

# Automobiles




## Model Portfolio

2020 has been year of a high volatility with indices swinging from depth of extreme pessimism to sharp recovery in short span of time. Stock selection, in such challenging and ever-changing times assumes even greater importance. In this context, we are launching a new initiative – **MOdel Portfolio**! Through this, we shall attempt to present our relative preference in various sectors and discuss sector portfolio related nuances in greater and granular details.

### MOFSL Auto MOdel Portfolio

Cos	MOFSL Wt (%)	OW vs NSE Auto Index
MSIL	19	-4.8
MM	23	6.4
BJAUT	7	-4.0
HMCL	13	3.1
EIM	6	-2.4
TTMT	8	2.1
MSS	5	1.6
BHFC	0	-2.8
TVSL	0	-2.4
AMRJ	0	-1.7
ESC	0	0.0
ENDU	2	2.0

## Introducing model portfolio – Auto MOdel Portfolio

### Overweight on plays on rural markets and global PVs

The divergent stock performance vis-à-vis the NSE Auto Index highlights the need for an active stock selection strategy, especially considering the numerous sub-segments within Auto with highly varied driving forces. In this endeavor, we introduce the MOFSL Auto **MOdel Portfolio** with the objective of optimizing sectors' risk-adjusted returns through a holistic approach to sector positioning. We have an Overweight stance on Auto as we believe we are just at the start of the recovery cycle following the last two years of unprecedented weakness. With a good performance post the restart, we prefer companies with higher visibility on volume growth, external as well as internal drivers for earnings, and reasonable valuations. In our 1st edition of MOFSL Auto **MOdel Portfolio**, we start with an Overweight stance on plays on the rural economy (MM, HMCL) and global PV segment (TTMT, MSS). We are Underweight on India PV (MSIL) and 2W (underweight BJAUT, EIM, TVSL).

### Auto outperforms Nifty 50 in FY21YTD, driven by a handful of stocks

- The Auto sector (NSE Auto Index) has outperformed Nifty sharply in FY21YTD by ~31%. This is attributable to sharper-than-expected demand recovery post the lifting of the lockdown and the strengthening of the rural market narrative on the back of a normal monsoon season. The NSE Auto Index has delivered ~91% return in FY21YTD, against Nifty 50, which delivered ~57% returns.
- However, further analysis of this outperformance indicates even stronger performances from a handful of stocks – TTMT (+75% outperformance over NSE Auto Index), MM (+74%), MSS (+65%), and APTY (+46%).
- This divergence in performance among select stocks v/s the NSE Auto Index highlights the need for an active stock selection strategy. This is especially true considering the numerous sub-segments within Auto with highly varied driving forces.

### Auto has sub-segments with very different drivers

- Unlike many other sectors, the Auto sector offers a varied play on different sub-segments with different underlying characteristics and critical success factors (CSFs).
- The Auto sector has at least 6–7 sub-segments, which provides the opportunity to cherry-pick stocks based on the prevailing outlook for the sub-segments.
- Sub-segments have different CSFs due to different end-customer profiles and markets, implying a varying impact from any macro parameters. For example, even B2C businesses, such as 2W and PV, have different drivers and at times see an opposite impact for the same variable (for e.g., a depreciating INR is a negative for PV, whereas it is a positive for 2W).

Jinesh Gandhi - Research analyst (Jinesh@MotilalOswal.com)

Vipul Agrawal - Research analyst (Vipul.Agrawal@MotilalOswal.com)

Investors are advised to refer through important disclosures made at the last page of the Research Report.

Motilal Oswal research is available on [www.motilaloswal.com/Institutional-Equities](http://www.motilaloswal.com/Institutional-Equities), Bloomberg, Thomson Reuters, Factset and S&P Capital.

### Auto MOfSL Portfolio aimed at actively capturing dynamism of the sector

- Considering the multiple sub-segments, varying critical success factors, and resultant substantial divergence in stock performances, we see the opportunity to generate alpha by actively capturing the dynamism of the sector.
- In this endeavor, we introduce the MOfSL Auto **MOfSL Portfolio** with the objective of optimizing sectors' risk-adjusted returns and generating alpha vis-à-vis the NSE Auto Index. We aim to achieve this objective through a holistic approach to sector positioning, without missing out on less-popular stocks.
- For the purpose of sector model portfolio construction, we place all the key stocks in six buckets: a) 2W, b) PV, c) Tractor, d) CV, e) B2C Auto Comps and f) B2B Auto Comps. Within each of these buckets, we further place the stocks as plays on the local or global markets.
- Post these classifications, we evaluate each bucket on: a) near- and medium-term demand trends, b) competitive intensity, c) commodity price trends, d) profitability trajectory, e) changes in financial gearing, and f) relative valuations.

