

Jindal Steel & Power

BSE SENSEX

56,747

S&P CNX

16,912


Stock Info

Bloomberg	JSP IN
Equity Shares (m)	1,020
M.Cap.(INRb)/(USDb)	363.9 / 4.8
52-Week Range (INR)	502 / 245
1, 6, 12 Rel. Per (%)	-10/-19/8
12M Avg Val (INR M)	4212
Free float (%)	39.5

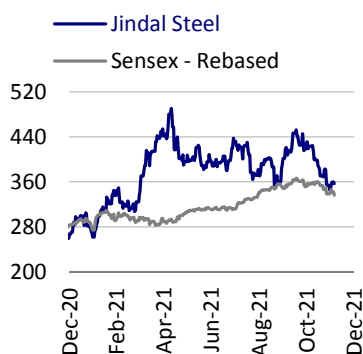
Financials Snapshot (INR b)

Y/E Mar	2021	2022E	2023E
Net Sales	388.6	478.8	455.5
EBITDA	147.6	152.4	103.2
PAT	62.7	80.7	49.6
EPS (INR)	61.4	79.0	48.5
Gr. (%)	-1,307.0	28.6	-38.6
BV/Sh (INR)	311.9	391.0	439.6
RoE (%)	19.6	22.5	11.7
RoCE (%)	16.7	19.4	12.0
P/E (x)	5.8	4.5	7.3
P/BV (x)	1.1	0.9	0.8

Shareholding pattern (%)

As On	Sep-21	Jun-21	Sep-20
Promoter	60.5	60.5	60.5
DII	15.7	15.2	13.7
FII	9.9	10.5	12.2
Others	13.9	13.8	13.6

FII Includes depository receipts

Stock Performance (1-year)

CMP: INR357
TP: INR478(+34%)
Buy
Management meeting update
Cautious near-term demand, but pent-up demand inevitable

- Near-term demand is tepid and demand decline is seen (especially last month) due to (a) the ban on construction in the NCR region due to severe pollution levels, (b) an extended monsoon, (c) weak sentiment in the international market – consumers are adopting the wait-and-watch policy, and (d) sufficient inventory lying with traders, who, in a falling market, would try and liquidate rather than accumulate.
- However, pent-up demand is inevitable, as seen since the ebbing of the first COVID wave.

Pricing remains under pressure in the near term; 4Q outlook positive

- The management highlighted that the pricing for longs products has corrected by INR4000/t. Rebar has corrected to INR58,000/t (from INR62,000/t in Nov). We believe the trade is operating at INR56,000/t.
- Flats are currently being exported at ~USD815/t CFR, while China is offering USD780/t. On the other hand, domestic prices stand at USD902/t. The management expects a price reduction for flats in the domestic market, in line with the reduction in longs.
- We expect a price recovery in 4Q as pent-up demand and unfinished projects are revived.
- However, the resurgence of COVID remains a key concern, with fears related to the Omicron variant leading to the postponement of consumption.

Expansion program on track

- The company has placed orders for equipment, indicating, with reasonable certainty, that projects would get commissioned on time, subject to COVID-related disruptions.
- A 6mt pellet plant would be the first one to be commissioned by Sep'22. This would augment operational cash flows as the rest of the plant moves to the construction phase.
- Steel volumes would grow beyond the current 1mt (increase in CTO) from FY24E/FY25E depending on the construction timelines.
- A large portion of the equipment being sourced this time around has been finalized on INR terms v/s prior expansions, where a large portion of the capex was spent on the USD denomination. The management believes this would reduce its dollar exposure for capex funding.

Plans to harness benefits of captive raw material

- The company recently won the Kasia mines at a premium of 118%. This is an operating mine with EC of 6mt, which would now feed into the Barbil pellet plant (9mt currently).

Research Analyst: Vishal Chandak (vishal.chandak@motilaloswal.com)

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, Bloomberg, Thomson Reuters, Factset and S&P Capital.

