

Jindal Steel & Power

BSE SENSEX
65,508

S&P CNX
19,524

CMP: INR682

TP: INR790 (+16%)

Buy



Stock Info

Bloomberg	JSP IN
Equity Shares (m)	1005
M.Cap.(INRb)/(USDb)	695.5 / 8.4
52-Week Range (INR)	723 / 391
1, 6, 12 Rel. Per (%)	3/12/53
12M Avg Val (INR M)	1676
Free float (%)	38.8

Financials Snapshot (INR b)

Y/E MARCH	2023	2024E	2025E
Sales	527	527	636
EBITDA	99	113	153
Adj. PAT	37	56	78
Cons. Adj. EPS (INR)	36	55	77
EPS Gr. (%)	-57.7	52.4	39.2
BV/Sh. (INR)	385	435	502

Ratios

Net D:E	0.2	0.1	0.1
RoE (%)	9.9	13.5	16.5
RoCE (%)	12.6	14.2	18.4
Payout (%)	5.5	9.0	11.6

Valuations

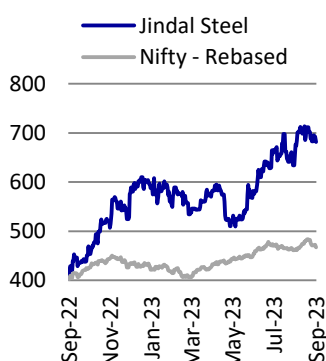
P/E (x)	18.8	12.3	8.9
P/BV (x)	1.8	1.6	1.4
EV/EBITDA(x)	7.6	6.5	4.8
Div. Yield (%)	0.3	0.7	1.3
FCF Yield (%)	1.2	6.3	3.9

Shareholding pattern (%)

As On	Jun-23	Mar-23	Jun-22
Promoter	61.2	61.2	60.4
DII	14.8	13.9	15.8
FII	14.2	14.9	11.7
Others	9.9	10.0	12.1

FII Includes depository receipts

Stock Performance (1-year)



Focusing on capacity expansion and cost reduction to drive earnings

Capex to enhance crude steel capacity by ~65% to 15.9mt by FY25

- JSP plans to incur a significant capex to enhance its crude steel capacity to 15.9mt from current 9.6mt and strengthen raw material integration and product enrichment. The planned capex could result in volume growth and a reduction in structural costs.
- With the planned capex, JSP will increase its flat steel capacity to 7.7mt from 2.2mt to cater to automotive and high-tensile steel, thereby enhancing its product mix.
- In 1QFY24, the company signed a mining lease for Gare Palma IV/6 and Utkal C, with total R&R of ~363mt and EC of ~7.4mt p.a. JSP has already entered the Gare Palma IV/6 mines and is in the final stage of entering Utkal-C mines. After the two mines become operational, they will fulfill ~50% of JSP's thermal coal requirement, thereby reducing its dependence on the import of coal and merchant mines.
- JSP over last few years has shifted its focus to high-margin VAP (~65% of sales). This has helped the company strengthen its product offering across the value chain and improve realizations.
- The company has followed a prudent deleveraging policy to strengthen its balance sheet. With net debt of ~INR68b in 1QFY24 and a net debt-to-EBITDA ratio at a comfortable level of 0.75x, JSP has one of the strongest balance sheets among the domestic manufacturers. The stock trades at 4.8x FY25E EV/EBITDA. We reiterate BUY on the stock with a TP of INR790 (5.5x FY25E EV/EBITDA).
- **Key downside risk:** Delay in the commissioning of the Angul plant and coal mines may delay growth and margin improvement.

