

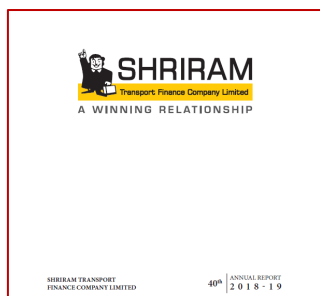
Shriram Transport Finance

 BSE SENSEX
38,823

 S&P CNX
11,583

CMP: INR1,043
TP: INR1,300 (+25%)
Buy

Motilal Oswal values your support in the Asiamoney Brokers Poll 2019 for India Research, Sales and Trading team. We [request your ballot](#).



Stock Info

	SHTF IN
Bloomberg	
Equity Shares (m)	227
M.Cap.(INRb)/(USD\$b)	236.7 / 3.5
52-Week Range (INR)	1476 / 904
1, 6, 12 Rel. Per (%)	-3/-20/-21
12M Avg Val (INR M)	1857
Free float (%)	73.9

Financials Snapshot (INR b)

Y/E March	2019	2020E	2021E
Net Inc.	80.3	80.8	89.7
PPP	61.6	62.0	68.4
PAT	25.6	26.2	29.0
EPS (INR)	113	115	128
EPS Gr. (%)	4	2	11
BV/Sh (INR)	690	792	904
RoA (%)	2.5	2.4	2.4
RoE (%)	17.6	15.6	15.1
Payout (%)	12.7	12.0	12.0

Valuations

P/E (x)	9.2	9.0	8.2
P/BV (x)	1.5	1.3	1.2
Div. Yield (%)	1.2	1.1	1.2

Shareholding pattern (%)

As On	Mar-19	Dec-18	Mar-18
Promoter	26.1	26.1	26.1
DII	3.9	4.5	4.0
FII	50.9	49.3	49.5
Others	19.1	20.2	20.4

FII Includes depository receipts

Growth decelerating

Higher write-offs drive lower stage 3%; Slippages remain elevated

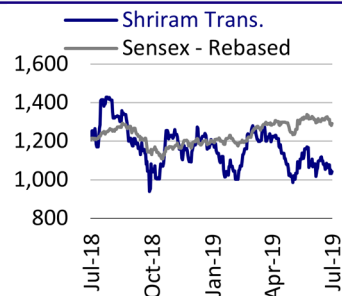
- Our analysis of Shriram Transport Finance's (SHTF) FY19 annual report indicates that the company has diversified its borrowing mix by raising INR100b from ECBs and retail NCDs (largely equal). But, these sources have been more expensive - the total landed cost of ECBs is ~10%, while that of retail NCDs is 9-10%. In addition, securitization deals have become dearer - the interest cost range of assets of 48-60 months maturity (which comprise half of total sell-downs) increased from 6.9-8.2% in FY18 to 8.3-10.4% in FY19.
- The annual report also provides several interesting disclosures on the asset quality front. After nearly doubling in FY18, slippages were largely stable YoY at INR66b in FY19. However, there has been a sharp increase in bad debt write-offs in FY19 - up 60% YoY to INR23.4b. Also, while Stage 3 assets (NPLs) have witnessed ~100bp improvement to 8.4% in FY19, it masks a deterioration in Stage 2 assets, which increased from 13% of total loans in FY17 to 18% in FY18 and 19% in FY19.
- Other key highlights: (a) SHTF has positive ALM with 38% (36%) of domestic loans + investments maturing in less than one year v/s 40% (38%) domestic liabilities (Borrowings + Deposits) in FY19 (FY18), (b) FY18 PAT upgraded by INR8.93b (+57%) on transition to Ind-AS from IGAAP, led by lower credit costs and additional revenue recognition, (c) Outstanding assets increased 16-17% for FY17/18 as the securitization pool needs to be recognized on the balance sheet, and (d) Network expansion remains healthy with 335/2,800+ branch and employee addition.
- With tight liquidity and calibrated disbursements, we expect AUM growth to pick up only in 2HFY20. Margins should remain largely stable. Asset quality trends will have to be closely monitored, and thus, credit costs in FY20. We have cut estimates by 10%+ for FY20-22 due to lower AUM growth and pressure on margins. Maintain Buy with a TP of INR1,300 (1.4x June 2021 BVPS).

Disbursements decline, AUM growth decelerates

With the liquidity crisis emerging in Sep'18, SHTF took two steps to preserve liquidity and yet maintain some profitable growth - one, it scaled back in the lower-yielding new vehicle segment, and second, on an average it reduced LTV by ~500bp. These two measures led to ~25% YoY decline in overall disbursements in 2HFY19. Consequently, AUM growth decelerated from 22% in 1HFY19 to 9% in FY19. We expect AUM growth to remain muted in FY20.

Diversifying liability mix albeit at a higher cost

During the year, SHTF proactively diversified its borrowing mix; it raised over INR50b+ via ECBs (total landed cost~10%) and ~INR50b via retail NCDs (total landed cost 9-10%). The company has for the first time disclosed its deposit base (98% of deposits from public, with a meagre 2% coming in from corporates and other sources. However, securitization deals have become dearer - the interest cost range of assets of 48-60 months maturity (which comprise half of total sell-downs) increased from 6.9-8.2% in FY18 to 8.3-10.4% in FY19.

