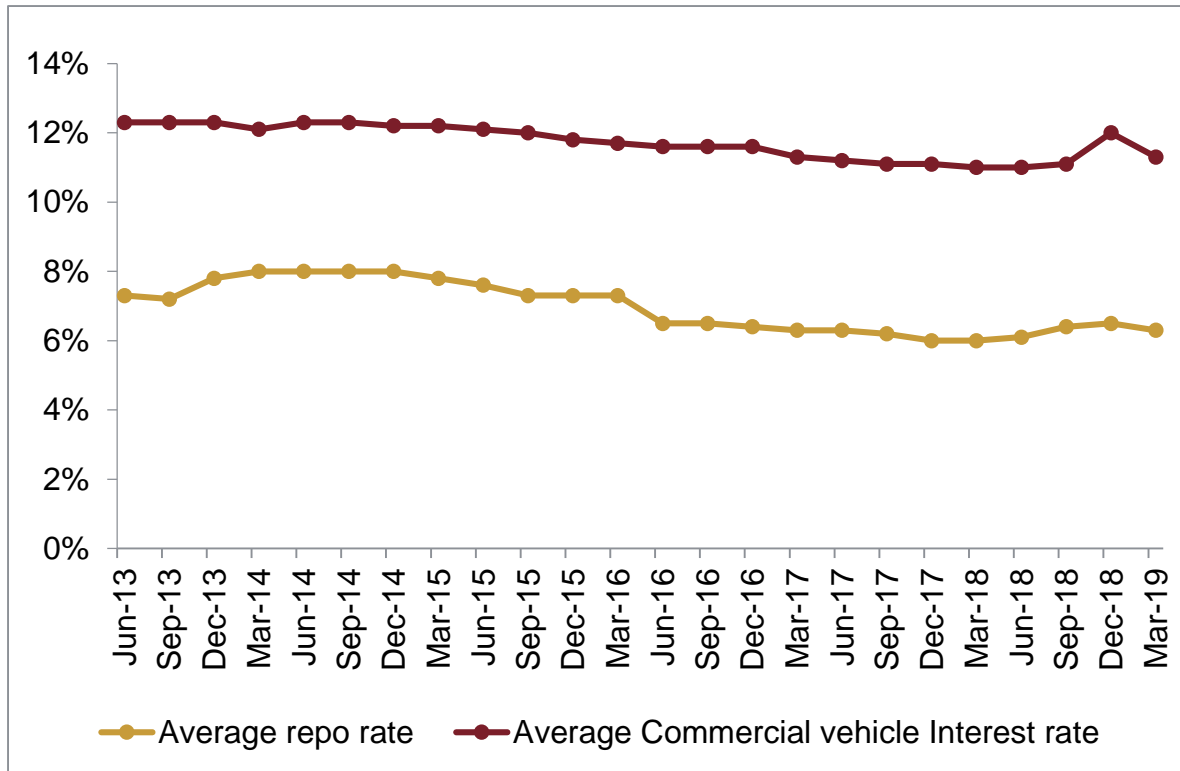
Player	Effective Capacity estimate (as on 31st Mar 2019)	Capacity utilization
Ashok Leyland	186500	89%
Eicher Motors	93000	94%
Tata Motors	762000	49%
Mahindra & Mahindra	292000	80%

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 ~78-80% in fiscal 2019 and rise further to ~85% 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.

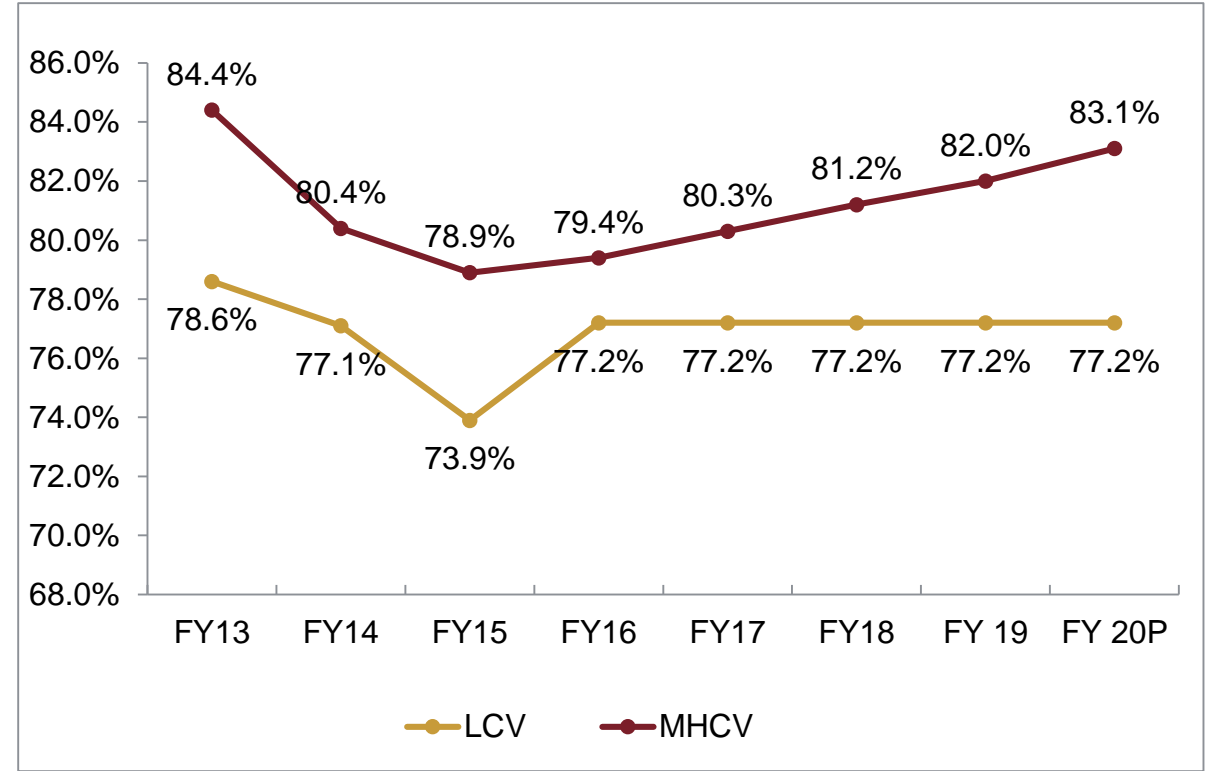
CV financing to remain key monitrable as repo rate expands

