

BSE SENSEX

37,888

S&P CNX

11,450

Motilal Oswal values your support in the Asiamoney Brokers Poll 2018 for India Research, Sales and Trading team. We [request your ballot](#).



Bloomberg	NACL IN
Equity Shares (m)	1,933
M.Cap.(INRb)/(USDb)	130.3 / 1.9
52-Week Range (INR)	98 / 57
1, 6, 12 Rel. Per (%)	5/-16/-22
12M Avg Val (INR M)	678
Free float (%)	43.8

Financials & Valuations (INR b)

Y/E March	2018	2019E	2020E
Net Sales	95.1	111.0	111.7
EBITDA	16.6	28.4	25.4
NP	9.7	17.6	15.8
EPS (INR)	5.0	9.1	8.2
EPS Gr. (%)	35.3	80.7	-10.4
BV/Sh. (INR)	57.7	65.0	71.1
RoE (%)	9.1	14.8	12.0
RoCE (%)	12.4	20.0	16.2
P/E (x)	13.2	7.3	8.2
P/BV (x)	1.2	1.0	0.9

Estimate change

TP change

Rating change


CMP: INR67 TP: INR 108 (+60%)
Buy

Bumper quarter led by strong alumina pricing

Valuations attractive; Maintain Buy

NALCO's 1QFY19 EBITDA increased 61% QoQ (+344% YoY) to INR10.1b (est. of INR6.9b), driven by strong alumina pricing. Adj. PAT grew 70% QoQ (~5x YoY) to INR6.3b. PAT is adjusted for ~INR0.9b gain on revaluation of renewable purchase obligation after resumption of trading on electricity exchanges.

- **Alumina:** Production increased 3% QoQ (+11% YoY) to 583kt - best ever in a quarter. Sales declined 27% QoQ (+24% YoY) to 320kt due to re-stocking. Alumina realization increased 36% QoQ to USD562/t.
- **Aluminum:** Production was down 2% QoQ but up 9% YoY to 110kt. Sales were down ~6% QoQ (+18% YoY) to 105kt. Aluminum realization increased ~7% QoQ to USD2,526/t led by higher LME. Cost of production (incl. depreciation) was down USD177/t QoQ to USD2,161/t due to lower other expenses. EBIT per ton doubled QoQ to USD365.

Alumina prices to drive earnings; valuations attractive; Maintain Buy

- NALCO is likely to benefit from strong alumina prices, led by the closure of Hydro's alumina facility and shutdowns at Chinese refineries. Spot alumina prices are trading above USD500/t versus our estimate of USD450/t for the remainder of FY19 and FY20. NALCO is a key beneficiary of higher alumina prices, given its net long position and advantage of low-cost captive bauxite.
- We upgrade our EBITDA estimate by 13% to INR28.4b and PAT estimate by ~12% to INR17.6b on the beat in 1Q.
- We expect EBITDA to increase by 71% to INR28.4b in FY19, considering the strong sector tailwinds. The stock is trading at attractive valuations of EV/EBITDA of 3x FY20E. We value the stock at 5.5x FY20E EV/EBITDA at INR108/share. Maintain **Buy**.

