

# Coal India

BSE SENSEX

36,958

S&amp;P CNX

10,926

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



Bloomberg	COAL IN
Equity Shares (m)	6,207
M.Cap.(INRb)/(USDb)	1255.7 / 17.6
52-Week Range (INR)	300 / 193
1, 6, 12 Rel. Per (%)	-7/-9/-25
12M Avg Val (INR M)	1762
Free float (%)	29.0

## Financials & Valuations (INR b)

Y/E Mar	2019	2020E	2021E
Net Sales	995.5	1,027.7	1,070.5
EBITDA	300.5	314.2	331.2
PAT	174.6	170.3	174.9
EPS (INR)	28.3	27.6	28.4
Gr. (%)	47.9	-2.5	2.7
BV/Sh (INR)	42.9	44.0	50.3
RoE (%)	66.0	62.8	56.5
RoCE (%)	85.7	68.5	64.5
P/E (x)	7.2	7.4	7.2
P/BV (x)	4.8	4.6	4.1

Estimate change



TP change



Rating change


**CMP: INR204 TP: INR278(+36%)**
**Buy**

## Better FSA realization drives beat

### Valuations attractive; Dividend yield of 9-10%

- 1QFY20 revenue grew 4% YoY to ~INR249b (v/s est. INR237b) led by FSA realization increase of ~6% to INR1,370/t (v/s est. INR1,310/t), which was partly offset by lower e-auction realizations at INR2,155 (-10% YoY/-22% QoQ). Volumes were flat YoY at ~153mt (in-line). The increase in FSA realization was due to hike in coking coal prices at BCCL & CCL along with higher sales to the non-Power sector (~4mt higher YoY).
- Cash cost (ex-OBR) declined 1% YoY to INR1,135/t, despite higher wage bill. The company's wage bill was impacted (~INR2.7b) on an actuarial valuation given the fall in interest rates. Excluding wage bill, cash cost declined ~5% YoY.
- Adj. EBITDA (ex-OBR) increased 15% YoY to ~INR75b driven by higher FSA realization and lower cash costs.
- Adjusted PAT was up 22% YoY to INR46.3b (v/s est. INR39.3b), despite strong base (1QFY19 PAT grew 60% YoY). The beat to our estimate was driven by higher FSA realizations and higher other income.

### Valuations attractive; Maintain Buy

- COAL has managed to keep costs under control on the back of productivity measures and shutting down of old mines. We note that despite it undertaking price hikes for contractual labor in 2HFY19, cash costs/t have declined YoY.
- Ongoing efficiency measures and continued growth in volumes (our est. 5-6%), should drive 5% EBITDA CAGR over FY19-21, despite the high base of FY19.
- The stock trades attractively at ~3x FY20E EV/adj. EBITDA (v/s historical average of 7x), P/E of 7-8x (v/s average of ~14x) and offers dividend yield of ~9-10%. We value the stock on 4.5x (v/s 5x earlier) FY20E EV/EBITDA at INR278/share. Maintain **Buy**.

