Buy



Galaxy Surfactants

Estimate changes	←
TP change	←
Rating change	\leftarrow

CMP: INR2,518

Bloomberg	GALSURF IN
Equity Shares (m)	35
M.Cap.(INRb)/(USDb)	89.3 / 1.1
52-Week Range (INR)	3445 / 2218
1, 6, 12 Rel. Per (%)	-1/-10/-25
12M Avg Val (INR M)	75

Financials & Valuations (INR b)

Y/E March	FY23	FY24E	FY25E
Sales	44.5	43.6	47.1
EBITDA	5.7	5.0	5.9
PAT	3.8	3.2	4.0
EPS (INR)	107	91	111
EPS Gr. (%)	45.0	-15.7	23.1
BV/Sh.(INR)	531	603	692
Ratios			
Net D:E	0.0	-0.1	-0.1
RoE (%)	22.0	16.0	17.2
RoCE (%)	19.2	15.1	16.9
Payout (%)	20.5	20.5	20.5
Valuations			
P/E (x)	23.5	27.9	22.6
P/BV (x)	4.8	4.2	3.6
EV/EBITDA (x)	15.8	17.6	14.5
Div. Yield (%)	0.9	0.7	0.9
FCF Yield (%)	4.8	3.3	3.1

Shareholding pattern (%)

As On	Mar-23	Dec-22	Mar-22
Promoter	70.9	70.9	70.9
DII	12.7	12.7	13.8
FII	2.9	2.8	1.9
Others	13.5	13.6	13.4

FII Includes depository receipts

Subdued demand in developed markets results in earnings miss

TP: INR3,345 (+33%)

- Galaxy Surfactants (GALSURF) reported an EBITDA/kg of INR23.2 (our estimate at INR24.8; down 8% YoY). This was led by a contraction in the Specialty volumes due to slowdown in developed markets. Total volumes were flat YoY at 57.9tmt (v/s 57.5tmt in 4QFY22), mainly because of a decline in volumes in the AMET and RoW regions (at ~-3% and ~-16% YoY, respectively).
- Management highlighted that India volumes remained resilient (+14.6% YoY) with improved demand for premium categories that aided growth. Performance Surfactants also made a strong comeback during the quarter (+12% YoY volume growth). Rural demand recovery and an entry of a new player in the FMCG industry should drive the domestic market demand.
- The US demand in 4QFY23 has been hit due to de-stocking by the customers and management expects demand to improve from 2QFY24. In 4QFY23, AMET region grew 7% YoY (ex-Egypt) in volumes with Egypt volumes starting to normalize currently. Management's volume growth guidance remains at 6-8%; domestic volume growth is pegged at 8-10% with EBITDA growing faster than the volumes.
- Fatty alcohol price declined 51% YoY to USD1,403/mt (up 1% QoQ) in 4QFY23. Realization dropped to INR168.4/kg (-9% QoQ) with gross margin at INR54.6/kg (-7% QoQ). We estimate EBITDA/kg to be at INR20 and INR22 for FY24 and FY25, respectively. That being said, we have not revised our estimates materially for FY24 and FY25 as of now, keeping in mind that there is still some time for the company to effect a complete volume recovery.
- The stock is currently trading at 23x FY25E EPS and 14.5x FY25E EV/EBITDA. We value the company at 30x FY25E EPS of INR111.5, to arrive at our TP of INR3,345. We reiterate our BUY rating with a potential upside of 33%.

