

BSE SENSEX

49,719

S&P CNX

14,634



Stock Info

Bloomberg	PWGR IN
Equity Shares (m)	5,232
M.Cap.(INRb)/(USDb)	1151.7 / 15.6
52-Week Range (INR)	239 / 153
1, 6, 12 Rel. Per (%)	1/3/-13
12M Avg Val (INR M)	2287
Free float (%)	48.7

Financials & Valuations (INR b)

Y/E MARCH	2020	2021E	2022E
Sales	394.3	411.1	441.9
EBITDA	346.2	365.0	393.1
Adj. PAT	110.6	124.7	135.1
EBITDA Margin (%)	87.8	88.8	89.0
Cons. Adj. EPS (INR)	21.1	23.8	25.8
EPS Gr. (%)	10.2	12.7	8.4
BV/Sh. (INR)	123.7	132.4	144.0

Ratios

Net D:E	2.2	2.1	1.8
RoE (%)	17.9	18.6	18.7
RoCE (%)	7.9	8.3	8.9
Payout (%)	54.1	59.8	60.6

Valuations

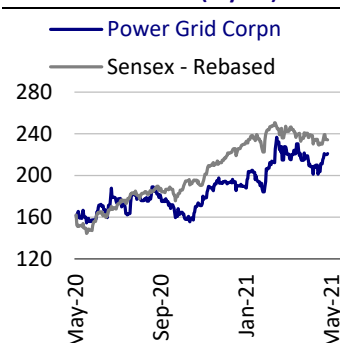
P/E (x)	10.4	9.3	8.6
P/BV (x)	1.8	1.7	1.5
EV/EBITDA(x)	7.5	7.1	6.4
Div. Yield (%)	4.5	5.9	6.4
FCF Yield (%)	17.3	14.8	21.7

Shareholding pattern (%)

As On	Mar-21	Dec-20	Mar-20
Promoter	51.3	51.3	51.3
DII	13.8	15.5	16.7
FII	28.4	26.7	27.0
Others	6.5	6.4	5.0

FII Includes depository receipts

Stock Performance (1-year)


CMP: INR221 TP: INR255 (+15%)
Buy

Monetization plans set to take off

Providing a means for asset monetization

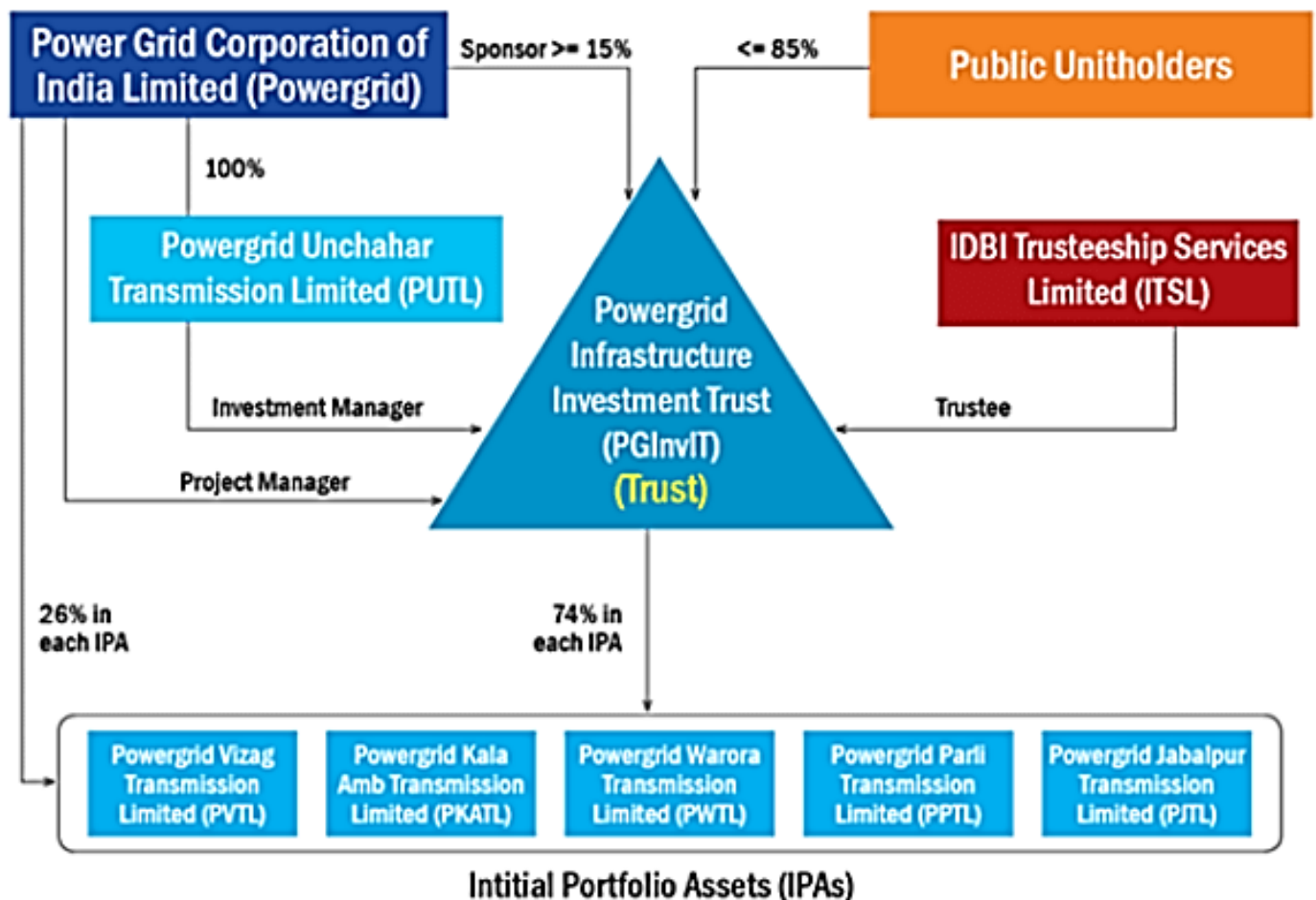
- The launch of Power Grid (PWGR)'s InvIT marks the start of monetization plans for its tariff-based competitive (TBCB) projects. The initial InvIT would house five transmission projects (gross block: INR72b). For PWGR, the same accounts for 3% of its total gross block and hence the value accretion is not large. We had valued these five assets at INR36b. Against this, we see a potential realized value of INR53b – INR27b from offer for sale, INR13.7b of a 15% stake in InvIT, and ~INR12b est. value for a 26% stake in SPVs – implying an INR3/sh accretion.
- Nevertheless, the InvIT provides a strong means for recycling as a) incremental orders within the sector are largely on a TBCB basis and b) PWGR has a healthy portfolio of 11 under-construction TBCB assets (cost: INR108b). Additionally, the co. has three other projects operationalized and has recently won five packages under the RE transmission scheme in Rajasthan – thereby leading to a potential monetization pipeline for another INR235b worth of projects.
- Regulated tariff mechanism (RTM) assets, though, continue to be the mainstay for the co. RTM would account for 92% of the co.'s gross block in FY23 (post-InvIT: 94%). These assets are governed by CERC regulations, including RoEs, and are thus subject to changes in the same. Tariffs in the case of TBCB are more predictable and bid out in advance. PWGR noted that it could look at the option of transferring the RTM assets, but this looks unlikely in the near term, with the focus on monetizing its TBCB pipeline.