### Recovery underway, after six/eight quarters of volume/margin decline

- During the festive season (32 days from Navaratri to Diwali), retail recovery continued with 2Ws witnessing a mid-single digit decline, PVs clocked 10-13% growth and Tractors grew at 12-15% (supply constrains). Sustainance of demand momentum after the festive season is the critical and biggest monitorable.
- We expect demand recovery to sustain across segments and estimate volumes to grow (on a low base) in FY22E for 2Ws (19%), PVs (~25%), CVs (~30%) and Tractors (10-11%).
- EBITDA margins are expected to improve to 13.5% by FY23E (v/s 10.5% in FY20 and 12.7% in FY19) as the benefits of price increases, lower discounts, cost cutting initiatives and operating leverage would be diluted by commodity cost pressures.
- With a likely pick-up in volumes (higher asset turns), margin improvement and lower capex intensity, we expect a sharp improvement in FCF generation over FY21-23E. For our Auto OEMs (ex-JLR) universe, FCF conversion (% of PAT) is estimated to be at 100-125% over FY21-23E (as against 20% in FY20 and 33% in FY19).
- Analysis of past cycles suggests that valuations expand as cyclical recovery sustains, laying a foundation for the next upcycle. Current valuations largely reflect an early to mid-cycle recovery, with scope for further expansion if volume expansion sustains.

### 1<sup>st</sup> edition of Auto MOfSL Portfolio – Overweight on rural and global PV

- We have an Overweight stance on Auto as we believe we are just at the start of the recovery cycle following the last two years of unprecedented weakness. With a good performance post the restart, we prefer companies with higher visibility on volume growth, external as well as internal drivers for earnings, and reasonable valuations.
- In our 1st edition of MOfSL Auto **MOfSL Portfolio**, we start with an Overweight stance on plays on the rural economy and global PV segment. Our positive stance on the rural economy is driven by strong Agri indicators, a lower impact

from the pandemic in the rural & semi-urban markets, and relatively higher support from the government. Global PV would recover faster owing to significant and timely stimulus for the overall economy in general and PVs in particular (in the EU and China). Also, both of our global PV plays (TTMT and MSS) have company-specific drivers for earnings.

- We are Overweight on MM (+6.4pp) as we see good traction in the Tractor and LCV businesses as well as a possible upside from the focus on capital allocation. Also, we are Overweight on HMCL (+4pp) as a play on rural, with the best positioning in 2W in the rural markets.
- In global PV, we are Overweight on TTMT (+2pp) and MSS (+1.6pp) as both companies have company-specific drivers for faster growth. Lastly, Endurance (+2%) stance is on account of it being best proxy on 2Ws along with a play on the EU PV cycle recovery.
- We are Underweight on India PV (MSIL) due to valuations largely reflecting expected recovery, albeit with some risks in terms of demand, market share, and margins. We are Underweight on BJAUT and TVSL's due to their more urban-centric portfolio, risk related to the reduction of export incentives, and the risk of electrification in Scooters and 3W.