Stock Performance (1-year)**Slippages under control but write-offs increased meaningfully**

After nearly doubling in FY18, slippages were largely stable YoY at INR66b in FY19. However, there has been a sharp increase in the bad debt write-offs in FY19 – up 60% YoY to INR23.4b. In fact, over the past two years, bad debts written off have nearly doubled. The company has also disclosed break-up of the write-offs as per the ‘Stage’ of the NPLs – while Stage 3 NPLs accounted for 56% of the total write-offs in FY18, they accounted for 73% of the same in FY19. However, despite the huge quantum of write-offs, SHTF managed to maintain ~35% PCR on Stage 3 assets. At the same time, its provisioning on standard assets, at 2.8%, is higher than peers like MMFS and CIFC.

Stage 2 assets’ % witnesses a meaningful increase in the past two years

While Stage 3 assets (NPLs) have witnessed ~100bp improvement to 8.4% in FY19, it masks a meaningful deterioration in Stage 2 assets (those between 30-89 days overdue). Stage 2 loans increased from 13% of total loans in FY17 to 18% in FY18 and 19% in FY19. We believe there could be some slippages from these accounts in FY20.

No major off-balance sheet exposures

One of the key disclosures in SHTF’s FY18 Annual Report was the corporate guarantee of ~INR8b to Shriram EPC. In 1HFY19, the guarantee was mutually revoked by both parties. As of FY19, there is no large off-balance sheet exposure outstanding; top-20 exposures/advances declined from INR11b/INR2.6b to INR3.3b/INR3.3b in FY19. However, the quantum of the top-4 NPLS accounted for doubled to INR1b in FY19.

ALM positive across early buckets

SHTF has positive ALM with 38% (36%) of domestic loans + Investments maturing in less than one year v/s 40% (38%) domestic liabilities (Borrowings +Deposits) in FY19 (FY18). 1/4th of the liabilities are over three years duration, whereas on the assets side, ~18% of the assets over three years duration. The company runs a very high positive ALM in 1-3 year bucket window.

Valuation and view

Over the past two quarters, SHTF calibrated disbursements and tweaked its product segment to manage growth and liquidity. As liquidity continues to remain tight, we expect AUM growth to remain sluggish. **A pick-up in growth is likely to happen in CY20 only. Asset quality is a key monitorable – increase in write-offs as well as Stage 2 assets in the past two years has been a cause for concern.** RoA/RoE is likely to trend at ~2.5%/~16% over the next three years. **Buy** with a target price of INR1,300 (1.4x June 2021 BV).

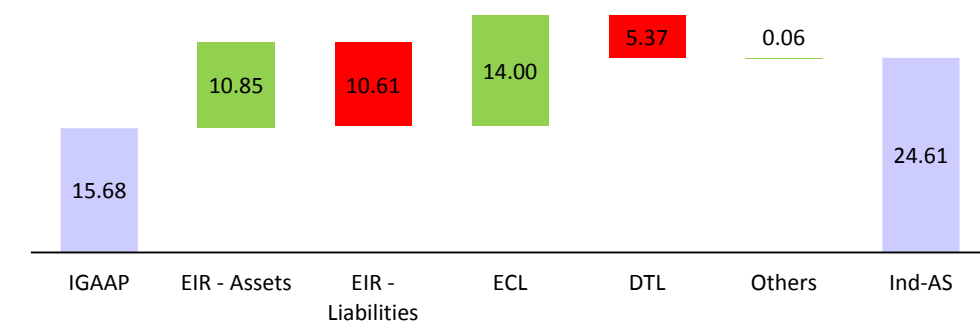
Key impact of Ind-AS transition

FY18 PAT up 57% under Ind-AS due to lower credit costs

PAT up 57%, networth up 8% in FY18 post transition to Ind-AS

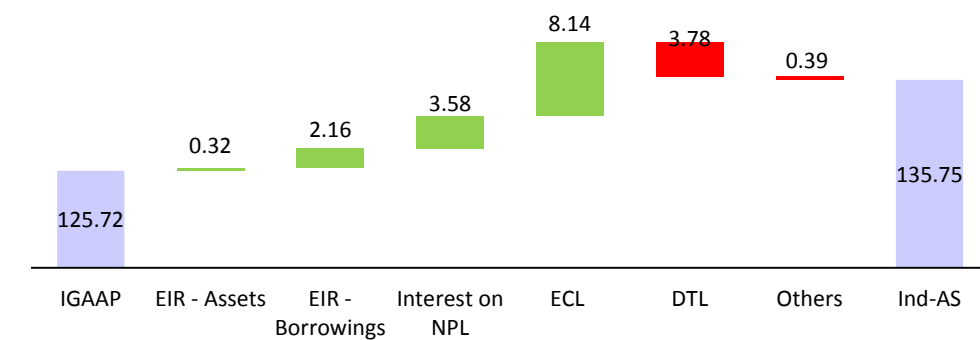
- FY18 PAT increased by 57% to INR8.93b on transition to Ind-AS from IGAAP. This was driven by reduction in provision for loans by INR14b and additional revenue recognition of INR10.8b, offset by additional finance cost of INR10b and tax liability of INR5.6b.
- On transition, networth increased by INR1.12b/INR10b, amounting to 1%/8% of outstanding FY17/FY18 GAAP networth. The sharp rise in networth for FY18 was on account of significantly higher PAT under Ind-AS.