Driving value through capacity expansion

- JSP is undertaking an INR240b capex program to expand its crude steel capacity by ~65% to 15.9mt, pellet capacity by 133% to 21mt and finished steel capacity by ~80% to 12.2mt by FY25E.
- The capex is aimed at 1) margin expansion (INR81b), which would enhance pellet capacity at Angul by 12mt, along with the installation of a ~200kms 18mt slurry pipeline from Barbil and 5.5mt HSM; and 2) capacity expansion (INR159b), which would enhance the existing crude steel capacity at Angul to 12.3mt from 6mt.
- After the expansion, the share of flats will significantly increase to 7.7mt from 2.2mt, catering to automotive and high tensile steel, thereby enriching the product mix.
- Historically, flats command a premium over long steel products, and JSP's structural shift from being a long steel manufacturer to a VAP flat steel manufacturer bodes well for the company's long-term strategy.
- The 6mt pellet plant-I has been commissioned recently, and the 5.5mt HSM is expected to be commissioned by 3QFY24.
- The total capex for FY24E is expected to be around INR56b and JSP expects to spend ~INR140-150b over the next two to three years. Once the Phase I expansion at Angul is completed by FY25E, JSP aims to augment its capacity further to 25.2mt, thereby making it one of the largest single-location steel facilities in the world.

Alok Deora – Research analyst (Alok.Deora@motilaloswal.com)

Parthiv Deepak Jhonsa – Research analyst (Parthiv.Jhonsa@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.

Strong RM linkages to ensure seamless production

- JSP has multiple assets, which ensure adequate and timely RM security.
- The company has iron ore mines at Kasia (7.5mt) and Tensa (3.11mt), which fulfill around 60% of its iron ore requirements.
- JSP in FY23 acquired three thermal coal blocks - Utkal C, Utkal B1 & B2 and Gare Palma IV/6 with a cumulative R&R of over 710mt.
- During 1QFY24, JSP had signed a mining lease for Gare Palma IV/6 and Utkal C having EC of ~7.4mt. JSP has already entered Gare Palma IV/6 mines and is in the final stage of entering Utkal-C mines.
- After the two mines become operational, they would fulfill ~50% of JSP's thermal coal requirement, thereby reducing its dependence on the import of coal and merchant mines (all three mines will fulfill 100% of requirement).
- JSP also has coking coal, thermal/coking coal and anthracite coal assets in Australia, Mozambique and South Africa, with EC of 1.2mt, 5mt and 1.2mt, respectively.
- The mine and capacity expansions will make JSP one of the lowest-cost steel producers in the world and thereby maximize its margins.

Strong focus on VAP

- JSP has a strong presence in VAP steel products and has developed products across plates, rails, track shoes, round bars, fabricated sections, rebars, etc.
- The company produces the widest plate of 5m in India and is the pioneer in developing 50mm TMT rebars and finding unique applications across sectors.
- It has also emerged as the first Indian manufacturer of track shoes and cathode collection bars, which were predominantly import products. JSP has also developed 'Rockhard' plates with advanced abrasion and wear resistance known for high strength, longer life, higher hardness, and bendable properties. The lifespan of these plates is 2-3 times longer than that of other structural steel, finding applications across yellow goods, material handling equipment and hydro projects.
- JSP's focus on high-margin VAP has helped the company strengthen its product offering across the value chain, thereby enhancing better realizations. As the additional capacity comes on stream, JSP would be able to develop more VAPs, and thus driving up margins.

Valuations and view

- In the past few weeks, long steel prices have improved, up ~11% from a recent low of INR50,500/t in Aug'23 to INR57,900/t, thereby reducing the spread between flat and long steel.
- With improvement in construction activity, a strong push on infrastructure projects before the election next year, higher demand for automobiles, RE and consumer goods, we expect demand to pick up as vendors rush to stock up inventory before the festive season.
- Demand is relatively stronger in 2H, and price improvements should help JSP garner better margins. The stock trades at 4.8x FY25E EV/EBITDA. We reiterate BUY on the stock with a TP of INR790 (5.5x FY25E EV/EBITDA).

