

MAS Financial Services

BSE SENSEX	S&P CNX
35,591	10,652
Bloomberg	MASFIN IN
Equity Shares (m)	55
M.Cap.(INRb)/(USDb)	29.4 / 0.4
52-Week Range (INR)	643 / 365
1, 6, 12 Rel. Per (%)	-7/1/-14
12M Avg Val (INR M)	21
Free float (%)	26.5

Financials & Valuations (INR b)

Y/E Mar	2019E	2020E	2021E
NII	3.4	4.0	5.0
PPP	2.9	3.5	4.3
PAT	1.5	1.8	2.1
EPS (INR)	28.4	32.6	39.1
BV/Share (INR)	154.0	178.5	207.9
RoA on AUM (%)	3.1	2.9	2.7
RoE (%)	19.8	19.6	20.3
Valuations			
P/E (x)	19.6	17.0	14.2
P/BV (x)	3.6	3.1	2.7

CMP: INR538 TP: INR650 (+21%) Buy

AUM growth on track; higher assignment transactions drive PAT outperformance

- Consol. PAT grew 51% YoY to INR461m (30% beat), driven by higher-thanexpected assignment transactions (INR7.8b; 16% of opening AUM) and related up-fronting of income (according to the regulation under Ind-AS).
- Standalone AUM increased 34% YoY to INR49.1b, driven by 35% YoY growth in micro-enterprise loans (MEL) to INR30.6b. MEL now comprises 62% of total AUM. SME loans stood at INR11.9b, comprising 24% of total AUM.
- Borrowing mix was largely stable sequentially. The share of assignment in overall funding stood at 50% versus 49% in the previous quarter.
- Cost of funds increased ~25bp QoQ to 9.1%. Incremental cost of funds stood at 9.75% in the quarter. Calculated margins were stable YoY at 8.5%.
- Asset quality has been largely stable GNPL ratio increased by 10bp YoY to 1.3%, while NNPL ratio was stable at 0.9%.

Valuation view: We believe MASFIN has all the ingredients of a good investment: (a) a small base and presence in well-developed states for strong growth, (b) relentless management focus on generating sustainable, high-return ratios, (c) healthy capitalization and (d) consistent and healthy asset quality, despite catering to the lower end of the socio-economic customer segment. However, there might be modest challenges to growth and margins over the near term. We expect RoA (on AUM)/RoE of 2.9%/19% in FY20. We increase our FY19/20 estimates by 12/6% to factor in higher assignment income in FY19 and higher AUM growth in FY20. Reiterate Buy with a TP of INR650 (3.2x Dec'20E BV, 18x Dec'20E earnings).

Quarterly Performance									(II	NR Million)
Y/E March		FY1	8			FY1	9		FY18	FY19
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q		
Total Income	1,041	1,239	1,247	1,135	1,288	1,421	1,705	1,701	4,662	6,114
Interest expenses	489	518	448	352	468	528	639	658	1,807	2,293
Net Income	552	721	799	783	820	893	1,066	1,042	2,855	3,821
Growth Y-o-Y (%)	24.0	49.5	63.4	61.3	48.5	23.9	33.4	33.1	50.1	33.9
Operating Expenses	175	195	244	179	203	219	223	241	794	886
Operating Profits	377	525	555	604	617	674	843	801	2,061	2,936
Growth Y-o-Y (%)	24.4	54.7	68.5	85.2	63.7	28.4	51.8	32.7	58.8	42.4
Provisions	76	121	86	148	137	126	141	139	429	543
Profit before tax	301	405	469	456	480	548	702	663	1,632	2,393
Growth Y-o-Y (%)	29.4	41.4	66.3	98.8	59.4	35.5	49.5	45.3	58.3	46.7
Tax Provisions	127	159	163	157	167	193	240	230	606	830
Net Profit	174	246	306	299	313	355	461	432	1,025	1,563
Growth Y-o-Y (%)	16.8	29.1	65.5	100.6	79.6	44.7	50.7	44.6	52.2	52.4
Int. Exp/Int. Income %	47.0	41.8	35.9	31.0	36.3	37.1	37.5	38.7	38.8	37.5
Cost to Income Ratio %	31.7	27.1	30.5	22.9	24.7	24.5	20.9	23.1	27.8	23.2
Prov to Operating Profits %	20.1	22.9	15.4	24.4	22.2	18.7	16.7	17.3	20.8	18.5
Tax Rate %	42.1	39.3	34.8	34.5	34.7	35.2	34.3	34.8	37.2	34.7