CV interest rates and repo rates



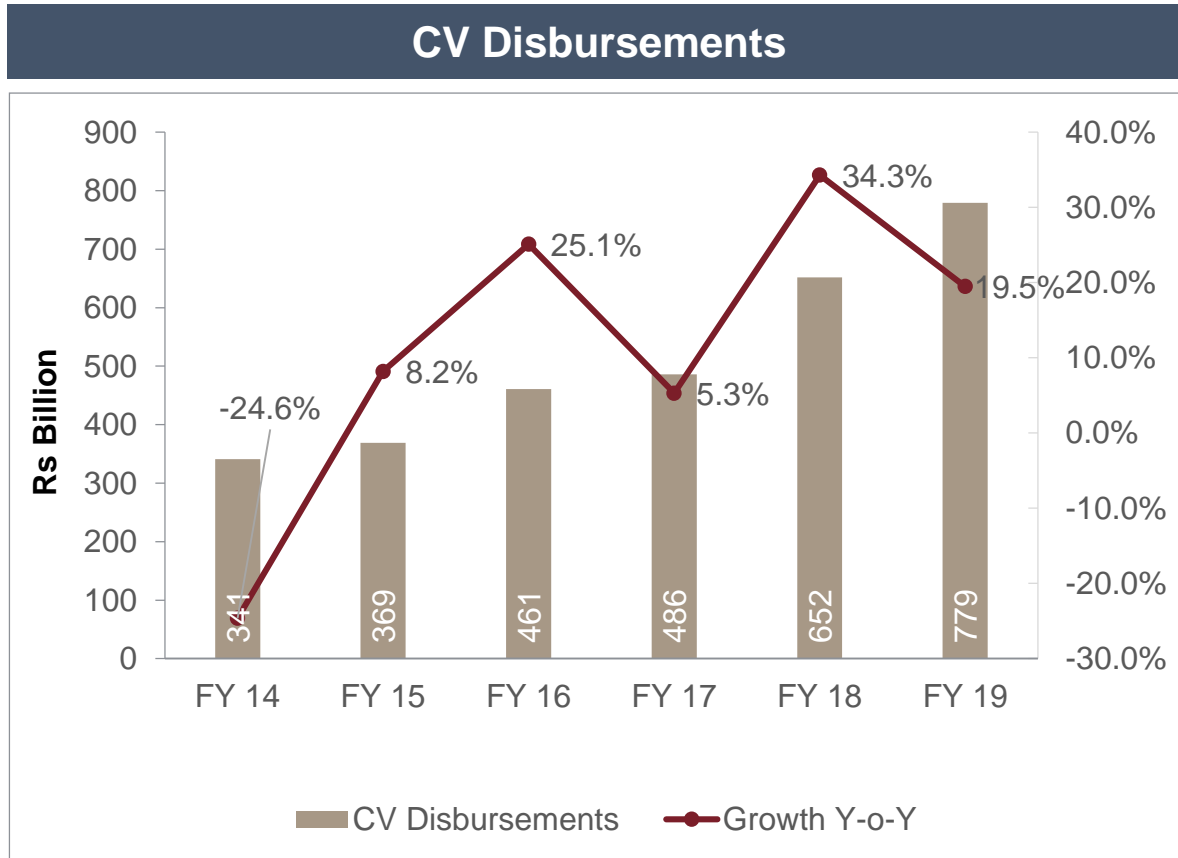
Source: CRISIL Research

Loan-to-Value for CV

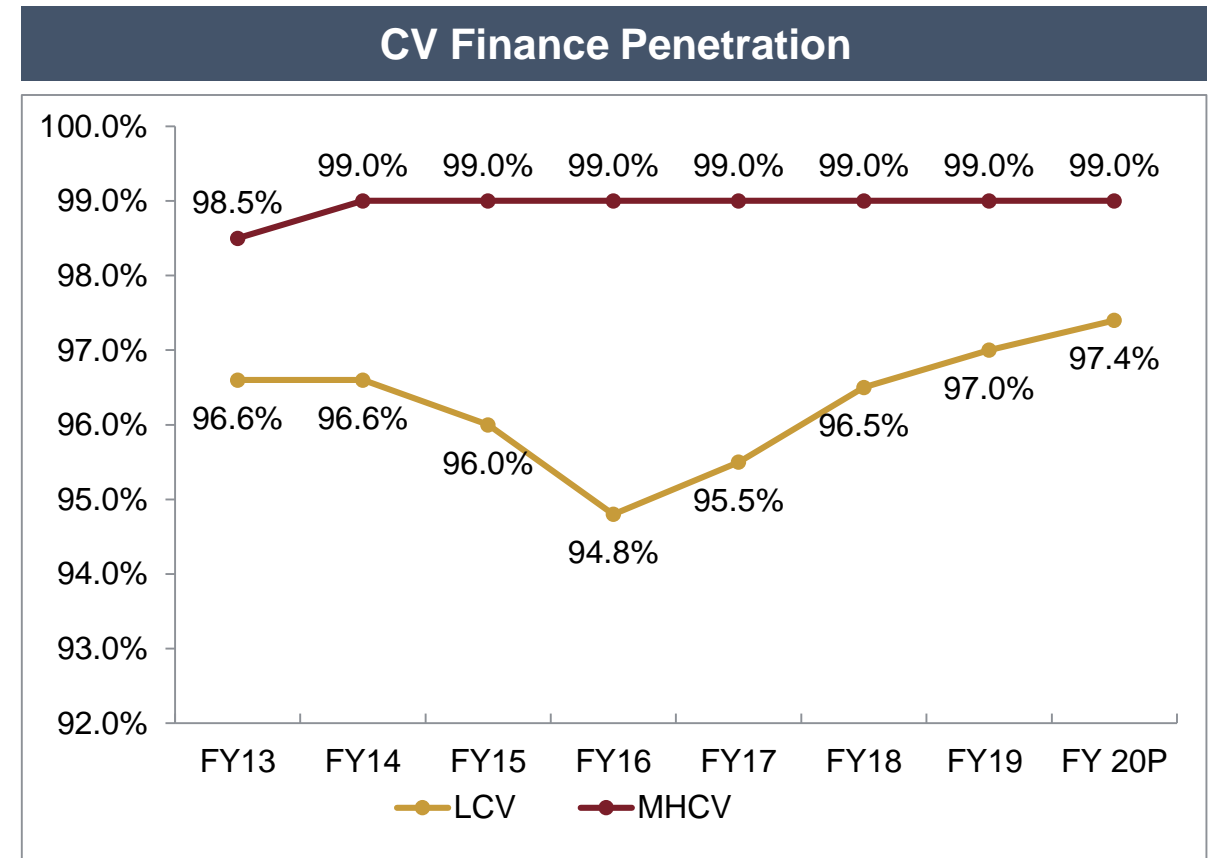


Source: SIAM, Crisil Research

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

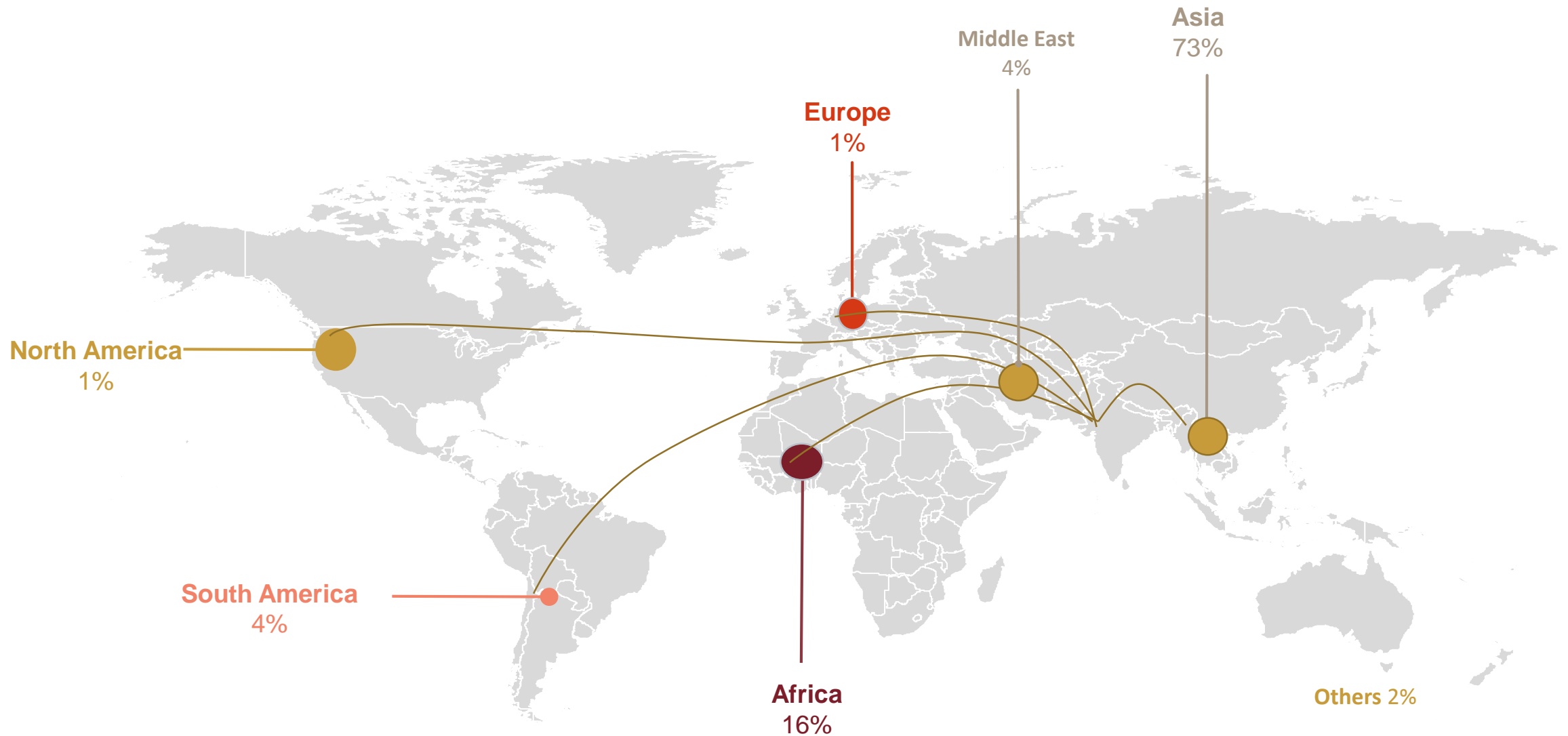


Source: Crisil Research



Source: Crisil Research

Commercial vehicles exports

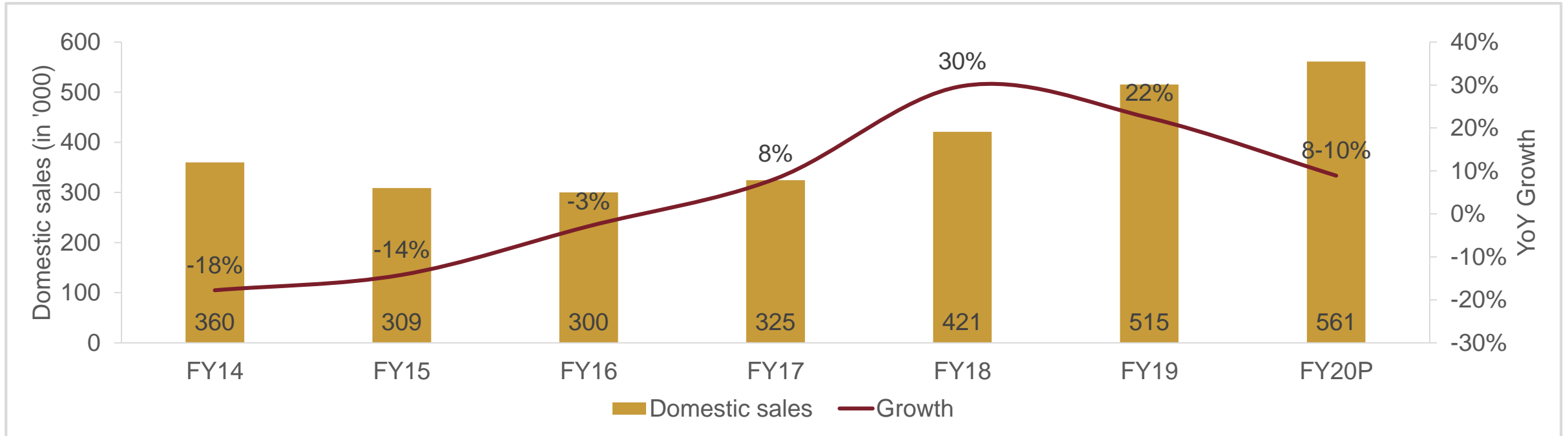


NOTE: Latest numbers available for FY 2018 on DGFT

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

Domestic sales – LCV (<3.5T)

Q1 FY20P	Q2 FY20P	Q3 FY20P	Q4 FY20P
6%	12%	25%	-7%

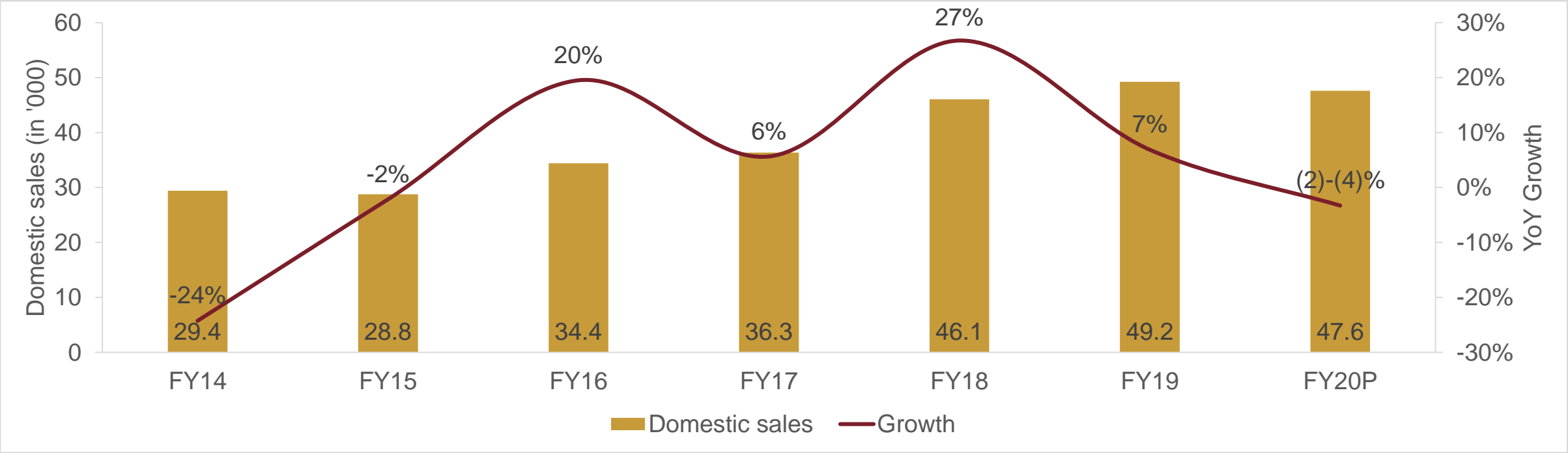


Source: SIAM, CRISIL Research

- Fiscal 2020 is expected to register a growth of 8-10% over a high growth of last two years.
- Higher incremental replacement demand (in comparison to fiscal 19) for pick up segment to support growth.
- Wide array of products are available in SCV (Small Commercial Vehicle) category. New players such as Maruti Suzuki, which entered the segment in fiscal 2017, are expected to improve competition in the segment.