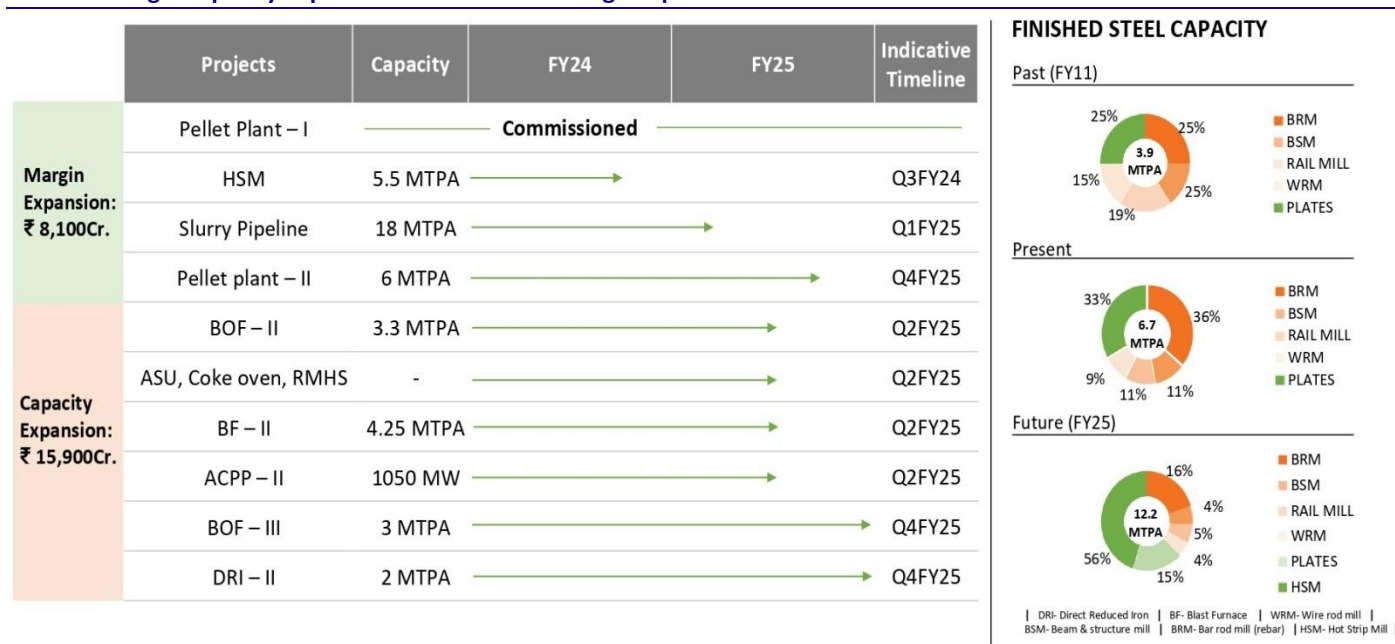
Exhibit 1: JSP domestic and international assets

Facility	Current capacity (mt)	Expanded capacity (mt)	Latest update
Steel plant, Angul, Odisha	6	12.3	❖ Expected to be commissioned by FY25E
Steel plant, Raigarh, Chhattisgarh	3.6		
Steel plant, Patratu, Jharkhand	1.6		
Pellet plant, Barbil, Odisha	9		
Pellet plant, Angul	-	12	❖ 6mt Pellet Plant-I already commissioned
Iron ore mine, Kasia	7.5		❖ R&R 278mt; acquired at premium of 118.1%
Iron ore mine, Tensa	3.11		
Thermal coal, Utkal B1 & B2	8		❖ R&R 347.08mt; acquired at revenue sharing of 15.25%
Thermal coal, Utkal C	3.37		❖ R&R 196.35mt; acquired at premium of 45%
Thermal coal, Gare Palma IV/6	4		❖ R&R 166.98mt; acquired at revenue sharing of 85.2%
Coking coal, Australia	1.2		
Thermal/coking coal, Mozambique	5		
Anthracite coal, South Africa	1.2		

Source: MOFSL, Company

- JSP has a total iron making capacity of 10.42mt (3.12mt DRI + 7.3mt BF), which will be expanded to 16.67mt (5.12mt DRI + 11.55mt BF).
- The company is adding 5.5mt HSM, which can produce 800-1680mm width HRC. Post expansion the product mix will witness a change with increased share of flat steel to 7.7mt from current 2.2mt.
- JSP has also acquired 1050mw thermal power plant at Angul under IBC, which is still under construction. This facility, once completed, will provide power to Angul (based on expanded capacity) and is expected to use 20-25% less coal, thereby driving cost synergies.