E: MOSL Estimates

Research Analyst: Alpesh Mehta (Alpesh.Mehta@MotilalOswal.com); +91 22 6129 1526 | Piran Engineer (Piran.Engineer@MotilalOswal.com); +91 22 6129 1539

Nitin Aggarwal (Nitin.Aggarwal@MotilalOswal.com); +91 22 6129 1542 | Shubhranshu Mishra (Shubhranshu.Mishra@MotilalOswal.com); +91 22 6129 1540

34% YoY AUM growth in 3QFY19

AUM growth strong, MEL gaining share

- Disbursements grew 29% YoY to INR12.4b.
- Standalone AUM increased 34% YoY to INR49.1b, driven by 35% YoY growth in micro-enterprise loans to INR30.6b. MEL now comprises 62% of total AUM.
- Share of other products in AUM SME: 24%, 2W: 10%, CV: 3%.
- GNPL ratio increased 10bp YoY to 1.3%, but NNPL ratio was stable at 0.9%.
- Segmental yield: MEL/SME/2W/CV at 15.5%/14.9%/16.9%/17.5% for 3QFY19 v/s 15.5%/15.9%/18.9%/17.9% for 3QFY18.

MAS Housing subsidiary: AUM grew by 31% YoY to INR2.5b

MAS Housing subsidiary – performance highlights

- AUM growth picked up from the mid-teens trend in the past quarter to 31% YoY this quarter. AUM at quarter-end stood at INR2.5b.
- PAT for the quarter was INR10m, implying ~1.6% RoA.
- GNPL/NNPL ratio remained stable at 32bp/25bp on a YoY basis.

Others

- Share of off-balance sheet AUM increased from 37% to 40% YoY.
- AUM sourced by channel partners (i.e. NBFCs) remained sequentially stable at 60%.
- Capitalization remains robust, with a tier I ratio of 29.3%.

Valuation and view

- We believe MASFIN has all the ingredients of a good investment: (a) a small base and presence in well-developed states for strong growth, (b) superior asset quality, (c) relentless management focus on generating sustainable, high return ratios, (d) healthy capitalization and (e) consistent dividend payout.
- With a tier I ratio of 29.4%, MASFIN is well capitalized for the next three years of growth, in our view.
- Since the company has a higher share of assignment transactions, quarterly earnings volatility is likely to increase going forward, especially depending upon the type of portfolio assigned.
- We increase our estimates for FY19/20 by 12/6% to factor in higher assignment income in FY19 and higher AUM growth in FY20.
- We use RI model with Rf of 7.5%, CoE of 15.2% and terminal growth rate of 5% to arrive at a target price of INR650 (3.2x Dec'20E BV, 18x Dec'20E earnings).
 Buy.

Exhibit 1: Upgrading estimates to factor in stronger assignment income in FY19E and higher AUM growth in FY20E

INR b	Old	Est.	New	Est.	Chan	ge (%)
	FY19E	FY20E	FY19E	FY20E	FY19E	FY20E
NII	3.2	3.9	3.4	4.0	5.3	2.8
Other Income	0.4	0.5	0.5	0.5	7.1	5.3
Total Income	3.6	4.4	3.8	4.5	5.5	3.0
Operating Expenses	0.9	1.1	0.9	1.1	-1.1	-1.0
Operating Profits	2.7	3.3	2.9	3.5	7.7	4.4
Provisions	0.6	0.7	0.5	0.7		
PBT	2.1	2.6	2.4	2.7	11.4	5.6
Tax	0.8	0.9	0.8	0.9	10.5	5.6
PAT	1.4	1.7	1.6	1.8	11.9	5.6
AUM	53	67	55	69	4.1	4.0
NIM (%)	6.6	6.6	6.8	6.5		
ROAA (%)	4.2	4.1	4.9	4.6		
RoAE (%)	17.8	18.9	19.8	19.6		