Quarterly Performance (Standalone) – INR million

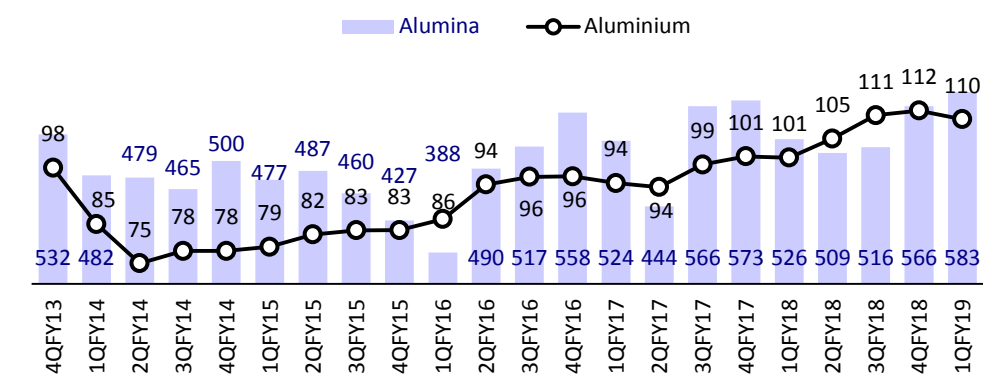
Y/E March	FY18				FY19				FY18	FY19E	FY19	vs Est (%)
	1Q	2Q	3Q	4Q	1Q	2QE	3QE	4QE			1QE	
Aluminium Sales ('000 tons)	89	113	110	112	105	112	112	112	424	441	112	-6
Alumina Sales ('000 tons)	259	380	256	440	320	231	303	353	1,335	1,208	313	2
Avg LME Aluminium (USD/ton)	1,910	2,011	2,097	2,162	2,250	2,150	2,150	2,150	2,045	2,175	2,250	0
NSR premiums (USD/ton)	323	239	269	190	276	190	190	190	256	212	190	45
Alumina NSR (USD/ton)	314	334	422	413	562	450	450	450	371	478	475	18
Net Sales	18,027	24,548	23,888	28,632	29,733	25,079	27,299	28,840	95,094	110,951	28,206	5
Change (YoY %)	16.4	33.0	20.2	12.3	64.9	2.2	14.3	0.7	19.9	16.7	56	
EBITDA	2,275	3,355	4,668	6,297	10,111	5,160	6,214	6,941	16,594	28,425	6,920	46
Change (YoY %)	16.9	94.7	63.7	47.3	344.4	53.8	33.1	10.2	53.7	71.3	204	
As % of Net Sales	12.6	13.7	19.5	22.0	34.0	20.6	22.8	24.1	17.5	25.6	24.5	
Interest	4	4	5	6	6	0	0	0	20		0	
Depreciation	1,170	1,123	1,243	1,268	1,217	1,169	1,224	1,219	4,804	4,829	1,169	4
Other Income	859	810	766	573	621	704	704	704	3,008	2,732	704	-12
PBT (before EO Item)	1,960	3,037	4,186	5,597	9,509	4,695	5,693	6,425	14,779	26,328	6,455	47
Extra-ordinary Income	0	162	6,784	-1,336	910	0	0	0	5,610		0	
PBT (after EO Item)	1,960	3,199	10,969	4,261	10,419	4,695	5,693	6,425	20,388	26,328	6,455	61
Total Tax	670	853	3,752	1,690	3,549	1,532	1,858	2,097	6,964	9,037	2,107	68
% Tax	34.2	26.7	34.2	39.7	34.1	32.6	32.6	32.6	34.2	34.3	33	
Reported PAT	1,289	2,346	7,218	2,571	6,871	3,162	3,835	4,328	13,424	17,291	4,348	58
Adjusted PAT	1,290	1,999	2,756	3,685	6,270	3,162	3,835	4,328	9,730	17,291	4,348	44

Sanjay Jain – Research Analyst (SanjayJain@MotilalOswal.com); +91 22 6129 1523

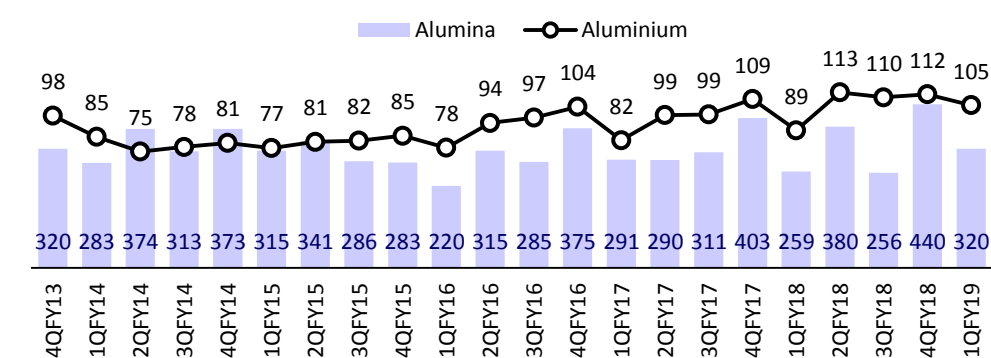
Dhruv Muchhal – Research Analyst (Dhruv.Muchhal@MotilalOswal.com); +91 22 6129 1549