Exhibit 2: Angul capacity expansion timeline and change in product mix

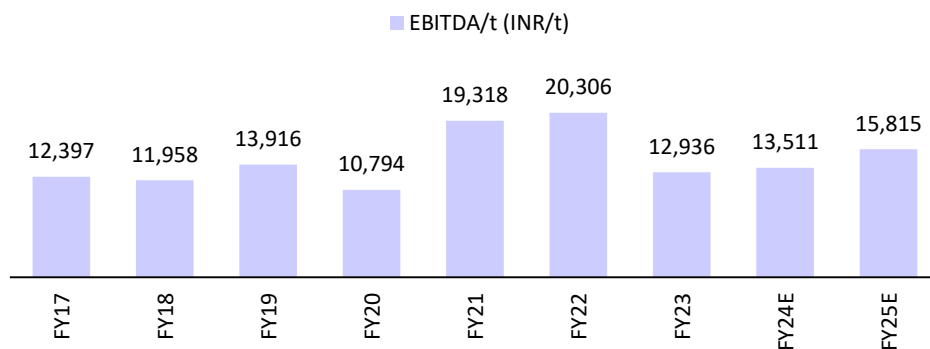


Source: Company 1QFY24 presentation

- The INR240b capex is aimed at margin expansion and capacity expansion, which will increase its pellet capacity by ~133% to 21mt, crude steel capacity by ~65% to 15.9mt and finished steel capacity by ~80% to 12.2mt by FY25E.

- JSP is also expected to spend around INR15-16b on Monnet Power, which is in close vicinity to the Angul facility, which will further drive cost synergies for JSP.
- JSP, which has been predominantly a long steel manufacturer, will increase the share of flat steel to ~65-70% (most of the expansion in plates).

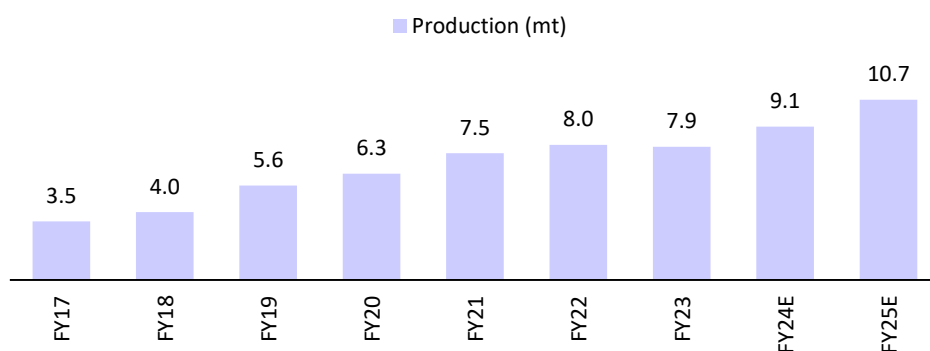
Exhibit 3: We expect consolidated EBITDA/t to pick up in FY24E



Source: MOFSL, Company

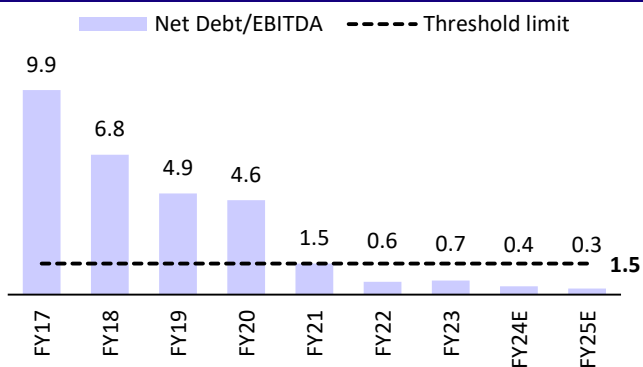
- Going forward, we expect EBITDA/t to pick up in FY24, driven by higher volumes and cost synergies

Exhibit 4: Consistent growth in annual steel production (mt); JSP on track to achieve ~11mt production by FY25E