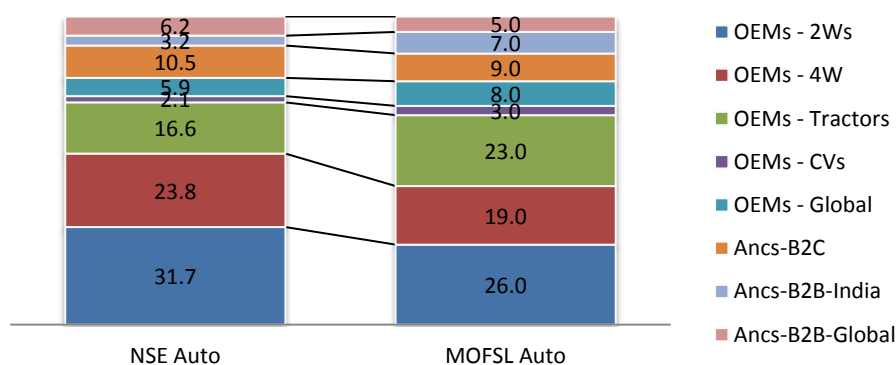
#### Valuation and view

- After witnessing a severe impact from the COVID-19 pandemic, demand is returning at a pace faster than originally expected. This has led to supply-side constraints across segments as supply chain normalization took longer. We expect demand momentum to sustain in the foreseeable future, driven by normalization of supply side factors (finance, supply chain, systemic inventory etc) as well as improving rural markets and recovery in urban markets.
- In our estimates, we build in strong recovery in 2HFY21 and beyond. For 2HFY21/FY22, we estimate growth for 2W at 23%/20%, PV at 21%/26%, CV at 33%/30%, and Tractor at 27%/11%.
- Auto stocks have outperformed NIFTY 50 by ~19pp since the lifting of the lockdown (4<sup>th</sup> May), driven by faster demand recovery as well as a normal monsoon season. Considering such sharp outperformance, we would focus on companies with lower risk to demand, lower competitive intensity, company-specific growth drivers, and strong balance sheets.
- **MM** and **HMCL** are our top OEM picks. In the auto component, we prefer **ENDU** and **MSS**.
- **MM's** overweight stance is driven by faster recovery in the core businesses (tractor, LCVs and SUVs), the focus on tightening capital allocation could act as a re-rating catalyst. Hence, we see twin levers of EPS growth and re-rating. Maintain Buy with a TP of INR830/share (Dec'22E SoTP).
- **ENDU** strong positioning in the 2W segment makes its the best proxy to play the India 2W opportunity, with good scope for content increase led by technology. Maintain Buy with TP of INR1,390 (25x Dec-22E consol. EPS).

**Exhibit 1: MOFSL Auto MOdel Portfolio is Overweight on rural and global PV plays**

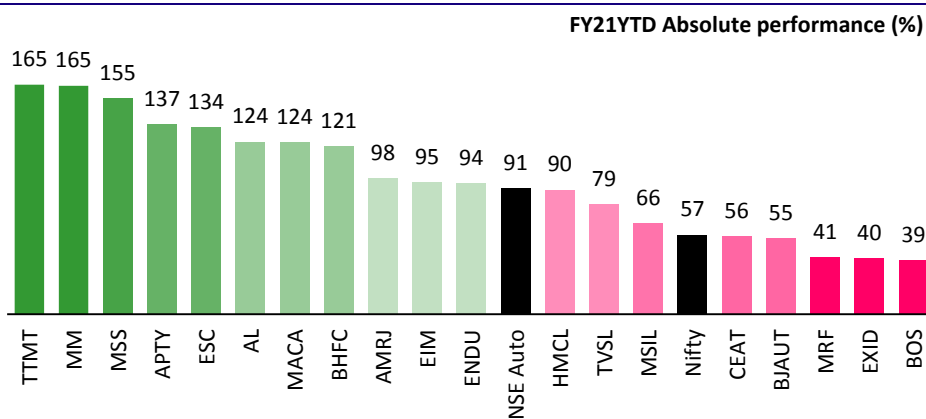
Companies	Segments	Dec-20		
		Weights (%)		
		NSE Auto	MOFSL Auto	OW/(UW)
Maruti Suzuki	OEMs- 4W	23.8	19	-4.8
M & M	OEMs - Tractors	16.6	23	6.4
Bajaj Auto	OEMs - 2W	11.0	7	-4.0
Hero MotoCorp	OEMs - 2W	9.9	13	3.1
Eicher Motors	OEMs - 2W	8.4	6	-2.4
Tata Motors	OEMs - Global	5.9	8	2.1
MRF	Ancs-B2C-India	3.7	0	-3.7
Motherson Sumi	Ancs-B2B-Global	3.4	5	1.6
Bosch	Ancs-B2B-India	3.2	5	1.8
Balkrishna Inds	Ancs-B2C-Global	3.1	4	0.9
Bharat Forge	Ancs-B2B-Global	2.8	0	-2.8
TVS Motor Co.	OEMs - 2W	2.4	0	-2.4
Exide Inds.	Ancs-B2C-India	2.1	3	0.9
Ashok Leyland	OEMs - CVs	2.1	3	0.9
Amara Raja Batt.	Ancs-B2C-India	1.7	0	-1.7
Escorts	OEMs - Tractors	0.0	0	0.0
Endurance Technologies	Ancs-B2B-Global	0.0	2	2.0
<b>Cash</b>		0.0	0	0.0
<b>Total</b>		<b>100.0</b>	<b>100.0</b>	0.0
Large-caps		85.9	86	0.1
Mid-caps		14.1	12	-2.1
Small-caps		0.0	0	0.0