## Quarterly Performance (Consolidated) – INR m

Y/E March	FY19				FY20				FY19	FY20E	FY20	var
	1Q	2Q	3Q	4Q	1Q	2QE	3QE	4QE			1QE	(%)
Sales	240,708	218,840	250,458	285,463	249,390	230,019	262,554	285,782	995,469	1,027,745	237,461	5
Change (%)	25.6	20.6	15.7	6.1	3.6	5.1	4.8	0.1	15.9	3.2	-1.3	
Adj. EBITDA	65,435	51,194	79,655	104,199	75,115	65,929	83,693	89,502	300,483	314,239	69,432	8
As of % Sales	27.2	23.4	31.8	36.5	30.1	28.7	31.9	31.3	30.2	30.6	29.2	
Depreciation	7,452	8,069	8,611	10,372	7,343	8,630	9,210	11,721	34,504	36,904	7,971	(8)
OBR	8,835	8,023	11,777	22,077	8,991	9,873	14,492	29,048	50,712	62,404	10,872	
Interest	1,103	8	620	1,019	166	8	626	1,978	2,750	2,778	1,114	(85)
Other Income	12,824	16,084	11,633	18,196	11,495	11,522	8,333	10,727	58,737	42,076	9,187	25
EO Inc/(Exp)	0	0	0	0	0	0	0	0	0	0	0	
PBT	60,869	51,178	70,281	88,927	70,110	58,940	67,699	57,481	271,255	254,230	58,663	20
Tax	23,025	20,317	24,623	28,659	23,811	19,450	22,341	18,294	96,625	83,896	19,359	23
Tax Rate (%)	37.8	39.7	35.0	32.2	34.0	33.0	33.0	31.8	35.6	33.0	33.0	
Reported PAT	37,843	30,861	45,657	60,268	46,299	39,490	45,358	39,187	174,630	170,334	39,304	18
Adjusted PAT	37,843	30,861	45,657	60,268	46,299	39,490	45,358	39,187	174,630	170,334	39,304	18
Change (%)	60.9	736.7	51.9	-2.3	22.3	28.0	-0.7	-35.0	46.8	-2.5	3.9	

Dhruv Muchhal – Research Analyst (Dhruv.Muchhal@MotilalOswal.com); +91 22 6129 1549

Aniket Mittal – Research Analyst (Aniket.Mittal@MotilalOswal.com); +91 227198 5585

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.

**Other result highlights**

- Volumes: FSA volumes were flat at 130mt. E-auction vols. were slightly lower (-2% YoY) at 19.1mt. Volume mix was broadly stable YoY with FSA accounting for 85% of the vols and e-auction accounting for 12% of the vols.
- OBR adjustment was up 2% YoY to INR9b.
- Other income declined 10% YoY to INR11.5b.
- Depreciation was down ~29% QoQ to INR7.3b on change in useful life estimates.

**Exhibit 1: Key operating parameters**

Y/E March	FY19				FY20				FY19	FY20E	FY20	var.	YoY	QoQ
	1Q	2Q	3Q	4Q	1Q	2QE	3QE	4QE			1QE	(%)		
<b>Volume (m tons)</b>														
Production	136.9	119.6	156.0	194.4	136.9	146.9	164.9	179.7	606.9	645.0	137.0	(0.0)	0%	-30%
Sales/Offtake	153.5	137.3	154.1	163.3	153.5	146.9	164.9	179.7	608.2	645.0	153.3	0.1	0%	-6%
- FSA	130.4	116.8	135.8	142.4	130.3	126.1	140.3	158.7	525.4	555.5	135.2	(3.6)	0%	-8%
- E-auction	19.4	17.7	14.7	16.7	19.1	17.0	20.0	15.6	68.5	71.7	14.0	36.1	-2%	14%
- Washed Coal	2.6	2.4	2.9	3.3	3.1	3.2	3.8	4.7	11.2	14.8	3.4	(9.1)	20%	-8%
- others	0.7	0.7	0.7	1.0	0.8	0.7	0.7	0.9	3.1	3.1	0.7	15.7	16%	-17%
<b>Realisation (INR/t)</b>														
- FSA	1,298	1,282	1,334	1,460	1,370	1,320	1,340	1,392	1,348	1,357	1,310	5	6%	-6%
- E-auction	2,399	2,592	2,847	2,754	2,155	2,200	2,200	2,255	2,632	2,200	2,300	(6)	-10%	-22%
- Washed Coal	2,427	2,602	2,866	2,879	3,171	2,800	2,900	1,845	2,713	2,600	2,700	17	31%	10%
- others	2,943	3,182	3,425	3,559	3,644	2,503	2,694	1,623	3,306	2,600	2,315	57	24%	2%
<b>Per ton (INR)</b>														
Revenue	1,460	1,485	1,517	1,636	1,513	1,435	1,459	1,487	1,527	1,485	1,435	5	4%	-7%
cash EBITDA	426	373	517	638	489	453	449	508	494	487	453	8	15%	-23%
PAT	247	225	296	369	302	256	269	275	287	264	256	18	22%	-18%
Costs	1,034	1,113	1,001	997	1,024	982	1,011	979	1,033	998	982	4	-1%	3%

