

# Oil & Gas

# Volume growth in focus for ONGC, GAIL and OINL

- We met with the management teams of ONGC, GAIL and Oil India (OINL) in Delhi during 6-7th Dec'23. Key takeaways:
- ➤ ONGC/OINL remain confident of 20% higher slope (i.e., 10% + 2%) for gas prices applicable on production increase obtained via IOR/EOR techniques (we assume flat gas price realizations for now).
- ONGC has reiterated its commitment to raise production to 50mmtoe by FY28; OINL expects IndraDhanush Gas connectivity (by Mar'24) to lead to gas production growth in high-teens in FY26 on YoY basis (HOEC is also a beneficiary link to our report).
- GAIL is positive about the transmission volume outlook, though there has been further APM gas de-allocation in recent months. Efforts to bring down gas costs to below USD10/mmbtu for the petchem segment continue even as domestic polymer premium remains weak due to new supply from HMEL.
- Overall we maintain our BUY rating on ONGC, OINL and GAIL given inexpensive valuations and improving volume growth outlook.

## **ONGC: Production growth in focus**

- The company targets to increase production to 50mmtoe by FY28 from 40mmtoe in FY23. This will be driven by 23 ongoing projects (9 infrastructure projects and 14 development projects) for a total capex of INR600b.
- Gas production from Cluster II of KG-DWN-98/2 commenced in Mar'20, while oil production is also expected to commence soon. Cluster I consists of three discoveries, and FDPs of two discoveries were approved in 2019. Cluster III consists of one ultra-deep water gas discovery, which will be the second-deepest hydrocarbon discovery in the world. The FDP for the same is expected to be submitted by Jan'26.
- The company also plans to infuse ~INR180b in OPAL, taking its shareholding to 96%. ONGC will also request MOPNG to allow the company to use gas from new wells into OPAL as feedstock. If approved, OPAL is expected to turn profitable by FY25. The company plans to reduce its holdings in OPAL to about 50% by bringing in a new equity partner once the turnaround is complete.
- OVL's medium-term production target is 15mmtoe (produced in FY19), while its FY24 guidance is ~11mmtoe. OVL may expand its asset base, but its acquisition strategy will focus on fields that are close to production commencement.

## **OINL: Multiple tailwinds ahead**

- The management expects IndraDhanush Gas Grid (IGGL) to be completed by Mar'24. This milestone is expected to increase oil and gas production for the company. The construction progress involves phases in Assam, Meghalaya, Arunachal Pradesh and Manipur, followed by Sikkim and Nagaland. OINL aims to increase production to 4.2mmt for oil and 5 billion cubic meters for gas by FY26.
- The management expects to secure a 20% premium on the current gas pricing formula for gas produced through new wells. The company is confident that wells utilizing IOR/EOR techniques will also qualify for the 20% premium, provided the company meets the minimum threshold achieved in the last

Abhishek Nigam - Research Analyst (Abhishek.Nigam@MotilalOswal.com)

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

- decade. Crude price at USD75/bbl implies a gas price of USD9/mmBtu for such wells, vs. our current assumption of USD6.5/mmBtu.
- The final quarter of each financial year tends to be the strongest for OINL, and it anticipates that 4QFY24 will follow this trend. OINL is actively pursuing development projects slated for completion in 3Q, which should increase production significantly in 4Q. The initial half of the year typically experiences lower production due to the 5-6 months of monsoon in Assam. Despite this, the company has already attained a 5.7% YoY increase in oil production in 1HFY24, with an expected 6% YoY increase for FY24.
- The management said that Venezuela's situation appears favorable after the lifting of US sanctions. However, despite Russia's restored production levels, OINL faces challenges in repatriating pending dividends from the country. Ongoing sanctions since the Ukraine conflict hinder Russia's transactions in USD.

