Galaxy Surfactants

Estimate changes	1
TP change	
Rating change	\longleftrightarrow

Motilal Oswal

GALSURF IN
35
99.8 / 1.2
3445 / 2561
-10/-10/-11
90

Financials & Valuations (INR b)					
Y/E March	FY22	FY23E	FY24E		
Sales	36.9	47.7	47.2		
EBITDA	4.0	5.2	4.7		
PAT	2.6	3.4	3.0		
EPS (INR)	74	95	85		
EPS Gr. (%)	(13)	28	(10)		
BV/Sh.(INR)	444	516	580		
Ratios					
Net D:E	0.2	0.2	0.1		
RoE (%)	18.3	19.7	15.5		
RoCE (%)	15.5	16.5	13.6		
Payout (%)	24.3	24.3	24.3		
Valuations					
P/E (x)	38.0	29.8	33.3		
P/BV (x)	6.3	5.5	4.9		
EV/EBITDA (x)	25.7	19.8	21.6		
Div. Yield (%)	0.6	0.8	0.7		

Shareholding pattern (%)

FCF Yield (%)

As On	Sep-22	Jun-22	Sep-21
Promoter	70.9	70.9	70.9
DII	12.7	13.6	13.3
FII	2.8	2.0	2.4
Others	13.5	13.4	13.4
-			

(1.5)

2.6

0.1

FII Includes depository receipts

CMP: INR2,815

TP: INR3,390 (+20%)

Buy

EBITDA/kg guidance raised for FY23; demand scenario remains uncertain

- GALSURF reported an EBITDA/kg of INR22.2 (est. INR20.8, up 84% YoY). Supply chain disruptions have reduced, with a significant decline in freight rates and raw material prices. Total volumes were flat QoQ at 59.3tmt (v/s 55.3tmt in 1QFY23). The muted volumes were on account of inflationary pressures in the AMET region, while the slowdown in Europe impacted Specialty Care volumes in 2QFY23.
- The management said demand in India remains robust. GALSURF is close to surpassing domestic sales volumes of 100tmta. The structural uptick that was seen during the COVID-led lockdown period has sustained, with the company expecting to grow its domestic business further.
- A decline in volumes and a reversal in multiple supply-led factors has resulted in a higher EBITDA/kg in the past few quarters. In line with the same, the management has raised its FY23 EBITDA guidance to INR21-22/kg from INR16-18/kg. However, with volumes recovering from FY24, there will be a decline in per kg margin.
- Fatty alcohol prices declined by 35% QoQ and 18% YoY to USD1,490/mt in 2QFY23. Even though volumes remained muted in 1HFY23, realization stayed firm at INR209/kg (up 45% YoY). We expect this trend to continue in 2HFY23. Subsequently, we have raised our FY23/FY24 revenue estimate by 26%/24%.
- A continued focus on R&D (with an annual expenditure of INR400-500m) and increased wallet share from existing customers is likely to drive volume growth and expand EBITDA margin. Volume grew by ~6% CAGR over the last five years. We build in a similar growth over FY22-24 as well. We maintain our Buy rating with a TP of INR3,390.

EBITDA beat, margin declines sequentially

- Revenue grew 40% YoY and 6% QoQ to INR12.3b.
- EBITDA grew 86% YoY, but fell 11% QoQ, to INR1.3b (est. INR1.2b).
- Gross margin fell 390bp QoQ to 26.9%, with EBITDAM down 210bp to 10.7% in 2QFY23.
- PAT grew 100% YoY, but fell 16% QoQ, to IN839m (est. INR774m)
- In 1HFY23, revenue/EBITDA/PAT grew 40%/56%/55% YoY to INR24b/INR2.8b /INR1.8b.
- EBITDAM expanded to 11.7% v/s 10.5% in 1HFY22.

Valuation and view

- The management's 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 and expand EBITDA margin. Although GALSURF plans an across the board expansion in its products, its focus will mainly be on the Specialty Care Products segment.
- The stock is currently trading at 33x FY24E EPS and 22x FY24E EV/EBITDA. We value the stock at 40x FY24 EPS, or INR85, to arrive at our TP of INR3,390 (a potential upside of 20%). We maintain our Buy rating.

Swarnendu Bhushan- Research Analyst (Swarnendu.Bhushan@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.