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

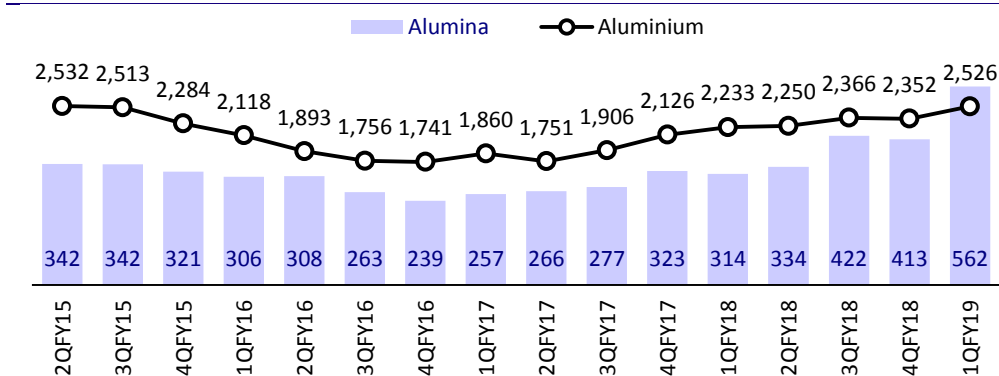
Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

Exhibit 1: Alumina and aluminum production volumes – kt

Source: MOSL, Company

Exhibit 2: Alumina and aluminum sales volumes – kt

Source: MOSL, Company

Exhibit 3: Alumina and aluminum realization – USD/t

Source: MOSL, Company

Exhibit 4: Target price calculation

	FY15	FY16	FY17	FY18	FY19E	FY20E
EBITDA	17,060	9,380	10,797	16,594	28,425	25,421
EV/EBITDA (x)	6.5	6.5	6.5	6.5	5.5	5.5
Target EV	110,891	60,973	70,177	107,864	156,339	139,817
add: CWIP	5,497	6,614	5,660	5,660	10,660	15,660
add: cash surplus	55,790	58,106	35,473	41,176	47,993	53,540
Equity Value			111,310	154,699	214,991	209,017
Target Price				80	111	108

Source: MOSL, Company

Financials and Valuations

Income Statement								(INR Million)	
Y/E March	2013	2014	2015	2016	2016	2017	2018	2019E	2020E
Net Sales	69,165	67,809	73,828	68,160	68,170	75,430	95,094	110,951	111,732
Change (%)	4.6	-2.0	8.9	-7.7		10.7	26.1	16.7	0.7
Total Expenses	60,096	58,466	56,768	58,780	58,575	64,634	78,500	82,526	86,311
EBITDA	9,069	9,342	17,060	9,380	9,595	10,797	16,594	28,425	25,421
% of Net Sales	13.1	13.8	23.1	13.8	14.1	14.3	17.5	25.6	22.8
Depn. & Amortization	5,054	5,247	4,137	4,241	4,261	4,804	4,804	4,829	4,838
EBIT	4,014	4,095	12,924	5,139	5,333	5,993	11,790	23,596	20,584
Net Interest	75	0	0	12	33	27	20	6	0
Other income	5,111	5,577	6,726	5,366	6,052	4,075	3,008	2,732	2,814
PBT before EO	9,050	9,672	19,650	10,493	11,353	10,041	14,779	26,322	23,398
EO income	0	-494	1,484	535	-535	402	5,610	910	0
PBT after EO	9,050	9,178	21,134	11,028	10,818	10,442	20,388	27,232	23,398
Tax	3,122	2,755	7,916	3,718	4,015	2,962	6,964	9,037	7,637
Rate (%)	34.5	30.0	37.5	33.7	37.1	28.4	34.2	33.2	32.6
Reported PAT	5,928	6,424	13,219	7,310	6,803	7,480	13,424	18,196	15,761
Adjusted PAT	5,928	6,769	12,290	6,956	7,139	7,193	9,730	17,588	15,761
Change (%)	-31.5	14.2	81.6	-43.4	2.6	0.8	35.3	80.7	-10.4