Source: MOSL, Company



Conference call highlights

Business

- Working closely with fin-tech companies to understand technology and processes.
- Have been able to pass on increased borrowings cost to customers.
- Avg. ticket size in SME has reduced QoQ due to business mix shift.
- Lending rates have been increased by 50-75bp for on-lending (60% of portfolio).
- INR39m of other income is treasury income due to money parked in FDs.
- Blended yield 16.6%.
- Sometimes lend to NBFCs, if well capitalized, despite loss incurred in a quarter.
- Minimum AUM of NBFCs for on-lending: INR20m.
- For top-10 borrowers, MASFIN has average exposure of 7% of its balance sheet.
- Most NBFCs with which the company works have avg. growth rate of 35%.

Asset quality

- Slippages INR160m in 3QFY19, INR140m in 2QFY19, INR230m in 3QFY18.
- Provisions have increased due to portfolio growth and stage 3 provisions increasing.

Liquidity

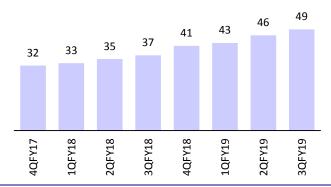
- Incremental cost of borrowings is at 9.75%, likely to remain at similar levels.
- Likely to hit capital markets for capital raising.
- INR7.8 of assignment in 3Q, INR3.5b in 1QFY19.
- Have two quarters of liabilities sanctioned now; likely to raise ECB in FY20.
- Term loans have declined sequentially as it did not go to banks for sanctions due to high rates (10.5-10.75%).

Guidance

Increasing branches to 150 in 2-3 years; will be in present six states.

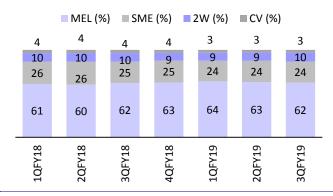
Story in charts

Exhibit 2: AUM (excl. housing finance) trend (INR b)



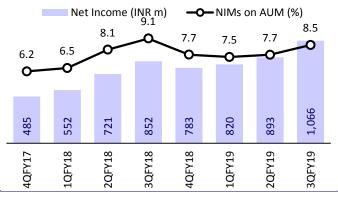
Source: Company, MOSL

Exhibit 3: MEL and SME remain key growth drivers



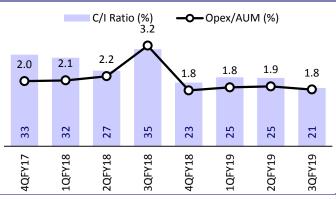
Source: Company, MOSL

Exhibit 4: NIM (calc.) trend



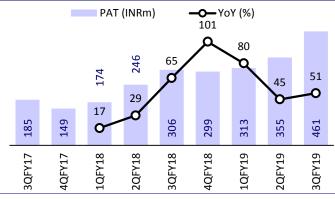
Source: Company, MOSL

Exhibit 5: Trend in C/I ratio (%)



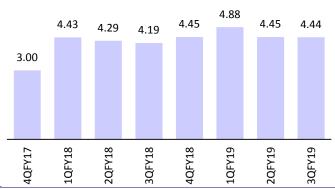
Source: Company, MOSL

Exhibit 6: PAT increased 51% YoY



Source: Company, MOSL

Exhibit 7: RoA trend stable (%)