Source: MOFSL

**Exhibit 2: MOSFL Auto MOdel Portfolio is overweight on rural and global PVs**


Source: Bloomberg, MOFSL

**Exhibit 3: Strong performance by many Auto stocks in FY21YTD**



Source: Bloomberg, MOFSL

**Exhibit 4: Catalysts for the stocks**

Companies	Catalysts to watch out for		
MSIL	Sustained demand recovery post festives	Adverse mix & commodity cost inflation	Competition launches in key models
MM	Thar success & SUV business recovery	LCV recovery & market share gains	Reduction in subs losses
BJAUT	Urban demand recovery	Reduction in export incentives	Weak 3W demand
HMCL	Demand recovery in area of strength	Project LEAP savings of 100bp	Ramp-up in weak areas of premium motorcycles and scooters
EIM	Production normalization	Upcoming product launch	Volume recovery led op. leverage
TTMT	Mix improvement led by China & LR	Cost-cutting initiatives in JLR	Weak M&HCV recovery
MSS	Good recovery in PV demand in EU/US led by govt. stimulus	Turnaround at SMP's 2 greenfield plants	PKC to benefit from faster recovery in US Class 8 trucks
BOS	Faster growth than the underlying industry vol. growth	Slower recovery in M&HCV volumes	Competitive pricing, higher import content on BS6 to dilute margins
BIL	Favorable EURINR	Favorable commodity prices	Benefit of carbon black project
BHFC	Defense opportunity fructification	PV business ramp-up & recovery in US Class 8 ordering	Continued weakness India CVs, Oil & Gas business
TVSL	Urban demand recovery	Reduction in export incentives	High operating leverage
EXID	OEM demand recovery	Mix to deteriorate as OEM recovers	Increase in lead prices
AL	LCV product launch	Debt reduction led by normalization of WC	Weak M&HCV recovery
AMRJ	OEM demand recovery	Mix to deteriorate as OEM recovers	Increase in lead prices
ESC	Production normalization	Recovery in rail & CE business	
ENDU	Execution of new order wins with Hyundai/Kia, TVSL etc	Cost-cutting initiatives in India & EU	

Source: MOFSL

## Exhibit 5: Key operating indicators

	Vol/Rev Gr (%)			EBITDA Margins (%)			EPS (INR)			RoE (%)		
	FY20	FY21E	FY22E	FY20	FY21E	FY22E	FY20	FY21E	FY22E	FY20	FY21E	FY22E
<b>Auto OEM's</b>												
Bajaj Auto	-8.1	-12.5	22.5	17.0	17.4	18.2	187.4	157.2	197.9	26.0	21.8	24.9
Hero MotoCorp	-18.8	-5.9	17.2	13.7	12.9	14.2	153.0	147.1	190.9	22.6	20.4	24.9
TVS Motor	-16.6	-9.6	22.2	8.2	7.9	9.7	13.0	9.8	19.9	17.7	12.4	22.3
Eicher Motors	-15.8	-9.2	25.0	24.0	21.6	25.5	66.9	54.0	85.6	19.3	14.0	19.5
Maruti Suzuki	-16.1	-9.6	25.8	9.7	9.2	12.1	188.0	171.4	273.8	11.7	10.0	14.2
M&M	-17.2	-5.2	14.7	14.2	15.1	14.8	30.0	32.4	38.8	9.7	9.9	11.1
Tata Motors	-35.3	-3.5	32.8	9.2	10.9	13.3	-25.3	-14.8	11.7	-25.3	-14.8	11.7
Ashok Leyland	-36.5	-12.3	39.8	6.7	6.0	10.1	1.2	0.4	3.7	4.4	1.5	14.0
Escorts	-10.8	17.0	8.0	11.4	16.0	15.1	54.0	78.6	85.3	16.6	19.8	16.2
<b>Auto Ancillaries</b>												
Bharat Forge	-20.6	-14.3	22.1	13.5	11.1	17.1	9.2	4.3	15.3	8.1	3.8	12.5
Exide Industries	-6.9	-4.0	16.7	13.8	13.2	13.9	9.9	8.1	10.6	13.4	10.3	12.4
Amara Raja	0.7	2.2	14.6	16.1	16.2	15.9	38.7	37.2	42.3	18.9	16.5	16.7
BOSCH	-18.6	-6.1	15.5	15.1	10.9	14.2	418.8	301.6	429.7	13.4	9.4	12.6
Endurance Tech	-8.4	-8.3	21.2	15.9	15.6	17.2	38.0	32.3	48.7	19.2	14.4	19.2
Motherson Sumi	0.0	-6.7	18.5	8.2	7.7	10.6	3.7	1.7	5.9	10.5	4.8	15.2
Mahindra CIE	-1.5	-23.1	23.7	12.2	8.4	12.4	9.4	3.2	10.8	8.0	2.6	8.2
CEAT	-2.9	4.9	15.0	10.7	12.6	13.1	57.1	86.9	97.0	8.1	11.5	11.7

