

# Va Tech Wabag

BSE SENSEX	S&P CNX
40,116	11,116
Bloomberg	VATW IN
Equity Shares (m)	55
M.Cap.(INRb)/(USDb)	9.7 / 0.1
52-Week Range (INR)	361 / 167
1, 6, 12 Rel. Per (%)	-28/-41/-53
12M Avg Val (INR M)	54
Free float (%)	75.3

## Financials & Valuations (INR b)

Y/E Mar	2019	2020E	2021E
Net Sales	27.8	26.4	31.5
EBITDA	2.2	2.3	2.8
PAT	1.3	0.9	1.3
EPS (INR)	23.1	16.3	24.4
Gr. (%)	-9.5	-29.5	49.4
BV/Sh (INR)	195.4	208.7	228.6
RoE (%)	9.6	8.1	11.1
RoCE (%)	8.4	8.8	11.2
P/E (x)	7.7	10.9	7.3
P/BV (x)	0.9	0.9	0.8

Estimate change

TP change

Rating change



**CMP:INR178**

**TP:INR195 (+10%)**

**Neutral**

## Disappointing operational performance but revenue visibility robust

- **Op. performance below expectations:** 2QFY20 consol. sales declined 15% YoY to INR6.4b (v/s est. INR8.3b). The sales disappointment was due to key overseas projects, such as AMAS and RAPID, getting completed, whereas Europe recorded subdued performance. Consol. EBITDA was up 23% YoY to INR615m, 13% below our est. EBITDA margin stood at 9.7% (+310bp YoY) and above our estimate of 8.5%. Margin expansion came in due to projects being in the engineering and procurement phase. PBT stood at INR363m, up 28% YoY but 14% below our est. Adj. PAT stood at INR271m, up 19% YoY and 8% below our est. **1HFY20:** Revenue/EBITDA/PBT/PAT declined by 24%/14%/41%/50%. Decision on the new tax rate will be taken post 4QFY20.
- **Order backlog provides robust revenue visibility:** Order backlog as on date stands at INR108b (+26% YoY), with order inflow of INR2.5b (-90% YoY). VATW has also signed framework contracts worth INR6.9b, which will be converted into firm orders after receiving advance from customers. The current order backlog provides strong revenue visibility of 4.4x its TTM revenue. VATW currently has two large orders in its order book – the Namami Gange scheme worth INR11.9b and an O&M order from UPJN worth INR14.8b.
- **FY20 revenue/order inflow guidance toned down further:** Management has revised its FY20 revenue guidance to INR30-32b (from INR34-37b in 1QFY20) and order inflow guidance to INR45-50b (from INR50-54b in 1QFY20). This implies revenue growth of ~57% at the upper end of guidance in 2HFY20.
- **Valuation view:** We cut our estimates for FY20/FY21 by 10%/6% to factor in lower-than-expected execution and margins. We lower our TP to INR195 from earlier INR260 on account of (a) earnings cut, and (b) cut in target FY21E P/E multiple to 8x v/s earlier 10x, which is in line with our coverage universe for the EPC space. Maintain **Neutral** given the deteriorating working capital cycle (176 days v/s 70-80 days historically) and the sticky receivables from APGenco and TSGenco worth INR4.2b.

