

Hindustan Zinc

Estimate change

TP change

Rating change

Motilal Oswal values your support in the Asiamoney Brokers Poll 2022 for India Research, Sales, Corporate Access and Trading team. We request your ballot.



Bloomberg	HZ IN
Equity Shares (m)	4,225
M.Cap.(INRb)/(USDb)	1195.8 / 15
52-Week Range (INR)	408 / 242
1, 6, 12 Rel. Per (%)	1/-8/-22
12M Avg Val (INR M)	419

Financials & valuations (INR b)

2022	2023E	2024E
294.4	326.1	335.7
162.3	171.2	178.9
55.1	52.5	53.3
97.6	105.2	110.1
23.1	24.9	26.0
22.3	7.8	4.6
81.1	76.0	72.1
-0.5	-0.5	-0.6
29.3	31.7	35.2
38.3	41.4	43.7
77.9	120.4	115.2
12.2	11.4	10.9
3.5	3.7	3.9
6.3	6.0	5.7
6.4	10.6	10.6
8.1	9.4	9.2
	294.4 162.3 55.1 97.6 23.1 22.3 81.1 -0.5 29.3 38.3 77.9 12.2 3.5 6.3 6.4	294.4 326.1 162.3 171.2 55.1 52.5 97.6 105.2 23.1 24.9 22.3 7.8 81.1 76.0 -0.5 -0.5 29.3 31.7 38.3 41.4 77.9 120.4 12.2 11.4 3.5 3.7 6.3 6.0 6.4 10.6

Shareholding pattern (%)

	.0 P	(, ~)			
As On	Jun-22	Mar-22	Jun-21		
Promoter	64.9	64.9	64.9		
DII	32.5	32.5	32.2		
FII	0.9	0.8	1.0		
Others	1.7	1.8	1.9		

FII Includes depository receipts

CMP: INR283 TP: INR245 (-13%) Neutra In-line results; FY23 guidance maintained, albeit, challenging

No surprises in 1QFY23, again

- Hindustan Zinc (HZ)'s revenue was in line at INR94b (up 44% YoY and 7% QoQ) in 1QFY23, led by higher LME prices but partly offset by flat lead prices, repeating the trend of 4QFY22.
- EBITDA stood in line at INR51b (up 44% YoY and 4% QoQ). Power and fuel costs were at INR9b, up 15% QoQ, led by higher coal prices as FSA materialization was only 8% during the quarter and the company continued to import the balance coal from Australia and Indonesia.
- HZ's PAT grew 46% YoY and 6% QoQ to INR31b, in line with our estimate of INR32b, as lower-than-estimated other income was offset by lower-than-estimated finance cost.
- The company used about 50% of the hedges for FY23 during 1QFY23 and the balance is likely to be exhausted in 2QFY23E. The effective realization for 2HFY23E is likely to be lower as zinc prices have also corrected sharply.
- Refined zinc sales declined 4% QoQ to 206kt while refined lead sales rose 10% QoQ to 54kt. Silver sales, at 177 tonnes, rose 9% QoQ.

Management reiterated its FY23 guidance despite steep cost pressure

- The management reiterated its FY23 production guidance:
 - Mined metal production to be marginally higher at 1,050-1,075kt
 - > Silver production to be at 700-725t (v/s 647t in FY22)
- However, it also reiterated the cost of production (ex-royalty) guidance at USD1,125-1,175/t range (v/s USD1,264/t in 1QFY23). This implies about 13% lower cost of production for the remaining of FY23. Given the steep cost of coal, which has not reduced meaningfully in the near term, we believe the guidance on cost of production could be raised in the subsequent quarters.
- Project capex guidance also remains constant at USD125-150m, along with maintenance capex guidance at USD350-400m.
- The management highlighted that it plans to reduce the cost of power structurally by replacing the coal/fossil-based power with renewable power. It is already looking at 200MW of renewable power by FY24E. We await further details of the company under which this 200MW renewable power will be set up along with the price and other terms of contract, as it is not being set up under HZ.

Valuation and view

- Notwithstanding severe cost pressure from coal, the management has not increased the cost guidance from USD1,125-1,150/t for FY23E, despite the CoP being at USD1,264/t in 1QFY23.
- HZ expects more coal from the FSA as it has over 1mt due under the FSA commitments. We keenly await further update on this as the FSA coal from Coal India is the key to cost reduction at HZ.