Source: Company, MOSL; Note: Includes only on-book assets

Financials – Valuation matrix

	Rating	СМР	Мсар	EPS ((INR)	P/E	(x)	BV (INR)	P/B	/ (x)	RoA	(%)	RoE	(%)
		(INR)	(USDb)	FY19E	FY20E										
ICICIBC*	Buy	365	31.4	8.0	20.2	32.6	12.9	166	181	1.6	1.4	0.6	1.2	5.0	11.8
HDFCB	Buy	2,033	78.7	79.8	95.9	25.5	21.2	543	621	3.7	3.3	1.8	1.8	16.7	16.5
AXSB	Buy	691	23.9	18.5	39.6	37.3	17.5	266	301	2.6	2.3	0.6	1.2	7.2	13.9
KMB*	Neutral	1,222	33.5	37.9	46.1	32.2	26.5	303	348	4.0	3.5	1.7	1.7	12.1	13.3
YES	Buy	199	6.6	18.5	22.6	10.8	8.8	126	145	1.6	1.4	1.2	1.2	15.5	16.7
IIB	Buy	1,476	12.4	68.8	100.2	21.5	14.7	441	556	3.3	2.7	1.7	2.1	16.5	20.2
FB	Buy	86	2.4	6.1	8.9	14.1	9.7	67	75	1.3	1.1	0.8	1.0	9.5	12.5
DCBB	Neutral	177	0.8	10.2	13.2	17.5	13.4	96	109	1.8	1.6	0.9	1.0	11.6	13.4
SIB	Buy	13	0.3	1.7	2.7	8.0	4.9	29	31	0.5	0.4	0.3	0.5	5.6	8.6
Equitas	Buy	119	0.6	6.3	8.4	19.0	14.1	73	80	1.6	1.5	1.3	1.4	9.0	11.1
RBL	Buy	562	3.3	20.6	28.0	27.2	20.1	176	199	3.2	2.8	1.2	1.3	12.3	14.9
Private Aggregate															
SBIN (cons)*	Buy	288	35.2	8.7	32.3	29.0	8.2	249	276	1.0	1.0	0.1	0.7	2.7	12.3
PNB	Neutral	77	3.3	-17.7	8.0	-4.3	9.7	109	117	0.7	0.7	-0.7	0.4	-13.8	6.8
BOI	Neutral	99	2.4	-24.4	3.7	-4.1	26.6	127	128	0.8	0.8	-0.9	0.2	-15.0	2.7
ВОВ	Buy	114	4.2	8.9	15.7	12.8	7.2	165	179	0.7	0.6	0.3	0.5	5.3	8.8
СВК	Neutral	250	2.5	17.0	42.3	14.7	5.9	448	484	0.6	0.5	0.2	0.4	3.5	8.2
UNBK	Neutral	81	1.3	4.5	12.8	18.1	6.3	235	245	0.3	0.3	0.1	0.3	2.1	5.5
Public Aggregate															
Banks Aggregate															
HDFC*	Buy	1,886	45.2	42.8	49.6	19.9	17.1	307	343	2.8	2.5	1.8	1.9	15.6	15.3
LICHF	Buy	434	3.2	46.2	56.4	9.4	7.7	324	371	1.3	1.2	1.4	1.5	15.1	16.2
IHFL	Buy	674	4.2	95.6	109.7	7.1	6.1	395	446	1.7	1.5	3.1	3.1	25.6	26.1
PNBHF	Buy	932	2.2	66.0	78.0	14.1	11.9	435	496	2.1	1.9	1.5	1.4	16.1	16.8
REPCO	Buy	398	0.3	40.0	45.1	10.0	8.8	245	287	1.6	1.4	2.4	2.4	17.7	17.0
Housing Finance															
SHTF	Buy	1,015	3.3	108.7	133.3	9.3	7.6	693	808	1.5	1.3	2.4	2.7	16.8	17.8
MMFS	Buy	404	3.4	21.7	27.0	18.7	15.0	172	191	2.4	2.1	2.3	2.3	13.2	14.9
BAF	Neutral	2,596	20.3	68.3	89.1	38.0	29.1	329	408	7.9	6.4	3.8	3.7	22.8	24.2
CIFC	Buy	1,132	2.4	77.2	86.4	14.7	13.1	393	470	2.9	2.4	2.4	2.3	21.5	20.0
SCUF	Buy	1,734	1.6	144.2	158.0	12.0	11.0	949	1,089	1.8	1.6	3.5	3.6	16.3	15.5
LTFH	Buy	133	3.7	11.5	13.3	11.5	10.0	66	78	2.0	1.7	2.3	2.2	18.8	18.5
MUTH	Neutral	501	2.8	50.3	58.0	10.0	8.6	229	270	2.2	1.9	5.8	5.9	23.8	23.3
MAS	Buy	538	0.4	25.3	30.9	21.2	17.4	152	175	3.5	3.1	4.2	4.1	17.8	18.9

