

**Estimate changes**
**TP change**
**Rating change**

**CMP: INR111**
**TP: INR124 (+12%)**
**Neutral**
**Strong result, but priced in; Maintain Neutral**

Bloomberg	NMDC IN
Equity Shares (m)	2,931
M.Cap.(INRb)/(USDb)	325.6 / 4.1
52-Week Range (INR)	182 / 100
1, 6, 12 Rel. Per (%)	-8/-27/-45
12M Avg Val (INR M)	1629

**Financials & Valuations (INR b)**

Y/E MARCH	2022	2023E	2024E
Sales	259	190	229
Adj EBITDA	128	56	68
Adj. PAT	98	44	51
EBITDA Margin (%)	49	29	29
Cons. Adj. EPS (INR)	33	15	18
EPS Gr. (%)	48	-55	15
BV/Sh. (INR)	119	126	132
<b>Ratios</b>			
Net D:E	-0.1	-0.1	0.0
RoE (%)	30.2	12.4	13.6
RoCE (%)	26.2	11.0	12.1
Payout (%)	45.0	59.3	62.9
<b>Valuations</b>			
P/E (x)	3.3	7.3	6.3
P/BV (x)	0.9	0.9	0.8
EV/EBITDA(x)	2.2	5.3	4.7
Div. Yield (%)	13.3	8.1	9.9

**Shareholding pattern (%)**

As On	Jun-22	Mar-22	Jun-21
Promoter	60.8	60.8	68.3
DII	22.1	21.8	20.0
FII	5.9	6.9	5.0
Others	11.2	10.5	6.8

FII Includes depository receipts

- Net sales declined 27% YoY and 29% QoQ to INR48b in 1QFY23 (inline). Iron ore sales were down 14% YoY and 36% QoQ to 7.8mt. The sharp correction in 1QFY23 sales volume was on account of a reduction in steel production after the imposition of export duty on steel and pellets.
- EBITDA contracted by 55% YoY and 29% QoQ to INR19b, but was 17% ahead of our estimate, despite a higher than estimated royalty and cess (including additional royalty) of 23% due to a sharp decline in operating expenses, which fell 63% QoQ (38% below our estimate). EBITDA/t declined by 48% YoY to INR2,434/t, but rose 11% QoQ led by 11% higher ASP QoQ.
- APAT fell 54% YoY and 27% QoQ to INR15b, 14% ahead of our estimate, driven by EBITDA beat, but was partly offset by higher than estimated depreciation and interest charges.

**Lower iron ore sales due to export duty on pellets and thermal coal cost**

- NMDC has reduced the price of iron ore fines/lumps by INR2,350/INR2,200 per tonne since the imposition of export duty of 15% on steel (mostly flats, non-alloy), 50% on iron ore (all grades), and 45% on pellets.
- We note that unless the pellet exports resume, India will continue to have a marginal surplus of iron ore. The change in the export duty structure on iron ore doesn't lead to a big change in our view as the export duty of 30% was anyways present on lumps and fines over 58% Fe. The lower Fe content ore is hardly used by the industry, and hence the impact of a change in export duty on iron ore is not meaningful.
- However, the impact of pellet exports and the rising cost of thermal coal has led to lower DRI production in 1QFY23, impacting iron ore sales for the industry as well as for NMDC.

**Valuation and view**

- China has announced that steel production in CY22 will not exceed that in CY21. Considering the same, the YoY growth in steel production in China for 2HCY22 can be an additional 34mt (~7% higher). With export duty on pellets and iron ore, the growth in steel production in China will not benefit NMDC.
- We believe the commissioning of the steel plant can be delayed beyond Sep'22 as the construction of the coke by-product plant is yet to be finished.
- NMDC has already accumulated coking coal for coke production at peak coal prices, but HRC prices have corrected sharply since then. Hence, initial profitability is likely to be very challenging. The demerger of the steel plant is likely to be completed in 2HFY23, and we see no change in the timeline.
- We have raised our FY23 EBITDA estimate by 5%, driven by its strong 1Q performance, resulting in a 4% upgrade to our APAT. We have revised our SoTP-based TP to INR 124 (from INR122 earlier), comprising: a) INR86 for the core mining business at 4x FY23E EV/EBITDA, and b) INR38 for the book value of the steel business at a 50% discount. **We maintain our Neutral rating.**