Domestic sales – LCV (3.5-7.5 T)

Q1 FY20P	Q2 FY20P	Q3 FY20P	Q4 FY20P
5%	3%	9%	-26%

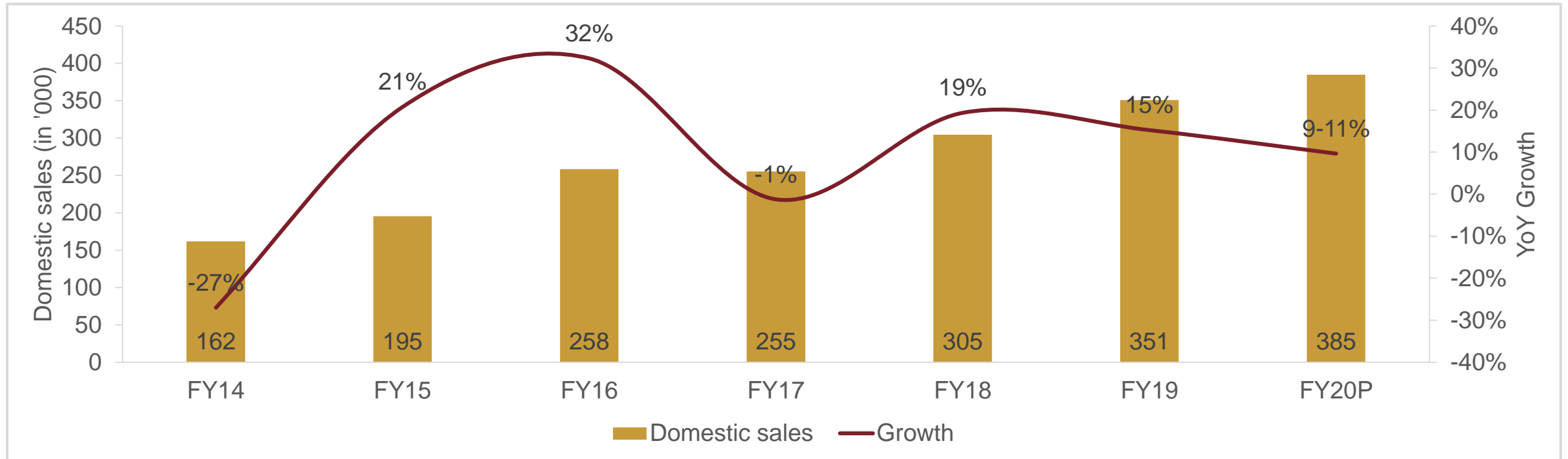


Source: SIAM, CRISIL Research

- Low replacement demand is expected to drive down the sales in fiscal 2020

Domestic sales – MHCV (>7.5T)

Q1 FY20P	Q2 FY20P	Q3 FY20P	Q4 FY20P
-2%	9%	31%	2%

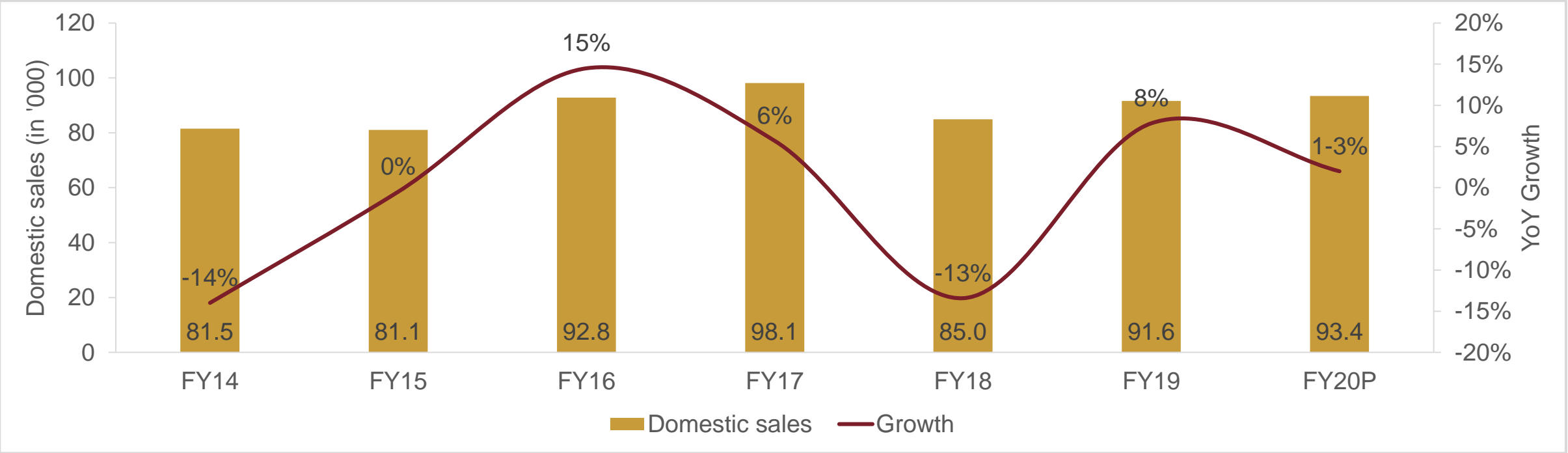


Source: SIAM, CRISIL Research

- In fiscal 2020, increased Industrial output will support demand (Industrial GDP Growth – FY 19 – 7.7%, FY 20 – 7.9-8.3%)
- Demand from infrastructure and construction sectors is expected to remain strong post elections

Domestic sales – Buses

Q1 FY20P	Q2 FY20P	Q3 FY20P	Q4 FY20P
4%	4%	41%	-23%



Source: SIAM, CRISIL Research

- Demand in fiscal 2020 to be driven by school and tourism segment. However, STU demand is expected to remain muted on account of lower replacement and poor financial health of STUs.
- Advancement in purchases on account of BS VI implementation to support demand in fiscal 2020.



Tractors

Positive agriculture, commercial & finance scenario support to help growth

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

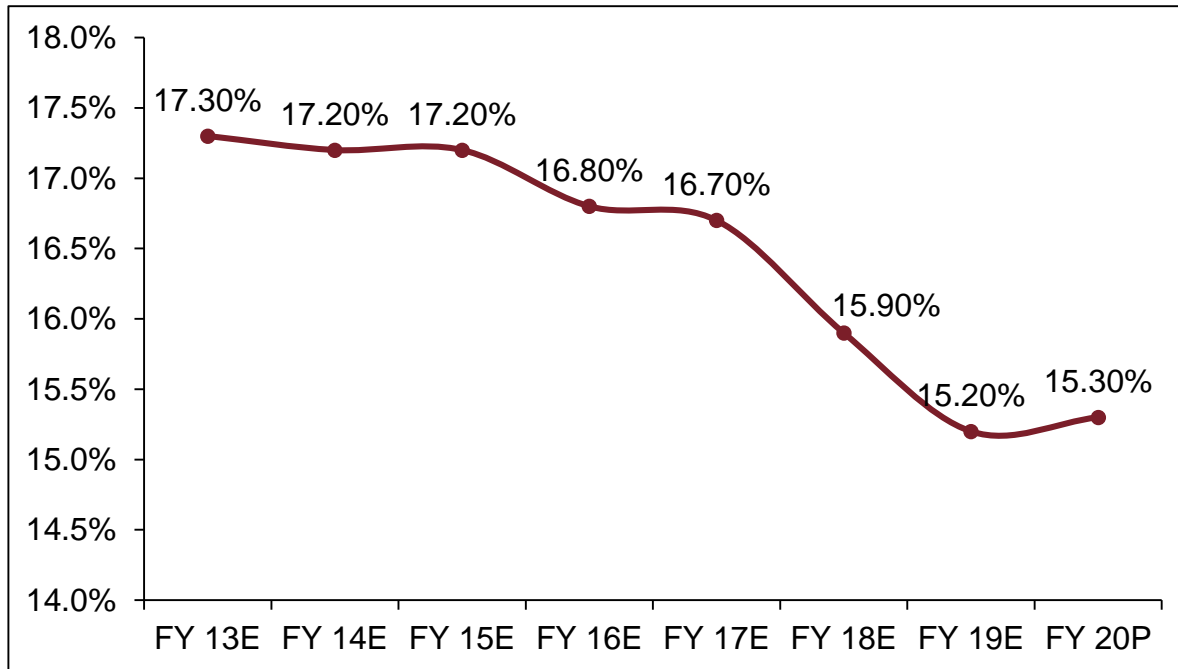
NOTE : *Assuming normal monsoon in fiscal 2020

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

Source: CRISIL Research

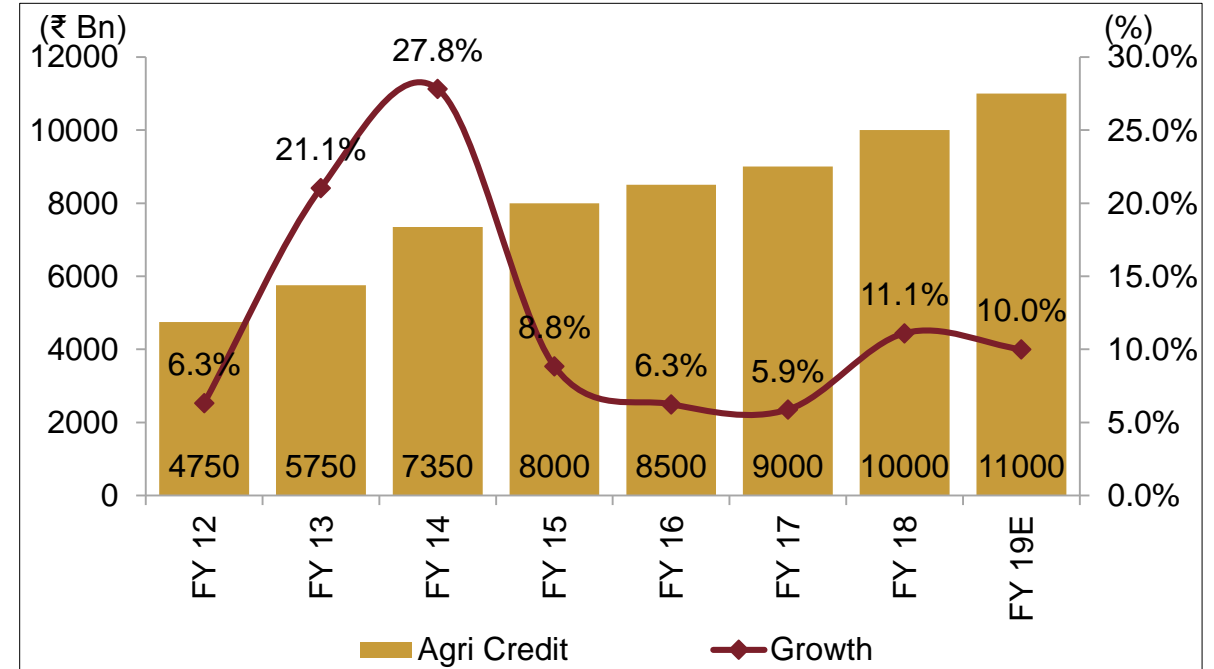
Increased credit availability and lower interest rate is expected to impact tractor sales positively