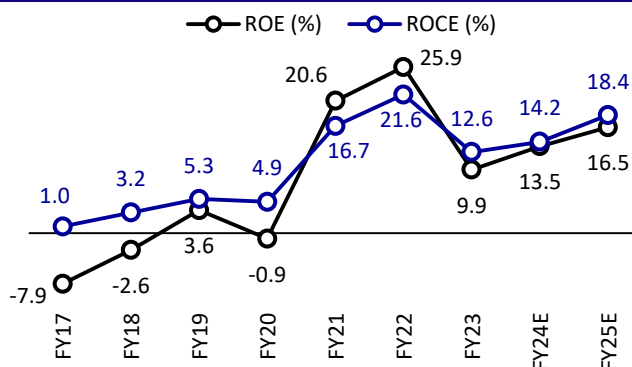
Source: MOFSL, Company

Exhibit 5: ND/EBITDA within the threshold limit of 1.5x; expected to be below the limit



Source: MOFSL, Company

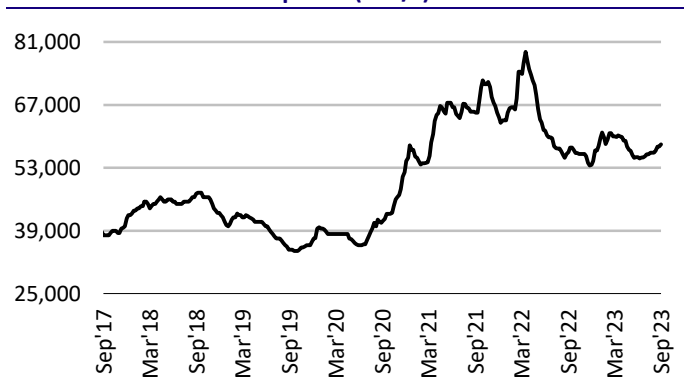
Exhibit 6: ROE (%) and ROCE (%)



Source: MOFSL, Company

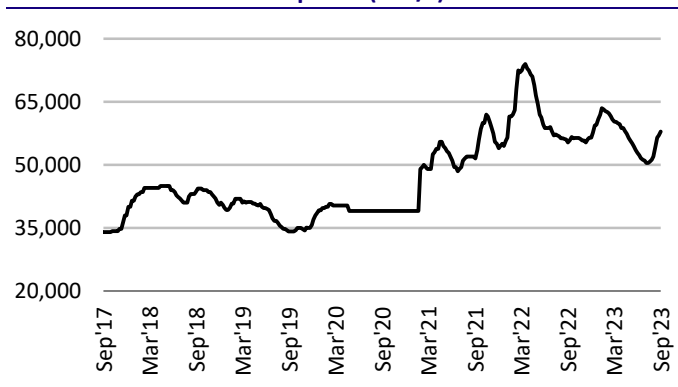
- JSP has deleveraged almost 75% since FY17 and net debt as on 1QFY24 stood at ~INR68b (~15-year low).
- JSP has followed a prudent deleveraging policy, which has helped the company strengthen its balance sheet.
- JSP has one of the strongest balance sheets among the domestic ferrous manufacturers, with the ND/EBITDA ratio at a comfortable level of 0.75x and ND/E at below 0.3x as on 1QFY24.

Exhibit 7: Domestic HRC prices (INR/t)



Source: MOFSL, SteelMint

Exhibit 8: Domestic rebar prices (INR/t)