**Commissioning of the steel plant untimely**

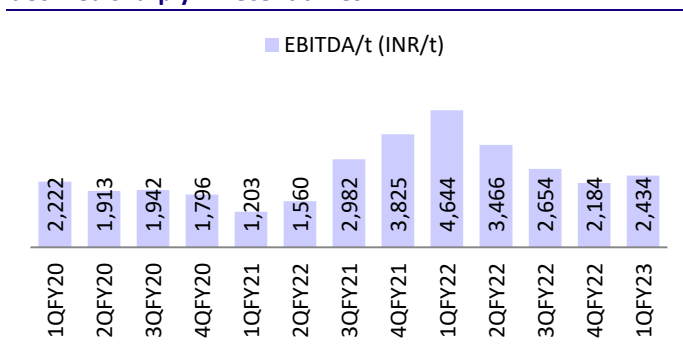
- We believe the commissioning of the steel plant is likely to be commissioned when the domestic market will witness a surplus of HRC. With the commissioning of 5mt expansion of JSW in Dolvi (now under ramp up stage) and additional 5mt HRC coming up at Vijayanagar by end FY24, the commissioning of the steel plant of NMDC will further add to the already surplus market for HRC.
- We also note that bulk of the manpower engaged in NMDC Steel plant is either contractual or on deputation. Further, the steel plant is already identified for divestment by the GOI.

**Sharp correction in iron ore prices, little room for upside**

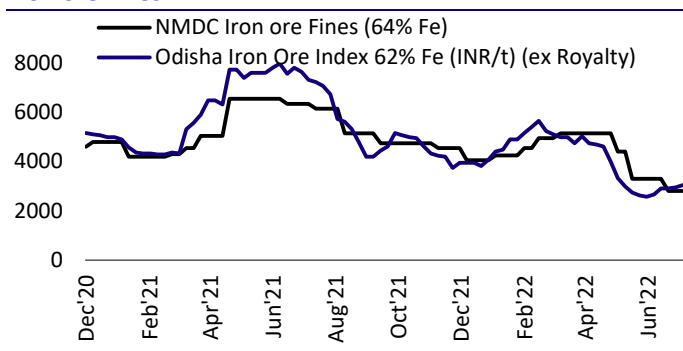
- We note that NMDC iron ore fines prices have corrected by INR 2350/t since the announcement of imposition of export duty. International steel prices remain weak, while demand for ore in the domestic market has also not picked up.
- Steel price correction continues unabated especially in the flat products.
- We believe a significant upward movement on iron prices from current level is difficult given the surplus steel inventory and consequently possibility of lower steel production in the near term, which could impact the pricing for iron ore.