- Subsequently, it would set up a 2x 6mt pellet plant at Angul, which would be fed with iron ore brought to Angul through a slurry pipeline from the Kasia mines; this could be expanded to match the Angul pellet plant requirement.
- It also has a 5mt sinter at Angul and a ~2.8mt sinter at Raipur. These would continue to be used, thereby leaving a surplus of 6–7mt pellets for sale in the merchant market.
- The Wollongong coking coal mines in Australia would supply ~1mt going forward once the mine is fully operational.
- Mozambique would deliver another 1mt, while Anthracite coal from SA would be a natural hedge.
- This would bring the captive coking coal source to 2.5mt. Its peak requirement for coking coal for 7mt hot metal would be 5.5–6mt, of which 2.5–3mt would be captive from Australia, Mozambique, and South Africa. The balance premium hard coking coal would continue to be imported.

Net debt to continue to taper, with FY23 net debt zero target in place

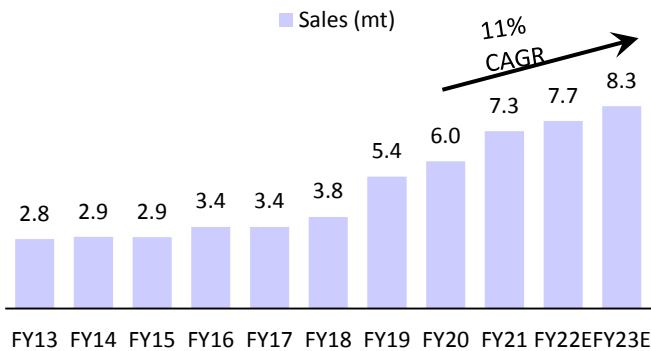
- The company is maintaining its target to turn net debt zero by end-FY23.
- However, JSPL may achieve this earlier as it is planning another stream of cash flows from the 6mt pellet plant being set up in Angul by Sep'22.
- Assuming a conservative margin of ~INR1000/t on pellet sales, the company could ideally secure additional cash flows of INR20b to achieve debt reduction – provided the pellet plant is commercially commissioned by Sep'22.
- The company reported consolidated net debt of INR112b at end-2QFY22.

Remain constructive on JSPL given its deleveraging and volume growth

- The company is undergoing a structural change in its EBITDA margin. We believe its sustainable EBITDA margin would likely improve by INR2,000–2,500/t over the previous cycle average; this is reflected from the following:
 - The higher share of pellets for which iron ore would be supplied through the slurry pipeline – savings of INR600/t of iron ore
 - Merchant sales of pellets of 6–7mt annually – margins of INR1,000–1,200/t of pellets
 - An improvement in the FG mix with the addition of HRC and a significant reduction in semis via the introduction of Thin Slab Caster, whereby its current run-rate of semis will come down from 35% to 5%
- Over the near term, the Steel market remains weak due to the factors discussed above. However, considering a) the long-term growth plan already under implementation (funded largely through internal accruals), b) the target to turn net debt zero by Mar'23 at the latest, and c) the mix towards flats improving the blended NSR substantially, we are positive on the stock and maintain a BUY rating.

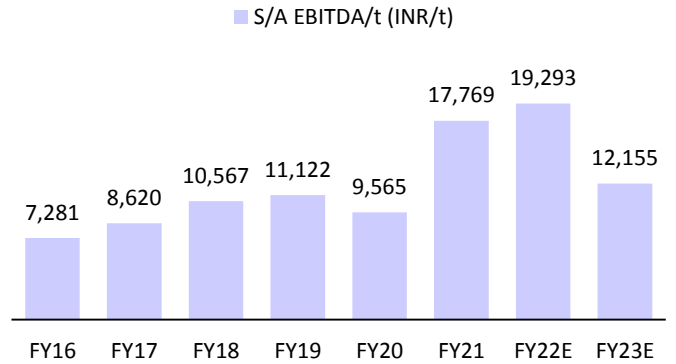
Key charts

Exhibit 1: Rising volumes driven by organic expansion



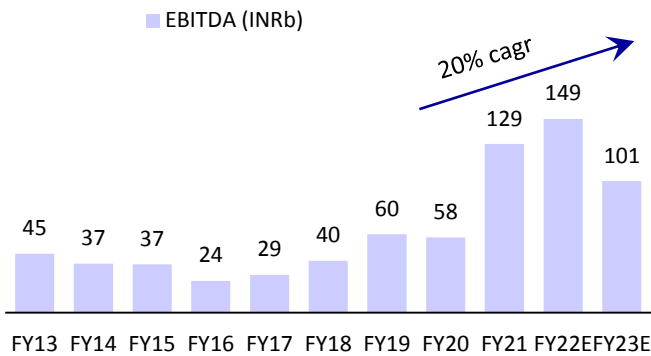
Source: MOFSL, Company

Exhibit 2: Normalized EBITDA margin assumed for FY23...