## **GAIL:** Transmission volumes to propel earning growth

- APM gas allocation for use in compressors has been reduced gradually to ~0.2mmscmd currently and may become nil by next quarter. Despite this, the company is confident of achieving transmission volume of 130-132mmscmd by FY25.
- The company is confident of a positive outcome from the tariff revision as APM and HPHT gas price assumptions during previous tariff determination was significantly low. Additionally, the company had used costly gas in compressors in Mar'23 and Apr'23. The tariff revision for KKBMPL pipeline is expected to happen in FY25 and the management expects a substantial hike.
- Petrochemical prices have been under pressure amid oversupply due to the commissioning of 1.2mmtpa petrochemicals plant by HMEL. The company is working on reducing gas costs to below USD10/mmBtu in order to achieve break-even in the petrochemicals segment.

**Exhibit 1: Valuation snapshot** 

Company Rating	Detine	EPS (INR)			P/E ratio (x)		P/BV ratio (x)			EV/EBITDA ratio (x)			RoE (%)			
	FY23	FY24E	FY25E	FY23	FY24E	FY25E	FY23	FY24E	FY25E	FY23	FY24E	FY25E	FY23	FY24E	FY25E	
ONGC	Buy	30.4	44.9	42.1	6.5	4.4	4.7	0.9	0.8	0.7	4.1	3.0	2.7	14.4	19.2	16.2
Oil India	Buy	62.8	54.4	58.1	5.1	5.9	5.5	1.0	0.9	0.8	4.6	4.9	4.4	21.2	18.4	15.6
GAIL (India)	Buy	8.1	11.4	13.4	17.4	12.3	10.5	1.5	1.4	1.3	10.1	7.0	6.1	9.5	12.8	13.7

Source: MOFSL



# **ONGC** – Financial summary and assumptions – BUY

**Exhibit 2: Key assumptions** 

Particulars	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Exchange Rate (INR/USD)	64.5	70.0	70.9	74.3	74.5	80.4	83.1	84.6
APM Gas Price (USD/mmBtu)	3.0	3.5	3.8	2.3	2.6	7.3	6.6	6.5
Brent crude price (USD/bbl)	57.6	70.1	61.2	44.4	80.5	96.1	85.0	90.0
Production Details (mmtoe)								
Domestic Oil Production (mmt)	26.2	24.2	23.4	22.5	21.7	21.5	21.5	23.1
Domestic Gas Production (bcm)	25.6	25.8	24.9	22.8	21.7	21.4	21.5	23.2
Domestic Production (mmtoe)	51.8	50.0	48.3	45.3	43.4	42.8	42.9	46.3
OVL Production (mmtoe)	14.2	14.8	14.7	13.0	12.3	10.2	11.0	11.8
Group Production (mmtoe)	66.0	64.9	62.9	58.4	55.7	53.0	53.9	58.1
Oil Price Realization (USD/bbl)								
Gross	57.4	68.9	58.8	42.8	76.4	92.1	84.1	90.0
Upstream Discount	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net	57.4	68.9	58.8	42.8	76.4	92.1	84.1	90.0
Consolidated EPS	20.2	27.2	13.0	16.1	32.2	30.4	44.9	42.1