Bank Interest rate expected to remain lower



Source: CRISIL Research

Credit Availability for Tractors

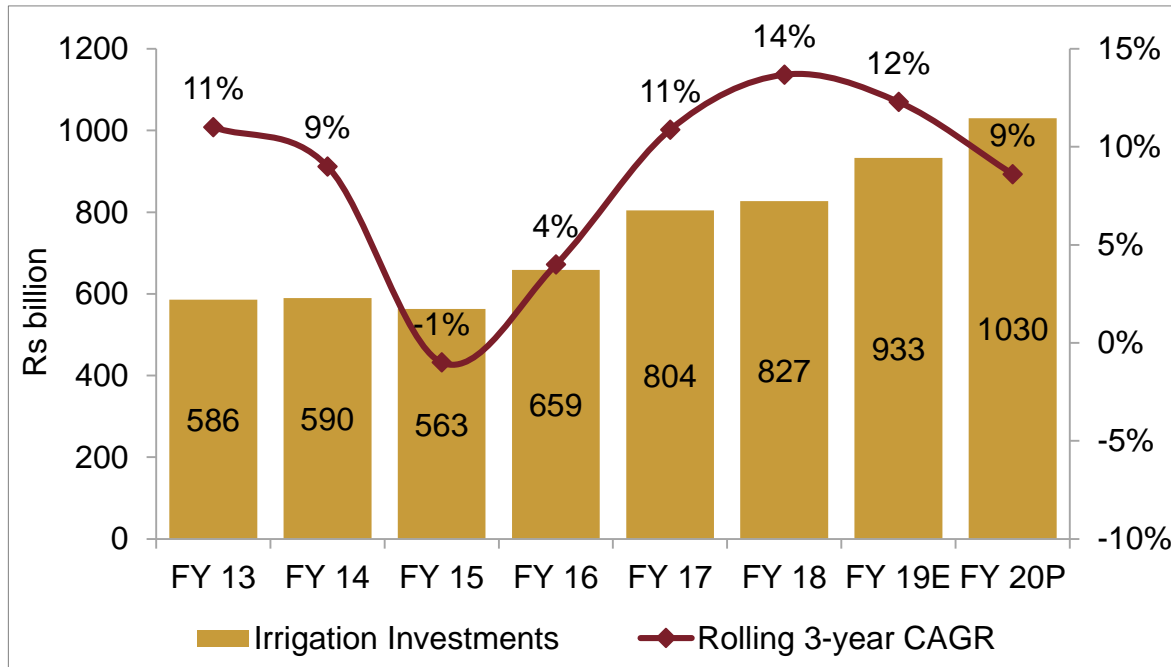


Source: CRISIL Research

- Recent crisis in the NBFCs with regard to liquidity and hike in its interest rates have not affected the retail loan portfolios of NBFCs
- Also, captive financing is on an uptrend in the industry due to increasing penetration of Mahindra Finance, Escorts Finance in the tractor industry.

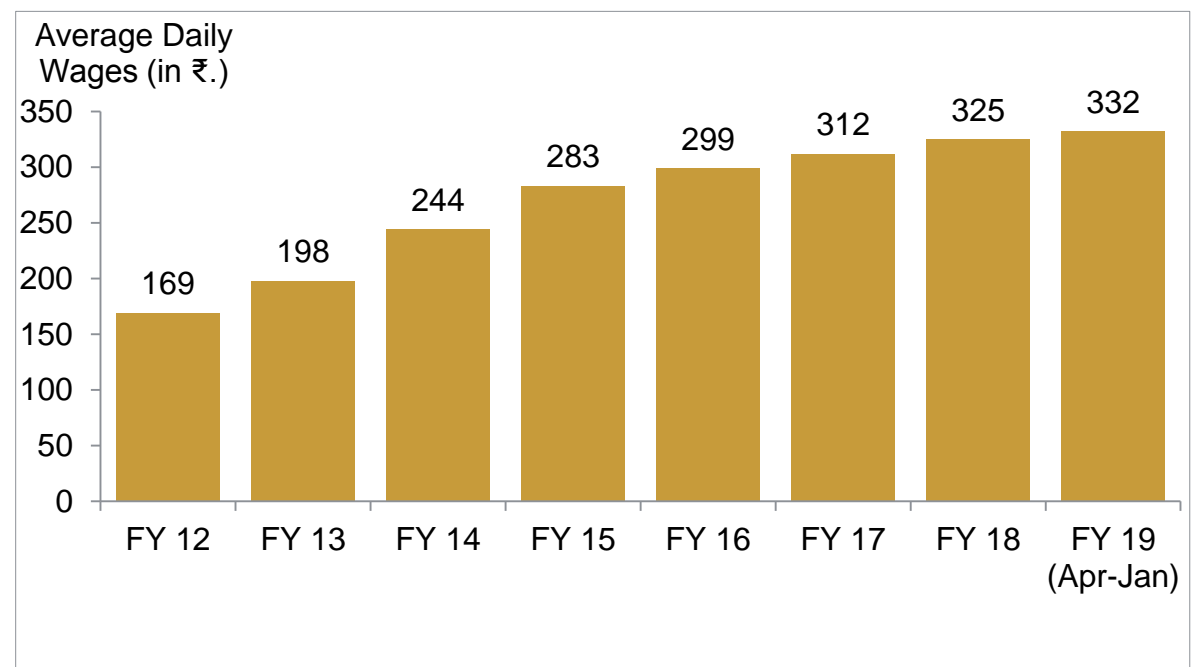
Improvement in Irrigation and rural income expected to have positive impact

Irrigation spending on an uptrend at a faster pace



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

Rural Wages (Non-Farm)

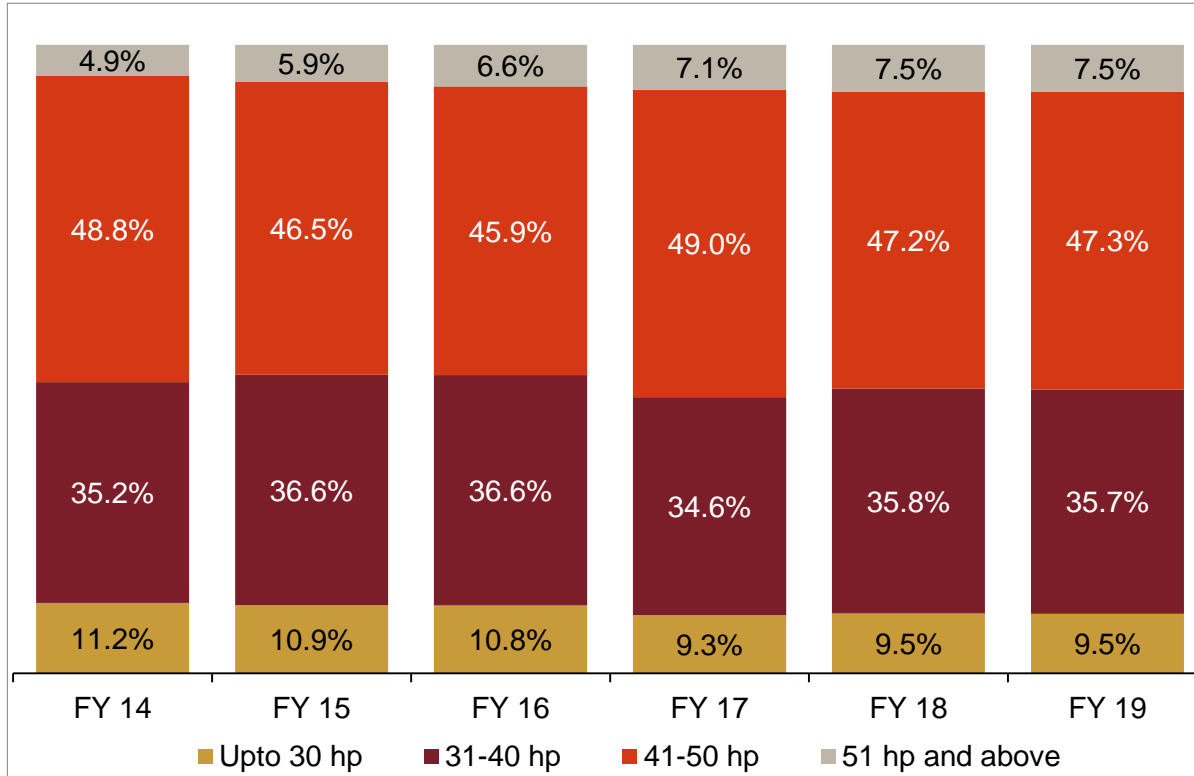


Rural wages includes general non-agricultural labour.
Source: CRISIL Research

- Government's renewed thrust towards improving the rural economy, via measures such as doubling farm income by 2022, increasing spend towards irrigation, and improving crop productivity by distributing soil health cards is expected to drive growth in the long term.
- Growth in the average daily wage rate for rural labours has moderated since 2014, and this may result in slower migration of laborers to non-farm employment