Exhibit 1: Reconciliation of FY18 PAT from IGAAP to Ind-AS



Source: MOFSL, Company

Exhibit 2: Reconciliation of FY18 networth from IGAAP to Ind-AS



Source: MOFSL, Company

Provisions on loans – Sharp reduction in requirement

- Migration from the RBI's rule-based provisioning to ECL-based provisioning under IND-AS has led to a sharp reduction in the provisioning requirement.
- On transition, the company impaired its gross loans, investments and other receivables by INR5.9b in FY18's opening networth. Based on model assumptions, there was a release of INR14b of provision v/s INR31.2b provided in GAAP earnings.
- As the provisioning requirement is moving towards Loss Given Default (LGD) on loans, the overall coverage on NPA (Stage 3%) dropped from 70%+ (under GAAP, conservative stance adopted by management) to ~35%. However, on standard

loans (up to 90dpd), provisioning has increased from 25bp of loans to 2% for stage 1 loans (up to 30dpd – 75% of loans) and ~6% for stage 2 loans (20% of loans).

EIR and Interest on NPA leading to higher profitability

- Effective Interest Rate method and recognition of interest on NPAs on accrual basis (cash basis in GAAP) has had a major impact on the profitability in IND-AS v/s GAAP accounting. Various income and cost — recognised upfront under GAAP had to be amortized now.
- On the date of transition, EIR impact stood at INR2.1b and interest recognition on NPAs stood at INR3.1b. FY18 reported profitability EIR impact stood at INR345m and interest on NPAs stood at INR487m.

Outstanding Assets up 16-17% on transition

- On the date of transition, outstanding asset base of SHTF increased from INR704b to INR817b (+16%) and in FY18, it rose from INR829b to INR972b (+17%). This was driven by an increase in balance sheet loans by INR104b on the date of transition and by INR138b in FY18.
- Under IND-AS securitisation, the transaction will have to be reported as on balance sheet exposure v/s off-balance sheet exposure, which is driving higher asset base. Another factor driving asset base was an increase in investment base (due to recognition of PTC) by INR7.1b and INR8.6b.

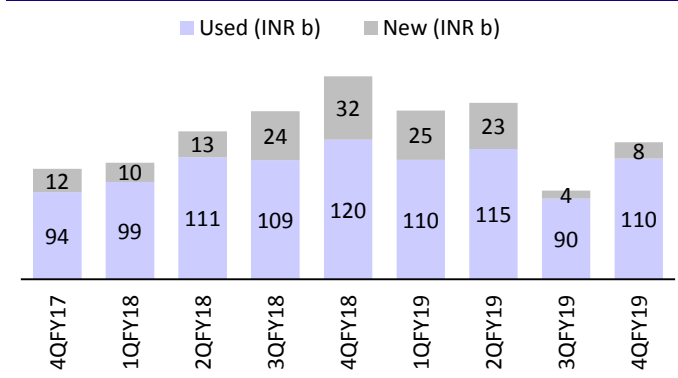
Key Trends

Write-offs higher; Stage 2 loans increase

Growth decelerates; Single digit AUM growth expected in FY20

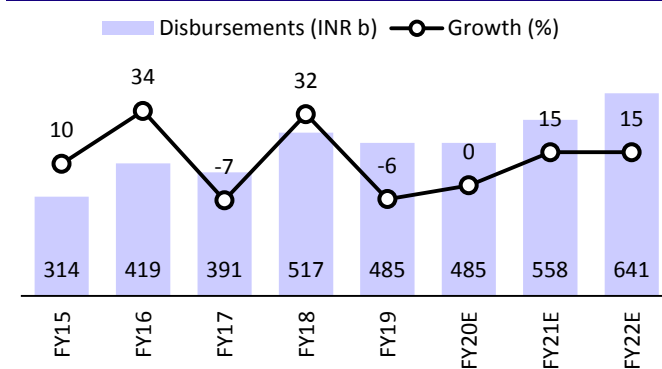
- Disbursements declined ~25% YoY in 2HFY19, largely led by scaling back in the new vehicle segment. Used vehicle disbursements were down ~12% YoY in the same time period.
- As a result, AUM growth slowed to 8% in FY19 from 21% YoY in 1HFY19.
- We expect disbursements to improve at 10% CAGR over FY19-22. This would result in single digit AUM growth for FY20 followed by 10-12% growth thereafter.