Consolidated quarterly snapshot (INR m) Y/E March FY22 **FY23** FY22 FY23E FY23E 1Q 2Q 3Q 4Q 1Q 2Q 3QE 4QE 2QE 9,291 **Gross Sales** 8,773 10,529 11,589 12,316 10,738 13,083 36,857 8,264 47,726 9,012 Change (YoY %) 36.1 22.1 37.7 34.4 40.2 40.4 15.6 24.2 32.4 29.5 2.7 Gross Margin (%) 31.7% 26.5% 27.4% 33.0% 30.8% 26.9% 26.7% 25.8% 29.8% 27.5% 30.0% **EBITDA** 1,480 1,085 709 764 1,450 1,317 1,165 1,287 4,007 5,250 1,221 Margin (%) 8.1 8.2 13.8 12.8 10.7 10.9 9.8 10.9 13.1 11.0 13.5 181 177 205 193 177 711 Depreciation 168 184 189 765 201 37 56 Interest 29 28 34 44 39 24 129 163 32 Other Income 45 50 18 12 -20 11 40 131 125 162 47 974 933 541 1,227 1,216 3,293 PBT 576 1,244 1,067 4,484 1,035 120 247 431 Тах 164 122 260 223 228 665 1,129 261 Rate (%) 17.6 22.5 20.8 20.9 18.2 21.4 25.3 35.4 20.2 25.2 25.2 768 419 1,004 839 727 786 **Reported PAT** 456 984 2,628 3,355 774 -48.7 -46.5 100.0 59.5 -20.2 Change (YoY %) 36.0 25.1 30.7 -13.0 27.7 84.5 4.8 4.9 6.8 6.8 Margin (%) 9.3 9.3 8.7 6.0 7.1 7.0 8.6 Segmental Volumes (tmt) 59.9 58.8 58.0 57.5 55.3 59.3 55.4 68.7 234 174 59 Performance Surfactants 38.8 38.0 37.0 35.4 35.4 38.9 38.4 40.8 120 117 40 20.8 **Specialty Care Products** 22.1 19.8 20.4 17.0 27.9 21.1 21.0 65 64 18 **Operating Performance (INR/kg)** Implied realization (INR/kg) 138.0 149.2 160.1 183.1 209.7 207.8 193.8 190.5 157.4 200.0 1537 Gross margin (INR/kg) 43.8 39.6 44.0 60.4 64.6 55.9 51.7 49.1 46.8 55.0 46.1 EBITDA (INR/kg) 18.1 12.0 13.2 25.2 26.8 22.2 21.0 18.7 17.1 22.0 20.8



Highlights from the management commentary

- Fatty alcohol prices and freight rates have corrected by over 50% in 2QFY23.
- A contraction in demand was seen and judicious pricing calls were taken by the management.
- India remains a bright spot for the company.
- > GALSURF is close to surpassing its domestic sales volumes of 100ktpa.
- A structural uptick, seen during the COVID-led lockdown period, has sustained. With input costs falling, the management expects to build on the same further from here on.
- Currency depreciation, down trading, and a cut back in demand affected AMET volumes.
- In the last eight months, the EGP has depreciated 35% against the USD.
- A repeat of its FY19 performance may be seen in FY23. Egypt can take three-to-four quarters to recover from this downturn in volumes.
- ➤ The long-term structural growth story in Egypt remains intact.
- The RoW has been a mixed bag for the company.
- Mild surfactants, preservatives, and other Specialty Care Products are being supplied to Europe and other regions.
- Multiple headwinds have impacted volumes in FY23 and in the past two years. Its longterm structural growth guidance remains intact.
- The decline in volumes and a reversal of multiple supply-led factors have led to a higher EBITDA/kg in the past few quarters
- > The management has revised its FY23 volume growth guidance to 2-3% from 6-8%.
- > Its EBITDA/kg guidance for FY23 has been revised upwards to INR21-22 from INR16-18.
- The management's focus is on volumes. GALSURF is growing ahead of the market in all product categories.
- > EBITDA/kg is a derivative of volumes and is not the primary focus of the management.
- Sentiment in the US is not as negative as it is in Europe, although customers have conveyed to GALSURF that there is some cutback in consumption.