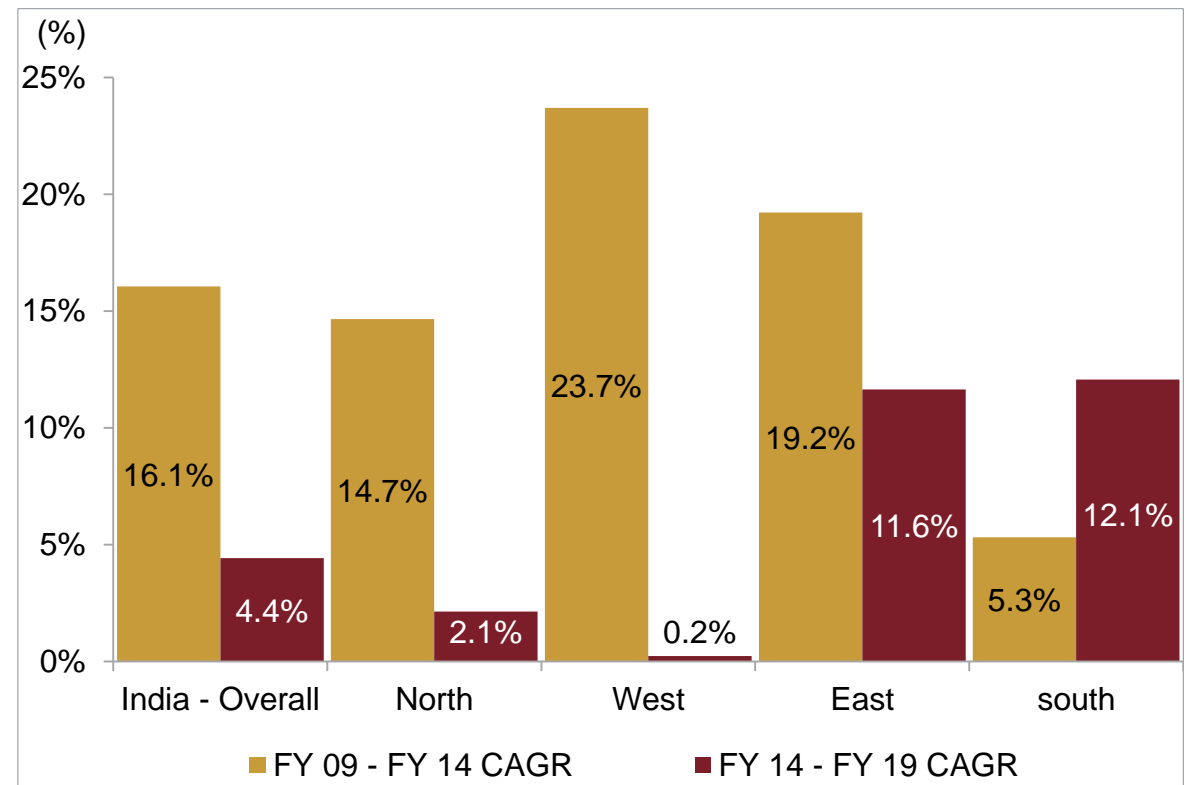
West region tractor sales remain flat in last five year due to draught condition in many areas

Segment-wise tractor sales



Source: CRISIL Research

Regional growth (5-year CAGR)

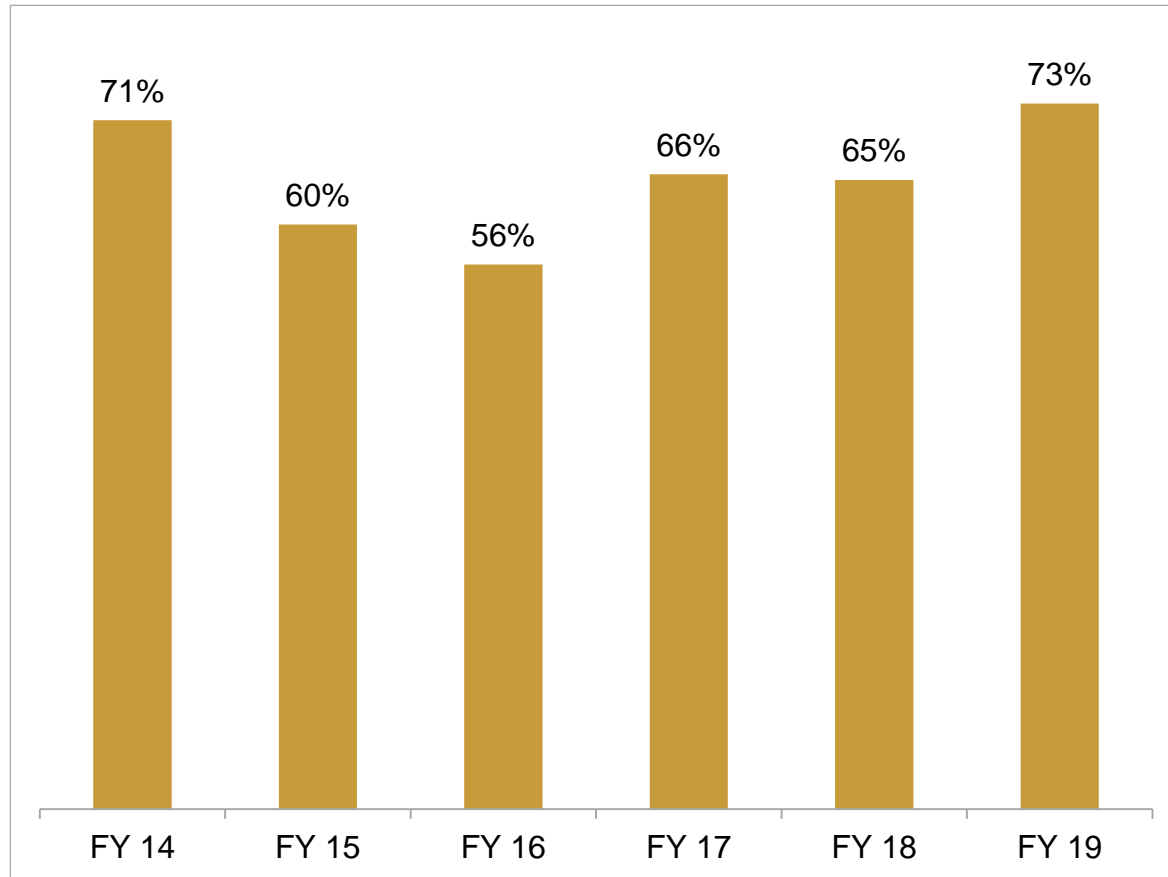


Source: CRISIL Research

- 41-50 hp segment has continued to maintain its dominant share due to its multiple applications in agriculture and haulage.
- Farm mechanization has been increasing in India, however its pace varies across regions. South and West has higher mechanization as compared to East and North-eastern states.

Capacity utilization is expected to increase in fiscal 2019

Utilization levels on a rising trend



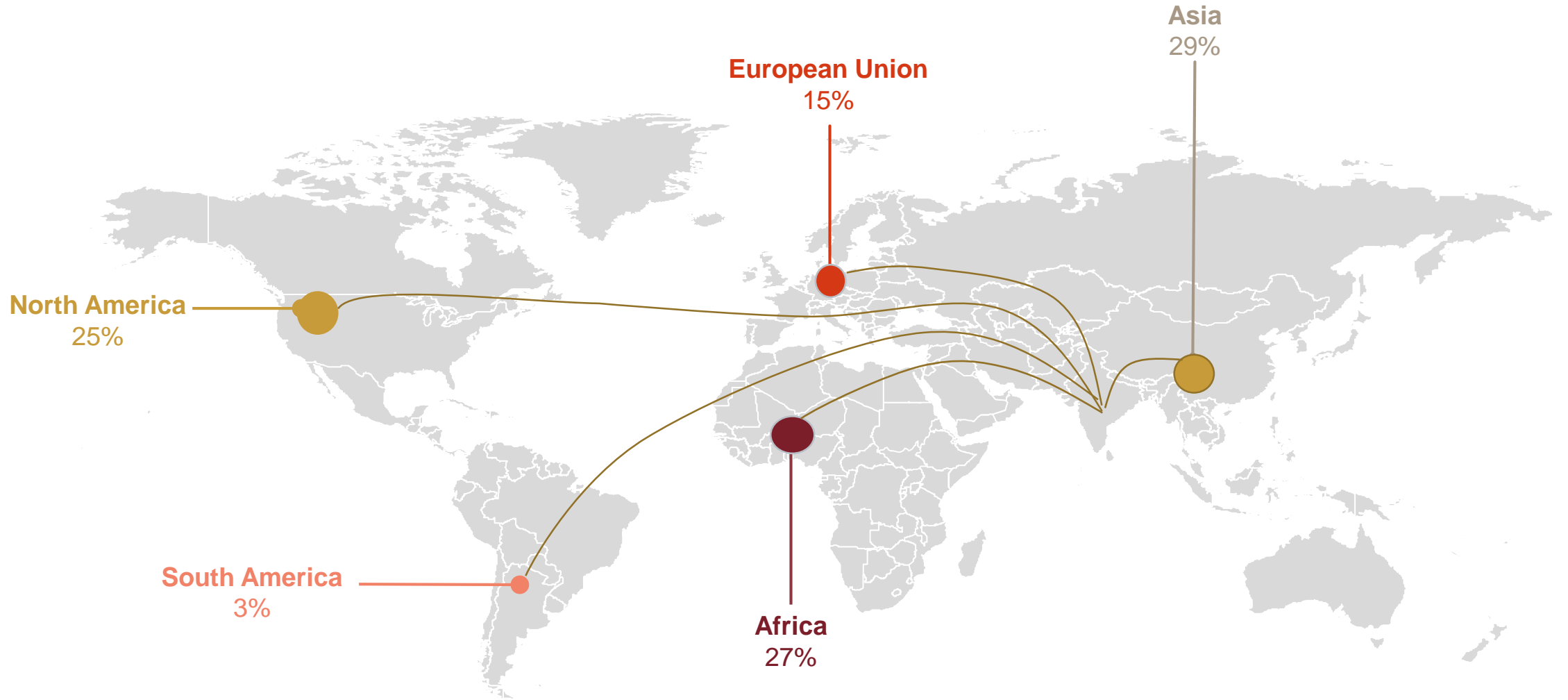
Source: CRISIL Research

Top players running on optimum capacity

Player	Estimated capacity (in Units)	Production (FY19 E) (in units)	Capacity utilization in FY19 E
M&M	376,000	338,236	90%
TAFE Ltd	198,000	200,400	101%
International Tractors	300,000	107,813	36%
Escorts Ltd	98,940	100,991	102%
John Deere	130,000	94,956	73%
New Holland Tractors	60,000	42,889	71%
SAME DEUTZ-FAHR	15,000	9,938	66%
VST Tillers and Tractors Ltd1	37,000	8,451	23%
Force Motors Ltd	24,000	3,856	16%
Industry Total	1,256,940	916,150	73%