Exhibit 3: Disbursements down sharply in 2HFY19



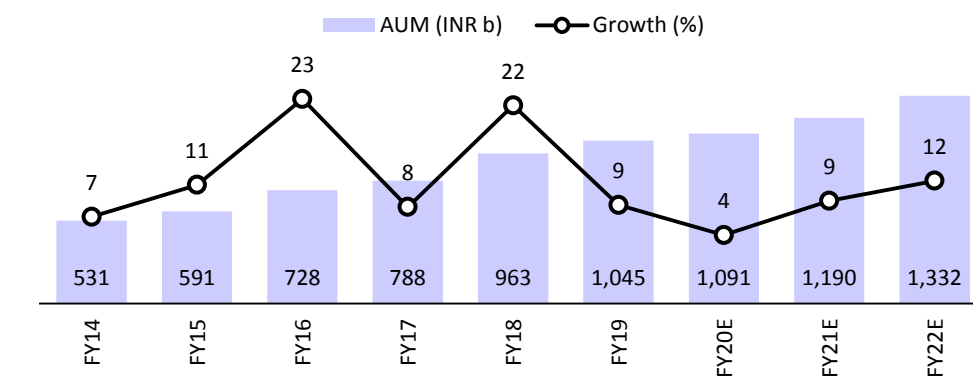
Source: MOFSL, Company

Exhibit 4: 10% disbursement CAGR over FY19-22



Source: MOFSL, Company

Exhibit 5: 8% AUM CAGR over the next three years

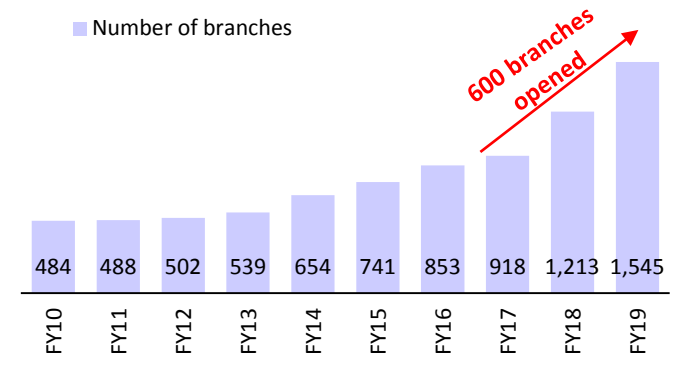


Source: MOFSL, Company

However, branch expansion efforts stand unabated

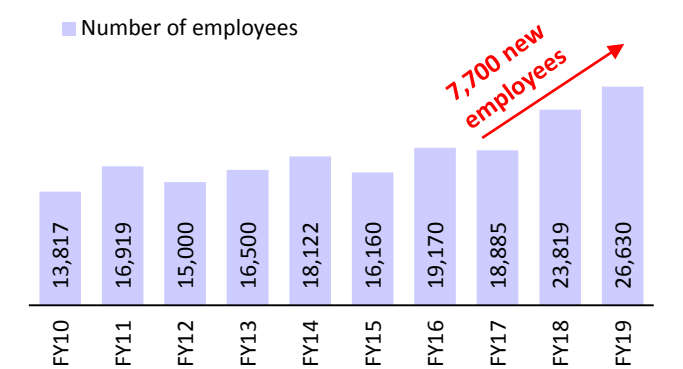
- The company is continuing to execute its plan of new branch openings/conversions from rural centres to full-fledged branches.
- Over 2017-19, SHTF opened/converted 600+ branches – the number is more than the branch openings in 2010-17. Interestingly, around 25% of branches opened in the past two years are in Tamil Nadu alone.
- Similarly, the number of employees added to the overall workforce grew by close to 8,000 people – this is more than the cumulative addition witnessed during 2010-17.