- Some projects are getting delayed, but the company is ready with its expanded capacities to cater to the incremental demand that will arise once the sentiment turns positive.
- GALSURF was in the pre-capitalization stage in FY22. As its plants are now up and running, employee costs are higher.
- > Variable pay, which was frozen in FY22, has been restored from FY23.
- Contracts are signed for a quarterly duration. The management anticipates no change in the terms of the contracts in FY23.

2QFY23 in charts

Exhibit 1: Volumes rose 7% QoQ, led by growth in Performance Surfactants in 2QFY23



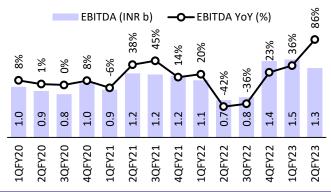
Source: Company, MOFSL

Exhibit 3: Gross sales rose 6% QoQ, even as realizations remain flat QoQ in 2QFY23



Source: Company, MOFSL

Exhibit 5: EBITDA fell 11% QoQ, but grew 86% YoY in 2QFY23



Source: Company, MOFSL

Exhibit 2: The Specialty Care Products segment suffers due to the global slowdown in 2QFY23

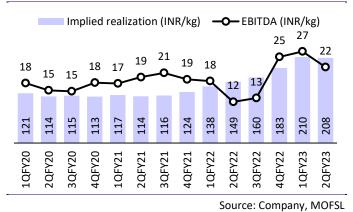
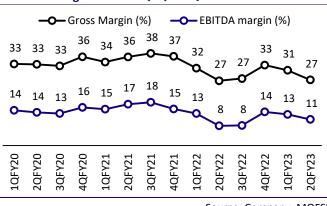
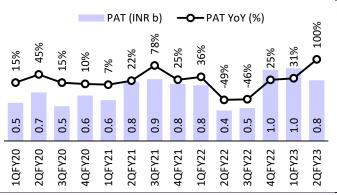


Exhibit 4: Margin declines QoQ in 2QFY23



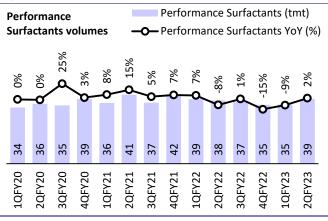
Source: Company, MOFSL

Exhibit 6: PAT fell 16% QoQ, but grew 100% YoY, in 2QFY23



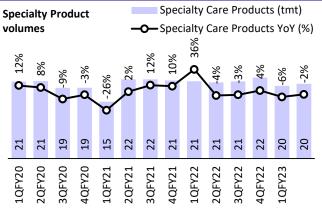
Source: Company, MOFSL

Exhibit 7: Performance Surfactants volumes grew QoQ in 2QFY23



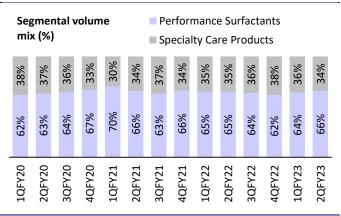
Source: Company, MOFSL

Exhibit 9: Volume from Specialty Care Products grew 3% QoQ in 2QFY23...



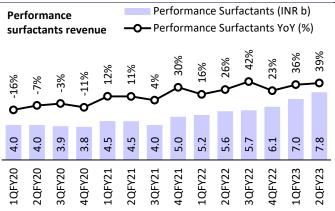
Source: Company, MOFSL

Exhibit 11: Volume mix in Performance Surfactants improves...



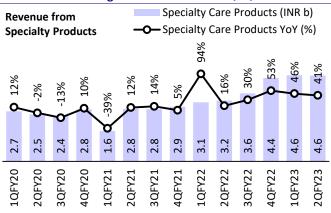
Source: Company, MOFSL

Exhibit 8: Segmental revenue from Performance Surfactants grew 11% QoQ in 2QFY23



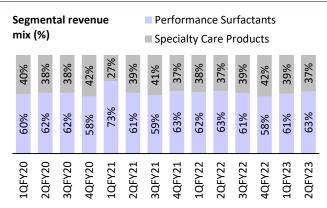
Source: Company, MOFSL

Exhibit 10: ...with segmental revenue flat QoQ



Source: Company, MOFSL

Exhibit 12: ...with an improvement in the revenue mix



Source: Company, MOFSL

Exhibit 13: Contribution of MNC customers to overall revenue improves in 2QFY23...