Balance Sheet								(INR Million)	
Y/E March	2013	2014	2015	2016	2016	2017	2018	2019E	2020E
Share Capital	12,886	12,886	12,886	12,886	12,886	9,665	9,665	9,665	9,665
Reserves	106,438	108,338	115,087	116,191	119,063	92,387	101,820	116,024	127,793
Net Worth	119,325	121,225	127,973	129,077	131,949	102,052	111,484	125,688	137,458
Total Loans	0	0	0	0	0	511	511	511	511
Deferred Tax Liability	9,031	9,101	11,053	11,101	11,641	12,456	12,456	12,456	12,456
Capital Employed	128,356	130,326	139,026	140,178	143,590	115,018	124,451	138,655	150,424
Gross Block	141,750	148,581	152,847	155,035	70,210	80,489	86,489	92,489	98,489
Less: Accum. Depn.	75,461	80,662	86,393	90,360	4,253	9,044	13,848	18,678	23,515
Net Fixed Assets	66,289	67,919	66,454	64,675	65,957	71,444	72,640	73,811	74,973
Capital WIP	10,019	7,687	5,497	6,614	6,877	5,660	5,660	10,660	15,660
Investments	14,901	12,450	10	11	9,445	389	389	389	389
Curr. Assets	72,061	77,428	89,815	93,891	84,825	67,517	77,534	87,305	92,998
Inventories	13,806	11,737	11,656	11,270	10,550	11,559	14,590	17,023	17,142
Account Receivables	1,430	2,436	1,208	2,352	2,352	1,843	3,126	3,648	3,673
Cash and Bank Balance	35,044	40,483	55,780	58,095	51,692	35,084	40,786	47,603	53,151
Others	21,781	22,773	21,171	22,173	20,231	19,031	19,031	19,031	19,031
Curr. Liability & Prov.	34,914	35,159	22,751	25,012	23,513	29,992	31,772	33,510	33,596
Account Payables	31,201	31,505	18,461	20,001	6,559	8,641	10,421	12,159	12,245
Provisions & Others	3,713	3,655	4,290	5,011	16,955	21,351	21,351	21,351	21,351
Net Curr. Assets	37,147	42,269	67,064	68,878	61,311	37,525	45,761	53,795	59,402
Appl. of Funds	128,356	130,326	139,026	140,178	143,590	115,018	124,451	138,655	150,424

E: MOSL Estimates

Financials and Valuations

Ratios

Y/E March	2013	2014	2015	2016	2016	2017	2018	2019E	2020E
Basic (INR)									
EPS	2.3	2.6	4.8	2.7	3.7	3.7	5.0	9.1	8.2
Cash EPS	4.3	4.5	6.7	4.5	5.7	6.4	9.4	11.9	10.7
BV/Share	46.3	47.0	49.7	50.1	68.3	52.8	57.7	65.0	71.1
DPS	1.3	1.5	1.5	1.8	2.0	2.8	1.8	1.8	1.8
Payout (%)	63.6	68.0	37.4	74.0	64.4	89.5	41.4	22.9	25.5
Valuation (x)									
P/E	29.3	25.7	14.1	25.0	18.2	18.1	13.4	7.4	8.3
Cash P/E	15.8	14.9	10.0	15.0	11.8	10.6	7.1	5.7	6.3
P/BV	1.5	1.4	1.4	1.3	1.0	1.3	1.2	1.0	0.9
EV/Sales	1.8	1.8	1.6	1.7	1.0	1.3	0.9	0.7	0.7
EV/EBITDA	13.6	12.9	6.9	12.3	7.2	8.8	5.4	2.9	3.0
Dividend Yield (%)	1.9	2.2	2.2	2.6	3.0	4.2	2.6	2.6	2.6
Return Ratios (%)									
EBITDA Margins (%)	13.1	13.8	23.1	13.8	14.1	14.3	17.5	25.6	22.8
Net Profit Margins (%)	8.6	10.0	16.6	10.2	10.5	9.5	10.2	15.9	14.1
RoE	5.0	5.6	9.9	5.4	6.2	7.2	9.1	14.8	12.0
RoCE (pre-tax)	7.2	7.5	14.6	7.5	8.0	7.9	12.4	20.0	16.2
RoIC (pre-tax)	5.8	5.9	17.5	6.7	7.1	8.0	15.6	29.9	25.5
Working Capital Ratios									
Fixed Asset Turnover (x)	0.5	0.5	0.5	0.4	1.0	0.9	1.1	1.2	1.1
Asset Turnover (x)	0.5	0.5	0.5	0.5	0.5	0.7	0.8	0.8	0.7
Debtor (Days)	8	13	6	13	13	9	12	12	12
Inventory (Days)	73	63	58	60	56	56	56	56	56
Payable (Days)	165	170	91	107	35	42	40	40	40
Working Capital Turnover	3	3	15	16	14	3	5	6	6
Leverage Ratio (x)									
Current Ratio	2.1	2.2	3.9	3.8	3.6	2.3	2.4	2.6	2.8