Exhibit 6: 600+ new branches opened over FY17-19



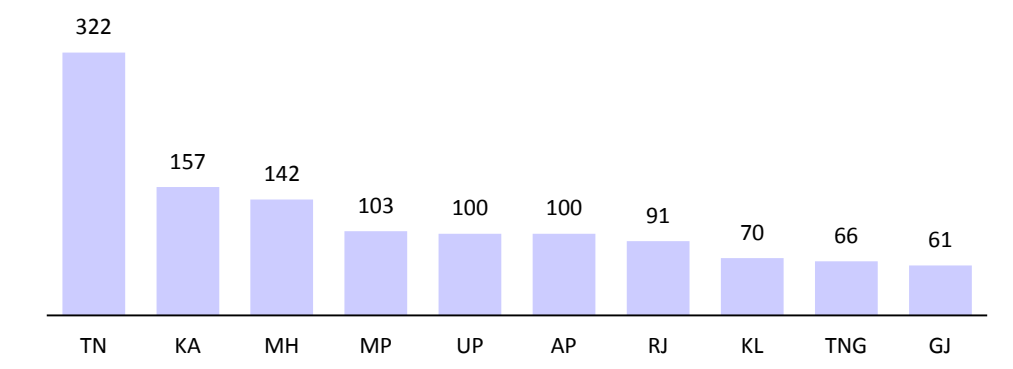
Source: MOFSL, Company

Exhibit 7: 7,700+ new employees hired over FY17-19



Source: MOFSL, Company

Exhibit 8: Number of branches in Top-10 states

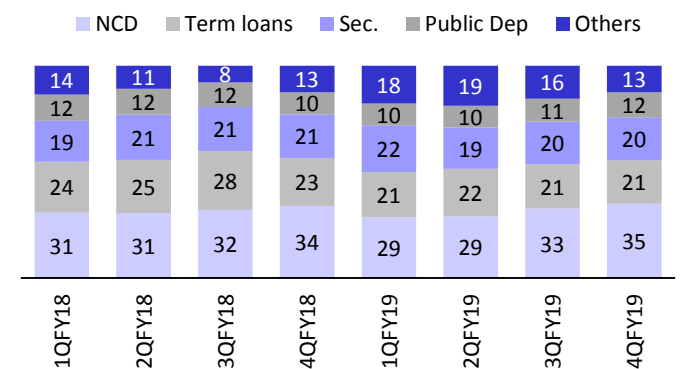


Source: MOFSL, Company

Borrowing mix changing; Margins to remain largely stable

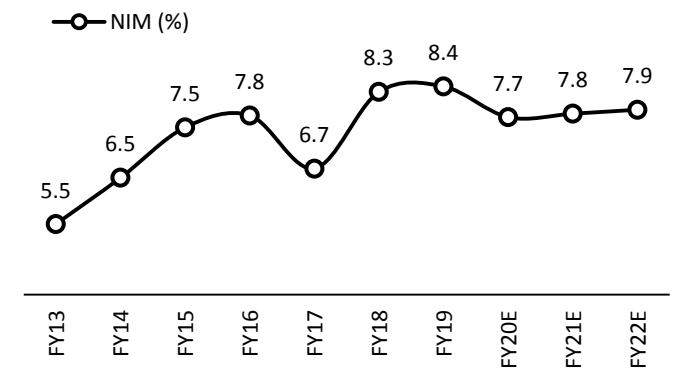
- Over the past year, SHTF diversified its borrowing mix by raising (a) INR50b+ via ECBs, and (b) ~INR50b via retail NCDs; however, these sources were costlier than the average debt instruments.
- While cost of funds may increase, we expect the company to pass it on to their borrowers – hence, margins should remain largely stable.

Exhibit 9: Borrowing mix trend (%)



Source: MOFSL, Company

Exhibit 10: Margins to remain largely stable

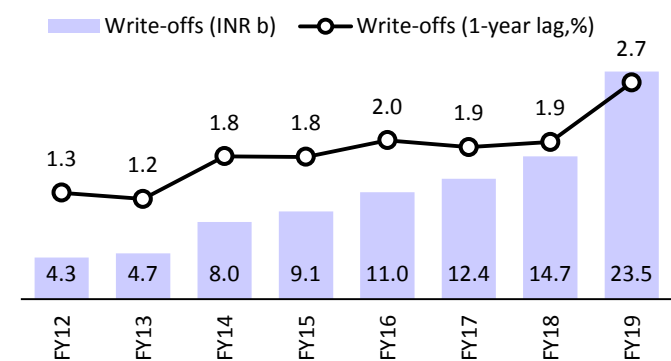


Source: MOFSL, Company

Slippages stable, but write-offs and Stage 2 assets surge

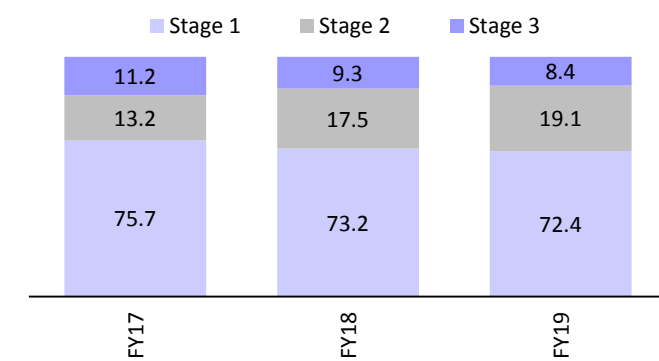
- After nearly doubling in FY18, slippages remained largely stable YoY at INR66b in FY19.
- However, there has been a sharp increase in the bad debt write-offs in FY19 – up 60% YoY to INR23.4b. In fact, over the past two years, bad debts written off during the year have nearly doubled.
- Additionally, there has been a meaningful deterioration in Stage 2 assets – up from 13% of total loans in FY17 to 18% in FY18 and 19% in FY19.

Exhibit 11: Sharp pick-up in write-offs



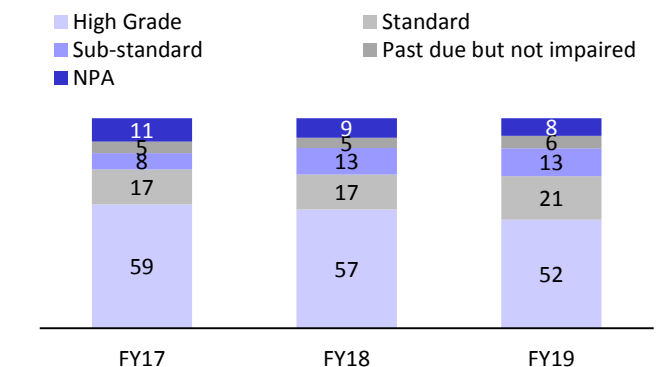
Source: MOFSL, Company

Exhibit 12: Share of stage 2 loans on the rise (%)



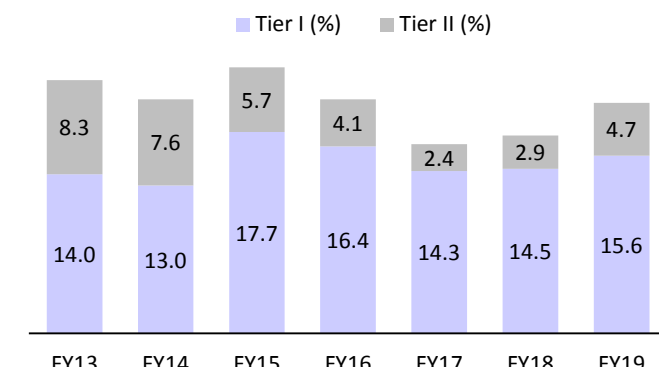
Source: MOFSL, Company

Exhibit 13: Break-up of loan book (%)



Source: MOFSL, Company

Exhibit 14: Capital Adequacy Ratio trend (%)