Source: TMA, CRISIL Research

Tractor Exports

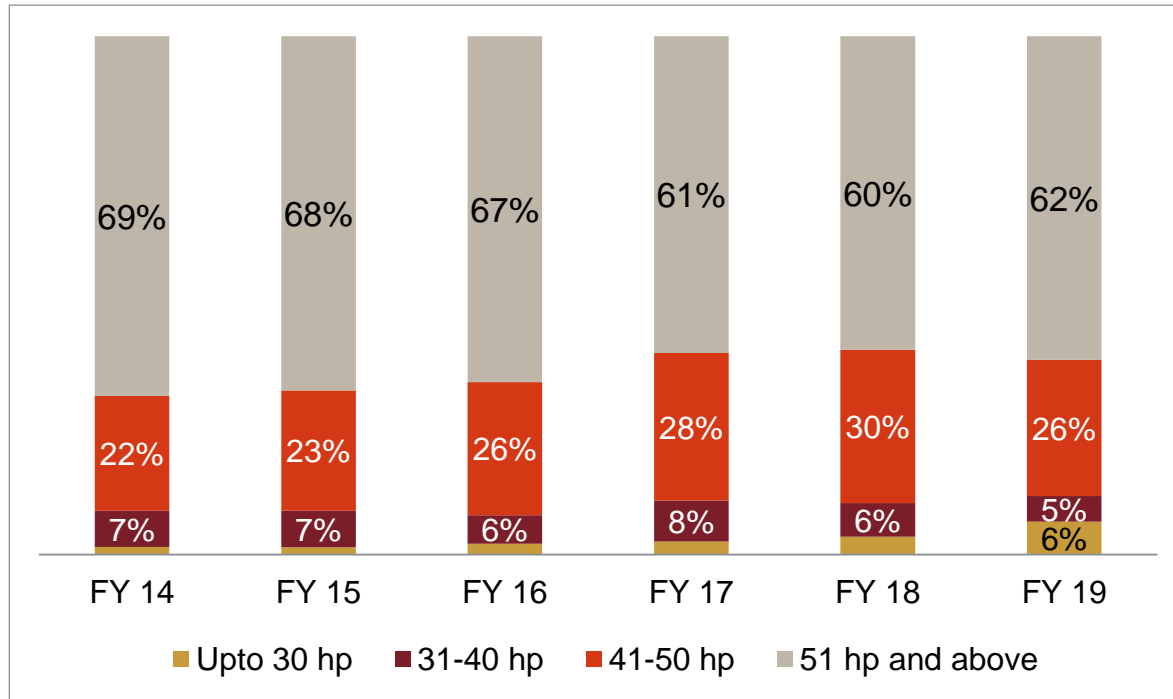


NOTE: Latest numbers available for FY 2018 on DGFT

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

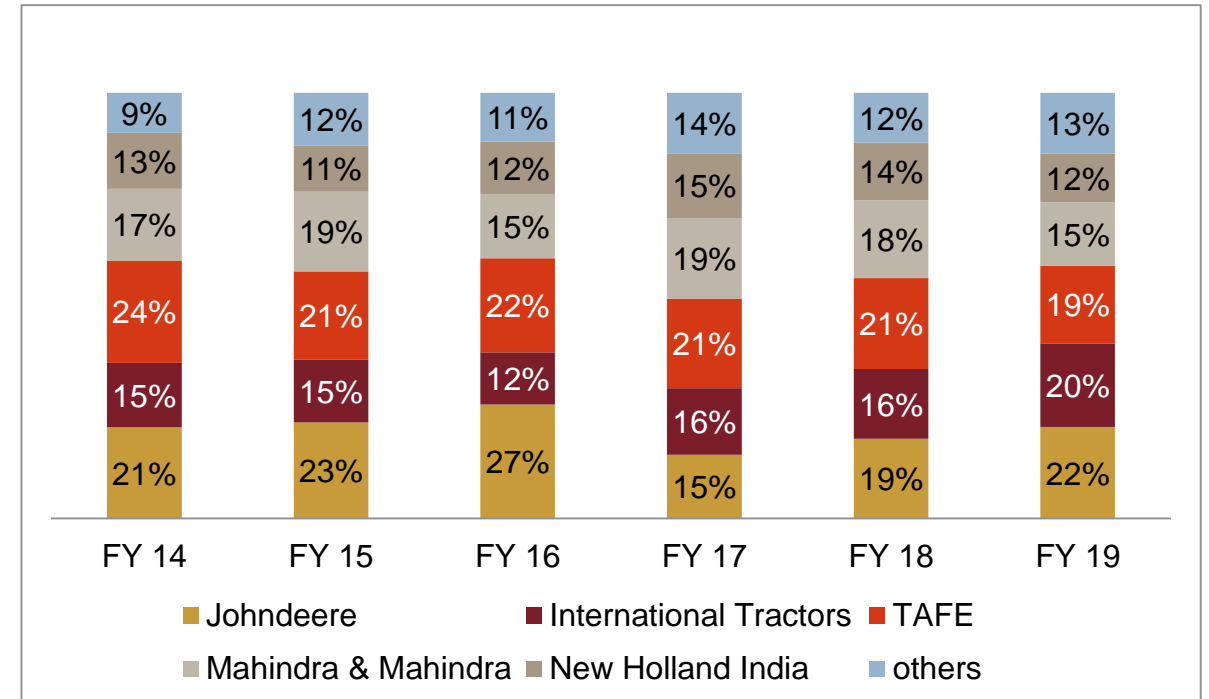
Tractor exports to see a healthy growth in fiscal 2019 before moderating in fiscal 2020

Segment wise market share of exports



Source: TMA, CRISIL Research

Player wise market share of exports

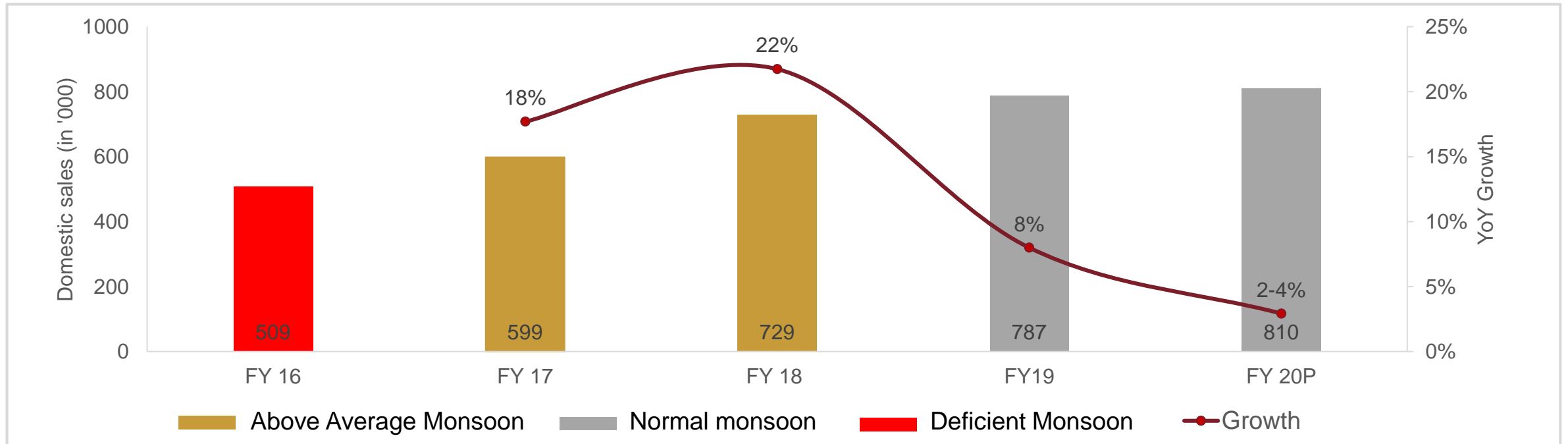


Source: TMA, CRISIL Research

- John Deere has been top exporter during this period followed by Mahindra & Mahindra. Exports grew in H1 fiscal 2019 on a low base. In H2 of fiscal 2019 export volumes has however declined.
- In near term, the trade war between USA and China remains a key monitorable. Moreover, the prices of agricultural commodity has been lower in USA, which is expected to impact the tractor demand.
- We estimate exports to grow at a moderate rate in long-term as Africa and Asia expected to remain the focal regions of long-term exports.

Domestic sales

Q1 FY20P	Q2 FY20P	Q3 FY20P	Q4 FY20P
-6%	4%	4%	12%



Source: TMA, CRISIL Research

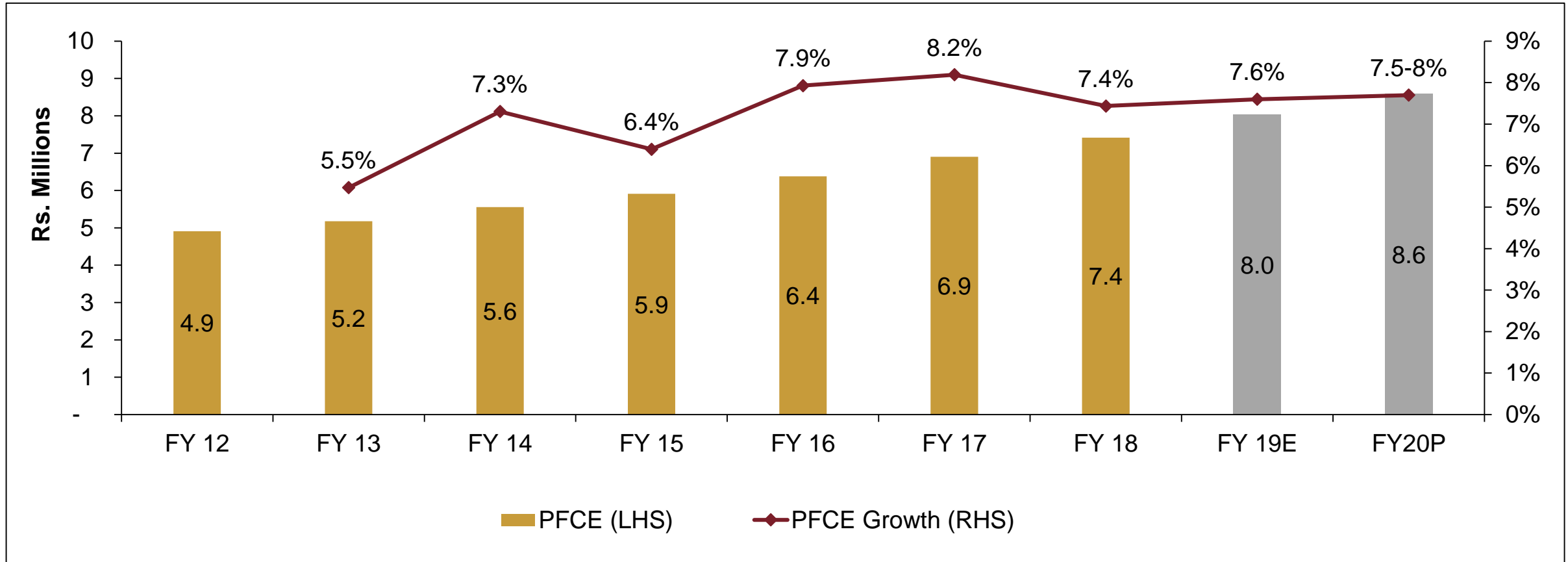
- Q4 of fiscal 2019 saw a fall in sales by 8% yoy due to lower rabi sowing area as compared to previous year and damage caused to crops mainly in southern states due to Pethai cyclone.
- Due to lower rabi sowing area and monsoon in certain region, Q1 of fiscal 2020 is expected to fetch lower prices of rabi crops.
- In fiscal 2020, uncertainty due to elections and monsoon is a key monitorable.