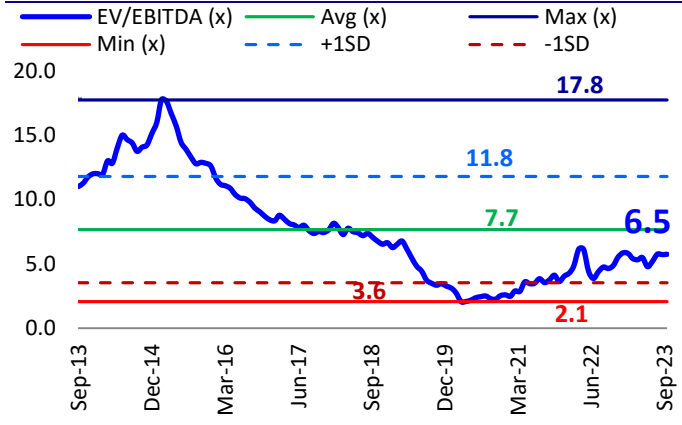
Source: MOFSL, SteelMint

Exhibit 9: Global steel valuation comparable

Company	M-Cap USD mn	P/E (x)		EV/EBITDA (x)		P/B (x)		RoE (%)	
		CY22/FY23	CY23/FY24	CY22/FY23	CY23/FY24	CY22/FY23	CY23/FY24	CY22/FY23	CY23/FY24
India									
Tata*	18,629	17.9	13.9	6.9	7.6	1.6	1.5	8.3	11.1
JSW*	22,579	52.3	16.4	13.2	8.1	2.8	2.5	5.3	16.2
JSP*	8,361	18.8	12.3	7.6	6.5	1.8	1.6	9.9	13.5
SAIL*	4,558	19.0	9.6	8.5	5.8	0.7	0.7	3.7	7.0
Japan									
JFE	9,642	8.7	6.9	7.1	6.2	0.6	0.6	7.4	8.6
Nippon Steel	23,168	5.2	8.6	5.5	6.3	0.8	0.8	17.3	9.3
Kobe Steel	5,374	12.7	7.1	8.6	5.6	0.9	0.8	7.5	11.7
Korea									
POSCO	33,378	14.0	11.6	6.7	5.9	0.8	0.7	5.8	6.7
Hyundai Steel	3,746	5.3	5.1	4.7	4.1	0.3	0.2	4.9	5.1
US									
Nucor	38,729	8.6	13.3	5.5	7.7	1.8	1.7	21.9	12.9
US Steel	7,157	7.9	16.1	4.3	6.1	0.7	0.7	9.4	4.9
Steel Dynamics	17,631	7.1	12.2	5.0	7.7	1.9	1.8	28.3	15.0
Europe									
AM	21,110	4.8	5.3	3.5	3.5	0.4	0.4	8.5	7.1
SSAB	5,482	4.9	7.7	2.2	3.2	0.9	0.8	17.9	10.9
TKA	4,380	25.8	8.8	0.5	0.5	0.3	0.3	1.1	3.8
VOE	4,833	4.6	7.5	2.7	3.6	0.6	0.6	13.7	7.6
China									
Baosteel	18,562	12.2	9.9	5.0	4.2	0.7	0.6	5.4	6.5

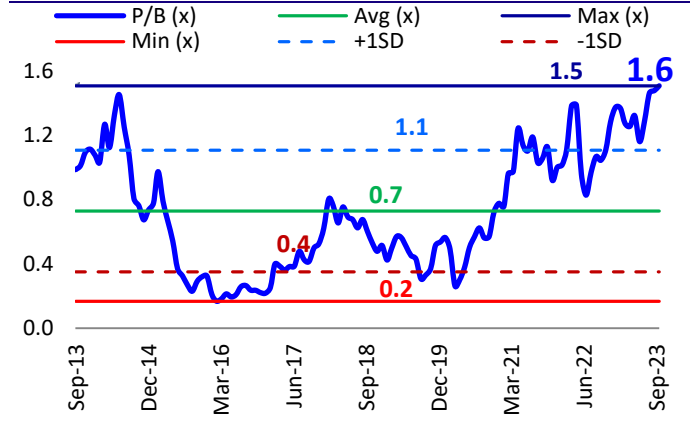
Source: MOFSL, Bloomberg

Exhibit 10: EV/EBITDA below LTA



Source: MOFSL, Company data

Exhibit 11: P/B at max (x)



Source: MOFSL, Company data

Financials and Valuations

Consolidated Income Statement

(INR b)

Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Net sales	210	276	394	370	389	511	527	527	636
Change (%)	14	31	43	-6	5	31	3	0	21
Total Expenses	164	212	310	291	241	356	428	414	483
EBITDA	47	65	84	79	148	155	99	113	153
As a percentage of Net Sales	22	23	21	21	38	30	19	21	24
Deprn. and Amortization	39	39	42	42	35	21	27	29	33
EBIT	7	26	42	37	113	134	72	84	119
Net Interest	34	39	43	41	31	19	14	15	16
Other income	0	0	0	0	4	1	1	1	1
PBT before EO	-27	-13	0	-4	86	116	59	70	104
EO income	-4	-6	-28	2	-13	-19	-6	0	0
PBT after EO	-30	-19	-28	-2	73	97	53	70	104
Tax	-5	-2	-4	2	18	29	13	14	26
Rate (%)	17	13	14	-63	24	30	25	25	25
Reported PAT	-25	-16	-24	-4	55	68	40	56	78
Minority interests	-3	-2	-8	0	3	0	0	0	0
Preference dividend	0	0	0	0	0	0	0	0	0
Share of Associates	0	0	0	0	0	0	0	0	0
Adjusted PAT	-19	-8	11	-3	66	87	37	56	78
Change (%)	NA	NA	LP	PL	LP	32	-58	52	39