Miss on EBITDA; EBITDAM contracts 50bp QoQ

- GALSURF's revenue was 13% below our and 11% below consensus estimates at INR9.7b (-7% YoY, -10% QoQ). Segmental revenue stood at INR7.4b for Performance Surfactants and INR2.5b for Specialty Care Products in 4QFY23.
- EBITDA came in at INR1.3b (est. of INR1.5b, -7% YoY, -13% QoQ) with **consensus** miss of 11%. EBITDA/kg was at INR23.2 for the quarter.
- Fatty alcohol price stood at USD1,403/mt (-51% YoY). Gross margin was at 32.4% (+80bp QoQ) with **EBITDAM at 13.8% (-50bp QoQ)** in 4QFY23.
- PAT was at IN905m (est. of INR1b, -8% YoY, -15% QoQ) with consensus miss of 11%.
- **Total volumes** were at 57.9tmt (in line with our expectation) with Performance volumes at 39.6tmt and Specialty volumes at 18.2tmt.
- Contraction in Specialty volumes was due to the slowdown in developed markets. Performance volumes grew 12% YoY in 4QFY23.
- India volumes rose 14.6% YoY while AMET and RoW volumes declined 2.5% and 15.9%, respectively.
- For FY23, revenue stood at INR44.5b (up 21% YoY), EBITDA was at INR5.7b (up 42% YoY) and PAT was up 45% YoY to INR3.8b.
- EBTIDAM improved to 12.8% YoY (up 190bp) with EBITDA/kg at INR24.6 (v/s INR17.1 in FY22).

Swarnendu Bhushan – Research Analyst (Swarnendu.Bhushan@MotilalOswal.com)

Research Analyst: Aman Chowdhary (Aman.Chowdhary@MotilalOswal.com) | Rohit Thorat (Rohit.Thorat@MotilalOswal.com)

Investors are advised to refer through important disclosures made at the last page of the Research Report.

 $Motilal\ Oswal$

- Total volumes were at 230.8tmt (down 1% YoY), with Performance volumes at 153.1tmt (+3% YoY) and Specialty volumes at 77.7tmt (-9% YoY).
- The Board declared a final dividend of INR4/share for FY23.

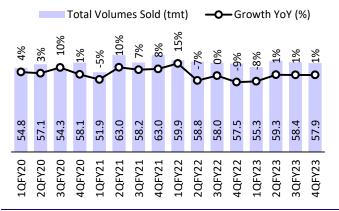
Valuation and view

- The continued focus on R&D (with an annual expenditure of INR400- 500m) and increased wallet share from its existing customers is likely to drive volume growth. Although the company plans expansion of products across the board, its focus would mainly be on the specialty care products segment.
- The stock is currently trading at 23x FY25E EPS and 14.5x FY25E EV/EBITDA. We value the company at 30x FY25E EPS of INR111.5, to arrive at our TP of INR3,345. We reiterate our BUY rating with a potential upside of 33%.

Consolidated - Quarterly Snapshot												(INR m)
Y/E March		FY2	22			FY	23		FY22	FY23	FY23	Var.
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q			4QE	(%)
Gross Sales	8,264	8,773	9,291	10,529	11,589	12,316	10,803	9,745	36,857	44,452	11,143	-13%
YoY Change (%)	36.1	22.1	37.7	34.4	40.2	40.4	16.3	-7.5	32.4	20.6	5.8	
Gross Margin (%)	31.7%	26.5%	27.4%	33.0%	30.8%	26.9%	31.6%	32.4%	29.8%	30.3%	30.8%	1.5%
EBITDA	1,085	709	764	1,450	1,480	1,317	1,541	1,345	4,007	5,683	1,481	-9%
Margin (%)	13.1	8.1	8.2	13.8	12.8	10.7	14.3	13.8	10.9	12.8	13.3	0.5
Depreciation	168	181	177	184	189	205	216	225	711	835	219	
Interest	29	37	28	34	44	56	56	61	129	217	45	
Other Income	45	50	18	12	-20	11	37	70	125	99	64	
PBT	933	541	576	1,244	1,227	1,067	1,307	1,129	3,293	4,729	1,280	-12%
Tax	164	122	120	260	223	228	245	224	665	920	244	
Rate (%)	17.6	22.5	20.8	20.9	18.2	21.4	18.7	19.8	20.2	19.4	19.0	
Reported PAT	768	419	456	984	1,004	839	1,062	905	2,628	3,810	1,037	-13%
YoY Change (%)	36.0	-48.7	-46.5	25.1	30.7	100.0	132.8	-8.0	-13.0	45.0	5.4	
Margin (%)	9.3	4.8	4.9	9.3	8.7	6.8	9.8	9.3	7.1	8.6	9.3	-0.0
Segmental Volumes (tmt)	59.9	58.8	58.0	57.5	55.3	59.3	58.4	57.9	234.2	174.4	59.8	-3%
Performance Surfactants	38.8	38.0	37.0	35.4	35.4	38.9	39.2	39.6	119.8	117.1	40.2	-1%
Specialty Care Products	21.1	20.8	21.0	22.1	19.8	20.4	19.2	18.2	64.5	64.0	19.7	-7%
Operating Performance (INR/kg)												
Implied realization (INR/kg)	138.0	149.2	160.1	183.1	209.7	207.8	185.1	168.4	157.4	192.6	186.3	-10%
Gross margin (INR/kg)	43.8	39.6	44.0	60.4	64.6	55.9	58.5	54.6	46.8	58.3	57.5	-5%
EBITDA (INR/kg)	18.1	12.0	13.2	25.2	26.8	22.2	26.4	23.2	17.1	24.6	24.8	-6%