^{*}Multiples adj. for value of key ventures/Investments; For ICICI Bank and HDFC Ltd BV is adjusted for investments in subsidiaries

Source: MOSL, Company

Financials and Valuations

INCOME STATEMENT								R Million)
Y/E MARCH	2014	2015	2016	2017	2018	2019E	2020E	2021E
Interest Income	1,687	2,164	2,779	3,364	4,186	5,664	7,117	9,013
Interest Expense	788	1,117	1,423	1,642	1,673	2,293	3,074	4,001
Net Financing income	898	1,046	1,356	1,721	2,513	3,371	4,042	5,012
Change (%)	26.5	16.5	29.6	26.9	46.0	34.2	19.9	24.0
Other operating income	147	205	253	273	364	400	440	484
Other Income	16	13	10	10	0	50	55	61
Net Income	1,061	1,265	1,619	2,005	2,877	3,821	4,538	5,557
Change (%)	21.8	19.2	28.0	23.8	43.5	32.8	18.7	22.5
Operating Expenses	418	453	598	672	790	886	1,072	1,285
Change (%)	9.8	8.3	32.0	12.4	17.6	12.1	21.1	19.9
Operating Profits	643	812	1,021	1,333	2,087	2,936	3,465	4,272
Change (%)	31.0	26.3	25.8	30.5	56.6	40.7	18.0	23.3
Total Provisions	146	195	236	272	473	543	718	975
% to operating income	22.7	24.0	23.1	20.4	22.6	18.5	20.7	22.8
PBT	497	617	785	1,060	1,614	2,393	2,747	3,296
Tax	166	209	271	367	556	830	948	1,137
Tax Rate (%)	33.4	33.8	34.5	34.6	34.4	34.7	34.5	34.5
PAT	331	408	515	693	1,058	1,563	1,800	2,159
Change (%)	20.5	23.3	26.1	34.8	52.6	47.7	15.2	20.0
Preference Dividend	33	35	35	40	0	0	0	0
Minority Interest	5	8	6	8	10	13	16	20
PAT for Equity Shareholders	293	365	473	646	1,048	1,550	1,784	2,139
Change (%)	30.1	24.5	29.5	36.7	62.2	47.9	15.1	19.9
Proposed Dividend	35	56	176	132	0	387	446	535
		30	170	132	Ŭ.	307	110	333
BALANCE SHEET							(IN	R Million)
Y/E MARCH	2014	2015	2016	2017	2018	2019E	2020E	2021E
Equity Share Capital	160	160	160	430	547	547	547	547
Reserves & Surplus	684	1,006	1,235	2,416	6,710	7,873	9,211	10,815
Networth	844	1,166	1,235	2,410	7,257	· · · · · · · · · · · · · · · · · · ·	9,757	
Minority Interest						8,419		11,362
Other Capital Instruments	66	92	98	105	113	126	142	161
·	935	935	955	975	40	40	40	40
Borrowings Change (%)	9,292	13,270	16,665	17,564	21,345	26,424	33,563	42,641
Change (%)	48.0	42.8	25.6	5.4	21.5	23.8	27.0	27.0
Other liabilities	195	257	345	522	-80	-96	-115	-139
Change (%)	38.7	32.3	34.0	51.3	-115.4	20.0	20.0	20.0
Total Liabilities	11,331	15,720	19,458	22,011	28,675	34,913	43,386	54,066
Loans	9,226	13,220	17,249	21,093	27,121	33,294	41,618	52,023
Change (%)	53.5	43.3	30.5	22.3	28.6	22.8	25.0	25.0
Investments	1	3	3	0	0	0	0	C
Net Fixed Assets	58	46	82	87	578	664	764	879
Other assets	2,046	2,450	2,124	831	976	954	1,004	1,165
Total Assets	11,331	15,720	19,458	22,011	28,675	34,913	43,386	54,066
E: MOSL Estimates								
Assumptions	2014	2015	2016	2017	2018	2019E	2020E	2021E
AUM (INR M)	14,563	20,996	26,999	33,326	43,184	55,491	69,363	86,704
AOIVI (IIVII IVI)	= .,	-,	-,				•	•
,	38.3	44.2	28.6	23.4	29.6	28.5	25.0	25.0
Change (%) On Balance Sheet					29.6 63.6	28.5 62.8		