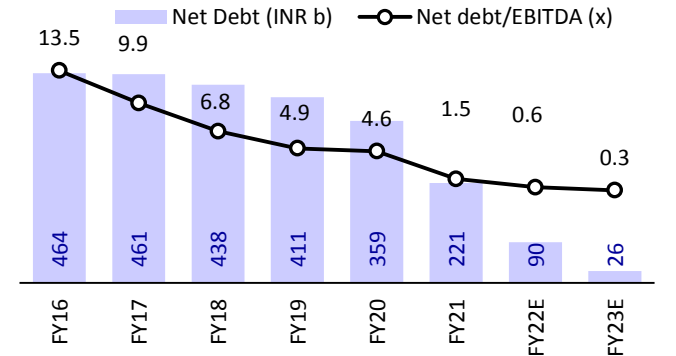
Source: MOFSL, Company

Exhibit 3: ...which would lead to normalized EBITDA at higher levels...



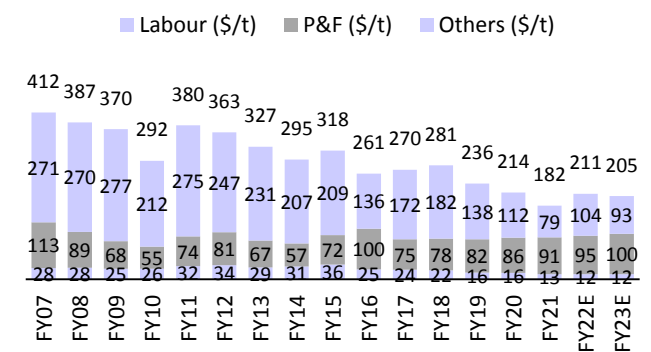
Source: MOFSL, Company

Exhibit 4: ...but result in significant deleveraging



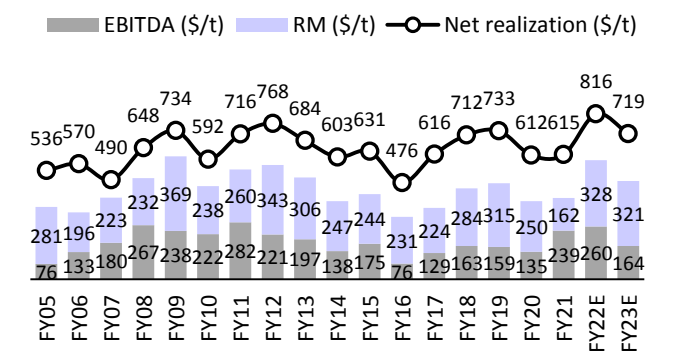
Source: MOFSL, Company

Exhibit 5: Economies of scale at Angul to drive down costs



Source: MOFSL, Company

Exhibit 6: Our EBITDA assumptions remain conservative



Source: MOFSL, Company

Exhibit 7: Share of flats to rise, while that of semis to drop

	Raigarh		Angul+ Patratu		Total	
	Current	Post Expansion	Current	Post Expansion	Current	Post Expansion
Inputs						
Pellet			9.0	21.0	9.0	21.0
CPP (MW)	824	824	810	810	1,634	1,634
Coke Oven	0.8	0.8	2.0	4.0	2.8	4.8
Iron Making						
Blast Furnace	2.1	2.1	4.2	8.5	6.3	10.6
DRI	1.3	1.3	1.8	4.5	3.1	5.8
Total Iron making	3.4	3.4	6.0	13.0	9.4	16.4
Steel Making						
SMS-BOF/EAF	3.6	3.6	5.0	12.3	8.6	15.9
Rolling Capacity						
Plate Mill	1.0	1.0	1.2	1.2	2.2	2.2
BSM	0.6	0.6			0.6	0.6
BRM			2.4	2.4	2.4	2.4
WRM			0.6	0.6	0.6	0.6
RUBM	0.8	0.8			0.8	0.8
This Slab caster				3.0	0.0	3.0
HSM				5.5	0.0	5.5
Total Finished Steel	2.4	2.4	4.2	12.7	6.6	15.1
Semis	1.3	1.3	0.8	0	2.1	0.9
Semis as % to steel	35%	35%	16%	0%	24%	5%
Share of Flats	28%	28%	24%	79%	26%	67%

Source: MOFSL, Company

Exhibit 8: Valuations remain inexpensive; growth is strong, while leverage is declining

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E	FY23E
Consolidated EBITDA								
EBITDA	34,410	46,613	64,691	84,056	78,539	1,47,592	1,52,436	1,03,237
Target EV/EBITDA(x)								5.0
Enterprise Value								5,16,183