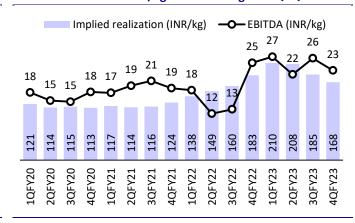
Quarter in charts: 4QFY23

Exhibit 1: Volumes down 1% QoQ led by decline in Specialty Care Products...



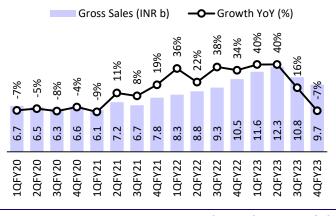
Source: Company, MOFSL

Exhibit 2: ...with EBITDA/kg also declining 12% QoQ



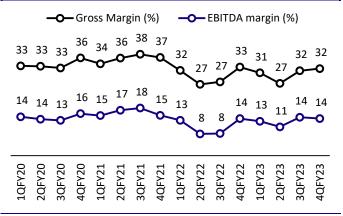
Source: Company, MOFSL

Exhibit 3: Gross sales declined 10% QoQ as realizations dropped



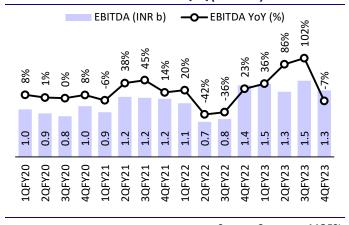
Source: Company, MOFSL

Exhibit 4: Margins remained flat QoQ in 4QFY23



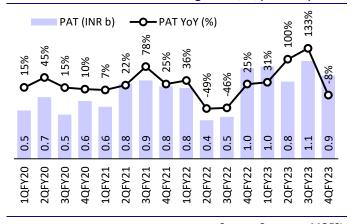
Source: Company, MOFSL

Exhibit 5: EBITDA declined 13% QoQ (-7% YoY)...



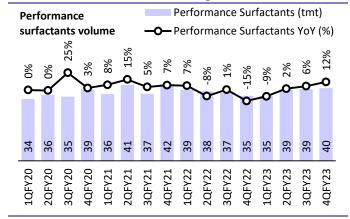
Source: Company, MOFSL

Exhibit 6: ...with PAT also declining 15% QoQ (-8% YoY)



Source: Company, MOFSL

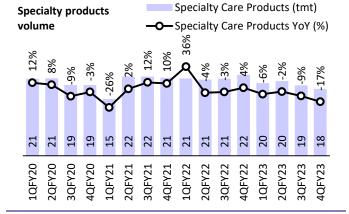
Exhibit 7: Performance surfactants grew 1% QoQ...