Three-wheeler

Private consumption on an uptrend

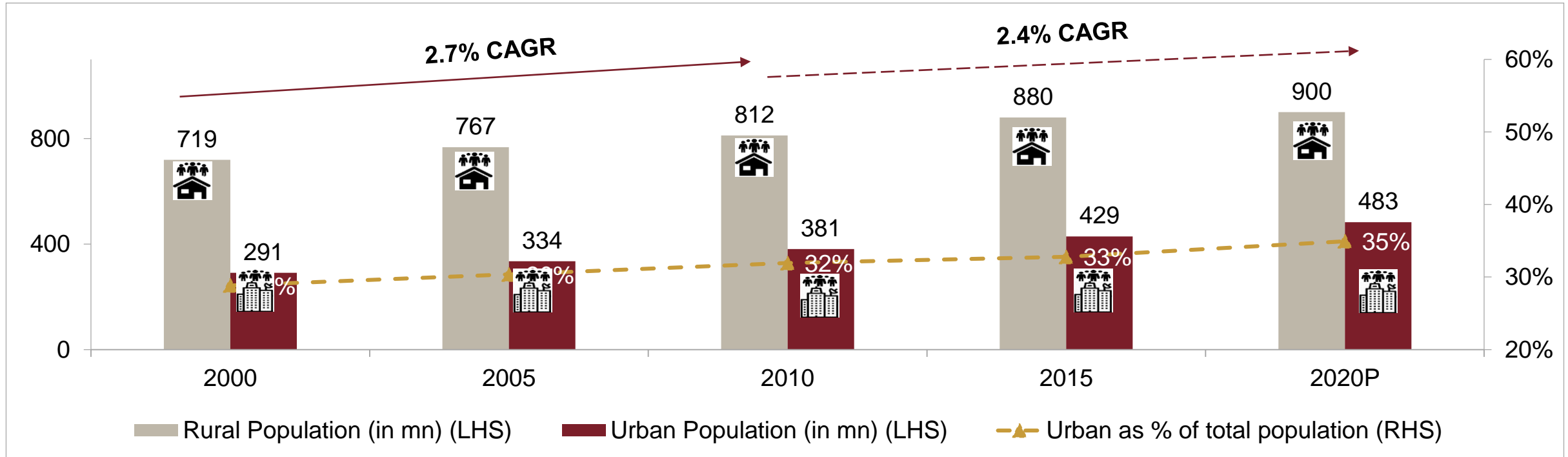
Private final consumption expenditure (PFCE) to grow at 7.5-8% in FY20



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

Urban population to rise 2.4% until fiscal 2020

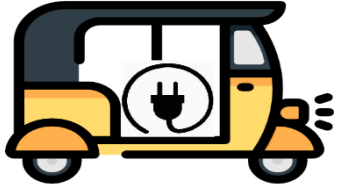
Urban areas to house 35% of total population by 2020



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 mid 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'.

- Government focus on rural roads construction
- Government relaxing permit regulations



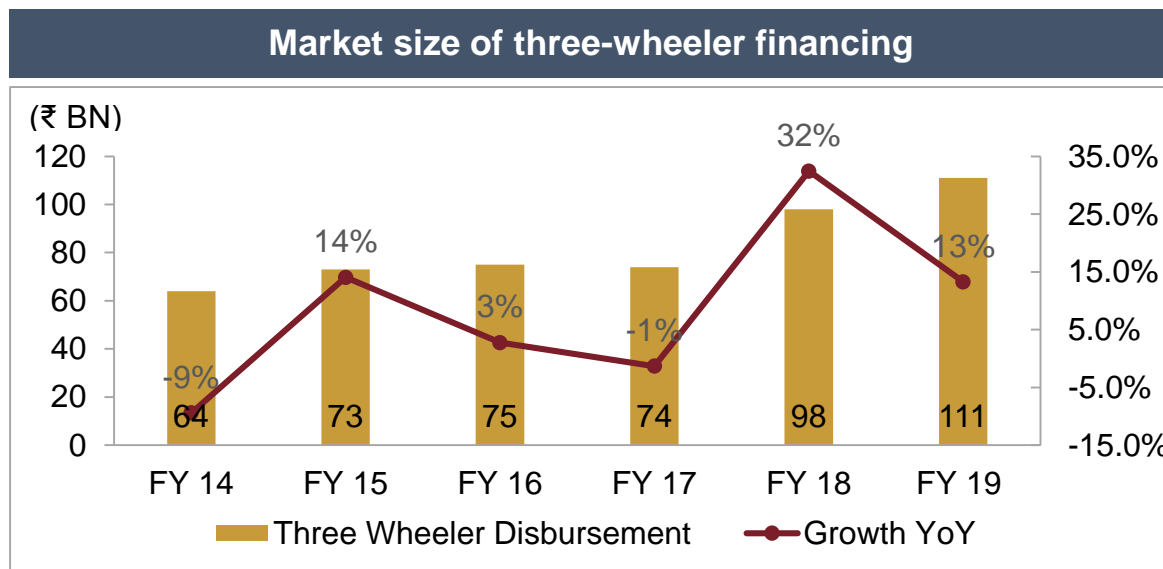
- Traffic Congestion in urban areas along with the last mile connectivity

- 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.

Growth in disbursements shows promising picture for three-wheeler industry



Source: CRISIL Research

Comparative of different financiers

Financiers	Market share in FY 18	Rate of interest
NBFCs	85%	22-24%
Private sector banks	12%	15-16%
Public sector banks	3%	13-16%

Source: CRISIL Research

- The passenger segment accounts for 80-85% of disbursements.
- The market grew at 12% compound annual growth rate (CAGR) between fiscals 2014 and 2019.
- The three-wheeler financing market is catered by private financiers only, with public sector banks having a negligible presence in the segment.
- 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

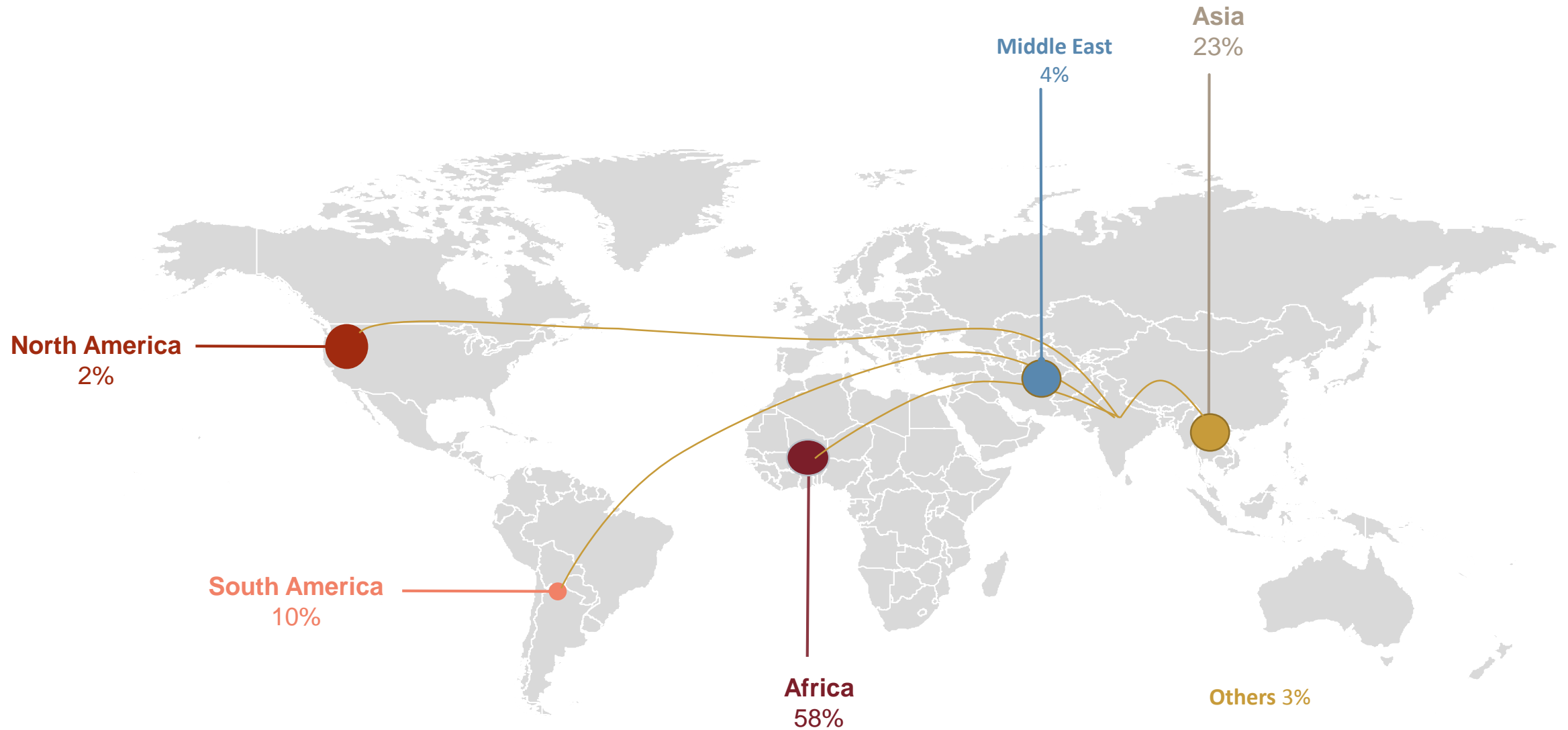
	CO (mg/km)	HC+Nox (mg/km)	Nox (mg/km)	PM	OBD
Limit	220	200	160	25	Stage I & II*
D.F.	1.10	1	1	1.2	