MNC customers **Revenue contribution across** Regional players customer categories (%) Local & Niche players 12 22 35 36 6 37 41 14 15 00 8 66 53 51 49 54 51 1QFY22 2QFY22 3QFY22 4QFY22 1QFY23 2QFY23

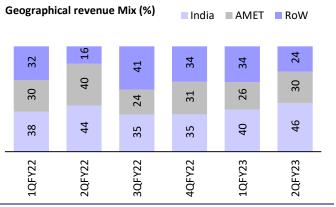


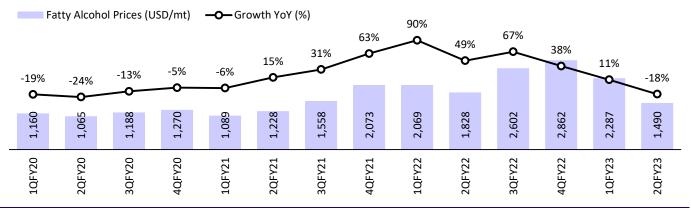
Exhibit 14: ...with India doing better than other regions amid

a decline in RoW mix

Source: Company, MOFSL

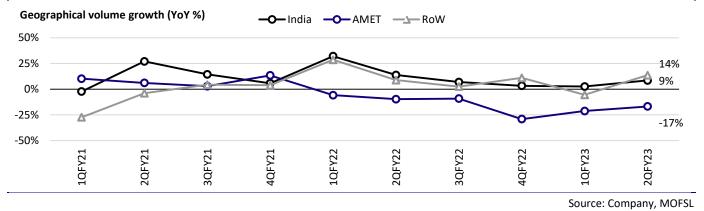
Source: Company, MOFSL

Exhibit 15: Fatty Alcohol prices fell 18% YoY and 35% QoQ in 2QFY23



Source: Company, MOFSL

Exhibit 16: India records a volume growth of 9% YoY. AMET declines by 17%, while RoW grew 14% YoY



Story in charts

Exhibit 17: Specialty products to have a consistent share

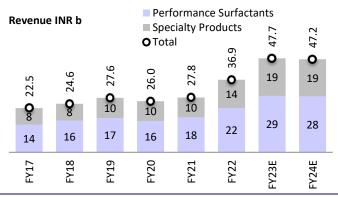
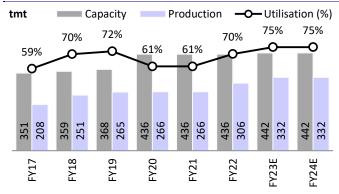


Exhibit 19: Expect capacity utilization to ramp up...



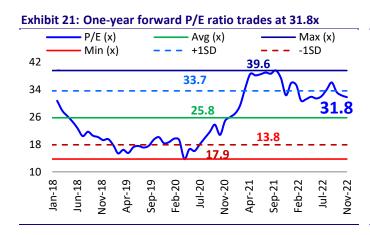
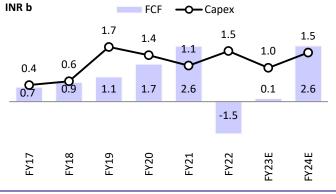


Exhibit 23: GALSURF is likely to generate an FCF of INR5.4b...



Source: Company, MOFSL

Exhibit 18: EBITDA/mt is set to rise to INR21-22 in FY23E

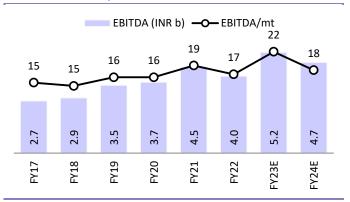


Exhibit 20: ...with higher volume growth in FY24

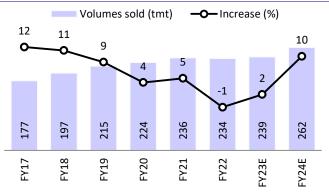


Exhibit 22: Expect PAT margin to normalize

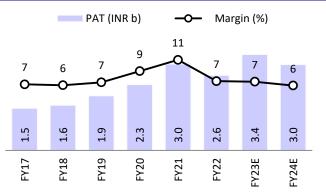
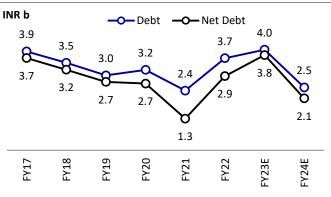