## Quarterly Performance

Y/E March									(INR M)			
	FY19				FY20				FY19	FY20E	FY20	Var.
	1Q	2Q	3Q	4Q	1Q	2Q	3QE	4QE			2QE	Vs Est
<b>Sales</b>	<b>6,879</b>	<b>7,520</b>	<b>6,619</b>	<b>6,793</b>	<b>4,565</b>	<b>6,361</b>	<b>7,612</b>	<b>7,876</b>	<b>27,810</b>	<b>26,414</b>	<b>8,272</b>	-23.1%
Change (%)	2.9	-15.2	-23.5	-34.5	-33.6	-15.4	15.0	15.9	-19.6	-5.0	10.0	
<b>EBITDA</b>	<b>646</b>	<b>498</b>	<b>539</b>	<b>473</b>	<b>375</b>	<b>615</b>	<b>647</b>	<b>640</b>	<b>2,155</b>	<b>2,276</b>	<b>703</b>	-12.6%
Change (%)	59.3	-39.8	-28.8	-53.2	-41.9	23.4	20.0	35.3	-28.1	5.6	41.2	
As of % Sales	9.4	6.6	8.1	7.0	8.2	9.7	8.5	8.1	7.8	8.6	8.5	
Depreciation	43	42	41	42	35	43	43	49	168	170	42	
Interest	148	177	187	240	272	263	250	257	753	1,042	250	
Other Income	7	5	5	27	12	55	10	9	44	85	9	
<b>PBT</b>	<b>461</b>	<b>284</b>	<b>316</b>	<b>218</b>	<b>80</b>	<b>363</b>	<b>364</b>	<b>342</b>	<b>1,278</b>	<b>1,150</b>	<b>420</b>	-13.6%
Tax	101	141	149	-186	85	128	92	87	204	391	139	
Effective Tax Rate (%)	21.9	49.8	47.1	(85.5)	106.2	35.1	25.2	25.4	16.0	34.0	33.0	
Minority Int	(3.9)	(85.6)	(33.7)	(68.1)	(31.2)	(35.4)	(38.0)	(28.7)	(191.3)	(133.3)	(13.0)	
<b>Adj PAT</b>	<b>364</b>	<b>228</b>	<b>201</b>	<b>472</b>	<b>26</b>	<b>271</b>	<b>310</b>	<b>284</b>	<b>1,265</b>	<b>892</b>	<b>294</b>	-8.0%
Change (%)	414.1	(40.8)	(28.4)	(28.3)	(92.8)	18.7	54.5	(39.8)	(9.4)	(29.5)	29.0	
Extra-ordinary Items	234.0	-130.0	46.0	64.0	0.0	0.0	0.0	0.0	214.0	0.0	0.0	
<b>Reported PAT</b>	<b>130</b>	<b>358</b>	<b>155</b>	<b>408</b>	<b>26</b>	<b>271</b>	<b>310</b>	<b>284</b>	<b>1,051</b>	<b>892</b>	<b>294</b>	-8.0%
Change (%)	55.1	7.4	(48.5)	(31.6)	(79.8)	(24.4)	100.4	(30.3)	(20.1)	(15.1)	29.0	

**Nilesh Bhaiya – Research Analyst** (Nilesh.Bhaiya@MotilalOswal.com); +91 22 6129 1556

**Pratik Singh – Research Analyst** (Pratik.Singh@MotilalOswal.com); +91 22 6129 1543

**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.

**Key takeaways from 2QFY20 conference call**

- Management is confident of raising funds at a premium to the current market price, since it is of the view that business outlook of the company is not factored into its CMP.
- Projects:
  - Dangote project in Nigeria is 70% complete, with the project set to be commissioned by end-FY20.
  - The Koyambedu project in Sri Lanka, which converts sewage water into industrial usable water, is in an advanced stage of commissioning and will be inaugurated this week.
  - The Jubail project in Saudi Arabia has 50% of its engineering work done and 60% of model review over. VATW has placed order for long lead items and has also collected customer advance in the last week.
  - For the Qatar project (FIFA 22; Doha), demolition work is complete and 45% of the concreting work is over.
- With regards to the upcoming order for 400MD desalination plant in Chennai, management has said that VATW is fully capable to execute such a large scale order. While bidding for this order, competition is expected to be less since very few companies have the capability to execute such large orders.
- Management is confident of achieving the new guidance numbers and expects 2HFY20 to be much better than 1HFY20, given the order book visibility and ongoing pace of execution.
- VATW is in talks with banks to convert some of its high cost debt into low cost. Finance cost in 2HFY20 is expected to be lower than 1HFY20 since most of the bank guarantee charges are already reflecting in 1HFY20.
- Management expects to receive project advances and some receivables due in 2HFY20, which will ease its working capital requirement.
- INR13.2b in other current assets is mostly unbilled revenues.
- Management is of the view that the current order book is sufficient and gives the company revenue visibility for the next three years. Aim is now to focus on execution, cash flow and working capital.
- VATW does not have any further exposure to Andhra Pradesh for its order book.