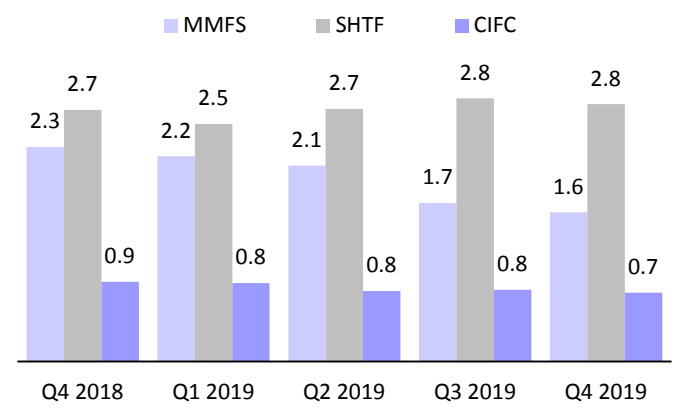


Source: MOFSL, Company

Provisioning healthier than peers

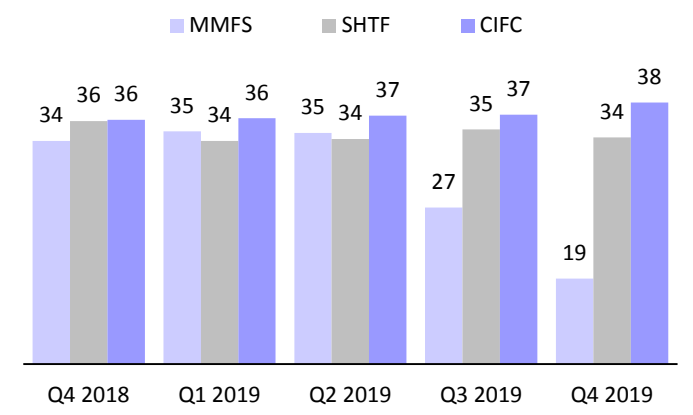
- On the positive side, SHTF has maintained ~35% PCR on Stage 3 assets for the past few quarters.
- At the same time, its provisioning on standard assets, at 2.8%, is higher than peers like MMFS and CIFC.

Exhibit 15: Stage 1, 2 provisioning (%)



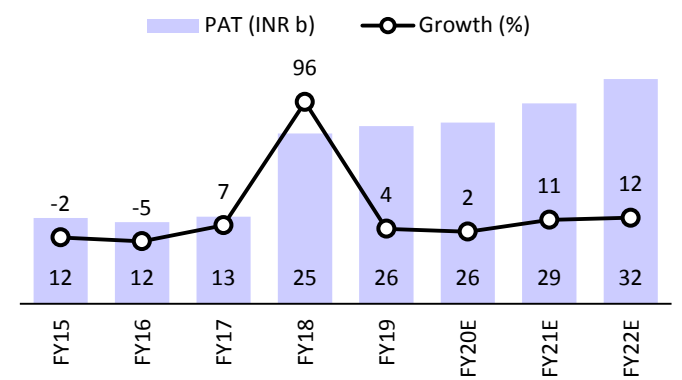
Source: MOFSL, Company

Exhibit 16: Stage 3 provisioning (%)



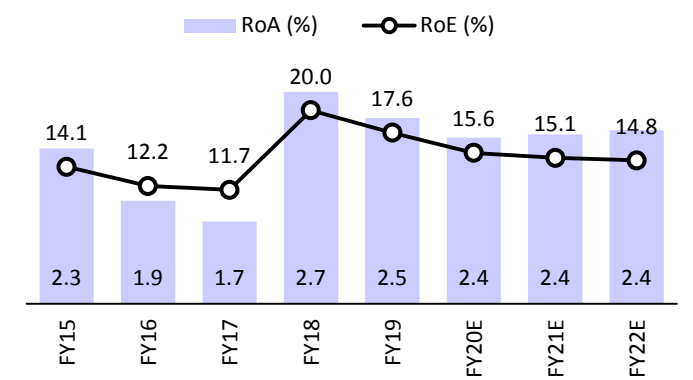
Source: MOFSL, Company

Exhibit 17: 7% PAT CAGR over FY19-22



Source: MOFSL, Company

Exhibit 18: 2.4% RoA/15% RoE over the medium term



Source: MOFSL, Company

Other key takeaways

- Restructured/reposed loans are at 0.8%/0.6% of loan book and are classified as NPAs.
- Maximum exposure to an individual entity or group stood at INR497m/INR314m for FY19/18 – 3-5bp of loans.
- Average ticket size of loans restructured increased from INR0.3m in FY17 to INR0.6m in FY19.
- SHTF securitised INR163b/INR158b in FY19/18 and assigned the portfolio worth INR27 in FY19 (nil in FY18).
- Slippage ratio stood at 7.3% v/s 9.1% a year ago.
- Top-20 depositors and exposure are 7.1% (7.5%) and 0.3% (1.2%) of total depositors and exposure of FY19 (FY18)
- Capitalisation is healthy with Tier-I/CAR of 15.6%/20.3%.
- RWA/TA percentage largely stable at ~96%.
- For employees other than Managerial Personnel, the average increase in pay was 27.75%. The average increase for Managerial Personnel was 16.31%.
- For Opening balance on transition/FY18, Financial Guarantee obligation in the balance sheet stood at INR790m/INR806m while aggregate credit exposure was INR7.8b/INR8.7b. Both declined and were nil in FY19.
- SHTF paid INR1.24b/INR1.56b royalty to Shriram Ownership Trust for FY18/19.