Net Debt	4,63,928	4,61,427	4,38,319	4,10,943	3,58,725	2,21,460	90,053	26,202
Equity Value								4,89,981
Target price (INR/share)								478

Source: Company

Financials and Valuations

Key assumption

	2016	2017	2018	2019	2020	2021	2022E	2023E
Steel Sales (kt)	3,350	3,350	3,760	5,410	6,040	7,276	7,700	8,300
Pellet Sales (kt)	962	2,910	3,080	2,940	2,370	2,250	1,800	1,500
NSR (Rs/t)	37,948	41,338	46,027	51,231	43,424	45,604	60,522	53,341
EBITDA/t (steel biz)	7,281	8,620	10,567	11,122	9,565	17,769	19,293	12,155

Income Statement

(INR Million)

Y/E Mar	2016	2017	2018	2019	2020	2021	2022E	2023E
Net Sales	1,83,709	2,10,194	2,76,244	3,93,721	3,69,955	3,88,625	4,78,785	4,55,494
Change (%)	-8.9	14.4	31.4	42.5	-6.0	5.0	23.2	-4.9
EBITDA	34,410	46,613	64,691	84,056	78,539	1,47,592	1,52,436	1,03,237
EBITDA Margin (%)	18.7	22.2	23.4	21.3	21.2	38.0	31.8	22.7
Depreciation	28,194	39,490	38,830	41,938	41,604	34,533	23,855	23,598
EBIT	6,216	7,122	25,861	42,118	36,935	1,13,058	1,28,581	79,639
Interest	32,808	34,240	38,657	42,642	41,493	30,933	21,029	13,947
Other Income	2,200	411	29	157	262	4,137	0	0
Extraordinary items	-2,358	-3,723	-5,874	-27,650	1,838	-13,305	0	0
PBT	-26,750	-30,429	-18,641	-28,017	-2,458	72,957	1,07,551	65,692
Tax	-6,763	-5,027	-2,398	-3,902	1,539	17,687	27,131	16,408
Tax Rate (%)	25.3	16.5	12.9	13.9	-62.6	24.2	25.2	25.0
Min. Int. & Assoc. Share	-980	-2,524	-2,064	-7,644	-636	2,548	-279	-279
Reported PAT	-19,020	-22,851	-14,091	-16,471	-3,361	52,721	80,699	49,563
Adjusted PAT	-16,662	-19,128	-8,218	3,178	-5,198	62,738	80,699	49,563
Change (%)	-363.0	14.8	-57.0	-138.7	-263.5	-1,307.0	28.6	-38.6

Balance Sheet

(INR Million)