Source: MOFSL, Company

**Exhibit 2: Target Price calculations**

	FY17	FY18	FY19	FY20E
Adjusted EBITDA	150,634	203,089	300,483	314,239
Target EV/EBITDA (x)				4.5
Target EV				1,414,077
Net debt	-296,943	-311,085	-316,302	-300,621
Target Equity value				1,714,697
<b>TP (INR/share)</b>				<b>278</b>

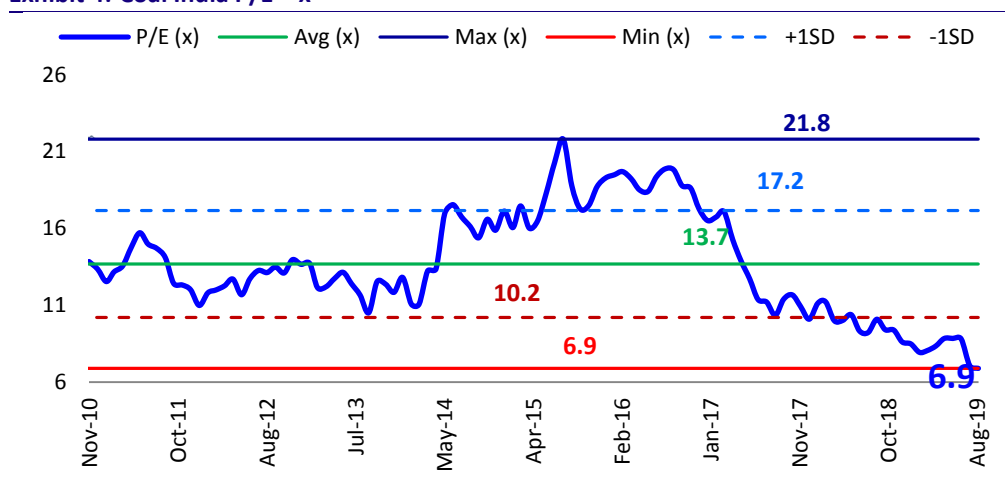
Source: MOFSL

## Exhibit 3: Adjusted P&amp;L

	FY17	FY18	FY19	FY20E	FY21E
<b>Revenue</b>	<b>783,719</b>	<b>858,624</b>	<b>995,469</b>	<b>1,027,745</b>	<b>1,070,509</b>
Power FSA	494,293	549,091	640,826	683,575	717,652
Non Power FSA	86,547	62,000	124,788	130,413	130,399
Eauction/MoU	202,879	247,533	229,856	213,757	222,459
Sales (mt)	543	580	608	645	680
YoY (%)	1.6	6.8	4.9	6.1	5.4
Power FSA	380	424	458	485	510
Share (%)	70	73	75	75	75
Non Power FSA	50	36	67	70	70
Eauction/MoU	113	120	83	90	100
Revenue per ton	1,443	1,480	1,637	1,593	1,574
YoY (%)	-1.1	2.6	10.6	-2.6	-1.2
Power FSA	1,301	1,295	1,399	1,408	1,408
Non Power FSA	1,738	1,723	1,851	1,863	1,863
Eauction/MoU	1,793	2,062	2,777	2,388	2,219
<b>Cost of Mining (ex. OB)</b>	<b>633,085</b>	<b>655,535</b>	<b>694,986</b>	<b>713,506</b>	<b>739,317</b>
CoP per ton	1,166	1,130	1,143	1,106	1,087
YoY (%)	10.4	-3.1	1.1	-3.2	-1.7
Labor & social OH	626	616	644	600	572
Contract	227	220	220	236	243
R&M	152	143	144	143	142
Others	161	151	134	127	129
<b>Adjusted EBITDA</b>	<b>150,634</b>	<b>203,089</b>	<b>300,483</b>	<b>314,239</b>	<b>331,192</b>
Power FSA	51,209	69,873	117,464	146,532	163,432
Share (%)	34	34	39	47	49
Non Power FSA	28,491	21,334	47,734	52,978	54,293
Share (%)	19	11	16	17	16
Eauction/MoU	70,933	111,883	135,285	114,730	113,468
Share (%)	47	55	45	37	34
EBITDA per ton	277	350	494	487	487