Vishal Chandak - Research analyst (Vishal.Chandak@MotilalOswal.com)

The company continues to operate in the first quartile of the global cash cost curve but the near-term cost headwinds are unlikely to recede. HZ is now trying to contain the costs to USD1,150/t v/s its target of bringing down the costs to sub-USD1,000/t.

- Its fumer project continues to be delayed by more than two years now due to external factors (visa issues for Chinese experts).
- The growth from 1-1.2mt remains elusive as HZ remains focused on delivering 1mt annually on a sustainable basis.
- We have cut our FY23 LME assumption for zinc to USD3,486/t from USD3,571/t earlier indicating a marginal 2% reduction. However, we raise our net sales assumption slightly by 1% to factor in 21% zinc volumes hedged at USD4,100/t.
- Accordingly, we marginally increase our FY23 net sales estimates by 1% but reduce our net profit estimates by 2%, factoring in lower other income while keeping EBITDA unchanged. Our TP remains unchanged at INR245 based on 5x FY23E EV/EBITDA. We note that the company continues to deliver high RoE but lacks volume growth, which is critical for a meaningful re-rating. We also await further details on the arrangement for renewable power.
- Management highlighted that demand for zinc has been adversely impacted globally due to several factors including: a) high inflationary environment, b) resurgence of Covid cases in China, c) strengthening of the USD and d) Russia-Ukraine war, leading to a sharp correction in the commodity prices.
- Resurgence in economic activity in China remains central to any positive movement in commodities. With China continuing to battle Covid while rest of the world battles inflation, we believe there are no significant positive triggers for HZ. Hence, we maintain our Neutral rating on the stock.

Y/E March		FY2	2			FY23	E		FY22	FY23E	FY23	v/s Est.
	1Q	2Q	3Q	4Q	1Q	2QE	3QE	4QE			1QE	%
Net Sales	65.3	61.2	79.9	88.0	93.9	72.6	78.6	81.0	294.4	326.1	89.7	4.7
Change (YoY %)	63.7	8.2	32.4	26.6	43.7	18.6	-1.6	-7.9	30.1	10.8	37.3	
Change (QoQ %)	-6.0	-6.3	30.5	10.1	6.7	-22.7	8.3	3.0			1.9	
EBITDA	35.6	33.4	43.7	49.6	51.4	36.7	40.6	42.5	162.3	171.2	50.0	2.8
Change (YoY %)	125.8	13.0	33.7	28.0	44.4	9.9	-7.1	-14.2	39.0	5.5	40.5	
Change (QoQ %)	-8.3	-6.3	31.0	13.5	3.5	-28.6	10.8	4.8			0.7	
As % of Net Sales	54.5	54.5	54.7	56.4	54.7	50.5	51.6	52.5	55.1	52.5	1.9	
Finance cost	0.9	0.8	0.5	0.7	0.4	0.7	0.7	0.6	2.9	2.4	1.0	
DD&A	6.6	7.0	7.4	8.2	7.3	7.0	7.6	7.8	29.2	29.7	7.0	4.9
Other Income	3.5	3.1	2.8	2.8	3.1	3.6	3.6	3.6	12.2	13.8	3.6	-13.3
PBT (before EO item)	31.6	28.6	38.6	43.6	46.7	32.5	35.9	37.8	142.3	152.9	45.6	2.4
EO exp. (income)	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	
PBT	30.2	28.6	38.6	43.6	46.7	32.5	35.9	37.8	141.0	152.9	45.6	2.4
Total Tax	10.4	8.5	11.6	14.3	15.8	9.7	10.8	11.3	44.7	47.7	13.7	15.5
% Tax	34.4	29.5	30.0	32.8	33.8	30.0	30.0	30.0	31.7	31.2	30.0	
Reported PAT	19.8	20.2	27.0	29.3	30.9	22.7	25.1	26.4	96.3	105	31.9	-3.1
Adjusted PAT	21.2	20.2	27.0	29.3	30.9	22.7	25.1	26.4	97.6	105	31.9	-3.1
Change (YoY %)	55.8	4.0	22.8	17.9	46.1	12.8	-6.9	-9.7	22.3	7.8	50.8	
Change (QoQ %)	-14.8	-4.7	33.9	8.4	5.6	-26.4	10.5	5.1			9.0	