Y/E Mar	2016	2017	2018	2019	2020	2021	2022E	2023E
Share Capital	915	915	968	968	1,020	1,020	1,020	1,020
Reserves	1,80,556	2,99,590	3,02,878	3,23,309	3,20,351	3,17,127	3,97,826	4,47,389
Net Worth	1,81,471	3,00,505	3,03,846	3,24,276	3,21,371	3,18,147	3,98,846	4,48,409
Minority Interest	8,003	6,467	4,403	-3,011	-7,764	-8,777	-9,056	-9,334
Debt	4,70,132	4,66,571	4,43,104	4,15,227	3,68,244	2,93,232	2,03,232	1,53,232
Deferred Tax	13,477	53,586	50,284	53,643	56,225	62,393	70,386	75,165
Total Capital Employed	6,73,082	8,27,129	8,01,638	7,90,135	7,38,076	6,64,994	6,63,408	6,67,470
Gross Fixed Assets	6,27,116	7,83,127	8,46,580	9,00,003	9,50,772	8,32,786	8,37,786	8,67,786
Less: Acc Depreciation	1,78,233	1,29,476	1,68,002	2,09,940	2,51,544	2,86,077	3,09,932	3,33,530
Net Fixed Assets	4,48,883	6,53,651	6,78,578	6,90,063	6,99,228	5,46,708	5,27,853	5,34,255
Capital WIP	1,18,266	97,162	49,775	40,272	19,745	8,903	28,903	45,903
Goodwill on consolidation	5,485	5,670	5,922	6,164	6,098	5,001	5,001	5,001
Investments	3,577	3,677	1,458	1,452	1,430	1,443	1,443	1,443
Current Assets	1,59,182	1,45,820	1,56,572	1,57,902	1,70,917	2,16,350	2,05,767	1,84,832
Inventory	32,360	35,993	49,596	65,095	63,687	59,426	72,146	68,636
Debtors	14,292	17,166	18,261	30,292	35,493	27,944	26,235	24,959
Cash & Bank	6,204	5,144	4,786	4,284	9,519	71,772	50,179	34,030
Loans & Adv, Others	1,06,326	87,517	83,930	58,231	62,219	57,208	57,208	57,208
Curr Liabs & Provns	62,310	78,850	90,667	1,05,718	1,59,343	1,13,410	1,05,559	1,03,964
Net Current Assets	96,872	66,970	65,905	52,184	11,574	1,02,939	1,00,208	80,869
Total Assets	6,73,082	8,27,129	8,01,638	7,90,135	7,38,076	6,64,994	6,63,408	6,67,470

Financials and Valuations

Ratios

Y/E Mar	2016	2017	2018	2019	2020	2021	2022E	2023E
Basic (INR)								
EPS	-18.2	-20.9	-8.5	3.3	-5.1	61.4	79.0	48.5
Cash EPS	9.0	15.4	23.3	18.4	36.9	88.0	102.2	71.5
Book Value	198.4	328.4	313.9	335.0	315.1	311.9	391.0	439.6
DPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Payout (incl. Div. Tax.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Valuation(x)								
P/E	-19.6	-17.1	-42.1	108.8	-70.1	5.8	4.5	7.3
Price / Book Value	1.8	1.1	1.1	1.1	1.1	1.1	0.9	0.8
EV/Sales	4.3	3.7	2.8	1.9	2.0	1.5	0.9	0.9
EV/EBITDA	23.0	16.9	12.1	9.0	9.2	4.0	3.0	3.8
Dividend Yield (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Profitability Ratios (%)								
RoE	-8.5	-7.9	-2.6	1.0	-1.6	19.6	22.5	11.7
RoCE	1.2	1.0	3.2	5.3	4.9	16.7	19.4	12.0
RoIC (pre-tax)	1.1	1.1	3.6	5.7	5.1	17.7	22.3	13.7
Turnover Ratios (%)								
Asset Turnover (x)	0.3	0.3	0.3	0.5	0.5	0.4	0.4	0.4
Debtors (No. of Days)	28	30	24	28	35	26	20	20
Inventory (No. of Days)	64	63	66	60	63	56	55	55
Creditors (No. of Days)	84	39	38	30	55	38	25	25
Leverage Ratios (%)								
Net Debt/Equity (x)	2.6	1.5	1.4	1.3	1.1	0.7	0.2	0.1

Cash Flow Statement

(INR Million)