Source: MOFSL

## Exhibit 4: Coal India P/E – x



Source: Bloomberg, Company

## Financials and Valuations

Income Statement							(INR Million)	
Y/E Mar	2014	2015	2016	2017	2018	2019	2020E	2021E
<b>Net Sales</b>	<b>706,075</b>	<b>741,201</b>	<b>780,073</b>	<b>783,719</b>	<b>858,624</b>	<b>995,469</b>	<b>1,027,745</b>	<b>1,070,509</b>
Change (%)	1.2	5.0	5.2	0.5	9.6	15.9	3.2	4.2
<b>EBITDA</b>	<b>210,472</b>	<b>211,621</b>	<b>211,148</b>	<b>150,634</b>	<b>203,089</b>	<b>300,483</b>	<b>314,239</b>	<b>331,192</b>
EBITDA Margin (%)	29.8	28.6	27.1	19.2	23.7	30.2	30.6	30.9
Depreciation	52,830	61,465	56,373	55,823	64,246	85,216	99,307	106,624
<b>EBIT</b>	<b>157,643</b>	<b>150,156</b>	<b>154,775</b>	<b>94,811</b>	<b>138,843</b>	<b>215,268</b>	<b>214,932</b>	<b>224,569</b>
Interest	580	73	3,862	4,117	4,318	2,750	2,778	2,806
Other Income	71,719	65,706	59,406	55,156	46,583	58,737	42,076	39,285
Extraordinary items	14	50	0	0	-73,844	0	0	0
<b>PBT</b>	<b>228,795</b>	<b>215,839</b>	<b>210,319</b>	<b>145,850</b>	<b>107,264</b>	<b>271,255</b>	<b>254,230</b>	<b>261,048</b>
Tax	77,679	78,573	71,719	51,660	37,067	96,625	83,896	86,146
Tax Rate (%)	34.0	36.4	34.1	35.4	34.6	35.6	33.0	33.0
Min. Int. & Assoc. Share	0	0	0	0	0	0	0	0
<b>Reported PAT</b>	<b>151,116</b>	<b>137,266</b>	<b>138,601</b>	<b>94,190</b>	<b>70,198</b>	<b>174,630</b>	<b>170,334</b>	<b>174,902</b>
<b>Adjusted PAT</b>	<b>159,881</b>	<b>137,266</b>	<b>138,601</b>	<b>94,190</b>	<b>118,942</b>	<b>174,630</b>	<b>170,334</b>	<b>174,902</b>
Change (%)	-9.5	-14.1	1.0	-32.0	26.3	46.8	-2.5	2.7