Source: Company, MOFSL

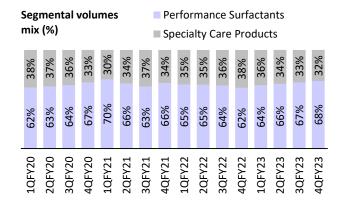
Source. Company, Mors

Exhibit 9: Specialty care products' volume down 5% QoQ



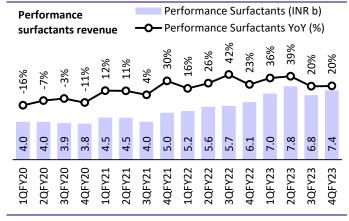
Source: Company, MOFSL

Exhibit 11: Volume mix was similar to that of 3QFY23...



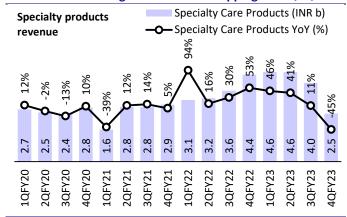
Source: Company, MOFSL

Exhibit 8: ... while segmental revenue rose 8% QoQ



Source: Company, MOFSL

Exhibit 10: ...with segmental revenue dipping 39% QoQ



Source: Company, MOFSL

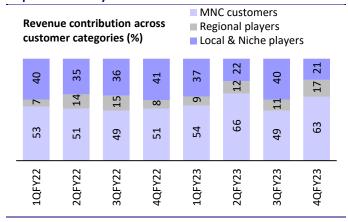
Exhibit 12: ...while portion of Performance surfactants increased in revenue mix

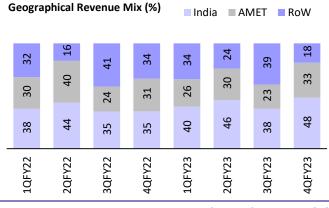
_	Segmental Revenue mix (%)										Surfa Pro				
40%	38%	38%	42%	27%	39%	41%	37%	38%	37%	39%	42%	39%	37%	37%	25%
%09	%29	%29	28%	73%	61%	29%	93%	%29	%89	61%	28%	61%	%89	%89	75%
1QFY20	2QFY20	3QFY20	4QFY20	1QFY21	2QFY21	3QFY21	4QFY21	1QFY22	2QFY22	3QFY22	4QFY22	1QFY23	2QFY23	3QFY23	4QFY23

Source: Company, MOFSL

Exhibit 13: MNC customers' contribution to overall revenue improved notably...

Exhibit 14: ...with geographical revenue mix improving for India and AMET

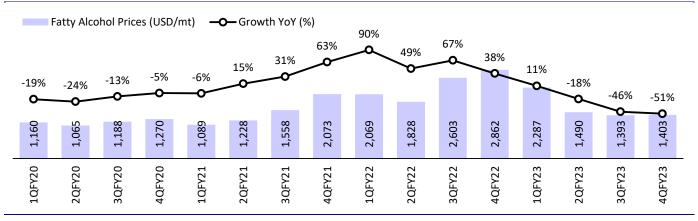




Source: Company, MOFSL

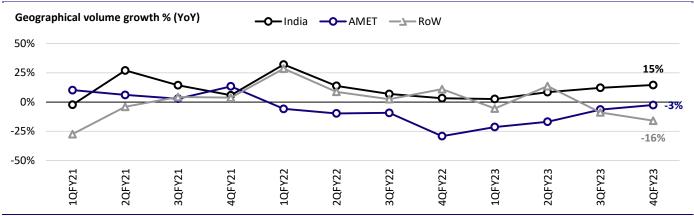
Source: Company, MOFSL

Exhibit 15: Fatty Alcohol price declined 51% YoY (+1% QoQ)



Source: Company, MOFSL

Exhibit 16: India recorded 15% YoY volume growth; AMET declined 3% YoY and RoW dipped 16% YoY