Exhibit 24: ...and become a net cash company by FY24E



Source: Company, MOFSL

Financials and valuations

Consolidated Income Statement								(INR m)
Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Total Income from Operations	22,480	24,625	27,630	25,964	27,841	36,857	47,726	47,249
Change (%)	20.1	9.5	12.2	-6.0	7.2	32.4	29.5	-1.0
Gross Margin (%)	32.1	28.9	29.5	33.9	36.3	29.8	27.5	25.0
EBITDA	2,714	2,877	3,534	3,689	4,488	4,007	5,250	4,725
Margin (%)	12.1	11.7	12.8	14.2	16.1	10.9	11.0	10.0
Depreciation	472	485	512	622	740	711	765	836
EBIT	2,242	2,392	3,022	3,067	3,749	3,297	4,485	3,889
Int. and Finance Charges	272	306	300	238	134	129	163	138
Other Income	104	101	47	59	109	125	162	265
PBT bef. EO Exp.	2,074	2,188	2,769	2,888	3,723	3,293	4,484	4,015
PBT after EO Exp.	2,074	2,188	2,769	2,888	3,723	3,293	4,484	4,015
Total Tax	598	607	859	584	702	665	1,129	1,011
Tax Rate (%)	28.8	27.8	31.0	20.2	18.8	20.2	25.2	25.2
Reported PAT	1,476	1,580	1,910	2,304	3,021	2,628	3,355	3,004
Adjusted PAT	1,476	1,580	1,910	2,304	3,021	2,628	3,355	3,004
Change (%)	43.6	7.1	20.9	20.6	31.1	-13.0	27.7	-10.5
Margin (%)	6.6	6.4	6.9	8.9	10.9	7.1	7.0	6.4
Consolidated Balance Sheet								(INR m)
Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Equity Share Capital	355	355	355	355	355	355	355	355
Total Reserves	5,395	6,833	8,413	10,323	12,660	15,389	17,930	20,204
Net Worth	5,749	7,188	8,767	10,678	13,014	15,744	18,284	20,559
Total Loans	3,929	3,480	2,978	3,196	2,374	3,660	4,000	2,500
Deferred Tax Liabilities	253	277	320	241	233	249	249	249
Capital Employed	9,9 30	10,944	12,065	14,115	15,621	19,652	22,533	23,308
Gross Block	8,183	8,548	9,722	11,525	11,945	12,828	13,828	15,328
Less: Accum. Deprn.	3,711	4,148	4,609	5,231	5,971	6,681	7,446	8,282
Net Fixed Assets	4,472	4,399	5,112	6,294	5,974	6,146	6,382	7,045
Goodwill on Consolidation	24	24	25	28	27	28	28	28
Capital WIP	103	249	826	660	1,240	2,055	2,055	2,055
Total Investments	1	1	0	58	435	5	5	5
Curr. Assets, Loans, and Adv.	8,273	9,881	9,717	11,081	12,821	17,773	22,282	22,385
Inventory	3,174	3,456	3,513	3,250	4,278	7,118	9,204	9,214
Account Receivables	3,472	4,182	4,268	4,394	4,689	6,380	8,262	8,179
Cash and Bank Balance	261	276	257	542	1,114	711	214	435
Cash	257	271	250	477	815	638	140	362
Bank balance	4	5	7	65	299	74	74	74
Loans and Advances	1,366	1,966	1,680	2,894	2,740	3,563	4,603	4,557
Curr. Liability and Prov.	2,942	3,610	3,615	4,005	4,874	6,353	8,217	8,210
Account Payables	2,523	3,278	3,059	2,731	3,770	5,189	6,709	6,717
Other Current Liabilities	309	230	416	1,098	918	1,012	1,310	1,297
Provisions	110	102	140	176	186	153	198	196
Net Current Assets	5,331	6,271	6,102	7,075	7,947	11,419	14,065	14,176
Appl. of Funds	9,931	10,944	12,065	14,115	15,621	19,652	22,533	23,308