E: MOSL Estimates

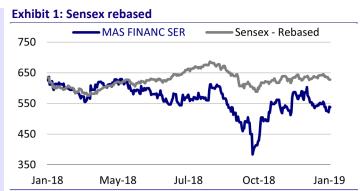
Financials and Valuations

RATIOS								
Y/E MARCH	2014	2015	2016	2017	2018	2019E	2020E	2021E
Spreads Analysis (%)								
Yield on loans	22.0	19.1	18.1	17.4	17.3	18.8	19.0	19.3
Cost of Funds	10.1	9.9	9.5	9.6	8.6	9.6	10.3	10.5
Spreads (On books)	11.9	9.2	8.6	7.8	8.7	9.2	8.8	8.8
NIMs (On AUM)	7.2	5.9	5.7	5.7	6.6	6.8	6.5	6.4
Profitability Ratios (%)								
RoE	39.9	36.3	36.9	30.5	20.7	19.8	19.6	20.3
RoA	3.03	2.70	2.69	3.12	4.14	4.87	4.56	4.39
RoA (on AUM)	2.34	2.05	1.97	2.14	2.74	3.14	2.86	2.74
Op. Exps./Net Income	39.4	35.8	36.9	33.5	27.5	23.2	23.6	23.1
Empl. Cost/Op. Exps.	35.0	37.8	40.8	43.7	52.6	59.8	60.3	60.3
Asset-Liability Profile (%)								
Net NPAs to Adv.	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9
Debt/Equity (x) - On BS	12.1	12.2	12.6	6.5	2.9	3.1	3.4	3.8
Average leverage	11.9	12.2	12.4	8.5	4.0	3.1	3.3	3.6
CAR	19.0	18.1	18.3	23.0	28.0	25.3	23.4	21.8
Valuations	2014	2015	2016	2017	2018	2019E	2020E	2021E
Book Value (INR)	52.8	72.9	87.2	66.2	132.8	154.0	178.5	207.9
Price-BV (x)	32.0	72.3	07.2	00.2	4.2	3.6	3.1	2.7
Adjusted BV (INR)	47.4	65.4	76.7	63.8	130.3	150.9	174.4	202.6
Price-ABV (x)	77.7	05.4	70.7	05.0	4.3	3.7	3.2	2.7
EPS (INR)	18.3	22.8	29.5	15.0	19.2	28.4	32.6	39.1
EPS Growth (%)	-18.7	24.5	29.5	-49.1	27.5	47.9	15.1	19.9
Price-Earnings (x)	-10.7	24.3	23.3	-43.1	28.9	19.6	17.0	14.2
THE Lattings (A)					20.3	19.0	17.0	14.2

E: MOSL Estimates

Corporate profile

MAS Financial Services (MASFIN) is an Ahmedabadheadquartered, non-deposit-taking NBFC incorporated in 1995 by first-generation entrepreneurs, Mr. Kamlesh Gandhi and Mr. Mukesh Gandhi. It operates out of six states, of which Gujarat and Maharashtra account for bulk of the AUM. A quintessential NBFC, it targets the middle and low income customer segments. Over the past five years, MASFIN's AUM grew at a robust rate to reach INR52b in 3QFY19. Growth was driven by their flagship product (MEL loans) and new product such as SME loans.