## Exhibit 6: Comparative valuations

	Rating	Mcap (INR b)	CMP (INR)	TP (INR)	P/E (x)		EV/EBITDA (x)		PB (x)		FY22 Yield (%)		EPS CAGR (%)
					FY21E	FY22E	FY21E	FY22E	FY21E	FY22E	Div	FCF	FY20-22E
<b>Auto OEM's</b>													
Bajaj Auto	Neutral	961	3,320	3,300	16.8	15.5	11.5	10.3	3.9	3.5	2.6	6.1	4.5
Hero MotoCorp	Buy	635	3,174	3,700	16.6	15.3	10.3	9.2	4.0	3.7	3.8	6.3	10.8
TVS Motor	Neutral	243	511	445	25.7	20.3	13.6	11.2	5.3	4.4	0.9	4.9	24.6
Eicher Motors	Buy	699	2,561	2,670	29.9	24.2	23.3	19.4	5.4	4.6	0.6	3.8	16.5
Maruti Suzuki	Buy	2,338	7,740	7,850	28.6	24.0	19.0	15.6	4.1	3.7	1.3	2.8	20.1
M&M	Buy	897	752	835	19.4	16.9	12.8	11.4	1.1	1.0	1.3	6.5	14.1
Tata Motors	Buy	660	184	230	15.7	7.0	3.0	2.1	1.1	0.9	0.0	23.9	LTP
Ashok Leyland	Buy	279	95	101	25.8	17.9	12.8	9.6	3.5	3.1	2.1	8.0	65.7
Escorts	Neutral	171	1,398	1,350	16.4	14.7	12.8	12.8	2.5	2.1	0.3	4.4	32.9
<b>Auto Ancillaries</b>													
Bharat Forge	Buy	256	549	565	35.8	25.4	19.3	14.6	4.3	3.9	1.1	4.5	32.8
Exide Industries	Buy	160	189	193	17.8	15.6	9.8	8.5	2.2	2.0	1.7	5.5	6.8
Amara Raja	Neutral	157	919	800	21.7	19.6	12.0	10.6	3.4	3.1	1.4	3.1	6.5
BOSCH	Neutral	396	13,434	13,500	31.3	27.0	23.7	19.1	3.7	3.4	0.8	2.3	6.0
Endurance Tech	Buy	163	1,161	1,330	23.8	20.1	11.7	9.7	4.3	3.7	1.2	4.0	15.0
Motherson Sumi	Buy	502	159	160	26.9	21.0	7.0	5.6	3.9	3.4	1.3	7.4	26.8
Mahindra CIE	Buy	61	161	165	14.9	12.0	7.7	6.3	1.2	1.1	0.0	6.8	19.0
CEAT	Buy	46	1,145	1,317	11.8	10.1	6.4	5.5	1.3	1.2	1.0	8.4	41.2