**Consolidated Performance (INR b)**

Y/E March	FY22				FY23E				FY22	FY23E	FY23	vs Est
	1Q	2Q	3Q	4Q	1Q	2QE	3QE	4QE			1QE	(%)
<b>Iron ore Production (mt)</b>	8.9	8.8	10.6	13.9	8.9	9.1	11.1	12.2	40.1	40.2	8.92	0
<b>Iron ore Sales (mt)</b>	9.0	9.0	9.8	12.3	7.8	9.1	11.1	12.2	40.1	40.2	7.66	2
<b>Avg NSR (INR/t)</b>	7,248	7,561	5,967	5,456	6,111	4,266	4,391	4,481	6,455	4,723	6,061	1
<b>Net Sales</b>	65.1	67.9	58.7	67.0	47.7	38.9	48.9	54.4	258.8	189.9	46.4	3
Change (YoY %)	236.1	204.7	34.9	-2.1	-26.8	-42.8	-16.7	-18.8	68.4	-26.6	-28.7	
Change (QoQ %)	-4.9	4.3	-13.5	14.1	-28.9	-18.5	25.8	11.3			-30.7	
<b>Adj EBITDA</b>	41.7	31.1	26.1	26.8	19.0	10.4	13.1	13.5	127.8	56.0	16.2	17
Change (YoY %)	452.7	202.3	-5.6	-36.8	-54.5	-66.7	-49.9	-49.5	45.3	-56.2	-61.1	
Change (QoQ %)	-1.6	-25.4	-16.1	2.7	-29.2	-45.4	26.4	3.4			-43.7	
<b>EBITDA per ton (USD)</b>	63	47	35	29	32	15	15	14	43	18	27	15
<b>EBITDA per ton (INR/t)</b>	4,644	3,466	2,654	2,184	2,434	1,137	1,176	1,114	3,188	1,392	2,118	15
Interest	0.0	0.0	0.1	0.3	0.2	0.1	0.1	0.1	0.4	0.4	0.1	162
Depreciation	0.6	0.6	0.6	1.1	0.8	0.6	0.6	0.6	2.9	2.7	0.6	39
Other Income	1.4	0.9	1.5	3.3	1.5	1.4	1.4	1.4	7.2	5.6	1.4	6
<b>PBT (before EO Item)</b>	42.6	31.4	27.0	28.8	19.4	11.1	13.7	14.2	131.8	58.4	16.9	15
Extra-ordinary item	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	
<b>PBT (after EO Item)</b>	42.6	31.4	27.0	30.8	19.4	11.1	13.7	14.2	133.8	58.4	16.9	15
Total Tax	10.7	8.0	6.5	10.7	4.8	2.5	3.3	3.4	35.8	13.9	4.1	17
% Tax	25.1	25.5	24.0	34.6	24.5	22.9	23.9	23.7	26.8	23.9	24.0	
<b>Reported PAT</b>	31.9	23.4	20.5	18.1	14.7	8.5	10.5	10.8	95.9	44.5	12.9	14
<b>Adjusted PAT</b>	31.9	23.4	20.5	20.1	14.7	8.5	10.5	10.8	97.9	44.5	12.9	14
Change (YoY %)	497.7	202.4	-2.8	-36.6	-54.0	-63.6	-49.0	-46.3	48.5	-54.6	-60	
Change (QoQ %)	0.3	-26.6	-12.4	-1.7	-27.1	-41.9	22.7	3.4	0%	0%	-36	

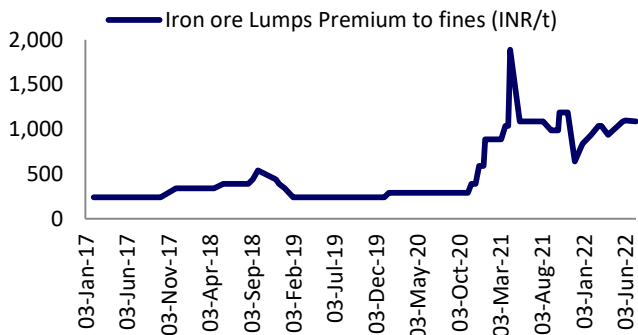
**Exhibit 1: Blended ASP likely to correct from here as ASP declined sharply in recent times**