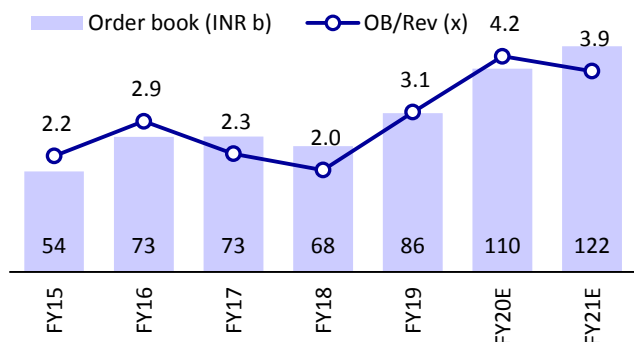
**Valuations and view**

We cut our estimates for FY20/FY21 by 10%/6% to factor in lower-than-expected execution and margins. We lower our TP to INR195 from earlier INR260 on account of (a) earnings cut, and (b) cut in target FY21E P/E multiple to 8x v/s earlier 10x, which is in line with our coverage universe for the EPC space. Maintain **Neutral** given the deteriorating working capital cycle (176 days v/s 70-80 days historically) and the sticky receivables from APGenco and TSGenco worth INR4.2b.

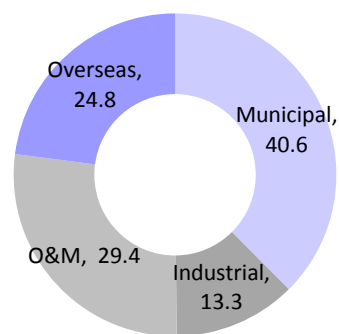
**Exhibit 1: Change in estimate table**

Description	New Estimates		Old Estimates		Change (%)	
	FY20E	FY21E	FY20E	FY21E	FY20E	FY21E
Sales	26,414	31,469	30,178	37,953	-12%	-17%
EBITDA	2,276	2,808	2,599	3,282	-12%	-14%
Margins (%)	8.6%	8.9%	8.6%	8.6%	0.0%	0.3%
PAT	892	1,333	987	1,424	-10%	-6%

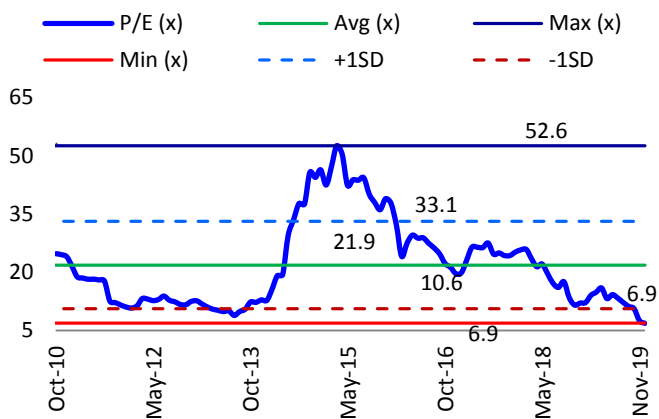
Source: MOFSL, Industry

**Exhibit 2: Order book trend**

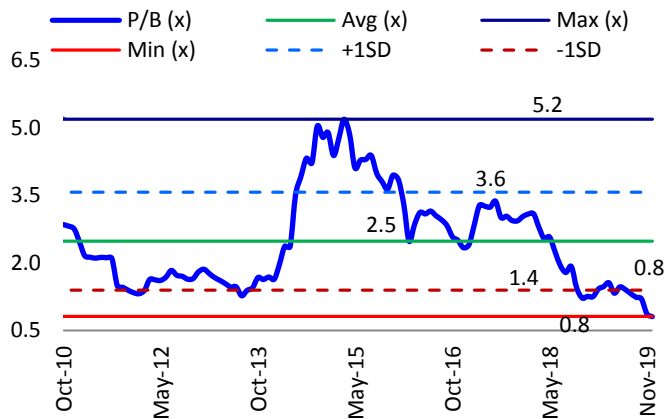
Source: Company, MOFSL

**Exhibit 3: Order book split (INR b) in 2QFY20**

Source: Company, MOFSL

**Exhibit 4: P/E band**

Source: MOFSL

**Exhibit 5: P/BV band**

Source: MOFSL

## Financials and valuations

### Income statement - Consolidated

(INR Million)