Source: Company, MOFSL

Key highlights from the management commentary

- Fatty alcohol forms 50-55% of entire raw materials
- Price of fatty alcohol halved YoY during 4QFY23 but was flat QoQ
- Revival of rural demand and entry of new player should drive domestic market demand
- AMET region (excluding Egypt) posted 7% YoY volume growth in 4QFY23
- Egypt volumes have started stabilizing now
- Volumes were flat over the past three years and earnings were driven by improving product mix
- Management's volume growth guidance is at 6-8%.
- Domestic volume growth should be around 8-10%
- EBITDA growth should be faster than volume growth
- Management would not be giving EBITDA/mt guidance going forward as the company will be focusing on volume growth
- The company targets to maintain ROCE of 22%
- The US demand has been hit due to inventory management by customers
- Demand expected to improve from 2QFY24 onwards
- Maintenance capex at INR300-400m.
- Palm oil sourcing should not be an issue unless adverse weather hits production
- Average capacity utilization was at 65% in FY23
- Performance surfactants segment includes all products, which have fatty alcohol as feedstock

Story in charts

Exhibit 17: Specialty products to have consistent share

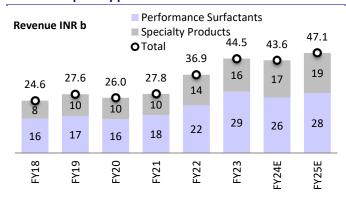


Exhibit 18: EBITDA/MT set to moderate going ahead

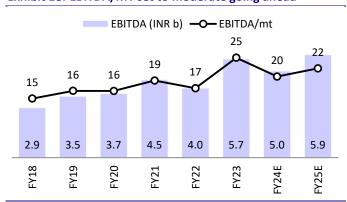


Exhibit 19: Expect capacity utilization to ramp up...

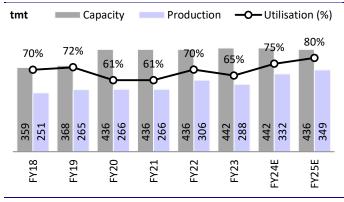


Exhibit 20: ...with higher volume growth in FY24-25

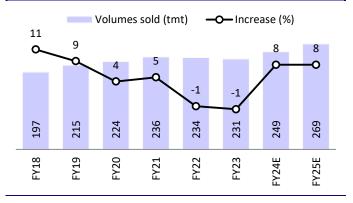


Exhibit 21: One-year forward P/E trades at 27.5x...



Exhibit 22: ...expect PAT margin to normalize

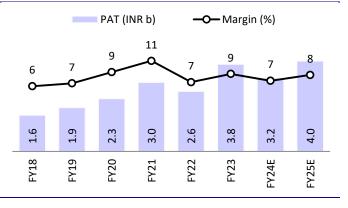


Exhibit 23: GALSURF is likely to generate an FCF of INR5.7b...

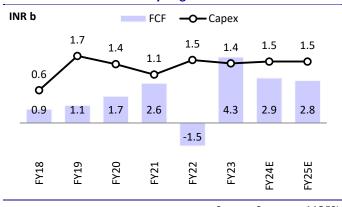
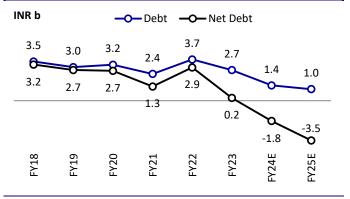