Source: MOFSL, Company

**Exhibit 2: NMDC iron ore prices has strong linkage to Odisha Iron ore Fines**

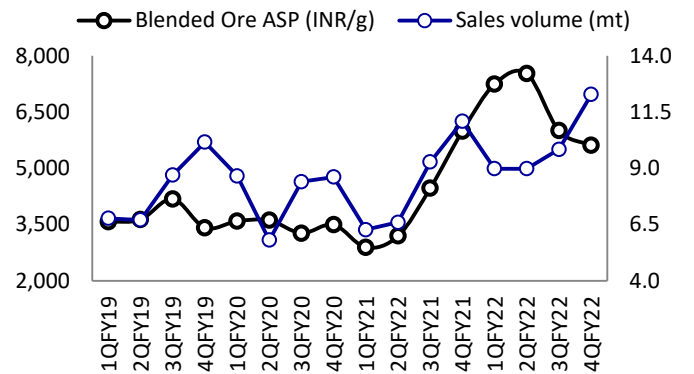
Source: MOFSL, Company

**Exhibit 3: Premium for lumps still higher than historical average**



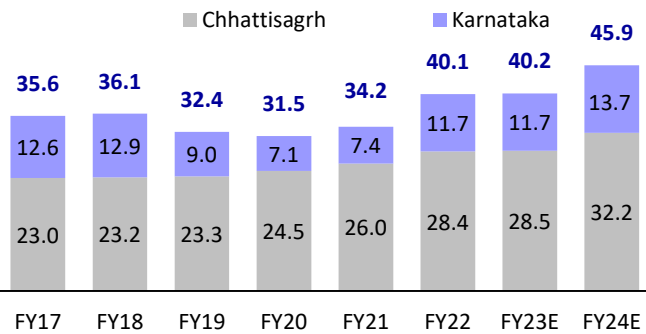
Source: MOFSL, Company

**Exhibit 4: Revenue is supported by higher ASP**



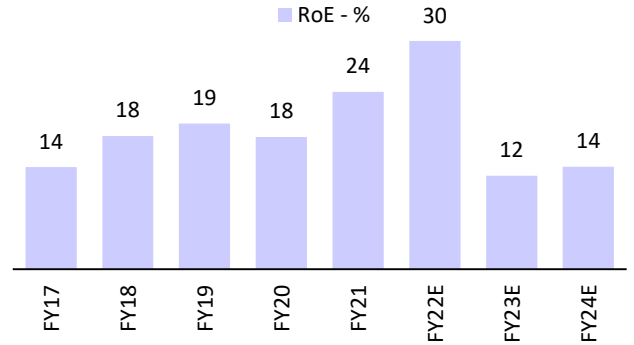
Source: MOFSL, Company

**Exhibit 5: Production for FY23 is likely to be flattish...**



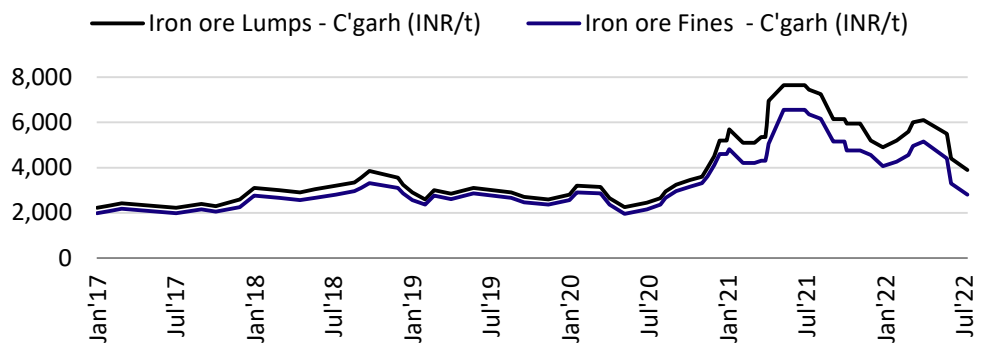
Source: MOFSL, Company

**Exhibit 6: ... but sharp correction in ASP to depress ROE**



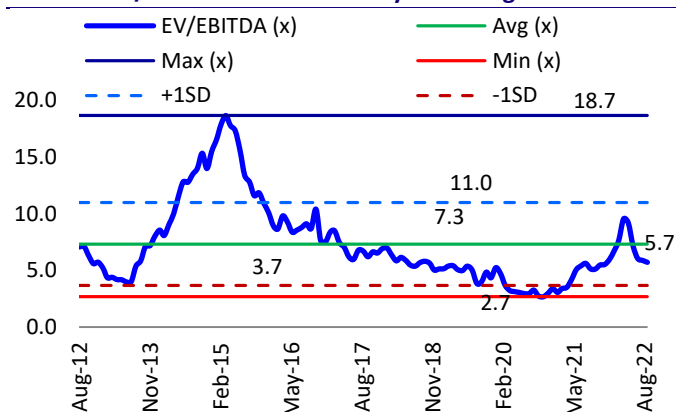
Source: MOFSL, Company

**Exhibit 7: NMDC Iron ore prices (INR/t)**



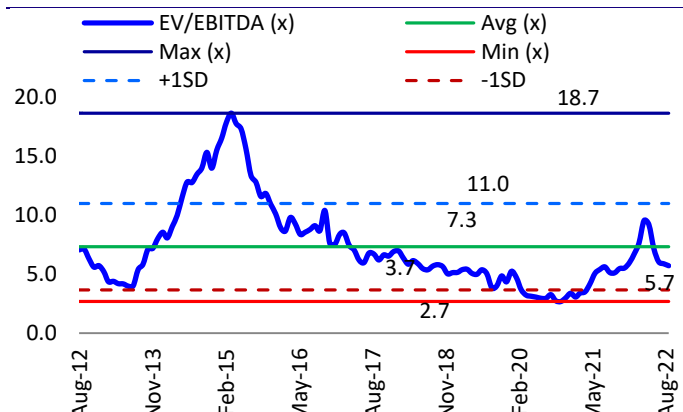
Source: Company

Exhibit 8: P/B remains below the cycle average ...



Source: MOFSL, Company data

Exhibit 9: ... EV/EBITDA remains below average as steel cycle is in downturn



Source: MOFSL, Company data

Exhibit 10: Global comparative valuation

Company	M-cap USD m	P/E (x)			EV/EBITDA (x)			P/B (x)			RoE (x)		
		CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24	CY21/ FY22	CY22/ FY23	CY23/ FY24