Balance Sheet							(INR Million)	
Y/E Mar	2014	2015	2016	2017	2018	2019	2020E	2021E
Share Capital	63,164	63,164	63,164	62,074	62,074	61,627	61,627	61,627
Reserves	360,881	340,367	285,168	183,194	136,392	202,912	209,725	248,204
<b>Net Worth</b>	<b>424,045</b>	<b>403,531</b>	<b>348,332</b>	<b>245,268</b>	<b>198,466</b>	<b>264,539</b>	<b>271,353</b>	<b>309,831</b>
Debt	1,715	4,019	11,921	30,078	15,309	22,027	22,027	22,027
Deferred Tax	-19,717	-19,591	-20,445	-27,328	-53,551	-42,692	-42,692	-42,692
<b>Total Capital Employed</b>	<b>406,678</b>	<b>388,617</b>	<b>340,855</b>	<b>251,477</b>	<b>163,849</b>	<b>247,943</b>	<b>254,756</b>	<b>293,235</b>
Gross Fixed Assets	414,795	448,080	234,137	276,883	325,733	401,631	481,631	561,631
Less: Acc Depreciation	266,951	286,929	26,824	55,984	84,805	115,888	152,792	192,096
<b>Net Fixed Assets</b>	<b>147,844</b>	<b>161,150</b>	<b>207,314</b>	<b>220,900</b>	<b>240,928</b>	<b>285,742</b>	<b>328,839</b>	<b>369,535</b>
Capital WIP	43,158	51,594	59,044	103,078	137,710	136,984	136,984	136,984
Investments	0	0	73	106	3,443	4,622	4,622	4,622
<b>Current Assets</b>	<b>831,704</b>	<b>873,074</b>	<b>841,406</b>	<b>809,377</b>	<b>839,286</b>	<b>857,149</b>	<b>871,429</b>	<b>942,972</b>
Inventory	55,681	61,838	75,692	89,453	64,439	55,839	70,393	73,323
Debtors	82,410	85,219	114,476	107,359	86,892	54,986	70,393	79,188
Cash & Bank	561,644	559,060	409,137	327,021	326,394	338,330	322,648	382,467
Loans & Adv, Others	131,969	166,958	242,102	285,545	361,561	407,994	407,994	407,994
<b>Curr Liabs &amp; Provns</b>	<b>616,028</b>	<b>697,201</b>	<b>766,982</b>	<b>881,984</b>	<b>1,057,518</b>	<b>1,036,554</b>	<b>1,087,117</b>	<b>1,160,878</b>
Curr. Liabilities	616,028	697,201	766,982	881,984	1,057,518	1,036,554	1,087,117	1,160,878
Provisions	0	0	0	0	0	0	0	0
<b>Net Current Assets</b>	<b>215,676</b>	<b>175,873</b>	<b>74,425</b>	<b>-72,607</b>	<b>-218,232</b>	<b>-179,405</b>	<b>-215,688</b>	<b>-217,906</b>
<b>Total Assets</b>	<b>406,678</b>	<b>388,617</b>	<b>340,855</b>	<b>251,477</b>	<b>163,849</b>	<b>247,943</b>	<b>254,756</b>	<b>293,235</b>

## Financials and Valuations

### Ratios

Y/E Mar	2014	2015	2016	2017	2018	2019	2020E	2021E
<b>Basic (INR)</b>								
<b>EPS</b>	<b>25.3</b>	<b>21.7</b>	<b>22.6</b>	<b>15.2</b>	<b>19.2</b>	<b>28.3</b>	<b>27.6</b>	<b>28.4</b>
Cash EPS	33.7	31.5	31.5	24.2	29.5	42.2	43.8	45.7
Book Value	67.1	63.9	55.1	39.5	32.0	42.9	44.0	50.3
DPS	29.0	20.7	27.4	19.9	16.5	13.1	22.1	18.4
Payout (incl. Div. Tax.)	129.5	112.9	145.5	160.3	103.3	55.5	96.0	78.0
<b>Valuation(x)</b>								
P/E	11.4	16.7	12.9	19.3	14.8	7.4	7.6	7.4
Price / Book Value	4.3	5.7	5.3	7.4	8.9	4.9	4.7	4.2
EV/EBITDA	6.0	8.2	6.7	10.1	7.1	3.2	3.1	2.8
Dividend Yield (%)	10.1	5.7	9.4	6.8	5.8	6.3	10.6	8.8
EV /ton of Reserves	57.9	79.7	66.6	69.9	66.6	44.7	45.4	42.7
<b>Profitability Ratios (%)</b>								
RoE	35.6	34.0	41.0	38.4	35.4	66.0	62.8	56.5
RoCE	34.4	34.5	39.9	32.7	58.4	85.7	68.5	64.5
RoIC	-51.3	-45.5	-60.6	-40.0	-37.7	-51.7	-65.2	-68.3
<b>Turnover Ratios (%)</b>								
Asset Turnover (x)	1.7	1.9	2.3	3.1	5.2	4.0	4.0	3.7
Debtors (No. of Days)	43	42	54	50	37	20	25	27
Inventory (No. of Days)	29	30	35	42	27	20	25	25
Creditors (No. of Days)	4	5	15	18	19	25	20	21
<b>Leverage Ratios (%)</b>								
Net Debt/Equity (x)	-1.3	-1.4	-1.1	-1.2	-1.6	-1.2	-1.1	-1.2