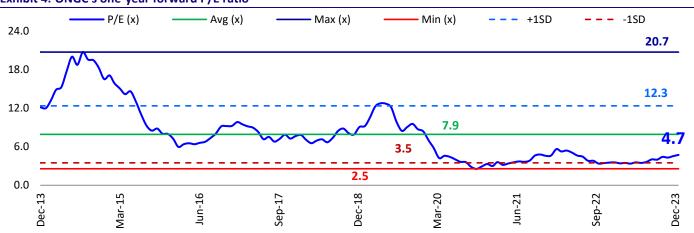
Source: Company, MOFSL

**Exhibit 3: Financial summary (INR b)** 

Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Sales	3,622.5	4,536.8	4,249.6	3,605.7	5,317.6	6,848.3	6,375.9	6,872.3
EBITDA	643.5	840.4	611.3	566.0	857.7	857.1	1,096.9	1,084.6
Adj. PAT	259.1	348.8	167.3	207.0	413.6	389.7	575.7	539.9
Adj. EPS (INR)	20.2	27.2	13.0	16.1	32.2	30.4	44.9	42.1
EPS growth (%)	-9.9	34.6	-52.1	23.8	99.8	-5.8	47.7	-6.2
BV/share (INR)	158.0	167.9	159.8	172.2	202.2	218.7	247.4	271.3
Ratios								
Net D:E ratio	0.5	0.4	0.5	0.5	0.4	0.4	0.2	0.1
ROE (%)	13.0	16.7	8.0	9.7	17.2	14.4	19.2	16.2
ROCE (%)	9.2	11.3	6.4	7.3	15.7	11.6	15.2	14.1
Payout (%)	38.0	31.3	77.7	21.6	27.3	44.0	36.0	43.2
Valuations								
P/E ratio (x)	9.7	7.2	15.0	12.1	6.1	6.5	4.4	4.7
P/BV ratio (x)	1.2	1.2	1.2	1.1	1.0	0.9	0.8	0.7
EV/EBITDA ratio (x)	5.4	4.1	5.7	6.3	4.1	4.1	3.0	2.7
Div. yield (%)	3.4	3.5	2.9	1.8	5.4	5.7	8.2	9.3
FCF yield (%)	11.6	14.2	11.4	6.0	17.9	19.0	19.9	26.7

Source: Company, MOFSL

Exhibit 4: ONGC's one-year forward P/E ratio



Source: Company, MOFSL

MOTILAL OSWAL Oil & Gas



# ऑयल इंडिया लिमिटेड OINL: Financial summary and assumptions — BUY

**Exhibit 5: Key assumptions** 

• •								
Year End: March 31 (INR m)	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Exchange Rate (INR/USD)	64.5	64.5	64.5	74.3	74.5	80.4	83.1	84.6
APM Gas Price (USD/mmbtu)	3.0	3.5	3.8	2.2	2.6	7.3	6.5	6.5
Brent Crude Price (USD/bbl)	57.6	70.1	61.2	44.4	80.5	96.1	85.0	90.0
Production Details								
Oil (mmt)	3.39	3.32	3.13	2.96	3.01	3.18	3.33	3.47
Gas (bcm)	2.89	2.72	2.77	2.48	2.89	3.18	3.21	3.28
Total (mmtoe)	6.29	6.05	5.90	5.44	5.90	6.36	6.55	6.74
Oil Price Realization (USD/bbl)	55.7	68.5	60.8	44.4	68.8	96.1	85.0	90.0
EPS (INR/sh.)	24.6	33.4	23.8	20.2	35.8	62.8	54.4	58.1

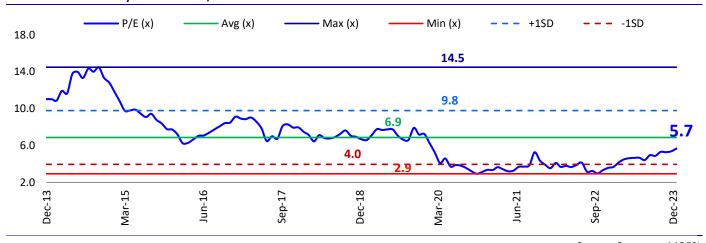
Source: Company, MOFSL

Exhibit 6: Financial summary (INR b)

Exhibit o. Financial summi	, , ,							
Y/E march	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Sales	106.6	137.3	121.3	86.2	145.3	232.7	218.3	251.9
EBITDA	39.1	54.8	43.7	12.7	53.7	96.8	87.5	96.9
Adj. PAT	26.7	36.2	25.8	21.9	38.9	68.1	59.0	63.0
Adj. EPS (INR)	24.6	33.4	23.8	20.2	35.8	62.8	54.4	58.1
EPS Gr. (%)	-1.2	35.6	-28.6	-15.2	77.5	75.2	-1.9	-5.6
BV/Sh.(INR)	257.4	255.9	224.9	241.7	275.6	316.9	354.0	389.0
Ratios								
Net D:E	0.2	0.0	0.2	0.6	0.4	0.3	0.2	0.2
RoE (%)	9.4	9.3	9.9	6.9	13.9	21.2	18.4	15.6
RoCE (%)	4.8	6.8	3.6	-1.6	6.8	13.5	11.8	10.7
Payout (%)	50.6	51.7	53.5	37.5	47.8	39.8	39.8	39.8
Valuations								
P/E (x)	13.0	9.6	13.5	15.9	8.9	5.1	5.9	5.5
P/BV (x)	1.2	1.3	1.4	1.3	1.2	1.0	0.9	0.8
EV/EBITDA (x)	10.0	6.5	9.2	39.1	8.5	4.6	4.9	4.4
Div. Yield (%)	3.2	3.2	3.3	1.6	4.4	7.8	7.6	7.2
FCF Yield (%)	1.2	7.4	7.3	-2.2	9.3	12.2	14.4	11.5