NMDC*	4,717	4,094	3.3	7.6	6.3	2.2	5.4	4.6	0.9	0.9	0.8	30.2	12.0
Vale	90,405	62,720	3.5	4.3	4.8	2.6	2.9	3.2	1.4	1.3	1.3	44.2	32.1
FMG	43,084	38,611	6.3	7.6	10.4	3.8	4.4	5.5	2.2	2.1	2.1	34.9	30.9

Source: MOFSL, Company (\*) denotes MOFSL estimates

Exhibit 11: Key assumptions and summary of changes to our estimates

INR b	FY23E			FY24E		
	New	Old	% change	New	Old	% change
Iron ore volumes (mt)	40.2	40.3	-0.1	45.9	45.9	-
Blended ASP (INR/t)	4,723	4,708	0.3	4,993	4,993	-
Revenue	190	190	0.2	229	229	-
EBITDA/t (INR)	1,392	1,330	4.7	1,471	1,478	-0.5
EBITDA	56	54	4.6	68	68	-0.5
Adj. PAT	44	43	3.8	51	52	-0.9

Exhibit 12: Calculation of the target price

Y/E March	UoM	FY23E
<b>Iron ore</b>		
Sales Volumes	Mt	40.2
EBITDA/t	INR/t	1,392
<b>Total EBITDA</b>	<b>INR m</b>	<b>55,971</b>
Target EV/EBITDA multiple	X	4.0
Target EV	INR m	2,23,885
Add: Net Cash	INR m	31,403
Add: Steel plant CWIP at a 50% discount	INR m	1,12,100
Total Equity Value	INR m	3,67,389
Outstanding shares	m	2,931
<b>Target price (INR/share)</b>	<b>INR/share</b>	<b>124</b>
Share of Mining business in the TP	"	86
Share of Steel plant in the TP	"	38

## Financials and valuation

### Consolidated Income Statement

(INR b)

Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
<b>Net sales</b>	<b>88</b>	<b>116</b>	<b>122</b>	<b>117</b>	<b>154</b>	<b>259</b>	<b>189.9</b>	<b>229.1</b>
Change (%)	37.1	31.5	4.6	-3.7	31.4	68.4	-26.6	20.7
Total Expenses	43	53	50	55	66	133	133.9	161.6
<b>EBITDA</b>	<b>44.9</b>	<b>63.2</b>	<b>71.4</b>	<b>62.2</b>	<b>88.0</b>	<b>125.8</b>	<b>56.0</b>	<b>67.5</b>
% of Net Sales	50.9	54.4	58.8	53.2	57.2	48.6	29.5	29.5
<b>EBITDA/t</b>	<b>1,262</b>	<b>1,752</b>	<b>2,207</b>	<b>1,974</b>	<b>2,669</b>	<b>3,138</b>	<b>1,392</b>	<b>1,471</b>
Deprn. & Amortization	<b>44.9</b>	<b>63.2</b>	<b>71.4</b>	<b>62.2</b>	<b>88.0</b>	<b>127.8</b>	<b>56.0</b>	<b>67.5</b>
<b>EBIT</b>	<b>1,262</b>	<b>1,752</b>	<b>2,207</b>	<b>1,974</b>	<b>2,669</b>	<b>3,188</b>	<b>1,392</b>	<b>1,471</b>
Net Interest	2.0	2.6	2.8	2.9	2.3	2.9	2.7	2.9
Other income	<b>43.0</b>	<b>60.6</b>	<b>68.6</b>	<b>59.3</b>	<b>85.7</b>	<b>122.9</b>	<b>53.2</b>	<b>64.6</b>
<b>PBT before EO</b>		0.4	0.4	0.1	0.2	0.4	0.4	0.2
EO income	9.1	5.2	5.9	5.1	3.5	7.2	5.6	5.5
<b>PBT after EO</b>	<b>52.1</b>	<b>65.5</b>	<b>74.1</b>	<b>64.4</b>	<b>89.0</b>	<b>129.7</b>	<b>58.4</b>	<b>69.9</b>
Tax	-8.9	-5.3	-2.1	-10.8		2.0		
Rate (%)	<b>43.1</b>	<b>60.2</b>	<b>72.0</b>	<b>53.6</b>	<b>89.0</b>	<b>131.8</b>	<b>58.4</b>	<b>69.9</b>
<b>Reported PAT</b>	<b>17</b>	<b>22</b>	<b>26</b>	<b>17</b>	<b>26</b>	<b>36</b>	<b>13.9</b>	<b>18.6</b>
<b>Adjusted PAT</b>	<b>39.5</b>	<b>36.7</b>	<b>35.5</b>	<b>32.5</b>	<b>29.8</b>	<b>27.2</b>	<b>23.9</b>	<b>26.6</b>
Change (%)	<b>26.1</b>	<b>38.1</b>	<b>46.4</b>	<b>36.2</b>	<b>62.5</b>	<b>95.9</b>	<b>44.5</b>	<b>51.3</b>

### Consolidated Balance Sheet

(INR b)

Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Share Capital	3.2	3.2	3.1	3.1	2.9	2.9	2.9	2.9
Reserves	222.0	240.4	256.5	272.3	294.6	347.1	365.2	384.2
<b>Share holders funds</b>	<b>225.2</b>	<b>243.5</b>	<b>259.5</b>	<b>275.3</b>	<b>297.6</b>	<b>350.0</b>	<b>368.1</b>	<b>387.2</b>
Loans		<b>5.0</b>	<b>3.6</b>	<b>5.7</b>	<b>19.9</b>	<b>34.8</b>	<b>34.8</b>	<b>34.8</b>
Long-term Provisions	6.1	7.1	7.7	8.3	9.5	12.5	12.5	12.5
<b>Capital Employed</b>	<b>231.3</b>	<b>255.7</b>	<b>270.8</b>	<b>289.3</b>	<b>327.0</b>	<b>397.3</b>	<b>415.4</b>	<b>434.5</b>
Gross Block	39.7	49.5	52.8	58.9	62.4	81.6	86.6	91.6
Less: Accum. Deprn.	20.2	22.8	25.5	28.4	30.7	33.6	36.3	39.2
<b>Net Fixed Assets</b>	<b>19.5</b>	<b>26.7</b>	<b>27.2</b>	<b>30.5</b>	<b>31.7</b>	<b>48.0</b>	<b>50.3</b>	<b>52.4</b>
Capital WIP	118.3	125.2	137.9	154.7	170.8	183.2	218.2	253.2
Investments	7.3	7.9	9.4	9.9	9.8	8.9	8.9	8.9
<b>Curr. Assets</b>	<b>111.9</b>	<b>126.3</b>	<b>123.3</b>	<b>116.4</b>	<b>155.5</b>	<b>208.3</b>	<b>183.1</b>	<b>165.8</b>
Inventories	5.4	5.7	6.7	7.2	9.2	21.6	16.1	19.5
Sundry Debtors	10.4	14.7	14.2	22.2	21.4	29.5	23.4	28.2
Cash and Bank	52.9	54.4	46.1	23.9	58.1	79.8	66.2	40.8
Loans and Advances	43.2	51.5	56.3	63.0	66.9	77.3	77.3	77.3
<b>Curr. Liability &amp; Prov.</b>	<b>25.7</b>	<b>30.4</b>	<b>27.0</b>	<b>22.1</b>	<b>40.8</b>	<b>51.2</b>	<b>45.2</b>	<b>45.9</b>
Sundry Creditors	2.0	1.6	2.0	2.3	3.6	9.7	3.6	4.4
Other Liabilities & prov.	23.7	28.8	25.0	19.8	37.2	41.5	41.5	41.5
<b>Net Current Assets</b>	<b>86.2</b>	<b>95.9</b>	<b>96.3</b>	<b>94.3</b>	<b>114.7</b>	<b>157.1</b>	<b>138.0</b>	<b>119.9</b>
<b>Application of Funds</b>	<b>231.3</b>	<b>255.7</b>	<b>270.8</b>	<b>289.3</b>	<b>327.0</b>	<b>397.3</b>	<b>415.4</b>	<b>434.5</b>

## Financials and valuation

### Consolidated Cash Flow Statement

(INR b)

Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Pre-tax profit	43.1	60.2	72.0	53.6	89.0	131.8	58.4	69.9
Depreciation	2.0	2.6	2.8	2.9	2.3	2.9	2.7	2.9
(Inc)/Dec in W.Cap	13.1	-8.7	-8.6	-21.4	5.3	-15.7	5.6	-7.4
Tax paid	-18.9	-23.4	-26.0	-23.0	-24.9	-43.5	-13.9	-18.6
Other operating activities	0.4	3.2	0.3	8.5	1.6	0.9		
<b>CF from Op. Activity</b>	<b>39.7</b>	<b>33.8</b>	<b>40.5</b>	<b>20.6</b>	<b>73.3</b>	<b>76.4</b>	<b>52.8</b>	<b>46.8</b>
(Inc)/Dec in FA + CWIP	-23.5	-20.5	-20.0	-24.0	-16.0	-30.5	-40.0	-40.0
(Pur)/Sale of Investments	-0.3	-2.5	7.7	17.2	0.3	0.8		
Others		6.3	-3.5	-18.4	2.4	4.2		
<b>CF from Inv. Activity</b>	<b>-23.8</b>	<b>-16.8</b>	<b>-15.8</b>	<b>-25.2</b>	<b>-13.3</b>	<b>-25.5</b>	<b>-40.0</b>	<b>-40.0</b>
Equity raised/(repaid)	-76.1		-10.1		-17.0			
Interest paid		-0.4	-0.4	-0.1	-0.2	-0.4		
Debt raised/(repaid)	-15.0	5.0	-1.4	2.0	14.3	14.9		
Dividend (incl. tax)	-19.6	-23.9	-21.3	-19.5	-22.7	-43.2	-26.4	-32.2
Other financing activities		3.7	0.2	0.1	-0.3	-0.5		
<b>CF from Fin. Activity</b>	<b>-110.6</b>	<b>-15.6</b>	<b>-33.0</b>	<b>-17.5</b>	<b>-25.9</b>	<b>-29.2</b>	<b>-26.4</b>	<b>-32.2</b>
<b>(Inc)/Dec in Cash</b>	<b>-94.7</b>	<b>1.5</b>	<b>-8.3</b>	<b>-22.2</b>	<b>34.1</b>	<b>21.7</b>	<b>-13.5</b>	<b>-25.5</b>
Add: opening Balance	147.6	52.9	54.4	46.1	23.9	58.1	79.8	66.2
<b>Closing Balance</b>	<b>52.9</b>	<b>54.4</b>	<b>46.1</b>	<b>23.9</b>	<b>58.1</b>	<b>79.8</b>	<b>66.2</b>	<b>40.8</b>