### Cash Flow Statement

(INR Million)

Y/E Mar	2014	2015	2016	2017	2018	2019	2020E	2021E
Adjusted EBITDA	210,472	211,621	211,148	150,634	203,089	300,483	314,239	331,192
Non cash opr. exp (inc)	20,597	21,428	25,840	37,046	-54,587	10,718	10,735	10,930
(Inc)/Dec in Wkg. Cap.	2,442	6,487	-26,697	60,216	138,450	-48,918	-41,802	-5,283
Tax Paid	-88,264	-95,721	-78,754	-89,427	-74,329	-95,329	-83,896	-86,146
Other operating activities	0	0	0	0	0	0	0	0
<b>CF from Op. Activity</b>	<b>145,247</b>	<b>143,815</b>	<b>131,538</b>	<b>158,469</b>	<b>212,623</b>	<b>166,955</b>	<b>199,276</b>	<b>250,693</b>
(Inc)/Dec in FA & CWIP	-41,164	-49,014	-57,857	-86,761	-85,293	-73,393	-80,000	-80,000
<b>Free cash flows</b>	<b>104,083</b>	<b>94,801</b>	<b>73,681</b>	<b>71,707</b>	<b>127,330</b>	<b>93,561</b>	<b>119,276</b>	<b>170,693</b>
(Pur)/Sale of Invt	-13,799	9,615	-1	-50	-3,332	-1,184	0	0
Others	78,554	43,256	47,005	34,433	23,747	40,464	31,340	28,355
<b>CF from Inv. Activity</b>	<b>23,590</b>	<b>3,857</b>	<b>-10,852</b>	<b>-52,379</b>	<b>-64,878</b>	<b>-34,114</b>	<b>-48,660</b>	<b>-51,645</b>
Inc/(Dec) in Net Worth	0	0	0	-45,531	0	0	0	0
Inc / (Dec) in Debt	-12,634	1,935	9,902	18,169	-14,778	6,718	0	0
Interest Paid	-580	-73	-207	-306	-370	-96	-2,778	-2,806
Divd Paid (incl Tax) & Others	-240,289	-152,119	-205,569	-148,311	-120,725	-108,138	-163,521	-136,424
<b>CF from Fin. Activity</b>	<b>-253,503</b>	<b>-150,257</b>	<b>-195,874</b>	<b>-175,980</b>	<b>-135,873</b>	<b>-101,516</b>	<b>-166,299</b>	<b>-139,230</b>
<b>Inc/(Dec) in Cash</b>	<b>-84,665</b>	<b>-2,585</b>	<b>-75,188</b>	<b>-69,890</b>	<b>11,872</b>	<b>31,325</b>	<b>-15,682</b>	<b>59,819</b>
Add: Opening Balance	646,310	561,644	559,060	409,137	327,021	326,394	338,330	322,648
<b>Closing Balance</b>	<b>561,644</b>	<b>559,060</b>	<b>483,872</b>	<b>339,247</b>	<b>338,893</b>	<b>357,719</b>	<b>322,648</b>	<b>382,467</b>

NOTES

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://onlinereports.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.: INP00000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) is offered through MOWML, which is a group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance Products and IPOs. Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock 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.