Y/E March	FY15	FY16	FY17	FY18	FY19	FY20E	FY21E
<b>Net Sales</b>	<b>24,284</b>	<b>25,083</b>	<b>32,079</b>	<b>34,573</b>	<b>27,810</b>	<b>26,414</b>	<b>31,469</b>
Change (%)	8.9	3.3	27.9	7.8	-19.6	-5.0	19.1
Raw Materials	19,098	19,402	25,388	27,336	21,213	19,827	23,609
Staff Cost	2,006	2,113	2,440	2,637	2,538	2,357	2,746
Other Mfg. Expenses	1,136	1,237	1,286	1,601	1,903	1,954	2,306
<b>EBITDA</b>	<b>2,044</b>	<b>2,330</b>	<b>2,966</b>	<b>2,999</b>	<b>2,155</b>	<b>2,276</b>	<b>2,808</b>
% of Net Sales	8.4	9.3	9.2	8.7	7.8	8.6	8.9
Depreciation	109	205	191	178	168	170	187
Interest	392	457	526	577	753	1,042	1,042
Other Income	146	79	112	57	44	85	51
EO Items (as rep.)							
<b>PBT</b>	<b>1,688</b>	<b>1,747</b>	<b>2,362</b>	<b>2,300</b>	<b>1,278</b>	<b>1,150</b>	<b>1,630</b>
Tax	566	668	667	774	204	391	431
Rate (%)	34	38	28	34	16	34	26
Minority Int	4	191	666	130	-191	-133	-133
<b>Adjusted PAT</b>	<b>1,118</b>	<b>887</b>	<b>1,029</b>	<b>1,396</b>	<b>1,265</b>	<b>892</b>	<b>1,333</b>
Extra-ordinary Inc.(net)	-17	33	-5	-81	-214	0	0
<b>Reported PAT</b>	<b>1,101</b>	<b>921</b>	<b>1,024</b>	<b>1,315</b>	<b>1,051</b>	<b>892</b>	<b>1,333</b>
Change (%)	-3	-16	11	28	-20	-15	49

### Balance Sheet - Consolidated

(INR Million)

Y/E March	FY15	FY16	FY17	FY18	FY19	FY20E	FY21E
Share Capital	109	109	109	109	109	109	109
Reserves	8,919	9,094	9,822	11,177	10,580	11,308	12,396
<b>Net Worth</b>	<b>9,028</b>	<b>9,203</b>	<b>9,931</b>	<b>11,287</b>	<b>10,689</b>	<b>11,417</b>	<b>12,506</b>
Loans	1,806	3,773	3,091	4,773	5,837	5,837	5,837
Deferred Tax Liability	-199	-218	-216	-251	-863	-863	-863
Minority Interest	49	82	173	338	167	267	367
<b>Capital Employed</b>	<b>10,684</b>	<b>12,841</b>	<b>12,979</b>	<b>16,146</b>	<b>15,830</b>	<b>16,658</b>	<b>17,847</b>
<b>Net Fixed Assets</b>	<b>1,919</b>	<b>1,779</b>	<b>1,744</b>	<b>1,724</b>	<b>1,488</b>	<b>1,551</b>	<b>1,597</b>
Capital WIP	6	0	-27	0	0	0	0
Investments	377	322	225	45	83	83	83
<b>Curr. Assets</b>	<b>23,152</b>	<b>26,866</b>	<b>31,290</b>	<b>35,153</b>	<b>35,223</b>	<b>34,936</b>	<b>39,889</b>
Inventory	470	976	385	382	154	146	174
Debtors	14,807	19,424	25,115	28,732	17,076	17,368	20,261
Cash & Bank Balance	3,112	3,786	2,617	1,902	1,807	2,047	1,137
Loans & Advances	1,158	139	51	0	0	0	0
Other Current Assets	3,606	2,540	3,122	4,138	16,187	15,375	18,317
<b>Current Liab. &amp; Prov.</b>	<b>14,765</b>	<b>16,126</b>	<b>20,253</b>	<b>20,777</b>	<b>20,964</b>	<b>19,912</b>	<b>23,723</b>
Current Liabilities	12,876	15,485	19,596	20,085	20,431	19,406	23,120
Provisions	1,889	641	657	692	533	506	603
<b>Net Current Assets</b>	<b>8,388</b>	<b>10,739</b>	<b>11,037</b>	<b>14,377</b>	<b>14,259</b>	<b>15,024</b>	<b>16,166</b>
<b>Application of Funds</b>	<b>10,684</b>	<b>12,841</b>	<b>12,979</b>	<b>16,146</b>	<b>15,830</b>	<b>16,658</b>	<b>17,847</b>