### Key Ratios

Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
<b>Basic (INR)</b>								
<b>EPS</b>	<b>10.0</b>	<b>13.1</b>	<b>15.6</b>	<b>15.3</b>	<b>22.5</b>	<b>33.4</b>	<b>15.2</b>	<b>17.5</b>
Cash EPS	10.6	13.9	16.5	16.2	23.3	34.4	16.1	18.5
BV/Share	71.2	77.0	84.8	89.9	101.5	119.4	125.6	132.1
DPS	5.2	5.3	5.5	5.3	7.8	14.7	9.0	11.0
Payout (%)	74.9	62.9	45.9	54.0	36.4	45.0	59.3	62.9
<b>Valuation (x)</b>								
P/E	11.2	8.5	7.1	7.3	4.9	3.3	7.3	6.3
Cash P/E	10.5	8.0	6.7	6.8	4.8	3.2	6.9	6.0
P/BV	1.6	1.4	1.3	1.2	1.1	0.9	0.9	0.8
EV/Sales	3.4	2.6	2.5	2.8	1.9	1.1	1.5	1.4
EV/EBITDA	6.6	4.8	4.2	5.2	3.3	2.2	5.3	4.7
Dividend Yield (%)	4.6	4.8	5.0	4.8	7.0	13.3	8.1	9.9
EV (USD/t)	3.1	3.2	3.0	3.2	2.7	2.6	2.6	2.9
<b>Return Ratios (%)</b>								
EBITDA Margins	50.9	54.4	58.8	53.2	57.2	48.6	29.5	29.5
Net Profit Margins	35.7	35.7	39.3	40.1	42.9	37.8	23.4	22.4
RoE	13.5	17.7	19.3	17.5	23.5	30.2	12.4	13.6
RoCE	11.5	17.1	18.3	15.5	20.3	26.2	11.0	12.1
RoIC	44.0	63.4	60.8	44.9	63.6	83.8	32.8	37.4
<b>Working Capital Ratios</b>								
Fixed Asset Turnover (x)	2.2	2.3	2.3	2.0	2.5	3.2	2.2	2.5
Asset Turnover (x)	0.4	0.5	0.4	0.4	0.5	0.7	0.5	0.5
Debtor (Days)	43	46	43	69	51	42	45	45
Inventory (Days)	22	18	20	23	22	31	31	31
Creditors (Days)	8	5	6	7	9	14	7	7
<b>Growth (%)</b>								
Sales	37.1	31.5	4.6	-3.7	31.4	68.4	-26.6	20.7
EBITDA	29.5	40.6	13.0	-12.9	41.4	43.0	-55.5	20.6
PAT	-10.1	31.5	15.4	-1.9	40.7	48.5	-54.6	15.3
<b>Leverage Ratio (x)</b>								
Current Ratio	4.4	4.2	4.6	5.3	3.8	4.1	4.1	3.6
Debt/Equity	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	0.0

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 MOFSL, 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 MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- 3 MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 4 MOFSL, 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 MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 7 MOFSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months
- 8 MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- 9 MOFSL has not received any compensation or other benefits from third party in connection with the research report
- 10 MOFSL 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.