Valuation matrix

	Rating	CMP (INR)	Mcap (USDb)	P/E (x)		P/BV (x)		RoA (%)		RoE (%)	
				FY20E	FY21E	FY20E	FY21E	FY20E	FY21E	FY20E	FY21E
ICICI* [*]	Buy	427	40.6	15.0	11.2	1.8	1.6	1.3	1.5	12.3	14.9
HDFCB	Buy	2,408	94.9	25.5	20.8	3.9	3.3	1.8	1.9	16.1	17.2
AXSB	Buy	767	28.9	21.6	14.8	2.6	2.2	1.1	1.3	12.8	16.1
KMB* [*]	Neutral	1,485	41.1	33.6	27.6	4.3	3.7	1.8	1.8	13.2	14.3
IIB	Buy	1,541	13.0	16.8	12.8	2.8	2.4	1.9	2.1	18.6	20.2
FB	Buy	105	3.1	13.2	10.5	1.4	1.3	0.9	1.0	11.4	12.9
DCBB	Buy	239	1.0	17.2	13.1	2.2	1.9	1.1	1.2	13.9	15.8
SIB	Buy	13	0.3	6.4	4.7	0.4	0.4	0.4	0.5	6.8	8.8
Equitas	Buy	118	0.6	11.8	8.8	1.4	1.3	1.8	1.8	13.0	15.3
RBL	Buy	635	3.9	25.1	18.3	2.6	2.3	1.3	1.3	12.5	13.4
Private Aggregate											
SBIN (cons)* [*]	Buy	363	46.2	9.9	9.3	1.2	1.1	0.7	0.7	13.4	13.2
PNB	Neutral	75	4.9	21.1	9.1	0.8	0.7	0.2	0.4	3.6	7.8
BOI	Neutral	87	3.4	-109.1	10.7	0.6	0.5	0.0	0.3	-0.5	4.7
BOB	Buy	126	6.9	10.9	5.7	0.8	0.7	0.4	0.7	6.4	12.0
CBK	Neutral	280	3.0	9.7	9.1	0.6	0.6	0.3	0.3	5.9	6.0
UNBK	Neutral	78	1.3	-27.4	41.5	0.6	0.6	-0.1	0.1	-2.1	1.4
Public Aggregate											
Banks Aggregate											
HDFC* [*]	Buy	2,261	54.5	28.2	21.7	3.4	2.7	1.6	1.6	12.8	12.8
LICHF	Buy	540	4.0	9.7	8.5	1.5	1.3	1.3	1.3	16.3	16.3
IHFL	Under Review	673	4.1	8.3	7.9	1.6	1.5	2.9	2.9	19.9	19.3
PNBHF	Buy	777	1.9	10.0	9.1	1.5	1.3	1.4	1.3	16.4	15.7
REPCO	Buy	373	0.3	9.9	8.6	1.3	1.2	2.0	2.0	14.4	14.4
Housing Finance											
SHTF	Buy	1,043	3.4	9.0	8.2	1.3	1.2	2.4	2.4	15.6	15.1
MMFS	Buy	380	3.5	13.0	11.5	2.0	1.8	2.3	2.3	16.3	16.3
BAF	Neutral	3,449	28.8	39.3	32.3	8.2	6.7	3.5	3.4	23.1	23.0
CIFC	Under Review	281	3.2	16.1	14.3	3.0	2.5	2.2	2.1	20.2	19.0
SCUF	Buy	1,493	1.4	8.9	8.0	1.3	1.2	3.6	3.4	16.1	15.5
LTFH	Buy	120	3.5	10.0	8.7	1.5	1.3	2.1	2.1	16.2	16.2
MUTH	Neutral	617	3.5	11.0	9.7	2.3	2.0	5.5	5.4	22.4	21.8
INDOSTAR	Buy	353	0.5	9.9	7.0	1.0	0.8	2.2	2.4	10.3	12.9
MAS	Buy	601	0.5	18.7	15.6	3.2	2.8	4.4	4.3	19.3	19.8

UR=Under Review*Multiples adj. for value of key ventures/Investments; For ICICI Bank and HDFC Ltd BV is adjusted for investments in Subsidiaries; # Div Yield based on FY16 expected dividend; UR: Under Review

Financials and valuations

Income Statement						(INR M)
Y/E March	2017	2018	2019	2020E	2021E	2022E
Interest Income	98,013	131,935	153,843	160,477	175,172	193,866
Interest Expenses	52,094	63,688	75,113	81,596	87,794	96,230
Net Interest Income	45,919	68,248	78,730	78,880	87,378	97,636
Change (%)	3.1	48.6	15.4	0.2	10.8	11.7
Gain from securitisation/Assignment	9,293	0	0	0	0	0
Net Financing income	55,212	68,248	78,730	78,880	87,378	97,636
Change (%)	8.8	23.6	15.4	0.2	10.8	11.7
Other Operating Income	0	1,051	1,382	1,658	1,990	2,387
Other Income	758	2,027	233	279	335	402
Net Income	55,970	71,326	80,344	80,817	89,702	100,425
Change (%)	8.7	27.4	12.6	0.6	11.0	12.0
Operating Expenses	12,288	16,085	18,739	18,788	21,286	24,123
Change (%)	-6.1	30.9	16.5	0.3	13.3	13.3
Operating Profit	43,682	55,241	61,605	62,029	68,416	76,302
Change (%)	13.8	26.5	11.5	0.7	10.3	11.5
Provisions	24,443	17,223	23,823	22,971	25,199	27,853
% of Operating Profits	56.0	31.2	38.7	37.0	36.8	36.5
PBT	19,239	38,018	37,783	39,058	43,217	48,449
Tax	6,666	13,413	12,143	12,889	14,262	15,988
Tax Rate (%)	34.6	35.3	32.1	33.0	33.0	33.0
PAT	12,573	24,605	25,640	26,169	28,955	32,461
Change (%)	6.7	95.7	4.2	2.1	10.6	12.1
Proposed Dividend	2,995	3,006	3,282	3,062	3,388	3,798