Exhibit 24: ...and become a net cash company by FY24E



Source: Company, MOFSL

Source: Company, MOFSL

24 May 2023

 $Motilal\ Oswal$

Financials and valuations

Consolidated - Income Statement								(INR m)
Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Total Income from Operations	24,625	27,630	25,964	27,841	36,857	44,452	43,618	47,108
Change (%)	9.5	12.2	-6.0	7.2	32.4	20.6	-1.9	8.0
Gross Margin (%)	28.9	29.5	33.9	36.3	29.8	30.3	28.3	28.3
EBITDA	2,877	3,534	3,689	4,488	4,007	5,683	4,985	5,922
Margin (%)	11.7	12.8	14.2	16.1	10.9	12.8	11.4	12.6
Depreciation	485	512	622	740	711	835	843	851
EBIT	2,392	3,022	3,067	3,749	3,297	4,848	4,142	5,071
Int. and Finance Charges	306	300	238	134	129	217	219	220
Other Income	101	47	59	109	125	99	100	102
PBT bef. EO Exp.	2,188	2,769	2,888	3,723	3,293	4,730	4,023	4,953
PBT after EO Exp.	2,188	2,769	2,888	3,723	3,293	4,730	4,023	4,953
Total Tax	607	859	584	702	665	920	813	1,001
Tax Rate (%)	27.8	31.0	20.2	18.8	20.2	19.4	20.2	20.2
Reported PAT	1,580	1,910	2,304	3,021	2,628	3,810	3,211	3,952
Adjusted PAT	1,580	1,910	2,304	3,021	2,628	3,810	3,211	3,952
Change (%)	7.1	20.9	20.6	31.1	-13.0	45.0	-15.7	23.1
Margin (%)	6.4	6.9	8.9	10.9	7.1	8.6	7.4	8.4

Consolidated - Balance Sheet								(INR m)
Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Equity Share Capital	355	355	355	355	355	355	355	355
Total Reserves	6,833	8,413	10,323	12,660	15,389	18,471	21,024	24,168
Net Worth	7,188	8,767	10,678	13,014	15,744	18,826	21,379	24,522
Total Loans	3,480	2,978	3,196	2,374	3,660	2,718	1,359	1,019
Deferred Tax Liabilities	277	320	241	233	249	283	283	283
Capital Employed	10,944	12,065	14,115	15,621	19,652	21,827	23,021	25,825
Gross Block	8,548	9,722	11,525	11,945	12,828	15,302	16,802	18,302
Less: Accum. Deprn.	4,148	4,609	5,231	5,971	6,681	7,516	8,359	9,210
Net Fixed Assets	4,399	5,112	6,294	5,974	6,146	7,786	8,443	9,092
Goodwill on Consolidation	24	25	28	27	28	30	30	30
Capital WIP	249	826	660	1,240	2,055	1,392	1,392	1,392
Total Investments	1	0	58	435	5	0	0	0
Curr. Assets, Loans&Adv.	9,881	9,717	11,081	12,821	17,772	18,137	18,636	21,170
Inventory	3,456	3,513	3,250	4,278	7,118	6,458	6,436	6,861
Account Receivables	4,182	4,268	4,394	4,689	6,380	6,148	6,033	6,515
Cash and Bank Balance	276	257	542	1,114	711	2,476	3,169	4,560
Cash	271	250	477	815	638	2,319	3,012	4,403
Bank balance	5	7	65	299	74	157	157	157
Loans and Advances	1,966	1,680	2,894	2,740	3,563	3,055	2,999	3,234
Curr. Liability & Prov.	3,610	3,615	4,005	4,874	6,353	5,518	5,480	5,858
Account Payables	3,278	3,059	2,731	3,770	5,189	4,302	4,287	4,570
Other Current Liabilities	230	416	1,098	918	1,011	1,082	1,061	1,146
Provisions	102	140	176	186	153	134	132	142
Net Current Assets	6,271	6,102	7,075	7,947	11,419	12,620	13,156	15,311
Appl. of Funds	10,944	12,065	14,115	15,621	19,652	21,827	23,021	25,825