Source: Company, MOFSL

**Exhibit 7: Trend in FY22 consensus EPS movement over last 12 months**

Company	FY22E EPS INR as on date				
	Sep-19	Dec-19	Mar-20	Jun-20	Nov-20
Ashok Leyland	5.1	4.8	4.5	3.2	4.4
Amara Raja	39.3	44.4	45.5	43.1	47.2
Apollo Tyres	18.1	17.1	15.7	9.4	12.9
Bharat Forge	25.3	24.8	21.2	15.4	19.7
Bajaj Auto	183.9	196.9	200.8	184.5	201.4
Bosch	577.1	585.0	537.4	462.2	508.9
CEAT	68.7	65.0	79.0	70.9	90.5
Eicher Motors	90.9	100.1	99.4	84.9	97.0
Endurance Tech.	50.9	56.4	51.2	44.7	52.2
Escorts	54.4	60.7	71.3	63.6	80.2
Exide Inds.	12.0	12.5	12.3	10.8	11.2
Hero Motocorp	188.4	195.7	183.6	171.5	191.2
M & M	39.9	41.2	38.1	33.3	40.0
Mahindra CIE	17.5	16.0	15.0	10.2	12.7
MRF		3864.3	4058.9	3558.9	3633.3
Maruti Suzuki	265.7	261.5	292.3	252.0	255.6
Motherson Sumi	7.0	7.7	7.4	5.9	7.8
Tata Motors	15.6	17.5	21.4	5.6	13.7
TVS Motor	19.3	20.3	20.3	15.5	19.0

Source: Bloomberg, MOFSL

**Exhibit 8: Trend in Buy rating over last 12 months (Buy rating as % of total rating)**

Company	Buy ratings (% of total ratings)				
	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20
Ashok Leyland	44.9	42.9	47.8	50.0	72.1
Amara Raja	65.2	63.6	54.5	59.1	73.9
Apollo Tyres	70.4	66.7	69.2	54.5	73.9
Bharat Forge	43.3	36.7	41.9	37.5	37.9
Bajaj Auto	32.7	35.2	60.4	54.7	58.8
Bosch	11.1	11.1	22.2	11.1	14.3
CEAT	36.0	32.0	36.0	59.1	54.5
Eicher Motors	30.2	33.3	45.5	54.3	48.9
Endurance Tech.	66.7	60.0	69.2	69.2	76.5
Escorts	61.1	63.2	84.2	86.4	85.2
Exide Inds.	70.4	81.5	88.5	64.0	83.3
Hero Motocorp	48.0	42.0	64.0	66.7	58.8
M & M	80.0	82.2	83.7	85.4	90.2
Mahindra CIE	100.0	100.0	90.9	90.0	90.0
MRF	77.8	60.0	60.0	62.5	70.0
Maruti Suzuki	56.6	51.9	60.0	67.3	64.0
Motherson Sumi	75.8	74.3	69.4	72.2	74.2
Tata Motors	40.5	52.6	55.3	48.6	51.5
TVS Motor	25.0	27.3	25.6	18.6	26.8

Source: Bloomberg, MOFSL

**Exhibit 9: Shareholding pattern (%)**

Company	Promoters		DII		FII		Public	
	Sep'19	Sep'20	Sep'19	Sep'20	Sep'19	Sep'20	Sep'19	Sep'20
AL	51.1	51.1	11.0	17.5	18.8	15.3	19.1	16.1
AMRJ	28.1	28.1	13.9	14.7	17.3	18.6	40.8	38.6
APTY	40.9	41.75	19.3	17.4	23.7	20.0	16.1	20.8
BHFC	45.8	45.8	13.5	11.8	19.0	21.9	21.7	20.5
BJAUT	53.5	53.7	8.6	10.4	14.6	13.6	23.3	22.3
BOS	70.5	70.5	13.2	14.2	7.4	6.7	8.8	8.6
CEAT	51.1	46.8	5.7	16.2	25.1	23.7	18.2	13.3
EIM	49.3	49.3	4.8	10.1	33.2	28.2	12.7	12.5
ENDU	75.0	75.0	5.7	11.9	16.4	11.6	2.9	1.5
ESC	40.3	36.6	5.5	8.5	22.9	23.8	31.3	31.1
EXID	46.0	46.0	24.7	23.1	8.9	9.8	20.4	21.1
HMCL	34.6	34.8	18.6	22.9	35.2	33.3	11.6	9.1
MM	18.9	18.9	23.1	29.9	41.9	41.1	16.1	10.2
MACA	67.7	71.6	7.1	3.4	10.3	14.5	14.9	10.6
MRF	27.7	27.9	14.9	18.16	6.5	7.4	50.8	46.5
MSIL	56.2	56.4	13.5	16.8	23.2	21.9	7.2	5.0
MSS	61.7	61.7	11.1	13.6	16.4	16.0	10.9	8.7
TTMT	38.4	42.4	16.0	13.2	19.5	15.8	26.1	28.6
TVSL	57.4	57.4	16.4	21.9	15.7	10.6	10.5	10.1