Financials and valuations

Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
Basic (INR)								
EPS	41.6	44.6	53.9	65.0	85.2	74.1	94.7	84.7
EPS Growth (%)	43.6	7.1	20.9	20.6	31.1	-13.0	27.7	-10.5
Cash EPS	54.9	58.3	68.3	82.5	106.1	94.2	116.2	108.3
BV/Share	162.2	202.8	247.3	301.2	367.1	444.1	515.8	579.9
DPS	4.0	3.0	12.0	17.0	18.0	18.0	23.0	20.6
Payout (%)	11.6	8.1	26.9	31.5	21.1	24.3	24.3	24.3
Valuation (x)								
P/E ratio	67.7	63.3	52.3	43.4	33.1	38.0	29.8	33.3
Cash P/E ratio	51.3	48.4	41.3	34.2	26.6	29.9	24.3	26.0
P/BV ratio	17.4	13.9	11.4	9.4	7.7	6.3	5.5	4.9
EV/Sales ratio	4.6	4.2	3.7	4.0	3.6	2.8	2.2	2.2
EV/EBITDA ratio	38.2	35.9	29.1	27.8	22.6	25.7	19.8	21.6
Dividend Yield (%)	0.1	0.1	0.4	0.6	0.6	0.6	0.8	0.7
FCF per share	18.9	25.1	32.4	49.2	72.7	-42.3	4.0	73.0
Return Ratios (%)								
RoE	28.9	24.4	23.9	23.7	25.5	18.3	19.7	15.5
RoCE	17.8	17.3	18.4	19.1	21.1	15.5	16.5	13.6
RoIC	18.0	17.3	19.5	20.5	23.7	17.7	18.1	14.2
Working Capital Ratios								
Fixed Asset Turnover (x)	5.2	5.6	5.8	4.6	4.5	6.1	7.6	7.0
Asset Turnover (x)	2.3	2.3	2.3	1.8	1.8	1.9	2.1	2.0
Inventory (Days)	52	51	46	46	56	70	70	71
Debtor (Days)	56	62	56	62	61	63	63	63
Creditor (Days)	41	49	40	38	49	51	51	52
Leverage Ratio (x)								
Current Ratio	2.8	2.7	2.7	2.8	2.6	2.8	2.7	2.7
Interest Coverage Ratio	8.2	7.8	10.1	12.9	27.9	25.7	27.5	28.1
Net Debt/Equity ratio	0.6	0.4	0.3	0.2	0.1	0.2	0.2	0.1
Consolidated Cash Flow Statement								(INR m)
V/C Morch	EV17	FV10	FV10	EV20	EV21	EV22	EVODE	EV24E

consolidated cash Flow Statement								
Y/E March	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E
OP/(Loss) before Tax	2,074	2,188	2,769	2,888	3,723	3,293	4,484	4,015
Depreciation	472	485	512	622	740	711	765	836
Others	268	249	288	220	79	90	163	138
Direct Taxes Paid	-568	-583	-750	-686	-706	-594	-1,129	-1,011
(Inc.)/Dec. in WC	-1,135	-886	11	113	-186	-3,450	-3,143	110
CF from Operations	1,111	1,454	2,830	3,157	3,651	49	1,140	4,089
Capex	-440	-562	-1,680	-1,414	-1,073	-1,547	-1,000	-1,500
Free Cash Flow	671	891	1,150	1,744	2,578	-1,498	140	2,589
CF from Investments	-426	-546	-1,673	-1,511	-1,647	-841	-1,000	-1,500
Inc./(Dec.) in Debt	-133	-485	-623	562	-951	941	340	-1,500
Interest Paid	-264	-285	-272	-226	-152	-131	-163	-138
Dividend Paid	-173	-127	-298	-940	-495	-142	-815	-730
CF from Fin. Activity	-570	-897	-1,192	-1,434	-1,650	592	-638	-2,368
Inc./Dec. in Cash	115	11	-36	212	354	-201	-497	221
Opening Balance	147	257	271	250	477	815	637	140
Closing Balance	257	270	251	477	815	637	140	361

ΝΟΤΕS

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 - MOFSL) 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%200f%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

axy.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 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 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 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 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 exempt financial adviser in Singapore. As per the approved agreement under Paragraph 9 of Third Schedule of Sche 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 2
- MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months 3
- 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 MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months 6
- 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 8
- 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, 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.: 022-3980 4263; <u>www.motilaloswal.com</u>. 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.:022-71881085.

Registration details of group entities: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL: IN-DP-16-2015; NSDL: IN-DP-NSDL-152-2000; 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.