Consolidated Balance Sheet

(INR b)

Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Share Capital	1	1	1	1	1	1	1	1	1
Reserves	300	303	323	320	317	355	386	436	503
Net Worth	301	304	324	321	318	356	387	437	504
Minority Interest	6	4	-3	-8	-9	15	3	3	3
Total Loans	467	443	415	368	293	139	124	119	119
Deferred Tax Liability	54	50	54	56	62	73	59	59	59
Capital Employed	827	802	790	738	665	582	574	619	686
Gross Block	783	847	900	951	833	765	742	802	862
Less: Accum. Deprn.	129	168	210	252	286	307	334	363	397
Net Fixed Assets	654	679	690	699	547	458	408	439	465
Capital WIP	97	50	40	20	9	17	71	67	102
Goodwill and Revaluation	6	6	6	6	5	4	1	1	1
Investments	4	1	1	1	1	1	1	1	1
Curr. Assets	146	157	158	171	216	285	213	231	247
Inventory	36	50	65	64	59	73	59	59	71
Account Receivables	17	18	30	35	28	13	10	10	12
Cash and Bank Balance	5	5	4	10	72	45	57	75	76
Loans and advances and others	88	84	58	62	57	155	87	87	87
Curr. Liability and Prov.	79	91	106	159	113	184	120	120	130
Account Payables	22	28	32	56	41	53	47	47	57
Provisions and Others	57	62	74	104	73	132	73	73	73
Net Current Assets	67	66	52	12	103	101	93	111	116
Appl. of Funds	827	802	790	738	665	582	574	619	686

Financials and Valuations

Consolidated ratios

Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Basic (INR)									
EPS	-20.9	-8.5	11.5	-2.9	64.7	86.0	36.4	55.5	77.3
Cash EPS	15.4	23.3	18.4	36.9	88.0	87.7	66.3	84.5	110.6
BV/Share	328.4	313.9	335.0	315.1	311.9	352.5	385.1	434.8	501.6
DPS	0.0	0.0	0.0	0.0	0.0	3.0	2.0	5.0	9.0
Payout (%)	0.0	0.0	0.0	0.0	0.0	3.5	5.5	9.0	11.6
Valuation (x)									
P/E	-32.8	-80.8	59.4	-238.7	10.6	8.0	18.8	12.3	8.9
Cash P/E	44.5	29.4	37.2	18.6	7.8	7.8	10.3	8.1	6.2
P/BV	2.1	2.2	2.0	2.2	2.2	1.9	1.8	1.6	1.4
EV/Sales	5.2	4.0	2.7	2.9	2.4	1.5	1.4	1.4	1.2
EV/EBITDA	23.3	17.0	12.8	13.5	6.2	5.1	7.6	6.5	4.8
Dividend Yield (%)	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.7	1.3
Return Ratios (%)									
EBITDA Margin (%)	22.2	23.4	21.3	21.2	38.0	30.4	18.8	21.4	24.0
Net Profit Margin (%)	-9.1	-3.0	2.8	-0.8	17.0	17.0	6.9	10.6	12.2
RoE	-7.9	-2.6	3.6	-0.9	20.6	25.9	9.9	13.5	16.5
RoCE (pre-tax)	1.0	3.2	5.3	4.9	16.7	21.6	12.6	14.2	18.4
RoIC (pre-tax)	1.1	3.6	5.7	5.1	17.7	24.6	15.1	18.3	24.3
Working Capital Ratios									
Fixed Asset Turnover (x)	0.3	0.4	0.5	0.5	0.7	1.1	1.1	1.0	1.1
Asset Turnover (x)	0.3	0.3	0.5	0.5	0.6	0.9	0.9	0.4	0.4
Inventory (Days)	63	66	60	63	56	52	41	41	41
Debtor (Days)	30	24	28	35	26	9	7	7	7
Payable (Days)	39	38	30	55	38	38	33	33	33
Work. Cap. Turnover (Days)	29	22	12	1	8	11	7	7	7
Growth (%)									
Sales	14.4	31.4	42.5	-6.0	5.0	31.5	3.2	0.0	20.6
EBITDA	35.5	38.8	29.9	-6.6	87.9	5.1	-36.0	13.7	35.3
PAT	NA	NA	LP	PL	LP	31.8	-57.9	52.4	39.2
Leverage Ratio (x)									
Current Ratio	1.8	1.7	1.5	1.1	1.9	1.5	1.8	1.9	1.9
Interest Coverage Ratio	0.2	0.7	1.0	0.9	3.7	7.1	5.0	5.5	7.4
Debt/Equity ratio	1.5	1.4	1.3	1.1	0.7	0.3	0.2	0.1	0.1