Source: Company, MOFSL

Operational performance

Y/E March		FY2	22			FY2	3E		FY22	FY23E	FY23	v/s Est.
	1Q	2Q	3Q	4Q	1QE	2QE	3QE	4QE			1QE	%
Mine prodn. (kt)	221	249	252	295	252	243	260	268	1,017	1,023	252	0.0
Sales												
Zinc refined (kt)	187	164	212	214	206	184	199	205	777	793	206	0.0
Lead refined (kt)	49	47	47	49	54	52	56	57	192	219	54	0.0
Silver (tonnes)	160	152	173	162	177	166	178	183	647	704	174	1.5
LME/Realizations												
Zinc LME (USD/t)	2,913	2,991	3,364	3,754	3,915	3,200	3,400	3,400	3,257	3,486	3,945	-0.8
Premium (USD/t)	196	240	205	226	407	400	225	225	250	313	225	81.0
Zinc Realization (USD/t)	3,109	3,231	3,569	3,980	4,322	3,600	3,625	3,625	3,507	3,799	4,170	3.7
Lead LME (USD/t)	2,123	2,341	2,331	2,335	2,199	2,115	1,951	1,947	2,285	2,054	2,203	-0.2
Premium (USD/t)	161	200	226	213	174	200	200	200	197	185	200	-13.0
Lead Realization (USD/t)	2,284	2,541	2,557	2,548	2,373	2,315	2,151	2,147	2,482	2,239	2,403	-1.2
Silver LME (INR/t)	69,700	64,950	62,755	63,667	61,464	57,408	58,274	58,879	65,268	59,027	61,545	-0.1
Premium (INR/t)	-575	-279	-269	283	1,110	0	0	0	0	0	0	na
Silver Realization (INR/t)	69,125	64,671	62,486	63,951	62,574	57,408	58,274	58,879	65,268	59,027	61,545	1.7



Highlights from the management commentary Growth projects – a new line of capex

- While the acquisition of Zinc International business of the parent company remains under discussion, HZ highlighted that the decision will be taken in due course of time and will be subject to several approvals. Management also highlighted that nothing concrete has been discussed so far.
- The new proposal discussed by the management was regarding 0.5mt fertilizer plant with a capex of INR13-14b to be spent over the next 15-18 months. The fertilizer plant will absorb the sulphuric acid and other byproducts emanating from the zinc smelting process and will be sold in the domestic market. This should help improve the byproduct realization for HZ.
- Management also announced the setting up of a 160kt roaster plant at a capex of around INR900m over the next one and half years.
- The option of setting up a custom smelter at Gujarat is not being actively evaluated.

Coal costs continue to rise

- HZ has been sourcing coal from Australia and Indonesia. The company has not sourced any coal from Russia so far, neither has it indicated any plans for the same.
- Linkage coal was about 8% compared with around 2% in 4QFY22. HZ has about 1mt of FSA coal to be delivered in FY23E.
- Management expects Coal India to deliver the remaining 1mt of coal (from FY22) during FY23, which will partly help it maintain its cost guidance for FY23.
- Coal and fuel costs currently account for 21% of the total CoP, v/s 15% in 1QFY23. We believe the same is likely to remain at elevated levels, unless Coal India delivers higher quantity of FSA coal.

Hedging zinc sales

- The management has started the practice of hedging part of its sales volume from FY23E.
- It has hedged 21% of its FY23E sales volumes at USD4,100/t.
- HZ has used about 11% of the hedges booked at USD4,100/t in 1QFY23 and balance 10% is likely to be consumed in 2QFY23.
- We like the company's policy to hedge Zinc at higher LME and agree to its view that the current prices do not offer remunerative hedge.

Gujarat custom smelter expansion makes no progress

- HZ has not made much headway in its custom smelter project in Gujarat. It has been unable to convene the Gram Sabha meeting needed to move ahead with the project.
- Once the same is complete, management will focus on other parts of the project that include land acquisition, placing orders for equipment, and applying for CTE (consent to establish).
- There is no further progress since the update in 4QFY22.

Renewable power – awaiting details

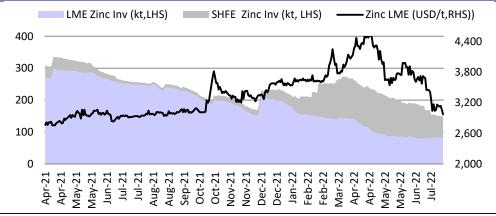
While the management has been clear about getting 200MW renewable power by FY24, it did not confirm the rates at which it will buy that power.

- We believe setting up a solar/wind renewable power capacity of that scale should take at least two years including the time for land acquisition.
- The management further added that it is likely to expand its renewable power consumption to 500MW to support all future expansions.
- We cautiously await details of such long-term (~ 25yers) PPA and details of the counterparty setting up the same.