## Financials and valuations

### Ratios - Consolidated

Y/E March	FY15	FY16	FY17	FY18	FY19	FY20E	FY21E
<b>Consolidated EPS</b>	20.6	16.3	18.9	25.5	23.1	16.3	24.4
Growth (%)	-13.2	-20.9	15.8	35.4	-9.5	-29.5	49.4
Cash EPS	22.6	20.0	22.4	28.8	26.2	19.4	27.8
Book Value	166	169	182	207	195	209	229
DPS	4	4	4	4	4	3	4
Payout (incl. Div. Tax.)	19.4	24.6	21.2	16.6	18.9	15.7	15.7
<b>Valuation (x)</b>							
P/E (consolidated)	8.6	10.9	9.4	7.0	7.7	10.9	7.3
Cash P/E	7.9	8.9	8.0	6.2	6.8	9.2	6.4
EV/EBITDA	4.1	4.2	3.4	4.2	6.4	5.9	5.1
EV/Sales	0.3	0.4	0.3	0.4	0.5	0.5	0.5
Price/Book Value	1.1	1.1	1.0	0.9	0.9	0.9	0.8
Dividend Yield (%)	2.2	2.2	2.2	2.2	2.0	1.4	2.1
<b>Profitability Ratios (%)</b>							
RoE	12.6	10.1	10.8	12.4	9.6	8.1	11.1
RoCE	13.3	11.4	15.9	13.1	8.4	8.8	11.2
RoIC	20.0	16.0	20.6	15.0	9.0	9.4	11.8
<b>Turnover Ratios</b>							
Debtors (Days)	223	283	286	303	224	240	235
Inventory (Days)	7	14	4	4	2	2	2
Creditors. (Days)	194	225	223	212	268	268	268
<b>Leverage Ratio</b>							
Debt/Equity (x)	0.20	0.4	0.3	0.4	0.5	0.5	0.5

### Cash Flow Statement - Consolidated

(INR M)