Source: Company, MOFSL

## NOTES

Explanation of Investment Rating	Expected return (over 12-month)
<b>Investment Rating</b>	
BUY	>=15%
SELL	< - 10%
NEUTRAL	> - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation

\*In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

**Disclosures:**

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations). Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH00000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Investment Advisory Services, Depository participant services & distribution of various financial products. MOFSL is a subsidiary company of Passionate Investment Management Pvt. Ltd. (PIMPL). MOFSL is a listed public company, the details in respect of which are available on [www.motilaloswal.com](http://www.motilaloswal.com). MOFSL (erstwhile Motilal Oswal Securities Limited - MOFSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at <http://online.reports.motilaloswal.com/Dormant/documents/Associate%20Details.pdf>

Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

MOFSL, its associates, Research Analyst or their relative may have any financial interest in the subject company. MOFSL and/or its associates and/or Research Analyst may have actual/beneficial ownership of 1% or more securities in the subject company in the past 12 months. MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may: (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report. Research Analyst may have served as director/officer, etc. in the subject company in the past 12 months. MOFSL and/or its associates may have received any compensation from the subject company in the past 12 months.

In the past 12 months, MOFSL or any of its associates may have:

- a) managed or co-managed public offering of securities from subject company of this research report.
- b) received compensation for investment banking or merchant banking or brokerage services from subject company of this research report.
- c) received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.
- d) Subject Company may have been a client of MOFSL or its associates in the past 12 months.

MOFSL and its associates have not received any compensation or other benefits from the subject company or third party in connection with the research report. To enhance transparency, MOFSL has incorporated a Disclosure of Interest Statement in this document. This should, however, not be treated as endorsement of the views expressed in the report. MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, it does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures. Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, it does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

**Terms & Conditions:**

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no warranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

**Analyst Certification**

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Disclosure of Interest Statement	Companies where there is interest
Analyst ownership of the stock	No

A graph of daily closing prices of securities is available at [www.nseindia.com](http://www.nseindia.com), [www.bseindia.com](http://www.bseindia.com). Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to subject company for which Research Team have expressed their views.

**Regional Disclosures (outside India)**

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

**For Hong Kong:**

This report is distributed in Hong Kong by Motilal Oswal Capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Financial Services Limited (SEBI Reg No. INH00000412) has an agreement with Motilal Oswal Capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

**For U.S.:**

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts"), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited, ("MOSIPL"). Any business transaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

**For Singapore:**

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co.Reg. No. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore, as per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisers Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

**Disclaimer:** The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, and other derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alterations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, nor its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, and all its responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 71934200/ 022-71934263; Website [www.motilaloswal.com](http://www.motilaloswal.com). CIN No.: L67190MH2005PLC153397. Correspondence Office Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad(West), Mumbai- 400 064. Tel No: 022 7188 1000. Registration Nos.: Motilal Oswal Financial Services Limited (MOFSL): INZ000158836(BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH00000412. AMFI: ARN - 146822; Investment Adviser: INA000007100; Insurance Corporate Agent: CA0579 -PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP00000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) is offered through MOWML, which is a group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance Products and IPOs. Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd. which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock Exchange carefully before investing. There is no assurance or guarantee of the returns. Investment in securities market is subject to market risk, read all the related documents carefully before investing. Details of Compliance Officer: Name: Neeraj Agarwal, Email ID: [na@motilaloswal.com](mailto:na@motilaloswal.com), Contact No. 022-71881085. \* MOFSL has been amalgamated with Motilal Oswal Financial Services Limited (MOFSL) w.e.f August 21, 2018 pursuant to order dated July 30, 2018 issued by Hon'ble National Company Law Tribunal, Mumbai Bench.