Source: MOSL/Bloomberg

Exhibit 2: Shareholding pattern (%)

	Dec-18	Sep-18	Dec-17
Promoter	73.5	73.4	73.2
DII	9.9	9.9	8.8
FII	2.6	2.6	5.3
Others	14.0	14.1	12.6

Note: FII Includes depository receipts Source: Capitaline

Exhibit 3: Top holders

Holder Name	% Holding
Vistra Itcl I Ltd Business Excellence Trust Iii India Business	7.3
Axis Mutual Fund Trustee Limited A/C Axis Mutual Fund A/C Axis Long Term Equity Fund	4.5
Idfc Sterling Value Fund	3.4
Tata Aia Life Insurance Co Ltd-Whole Life Mid Cap Equity Fund-Ulif 009 04/01/07 Wle 110	1.4

Source: Capitaline

Exhibit 4: Top management

Designation
Chairman & Managing
Director
Executive Director & COO
Whole Time Director & CFO
Company Socretary
Company Secretary

Source: Capitaline

Exhibit 5: Directors

Name	Name
Balabhaskaran	Chetan Ramniklal Shah
Umesh Rajanikant Shah	

*Independent

Exhibit 6: Auditors

Name	Туре
Ravi Kapoor & Associates	Secretarial Audit
BSR&CoLLP	Statutory
Deloitte Haskins & Sells	Statutory

Source: Capitaline

Exhibit 7: MOSL forecast v/s consensus

EPS	MOSL	Consensus	Variation
(INR)	forecast	forecast	(%)
FY19	28.4	25.7	10.5
FY20	32.6	31.6	3.0
FY21	39.1	39.0	0.2

Source: Bloomberg

Explanation of Investment Rating		
Investment Rating	Expected return (over 12-month)	
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 becomes inconsistent with the investment rating legend, the Research Analyst shall within 28 days of the inconsistency, take appropriate measures to make the recommendation consistent with the investment rating legend.

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Securities Ltd. (MOSL)* is a SEBI Registered Research Analyst having registration no. INH000000412. MOSL, 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. MOSL is a subsidiary company of Motilal Oswal Financial Service Ltd. (MOFSL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOSL 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 (MCX) & National Commodity & Derivatives Exchange Ltd. (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) & National Securities Depository Limited (NSDL) and is member of Association of Mutual Funds of India (AMFI) for Oswal available distribution of financial products. Details of associate entities of Motilal Securities Limited are http://onlinereports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pd

MOSL 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 MOSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report

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

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOSL 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 MOSL & 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 Securities (SEBI Reg No. INH000000412) 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.

Motilal Oswal Securities Limited (MOSL) 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 MOSL 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 MOSL, 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., MOSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction 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 Advisors 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.

Specific Disclosures

- MOSL, Research Analyst and/or his relatives does not have financial interest in the subject company, as they do not have equity holdings in the subject company.
- MOSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company MOSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- MOSL, Research Analyst and/or his relatives do not have material conflict of interest in the subject company at the time of publication of research report
- Research Analyst has not served as director/officer/employee in the subject company MOSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- MOSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months MOSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- MOSL has not received any compensation or other benefits from third party in connection with the research report
- 10 MOSL has not engaged in market making activity for the subject company

9 30 January 2019

The associates of MOSL may have:

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company
- received compensation/other benefits from the subject company in the past 12 months
- 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 MOSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 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)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.

The associates of MOSL has not received any compensation or other benefits from third party in connection with the research report

Above disclosures include beneficial holdings lying in demat account of MOSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOSL also earns DP income from clients which are not considered in above disclosures.

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.

Terms & Conditions:

This report has been prepared by MOSL 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 MOSL. 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 guaranty, 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. MOSL will not treat recipients as customers by virtue of their receiving this report.

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, another 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 alternations to this statement as may be required from time to time without any prior approval. MOSL, 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 MOSL. 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 MOSL 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, not 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 MOSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOSL 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.: 022-3980 4263; www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 3080 1000. Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No::022-38281085.

Registration details: MOSL: SEBI Registration: INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL: IN-DP-16-2015; NSDL: IN-DP-NSDL-152-2000; Research Analyst: INH000000412. AMFI: ARN 17397. Investment Adviser: INA000007100. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670) offers PMS and Mutual Funds products. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) offers wealth management solutions. *Motilal Oswal Securities Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance and IPO products. *Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. offers Real Estate products. * Motilal Oswal Private Equity Investment Advisors Pvt. Ltd. offers Private Equity products.

* MOSL 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. The existing registration no(s) of MOSL would be used until receipt of new MOFSL registration numbers.