Balance Sheet						(INR M)
Y/E March	2017	2018	2019	2020E	2021E	2022E
Capital	2,269	2,269	2,269	2,269	2,269	2,269
Reserves & Surplus	110,234	131,845	154,179	177,286	202,854	231,517
Net Worth	112,503	134,114	156,448	179,555	205,123	233,786
Other Comprehensive Income	-13	-26	-49	-49	-49	-49
Net Worth	112,516	134,140	156,497	179,604	205,172	233,835
Change (%)	10.8	19.2	16.7	14.8	14.2	14.0
Financial liabilities	687,982	821,308	879,144	954,483	1,029,568	1,145,130
Change (%)	38.2	19.4	7.0	8.6	7.9	11.2
Other Liabilities	16,627	17,028	17,333	20,799	24,959	29,951
Total Liabilities	817,112	972,450	1,052,925	1,154,837	1,259,650	1,408,867
Investments	22,587	23,415	39,991	45,989	52,888	60,821
Change (%)	66.5	3.7	70.8	15.0	15.0	15.0
Loans	740,919	908,111	968,434	1,069,020	1,166,447	1,304,916
Change (%)	16.2	22.6	6.6	10.4	9.1	11.9
Fixed Assets	857	1,221	1,475	1,770	2,124	2,549
Other Assets	52,749	39,704	43,025	38,057	38,191	40,582
Total Assets	817,112	972,450	1,052,925	1,154,837	1,259,650	1,408,867

E: MOSL Estimates

Financials and valuations

Ratios

Y/E March	2017	2018	2019	2020E	2021E	2022E
Spreads Analysis (%)						
Yield on loans	13.9	15.6	16.0	15.4	15.3	15.3
Cost of funds	8.8	8.4	8.8	8.9	8.9	8.9
Spread on loans	5.1	7.2	7.2	6.5	6.4	6.4
NIMs	6.7	8.3	8.4	7.7	7.8	7.9

Profitability Ratios (%)

RoE	11.7	20.0	17.6	15.6	15.1	14.8
RoA	1.7	2.7	2.5	2.4	2.4	2.4
ROA (On AUM)	1.4	2.6	2.5	2.3	2.4	2.4
Int. Expended/Int.Earned	53.2	48.3	48.8	50.8	50.1	49.6
Cost/Income	22.0	22.6	23.3	23.2	23.7	24.0

Asset-Liability Profile (%)

Loans/Borrowings Ratio	107.7	110.6	110.2	112.0	113.3	114.0
GNPL ratio (%)	12.0	9.8	8.9	7.9	7.8	7.8
NNPL ratio (%)	8.0	6.7	6.0	5.3	5.2	5.2
Leverage	7.3	7.3	6.7	6.4	6.1	6.0
Average leverage (on BS)	7.0	7.3	7.0	6.6	6.3	6.1

Valuations

	2017	2018	2019	2020E	2021E	2022E
BVPS (INR)	496	591	690	792	904	1,031
BV Growth (%)	10.8	19.2	16.7	14.8	14.2	14.0
Price-BV (x)			1.5	1.3	1.2	1.0
ABVPS (INR)	322	411	516	622	722	828
Price-ABV (x)			2.0	1.7	1.4	1.3
OPS (INR)	193	243	272	273	302	336
Growth (%)	13.8	26.5	11.5	0.7	10.3	11.5
Price-Earnings (x)			3.8	3.8	3.5	3.1
EPS (INR)	55	108	113	115	128	143
Growth (%)	6.7	95.7	4.2	2.1	10.6	12.1
Price-Earnings (x)			9.2	9.1	8.2	7.3
Dividend	10.0	11.0	12.0	11.5	12.8	14.3
Dividend Yield (%)			1.1	1.1	1.2	1.4

E: MOSL Estimates

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 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. INH000000412. 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. MOFSL (erstwhile Motilal Oswal Securities Limited - 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 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/List%20of%20Associate%20companies.pdf>

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

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. Details of pending Enquiry Proceedings of Motilal Oswal Financial Services 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 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 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.

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 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

- 1 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.
- 2 MOSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- 3 MOSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 4 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
- 5 Research Analyst has not served as director/officer/employee in the subject company
- 6 MOSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 7 MOSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months
- 8 MOSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- 9 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

The associates of MOFSL 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 MOFSL 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 MOFSL 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 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.

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 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 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. MOFSL 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. 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, 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 MOFSL or any of its affiliates or employees from, any and all 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.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: INH000000412. AMFI: ARN - 146822; Investment Adviser: INA000007100; Insurance Corporate Agent: CA0579;PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670); 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 Exchanges 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, Contact No.:022-71881085.

* 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.