 $Motilal\ Oswal$

Financials and valuations

Closing Balance

Ratios Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Basic (INR)	1110	1113	1120	1121	1122	1123	11246	11231
EPS EPS	44.6	53.9	65.0	85.2	74.1	107.5	90.6	111.5
EPS Growth (%)	7.1	20.9	20.6	31.1	-13.0	45.0	-15.7	23.1
Cash EPS	58.3	68.3	82.5	106.1	94.2	131.0	114.3	135.5
BV/Share	202.8	247.3	301.2	367.1	444.1	531.0	603.1	691.7
DPS	3.0	12.0	17.0	18.0	18.0	22.0	18.5	22.8
Payout (%)	8.1	26.9	31.5	21.1	24.3	20.5	20.5	20.5
Valuation (x)	0.1	20.5	31.3	21.1	24.3	20.3	20.5	20.5
P/E	56.6	46.8	38.8	29.6	34.0	23.5	27.9	22.6
Cash P/E	43.3	36.9	30.6	23.8	26.8	19.3	22.1	18.6
P/BV	12.4	10.2	8.4	6.9	5.7	4.8	4.2	3.6
EV/Sales	3.8	3.3	3.5	3.3	2.5	2.0	2.0	1.8
EV/EBITDA	32.2	26.1	25.0	20.2	23.1	15.8	17.6	14.5
Dividend Yield (%)	0.1	0.5	0.7	0.7	0.7	0.9	0.7	0.9
FCF per share			49.2					
Return Ratios (%)	25.1	32.4	49.2	72.7	-42.3	121.0	82.6	77.9
RoE	24.4	23.9	23.7	25.5	18.3	22.0	16.0	17.2
RoCE	17.3	18.4	19.1	21.1	15.5	19.2	15.1	16.9
RolC Washing Conital Paties	17.3	19.5	20.5	23.7	17.7	22.4	18.2	21.1
Working Capital Ratios Fixed Asset Turnover (x)	5.6	го	4.6	4.5	6.1	6.4	5.4	Γ 4
. , ,		5.8						5.4
Asset Turnover (x)	2.3	2.3	1.8	1.8	1.9	2.0	1.9	1.8
Inventory (Days)	51	46	46	56	70	53	54	53
Debtor (Days)	62	56	62	61	63	50	50	50
Creditor (Days)	49	40	38	49	51	35	36	35
Leverage Ratio (x)	2.7	2.7	2.0	2.0	2.0	2.2	2.4	2.0
Current Ratio	2.7	2.7	2.8	2.6	2.8	3.3	3.4	3.6
Interest Cover Ratio	7.8	10.1	12.9	27.9	25.7	22.3	18.9	23.1
Net Debt/Equity	0.4	0.3	0.2	0.1	0.2	0.0	-0.1	-0.1
Consolidated - Cash Flow Statement								(INR m)
Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
OP/(Loss) before Tax	2,188	2,769	2,888	3,723	3,293	4,730	4,023	4,953
Depreciation	485	512	622	740	711	835	843	851
Others	249	288	220	79	90	214	219	220
Direct Taxes Paid	-583	-750	-686	-706	-594	-953	-813	-1,001
(Inc)/Dec in WC	-886	11	113	-186	-3,450	903	156	-764
CF from Operations	1,454	2,830	3,157	3,651	49	5,729	4,429	4,260
Capex	-562	-1,680	-1,414	-1,073	-1,547	-1,439	-1,500	-1,500
Free Cash Flow	891	1,150	1,744	2,578	-1,498	4,291	2,929	2,760
CF from Investments	-546	-1,673	-1,511	-1,647	-841	-1,486	-1,500	-1,500
Inc/(Dec) in Debt	-485	-623	562	-951	941	-1,039	-1,359	-340
Interest Paid	-285	-272	-226	-152	-131	-241	-219	-220
Dividend Paid	-127	-298	-940	-495	-142	-1,275	-657	-809
CF from Fin. Activity	-897	-1,192	-1,434	-1,650	592	-2,643	-2,235	-1,369
Inc/Dec of Cash	11	-36	212	354	-201	1,601	693	1,391
Opening Balance	257	271	250	477	815	637	2,318	3,011
21 1 2 1					625	007	_,510	5,011

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

251

477

815

637

2,318

3,011

4,403

270

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 be within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

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 galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx

A graph of daily closing prices of securities is available at www.nseindia.com, <a href="www.nseindia.co 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.

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 brokerdealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this

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
- 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

11 24 May 2023

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, 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.

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.