Debt and cash

- Current gross cash and equivalents in its books is INR242b. Net cash balance is INR 214b.
- The company recently announced a dividend of INR21/share, which should result in a cash outflow of INR89b.
- Post-dividend payout, cash and equivalents in the books will be around INR156b.

Exhibit 1: LME Zinc prices have corrected 16% in 1Q and 13% since the start of 2QFY23



Source: Bloomberg, MOFSL

Exhibit 2: Silver price corrected 17% in 1Q and are down 5% since the beginning of 2QFY23

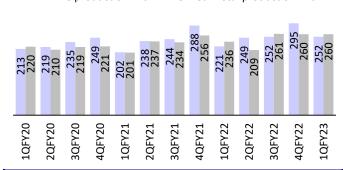


Source: Bloomberg, MOFSL

Story in charts

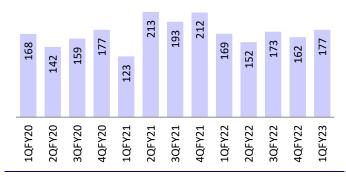
Exhibit 1: Mine production remains muted

■ Mine production - kt ■ Refined metal production - kt



Source: Company, MOFSL

Exhibit 2: Silver production (t) also remains muted



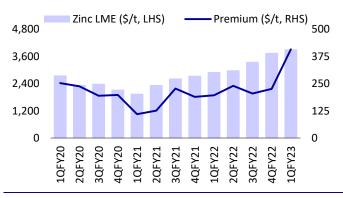
Source: Company, MOFSL

Exhibit 3: Zinc ASP has been driven by hedges, which will be exhausted in 2QFY23...

Zinc LME (\$/t, LHS) Premium (\$/t, RHS) 4,800 500 3,600 400 2,400 300 1,200 200 0 100 2QFY20 3QFY20 4QFY20 1QFY21 2QFY21 3QFY21 4QFY21 1QFY22 2QFY22 3QFY22 LQFY23

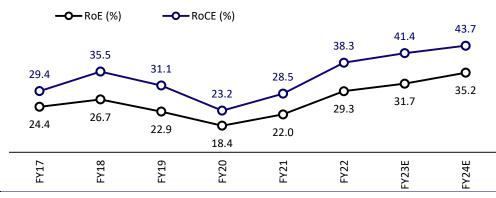
Source: Company, MOFSL

Exhibit 4: ...while costs have been structurally rising with no end in sight



Source: Company, MOFSL

Exhibit 5: Volumes will continue to drive RoE, but valuations already factor in the same



Source: MOFSL, Company

Exhibit 6: P/B ratio at elevated levels to justify high RoE

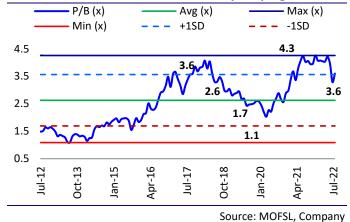
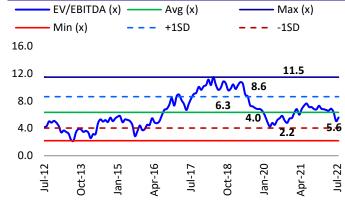


Exhibit 7: EV/EBITDA remains range bound



Source: MOFSL, Company

Exhibit 8: Changes in our assumptions and key financials

			FY23E			FY24E	
		New	Old	% change	New	Old	% change
Price assumptions (LME)							
Zinc	USD/t	3,486	3,571	-2%	3,295	3,295	0%
Lead	"	2,054	2,054	0%	1,906	1,906	0%
Silver	INR/kg	59,027	59,027	0%	58,855	58,855	0%
Sales volume assumptions							
Refined Zinc	kt	793	793	0%	879	879	0%
Refined Lead	kt	219	219	0%	260	260	0%
Silver	mt	704	702	0%	781	781	0%
Financial estimates							
Revenue	INR b	326	324	1%	336	336	0%
EBITDA	"	171	172	0%	179	180	-1%
Adj. PAT	II .	105	108	-2%	110	112	-2%
EPS	INR/share	25	26	-2%	26	26	-2%

Source: MOFSL, Company

Exhibit 9: Global comparable valuation

	М-сар	P/E (x)			EV	EV/EBITDA (x)			P/B (x)			RoE (%)		
		CY20/	CY21/	CY22/	CY20/	CY21/	CY22/	CY20/	CY21/	CY22/	CY20/	CY21/	CY22/	
Company	(USD m)	FY21	FY22	FY23	FY21	FY22	FY23	FY21	FY22	FY23	FY21	FY22	FY23	
HZL	15,502	12.7	11.5	11.1	6.5	6.2	5.9	3.6	3.8	4.0	29.3	32.3	35.4	
Korea Zinc	6,610	10.4	10.2	10.2	5.1	4.9	4.7	1.0	1.0	0.9	10.4	9.9	9.2	
Teck	14,570	3.3	5.1	6.0	2.0	2.2	2.2	0.7	0.6	0.6	23.0	12.4	8.0	

Source: MOFSL, Company, Bloomberg.