Y/E Mar	2016	2017	2018	2019	2020	2021	2022E	2023E
Adjusted EBITDA	34,410	46,613	64,691	84,056	78,539	1,47,592	1,52,436	1,03,237
Non cash opr. exp (inc)	-4,581	-1,020	2,853	1,262	1,569	-1,653	0	0
(Inc)/Dec in Wkg. Cap.	11,762	7,190	-9,267	-23,983	19,350	-12,434	-18,862	3,191
Tax Paid	-170	450	-553	296	35	515	-19,137	-11,630
Other operating activities	0	15,840	14,101	22,001	15,894	-14,328	0	0
CF from Op. Activity	41,422	69,072	71,825	83,632	1,15,386	1,19,692	1,14,437	94,798
(Inc)/Dec in FA & CWIP	-39,500	-24,975	-25,767	-14,333	-16,646	-8,581	-25,000	-47,000
Free cash flows	1,922	44,097	46,057	69,299	98,740	1,11,111	89,437	47,798
(Pur)/Sale of Invt	15,904	5,164	12,299	2,436	339	213	0	0
Others	3,706	1,331	-1,376	3,044	308	-2,951	0	0
CF from Inv. Activity	-19,889	-18,481	-14,845	-8,853	-15,999	-11,319	-25,000	-47,000
Inc/(Dec) in Net Worth	0	0	13,883	0	5,129	0	0	0
Inc / (Dec) in Debt	9,230	-10,256	-24,391	-30,260	-60,797	-23,367	-90,000	-50,000
Interest Paid	-35,941	-41,396	-46,845	-45,699	-40,054	-22,735	-21,029	-13,947
Divd Paid (incl Tax) & Others	-8	0	15	-18	-18	-18	0	0
CF from Fin. Activity	-26,719	-51,651	-57,338	-75,977	-95,740	-46,120	-1,11,029	-63,947
Inc/(Dec) in Cash	-5,187	-1,060	-358	-1,199	3,647	62,254	-21,593	-16,149
Add: Opening Balance	11,391	6,204	5,144	4,786	4,284	9,519	71,772	50,179
Closing Balance	6,204	5,144	4,786	3,587	7,931	71,772	50,179	34,030

Disclosures:

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Investment Advisory Services, Depository participant services & distribution of various financial products. MOFSL is a subsidiary company of Passionate Investment Management Pvt. Ltd.. (PIMPL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at <http://onlinereports.motilaloswal.com/Dormant/documents/Associate%20Details.pdf>

Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

MOFSL, its associates, Research Analyst or their relative may have any financial interest in the subject company. MOFSL and/or its associates and/or Research Analyst may have actual/beneficial ownership of 1% or more securities in the subject company in the past 12 months. 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. Research Analyst may have served as director/officer, etc. in the subject company in the past 12 months. MOFSL and/or its associates may have received any compensation from the subject company in the past 12 months.

In the past 12 months, MOFSL or any of its associates may have:

- managed or co-managed public offering of securities from subject company of this research report,
- received compensation for investment banking or merchant banking or brokerage services from subject company of this research report,
- received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.
- Subject Company may have been a client of MOFSL or its associates in the past 12 months.

MOFSL and its associates have not received any compensation or other benefits from the subject company or third party in connection with the research report. To enhance transparency, MOFSL has incorporated a Disclosure of Interest Statement in this document. This should, however, not be treated as endorsement of the views expressed in the 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. 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. 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.

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.

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.

Disclosure of Interest Statement	Jindal Steel & Power
Analyst ownership of the stock	No

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 Financial Services Limited (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.

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

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 71934200/ 022-71934263;

Website www.motilaloswal.com.

CIN No.: L67190MH2005PLC153397. Correspondence Office Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad(West), Mumbai- 400 064. Tel No: 022 7188 1000.

Registration Nos.: Motilal Oswal Financial Services Limited (MOFSL)*: INZ000158836(BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412. AMFI: ARN - 146822; Investment Adviser: INA000007100; Insurance Corporate Agent: CA0579 ;PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) is offered through MOWML, which is a group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance Products and IPOs. Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock Exchanges carefully before investing. There is no assurance or guarantee of the returns. Investment in securities market is subject to market risk, read all the related documents carefully before investing. Details of Compliance Officer: Name: Neeraj Agarwal, Email ID: na@motilaloswal.com, Contact No.:022-71881085.

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