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

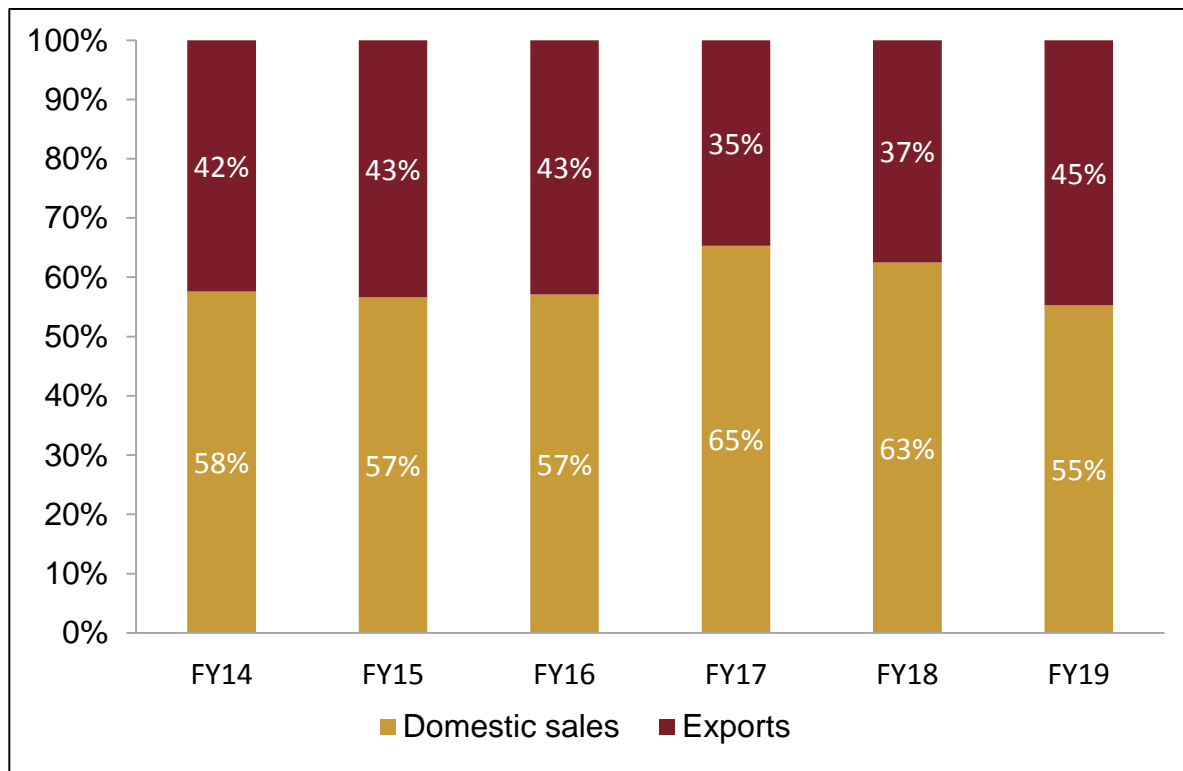


NOTE: Latest numbers available for FY 2018 on DGFT

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

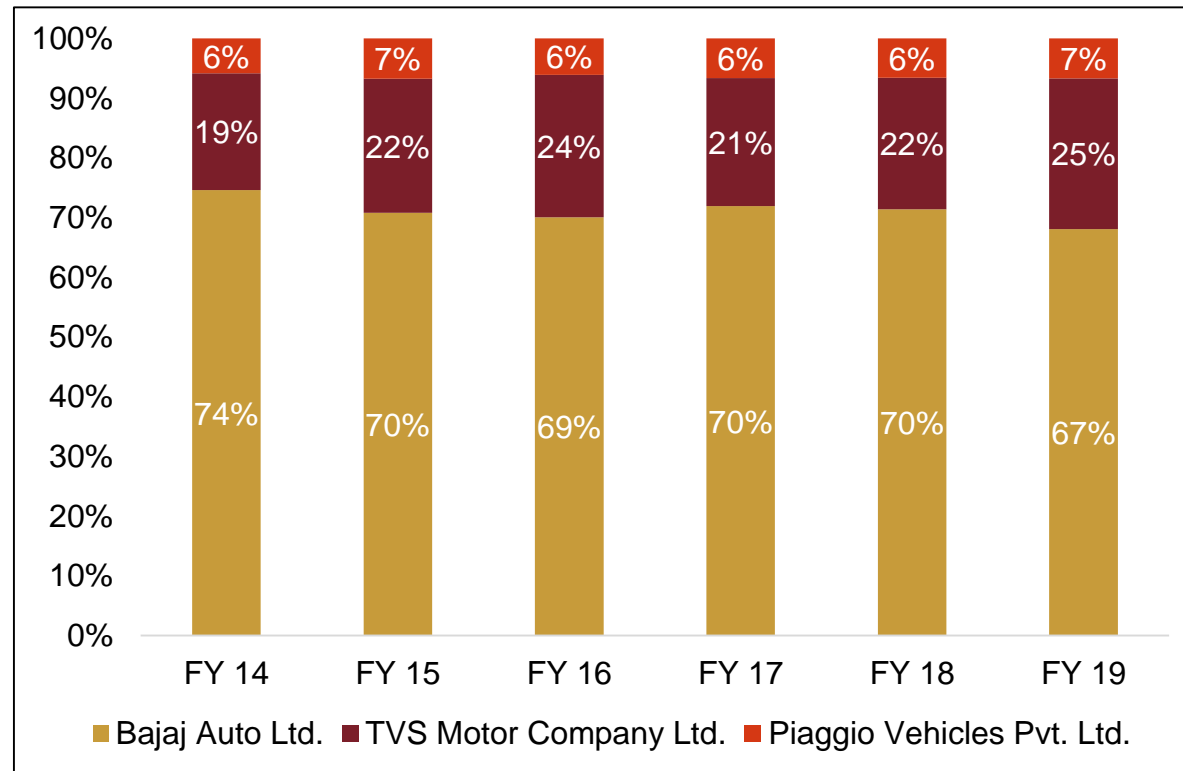
Exports grown at a CAGR of ~10% from FY 14 to FY 19

Share of exports in total sales



Source: SIAM, CRISIL Research

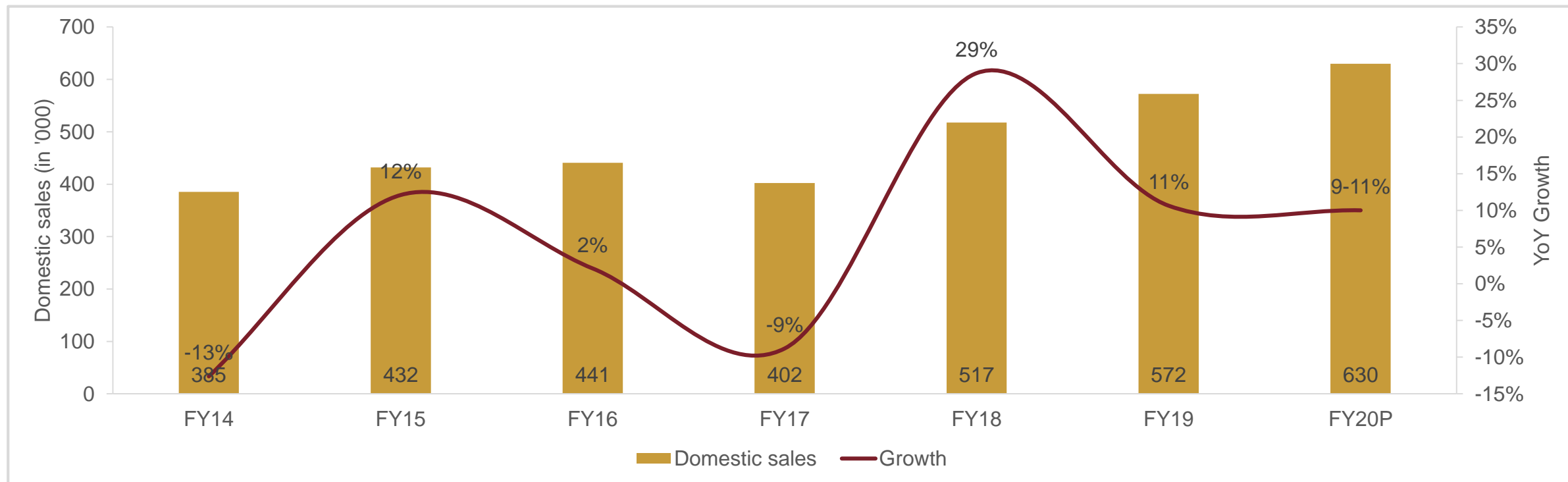
Bajaj dominates the share in exports from FY 14



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

Domestic sales – Three-wheeler Passenger

Q1 FY20P	Q2 FY20P	Q3 FY20P	Q4 FY20P
6%	6%	24%	4%

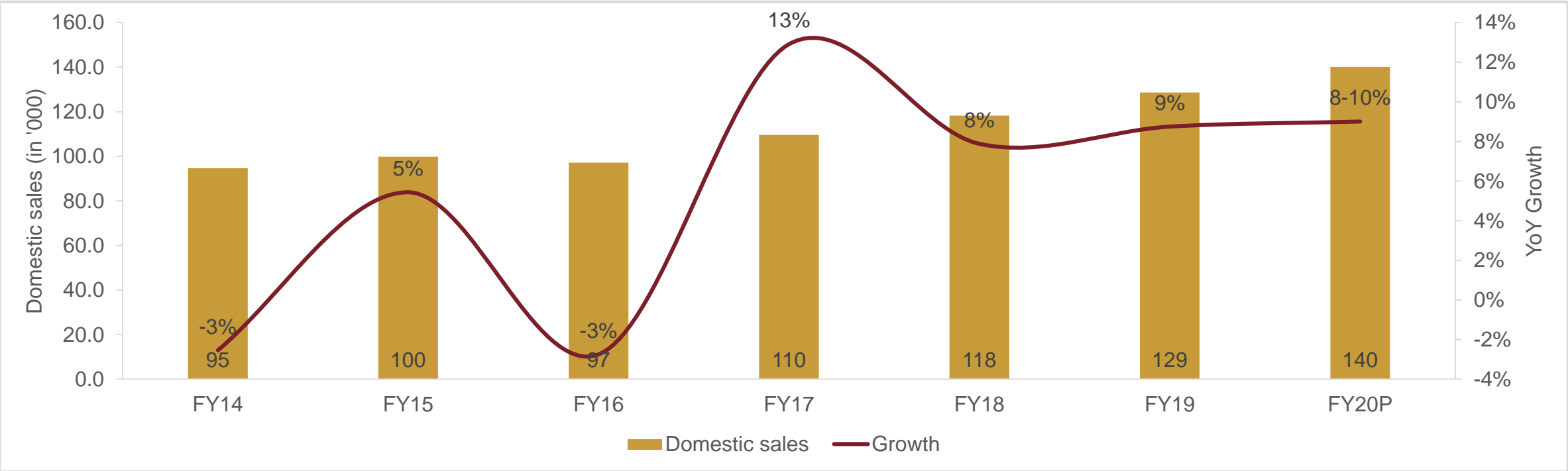


Source: SIAM, CRISIL Research

- Fiscal 2018 saw a growth of 29% on a low base of fiscal 2017 due to opening of permits in states like Maharashtra, Karnataka, Andhra Pradesh and Delhi.
- Growth in fiscal 2020 is expected to continue. Tier II and III cities are expected to lead the growth of three-wheeler passenger vehicles.

Domestic sales – Three-wheeler Goods

Q1 FY20P	Q2 FY20P	Q3 FY20P	Q4 FY20P
3%	7%	23%	4%



Source: SIAM, CRISIL Research

- 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	40-45	OEMs offering huge discounts to bring down the inventory levels
Two Wheelers	30-35	45-50	Various OEMs have announced production cuts for Q1 of fiscal 2020. Moreover, higher discounts in the form of cashback and exchange offers are announced by the dealers.
Commercial Vehicles	25-35	30-40	Inventory levels to remain unchanged since players will try to grab market share by pushing sales through discounts and further pushing the inventory.
Tractors	30-35	42-48	Inventory levels has increased as compared to the last quarter, since players are trying to gain market share
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:

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