Cashflow Statement

Y/E March	2013	2014	2015	2016	2016	2017	2018	2019E	2020E
(INR Million)									
Pre-tax profit	9,050	9,178	21,134	11,028	11,887	9,639	20,388	27,232	23,398
Depreciation	5,054	5,247	4,137	4,241	4,261	4,804	4,804	4,829	4,838
(Inc)/Dec in Wkg. Cap.	-726	3,379	-9,925	796	1,021	4,931	-2,534	-1,216	-60
Tax paid	-4,351	-3,596	-4,915	-3,614	-3,598	-2,184	-6,964	-9,037	-7,637
Non-op.	-266	-4,395	-5,227	-4,012	-4,763	-2,830	20	6	0
CF from Op. Activity	8,762	9,813	5,205	8,438	8,808	14,359	15,714	21,814	20,539
(Inc)/Dec in FA + CWIP	-6,489	-6,187	-3,031	-5,456	-5,986	-7,781	-6,000	-11,000	-11,000
Free Cash Flow	2,272	3,627	2,173	2,982	2,822	6,578	9,714	10,814	9,539
(Pur)/Sale of Investments	-7,358	2,450	12,440	-1	-8,555	10,178	0	0	0
Interest & div	731	4,517	5,749	4,773	4,769	2,795			
CF from Inv. Activity	-13,116	781	15,157	-683	-9,772	5,191	-6,000	-11,000	-11,000
Equity raised/(repaid)					0	-28,407	0	0	0
Int. Paid	-75	0	0	-12	-12	-4	-20	-6	0
Debt raised/(repaid)	0	0	0	0	0	511	0	0	0
Dividend (incl. tax)	-2,211	-5,155	-5,065	-5,427	-5,428	-8,259	-3,991	-3,991	-3,991
CF from Fin. Activity	-2,285	-5,155	-5,065	-5,440	-5,440	-36,159	-4,011	-3,997	-3,991
(Inc)/Dec in Cash	-6,640	5,439	15,297	2,316	-6,404	-16,608	5,703	6,817	5,547
Add: opening Balance	41,684	35,044	40,483	55,780	58,095	51,692	35,084	40,786	47,603
Closing Balance	35,044	40,483	55,780	58,095	51,692	35,084	40,786	47,603	53,151

E: MOSL Estimates

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 becomes inconsistent with the investment rating legend, the Research Analyst shall within 28 days of the inconsistency, 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 Securities Ltd. (MOSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Investment Advisory Services, Depository participant services & distribution of various financial products. MOSL is a subsidiary company of Motilal Oswal Financial Service Ltd. (MOFSL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. 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), Metropolitan Stock Exchange Of India Ltd. (MSE) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) & National Securities Depository Limited (NSDL) and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products. Details of associate entities of Motilal Oswal Securities Limited are available on the website at <http://onlinereports.motilaloswal.com/Dormant/documents/Associate%20Details.pdf>

MOSL, it's associates, Research Analyst or their relative may have any financial interest in the subject company. MOSL and/or its associates and/or Research Analyst may have 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. MOSL 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 MOSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report. Research Analyst may have served as director/officer, etc. in the subject company in the last 12 month period. MOSL and/or its associates may have received any compensation from the subject company in the past 12 months.

In the last 12 months period ending on the last day of the month immediately preceding the date of publication of this research report, MOSL or any of its associates may have:

- a) managed or co-managed public offering of securities from subject company of this research report,
- b) received compensation for investment banking or merchant banking or brokerage services from subject company of this research report,
- c) received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.
- d) Subject Company may have been a client of MOSL or its associates during twelve months preceding the date of distribution of the research report.

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

Terms & Conditions:

This report has been prepared by MOSL 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 MOSL. 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. MOSL will not treat recipients as customers by virtue of their receiving this report.

Analyst Certification

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

Disclosure of Interest Statement

NALCO

Analyst ownership of the stock

No

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOSL 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 MOSL & 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 Securities Limited (MOSL) 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 MOSL 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 MOSL, 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., MOSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited, ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

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

For Singapore

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

Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOSL, 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 MOSL. 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 MOSL 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 MOSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOSL 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; www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 3080 1000. Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No.:022-38281085.

Registration details of group entities: MOSL: SEBI Registration: INZ000158836 (BSE/NSE/CXN/CDEX); CDSL: IN-DP-16-2015; NSDL: IN-DP-NSDL-152-2000; Research Analyst: INH000000412. AMFI: ARN 17397. Investment Adviser: INA000007100. IRDA Corporate Agent-CA0541. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670) offers PMS and Mutual Funds products. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) offers wealth management solutions. *Motilal Oswal Securities Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance and IPO products. * Motilal Oswal Commodities Broker Pvt. Ltd. offers Commodities Products. * Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. offers Real Estate products. * Motilal Oswal Private Equity Investment Advisors Pvt. Ltd. offers Private Equity products