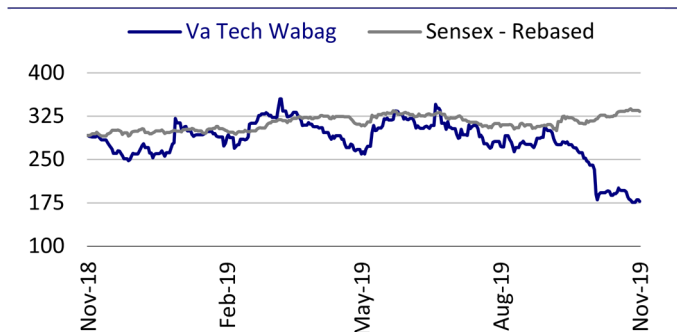
Y/E March	FY15	FY16	FY17	FY18	FY19	FY20E	FY21E
PBT before EO Items	1,671	1,780	2,357	2,219	1,064	1,150	1,630
Depreciation	109	205	191	178	168	170	187
Interest	148	-	-	-	-	-	-
Direct Taxes Paid	(550)	(668)	(667)	(774)	(204)	(391)	(431)
(Inc)/Dec in WC	(2,566)	(1,677)	(1,439)	(4,083)	22	(524)	(2,052)
Others	1,243	1	-	98	(310)	-	-
<b>CF from Operations</b>	<b>56</b>	<b>(360)</b>	<b>442</b>	<b>(2,361)</b>	<b>740</b>	<b>404</b>	<b>(666)</b>
(Inc)/Dec in FA	(287)	(186)	(186)	(233)	(233)	(233)	(233)
<b>Free Cash Flow</b>	<b>(232)</b>	<b>(546)</b>	<b>256</b>	<b>(2,594)</b>	<b>507</b>	<b>171</b>	<b>(899)</b>
(Pur)/Sale of Investments & Others	254	405	(9)	582	685	665	665
<b>CF from Investments</b>	<b>(33)</b>	<b>219</b>	<b>(195)</b>	<b>349</b>	<b>452</b>	<b>432</b>	<b>432</b>
(Inc)/Dec in Net Worth	196	(456)	49	461	(1,587)	100	100
(Inc)/Dec in Debt	224	1,967	(683)	1,682	1,064	-	-
Interest Paid	(148)	202	31	-	-	-	-
Dividend Paid	(250)	(255)	(255)	(256)	(232)	(163)	(244)
<b>CF from Fin. Activity</b>	<b>21</b>	<b>1,459</b>	<b>(857)</b>	<b>1,887</b>	<b>(755)</b>	<b>(63)</b>	<b>(144)</b>
<b>Inc/Dec of Cash</b>	<b>44</b>	<b>1,318</b>	<b>(610)</b>	<b>(125)</b>	<b>437</b>	<b>773</b>	<b>(378)</b>
Add: Beginning Balance	3,068	2,469	3,227	2,027	1,370	1,275	1,515
<b>Closing Balance</b>	<b>3,112</b>	<b>3,786</b>	<b>2,617</b>	<b>1,902</b>	<b>1,807</b>	<b>2,047</b>	<b>1,137</b>

## Corporate profile

### Company description

VA Tech Wabag (VATW) is one of the leading players in water treatment industry, having its base of operation globally operating from Chennai. VATW's operations are stretched across countries like Austria, Czech Republic, Algeria, Tunisia, Romania, Turkey and Philippines. Wabag has been operational in water treatment industry since last 90 years and it has specialization in treating municipal, industrial, sludge treatment and sea water desalination projects.

### Exhibit 1: Sensex rebased



Source: MOFSL/Bloomberg

### Exhibit 2: Shareholding pattern (%)

	Sep-19	Jun-19	Sep-18
Promoter	24.7	24.7	24.7
DII	8.1	8.9	12.8
FII	25.4	25.1	20.9
Others	41.9	41.3	41.6

Note: FII Includes depository receipts

Source: Capitaline

### Exhibit 3: Top holders

Holder Name	% Holding
Sbi Mutual Fund	4.6
Sumitomo Corporation	4.5
Alternative Investment Fund	4.3
Government Pension Fund Global	3.2
Vantage Equity Fund	3.1

Source: Capitaline

### Exhibit 4: Top management

Name	Designation
Bhagwan Dass Narang.	Chairman & Independent Directo
Rajiv Mittal	Managing Director
S Varadarajan	Director
R Swaminathan	Company Secretary

Source: Capitaline

### Exhibit 5: Directors

Name	Name
Malay Mukherjee	Sumit Chandwani
Revathi Kasturi	Milin Mehta

\*Independent

### Exhibit 6: Auditors

Name	Type
K Suryanarayana	Cost Auditor
M Damodaran	Secretarial Audit
PKF Sridhar & Santhanam LLP	Internal
Sharp & Tannan	Statutory

Source: Capitaline

### Exhibit 7: MOFSL forecast v/s consensus

EPS (INR)	MOFSL forecast	Consensus forecast	Variation (%)
FY20	16.3	18.0	-9.4
FY21	24.4	23.3	4.6

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 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](http://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](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 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](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: 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](mailto: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.