Exhibit 10: Valuation continues to remain elevated

	UoM	FY23E
EBITDA	INR b	171.2
EV/EBITDA multiple	x	5.0
Enterprise value	INR b	856
Add: Net cash	INR b	176
Equity value	INR b	1032
Shares outstanding	b	4.23
TP (INR/share)	INR/share	245

Source: MOFSL

Financials and valuations

Income Statement								INR b
Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Net Sales	173	221	211	186	226	294	326	336
Total Expenses	76	98	104	97	110	132	155	157
EBITDA	97	123	107	88	117	162	171	179
Depreciation	18	17	19	23	25	29	30	34
EBIT	80	106	88	66	91	133	142	145
Finance cost	2	3	1	1	4	3	2	3
Other income	24	18	18	19	18	12	14	15
PBT	102	121	105	84	106	142	153	157
Tax	19	32	25	16	26	45	48	47
Rate (%)	18.5	26.3	23.9	18.9	24.5	31.4	31.2	30.0
PAT	83	89	80	68	80	98	105	110
EO expense (Income)	0	-2	0	0	0	1	0	0
PAT (after EO)	83	92	80	68	80	96	105	110
Attrib. PAT (after MI and asso.)	83	89	80	68	80	98	105	110
Change (YoY %)	-0.7	7.2	-10.8	-14.5	17.3	22.3	7.8	4.6

Consolidated Balance Sheet								INR b
Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Share Capital	8	8	8	8	8	8	8	8
Reserves	300	351	328	395	315	334	313	296
Net Worth	308	359	336	403	323	343	321	305
Total Loans	79	0	25	6	65	28	21	14
Deferred Tax Liability	-27	-22	-19	-18	-11	9	28	45
Capital Employed	360	337	342	391	377	381	371	364
Gross Block	165	195	249	288	317	352	383	422
Less: Accum. Deprn.	65	82	101	124	149	178	208	242
Net Fixed Assets	100	113	148	165	168	174	175	180
Capital WIP	31	32	23	25	19	21	21	21
WC. Assets	360	262	235	262	259	252	243	232
Inventory	19	14	15	18	14	20	22	23
Account Receivables	1	2	2	4	4	7	5	6
Cash and Bank Balance	322	222	195	222	223	208	198	186
Loans and advances	17	25	23	17	18	17	17	17
WC. Liability and Prov.	131	70	63	61	69	66	68	69
Trade payables	12	9	12	15	15	20	22	23
Provisions and Others	119	61	51	46	54	46	46	46
Net WC. Assets	229	192	172	201	190	186	175	163
Appl. of Funds	360	337	342	391	377	381	371	364