Source: Company, MOFSL

Exhibit 7: OINL's one-year forward P/E ratio



Source: Company, MOFSL

9 December 2023



# **GAIL** – Financial summary and assumptions – BUY

**Exhibit 8: Expect transmission volumes to reach** 

### ~132mmscmd in FY25...

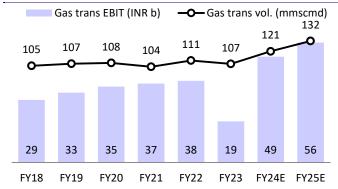
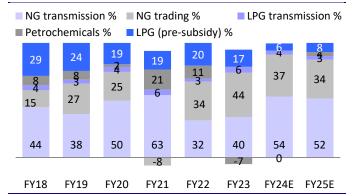


Exhibit 9: ...with contribution to EBITDA increasing to 52%



Source: Company, MOFSL

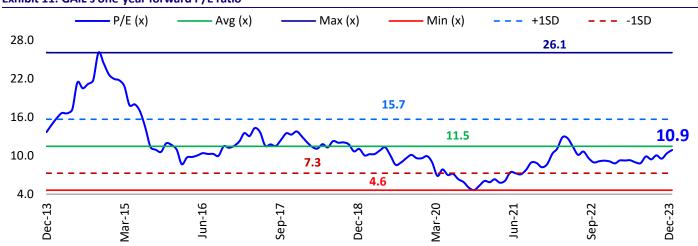
Source: Company, MOFSL

Exhibit 10: Financial summary (INR b)

Exhibit 10: Financial s	ummary (INK b)							
Y/E March	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E
Sales	538.3	751.3	718.8	567.4	916.5	1,443.0	1,330.8	1,428.3
EBITDA	78.0	95.3	83.7	64.5	138.3	67.0	109.6	128.2
Adj. PAT	47.3	63.3	74.2	49.0	102.9	53.0	74.8	87.9
Adj. EPS (INR)	7.2	9.6	11.3	7.4	15.6	8.1	11.4	13.4
EPS Gr. (%)	4.8	33.6	17.3	-34.0	110.1	-48.5	41.2	17.4
BV/Sh.(INR)	62.1	68.1	73.0	77.1	89.5	93.5	101.5	110.9
Ratios								
Net D:E	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.2
RoE (%)	12.2	14.3	15.0	10.8	20.3	9.5	12.8	13.7
RoCE (%)	10.7	13.1	12.6	9.0	17.0	7.9	10.1	10.8
Payout (%)	44.0	34.7	51.3	45.0	21.3	49.6	30.0	30.0
Valuations								
P/E (x)	17.2	12.9	11.0	16.6	7.9	15.4	10.9	9.3
P/BV (x)	2.0	1.8	1.7	1.6	1.4	1.3	1.2	1.1
EV/EBITDA (x)	3.7	2.5	5.8	6.9	3.5	9.0	6.2	5.3
Div. Yield (%)	2.2	2.1	3.5	2.7	2.7	3.2	2.7	3.2
FCF Yield (%)	7.0	0.8	1.8	3.8	3.7	-5.6	0.9	3.2

Source: Company, MOFSL

Exhibit 11: GAIL's one-year forward P/E ratio



Source: Company, MOFSL

5

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

9 December 2023

## 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 Motilal Oswal Financial Services Limited available http://onlinereports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf

MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.

MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx

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

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
- 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.

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

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

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

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 - 71934200 / 71934263; www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 71881000.

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

Grievance Redressal Cell:

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

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

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