Consolidated Cash Flow Statement

(INR b)

Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
EBITDA	47	65	84	79	148	155	99	113	153
Non-cash exp./(income)	-1	3	1	2	-2	25	-5	0	0
(Inc.)/Dec. in Wkg. Cap.	7	-9	-24	19	-12	-8	11	0	-4
Tax Paid	0	-1	0	0	1	-20	-27	-14	-26
others	16	14	22	16	-14	9	-6	0	0
CF from Op. Activity	69	72	84	115	120	160	73	99	122
(Inc.)/Dec. in FA + CWIP	-25	-26	-14	-17	-9	-29	-64	-56	-95
(Pur.)/Sale of Investments	5	12	2	0	0	1	0	0	0
Loans and advances	-1	-2	3	0	-11	4	23	0	0
Int. and Dividend Income	1	2	1	1	1	2	1	1	1
Other investing activities	2	-1	-1	0	8	-13	5	0	0
CF from Inv. Activity	-18	-15	-9	-16	-11	-36	-35	-55	-94
Equity raised/(repaid)	0	14	0	5	0	-5	-2	0	0
Debt raised/(repaid)	-10	-24	-30	-61	-23	-119	-6	-5	0
Dividend (incl. tax)	0	0	0	0	0	-1	-2	-6	-11
Interest paid	-41	-47	-46	-40	-23	-26	-15	-15	-16
CF from Fin. Activity	-52	-57	-75	-94	-46	-151	-25	-26	-27
(Inc.)/Dec. in Cash	-1	0	-1	5	62	-27	13	18	1
Add: Opening Balance	6	5	5	4	10	72	45	57	75
Closing Balance	5	5	4	10	72	45	57	75	76

Investment in securities market are subject to market risks. Read all the related documents carefully before investing

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 be 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, Depository participant services & distribution of various financial products. 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/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, 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 at the end of the month immediately preceding the date of publication of the Research Report or date of the public appearance.
- received compensation/other benefits from the subject company in the past 12 months
- 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.
- 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.
- Served subject company as its clients during twelve months preceding the date of distribution of the research report.

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, nor 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.

This report is meant for the clients of Motilal Oswal only.

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors.

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

www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 71881000.

Details of Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No.:022-40548085.

Grievance Redressal Cell:

Contact Person	Contact No.	Email ID
Ms. Hemangi Date	022 40548000 / 022 67490600	query@motilaloswal.com
Ms. Kumud Upadhyay	022 40548082	servicehead@motilaloswal.com
Mr. Ajay Menon	022 40548083	am@motilaloswal.com

Registration details of group entities.: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412 . AMFI: ARN : 146822. IRDA Corporate Agent – CA0579. Motilal Oswal Financial Services Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Insurance, Bond, NCDs and IPO products.

Customer having any query/feedback/ clarification may write to query@motilaloswal.com. In case of grievances for any of the services rendered by Motilal Oswal Financial Services Limited (MOFSL) write to grievances@motilaloswal.com, for DP to dpgrievances@motilaloswal.com.