 $Motilal\ Oswal$

Financials and valuations

Ratios								
Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Basic (INR)								
EPS	19.7	21.1	18.8	16.1	18.9	23.1	24.9	26.0
Cash EPS	23.9	25.1	23.3	21.5	24.9	30.0	31.9	34.0
BV/Share	72.9	85.0	79.5	95.4	76.5	81.1	76.0	72.1
DPS	29.4	8.0	20.0	0.0	37.8	18.0	30.0	30.0
Payout (%)	179.3	45.5	127.5	0.0	200.1	77.9	120.4	115.2
Valuation (x)								
P/E	14.4	13.4	15.0	17.6	15.0	12.2	11.4	10.9
Cash P/E	11.8	11.3	12.2	13.2	11.4	9.4	8.9	8.3
P/BV (inclgoodwill)	3.9	3.3	3.6	3.0	3.7	3.5	3.7	3.9
EV/Sales	0.0	4.4	4.9	5.3	4.6	3.5	3.1	3.0
EV/EBITDA	0.0	7.9	9.6	11.1	8.9	6.3	6.0	5.7
Dividend Yield (%)	10.4	2.8	7.1	0.0	13.4	6.4	10.6	10.6
Return Ratios (%)								
EBITDA Margin	56.3	55.6	50.5	47.7	51.6	55.1	52.5	53.3
Net Profit Margin	48.1	40.4	37.7	36.7	35.3	33.2	32.3	32.8
RoE	24.4	26.7	22.9	18.4	22.0	29.3	31.7	35.2
RoCE (pre-tax)	29.4	35.5	31.1	23.2	28.5	38.3	41.4	43.7
RoIC (pre-tax)	465.8	137.9	67.0	41.6	56.7	81.5	82.0	82.8
Working Capital Ratios								
Fixed Asset Turnover (x)	1.7	2.1	1.6	1.2	1.4	1.7	1.9	1.9
Receivable (Days)	3	3	3	8	7	9	6	6
Inventory (Days)	41	23	27	36	23	24	25	25
Trade payable (Days)	25	16	20	29	25	25	25	25
Trade payable (Days)	23	10		25		23	23	23
Leverage Ratio (x)								
Current Ratio	2.8	3.7	3.7	4.3	3.7	3.8	3.6	3.4
Interest Coverage	51.6	43.7	90.4	75.9	28.4	50.1	63.8	48.6
Net Debt/EBITDA	-2.5	-1.8	-1.6	-2.4	-1.4	-1.1	-1.0	-1.0
Net Debt/Equity	-0.8	-0.6	-0.5	-0.5	-0.5	-0.5	-0.5	-0.6
Cash Flow Statement								INR b
	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
EBITDA	97	123	107	88	117	162	171	179
Non-cash exp./(income)	0	0	0	0	0	1	0	0
(Inc.)/Dec. in Wkg. Cap.	-35	5	7	-11	6	-12	1	0
Tax paid	-19	-30	-26	-11	-18	-24	-29	-30
CF from Op. Activity	43	98	88	66	106	127	143	149
(Inc.)/Dec. in FA + CWIP	-10	-27	-34	-36	-24	-30	-31	-39
Free Cash Flow	34	71	54	30	81	97	112	110
Interest & Dividend Income	24	5	3	5	15	9	14	15
Others	0	0	1	5	1	1	0	0
CF from Inv. Activity	15	-22	-31	-26	-8	-20	-17	-23
Debt raised/(repaid)	79	-79	25	-19	65	-43	-7	-7
Dividend (incl. tax)	-168	-105	-120	0	-160	-76	-127	-127

Closing Balance
E: MOFSL estimates

CF from Fin. Activity

Add: Opening Balance

(Inc.)/Dec. in Cash

Interest paid

Others

21 July 2022 9

0

0

-89

-31

353

322

-2

11

-176

-100

322

222

-2

13

-84

-27

222

195

-2

9

-12

27

195

222

-2

0

1

-97

222

223

-3

0

-123

-15

223

208

-2

0

-136

-10

208

198

-3

0

-137

-11

198

186

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. 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 (DSL), 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 Motifal Oswal Financial Services Limited are available on the website at http://onlinereports.motifaloswal.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 pending transactions. Details of Enquiry Proceedings of Motilal Oswal Financial Services Limited are available igation.aspx

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to Subject Company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the"1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co.Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore As per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisors Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

Specific Disclosures

- 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.
- MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 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
- 6
- Research Analyst has not served as director/officer/employee in the subject company

 MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months

 MOFSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months

 MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- MOFSL has not received any compensation or other benefits from third party in connection with the research report
- 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

21 July 2022 11

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

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Disclaimer

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any

of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 71934200/ 022-71934263; Website www.motilaloswal.com. CIN no.: L67190MH2005PLC153397.Correspondence Office Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad(West), Mumbai-400 064. Tel No: 022 7188 1000.

Registration Nos.: Motilal Oswal Financial Services Limited (MOFSL)*: INZ000158836(BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412. AMFI: ARN - 146822; Investment Adviser: INA00007100; Insurance Corporate Agent: CA0579;PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) is offered through MOWML, which is a group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs,Insurance Products and IPOs.Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd. which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock Exchanges carefully before investing. There is no assurance or guarantee of the returns. Investment in securities market is subject to market risk, read all the related documents carefully before investing. Details of Compliance Officer: Name: Neeraj Agarwal, Email ID: na@motilaloswal.com, Contact No.:022-71881085.

* MOSL has been amalgamated with Motilal Oswal Financial Services Limited (MOFSL) w.e.f August 21, 2018 pursuant to order dated July 30, 2018 issued by Hon'ble National Company Law Tribunal, Mumbai Bench.