InvIT – expect initial IRRs at 9%, yield at 11–12%

- The five assets transferred to the InvIT provide a steady stream of cash flow and have been operational for the past 2–4 years – thereby implying another 31–33 years of life under the transmission service agreement (TSA). PWGR would retain a 26% stake in the individual SPVs until the lock-in period (five years from CoD).
- The offer sets the valuation of the InvIT at INR91b, with an issue size of INR77.4b; PWGR holds a 15% stake in the InvIT. Of the total proceeds, INR27b is an offer for sale from PWGR, while INR50b would be used to repay the debt of the SPVs. The InvIT is projected to generate cash flow from operations of INR11–12b p.a. over FY22–24. We believe the InvIT could provide yield of 11–12% in the initial years, with overall IRR of ~9%. However, there remains a robust growth opportunity, with the ability to leverage at the InvIT level and improve IRR – given an INR235b pipeline at the sponsor (PWGR).

See a strong case for higher dividends; Maintain Buy

- PWGR had noted that monetization proceeds from the InvIT would be used for future growth purposes. While the awarding of transmission schemes under renewable integration provides this opportunity, our checks suggest continued challenges have resulted in the awarding being deferred. Accordingly, with a declining order book and capex schedule, we see a strong case for higher dividend in the near term.
- With INR27b upfront cash from the OFS sale, we see this as potentially distributable to shareholders – implying an additional dividend of INR5/sh. This, along with a steady 60–65% payout ratios, would translate to DPS of INR34/sh over the next two years – implying dividend yield of 8%. Furthermore, a) the share of dividend from SPVs of the InvIT, b) a 26% stake sale in the five SPVs, and c) the further transfer of assets to the InvIT provide additional distribution potential. Given a ~7% dividend yield (current) – backed by steady earnings growth (7% CAGR over FY21–23) and RoEs of 18% – PWGR remains attractively valued at 1.4x FY23E P/BV. Maintain Buy, with DCF-based TP of INR255/sh.

Exhibit 1: Structure of InvIT: PWGR holds 15% share in trust and 26% stake in SPVs

Source: Power Grid InvIT RHP, MOFSL

INR50b of the proceeds from the issue would be used to pay off the SPV debt

Exhibit 2: Key parameters for five projects (INR m)

Project	Gross block	Revenue (FY20)	EBITDA (FY20)	PAT (FY20)	Debt
Vizag	13,098	3,129	3,059	1,518	7,840
Kala Amb	3,214	732	660	234	1,860
Parli	18,463	3,273	3,166	792	13,005
Warora	22,321	3,603	3,494	761	15,400
Jabalpur	15,295	2,506	2,483	484	11,830
Total	72,390	13,243	12,861	3,788	49,935

Source: Power Grid InvIT RHP, MOFSL

The InvIT plans to acquire the remaining 26% stake in the SPVs from PWGR after the lock-in period expiry

Exhibit 3: Lock-in and TSA end-date of five projects

Project	Commission date	26% equity lock-in expiry date	TSA end date
Vizag	1-Feb-17	1-Feb-22	31-Jan-52
Kala Amb	12-Jul-17	12-Jul-22	11-Jul-52
Parli	4-Jun-18	4-Jun-23	3-Jun-53
Warora	10-Jul-18	10-Jul-23	9-Jul-53
Jabalpur	1-Jan-19	1-Jan-24	24-Jun-53

Source: Power Grid InvIT RHP, MOFSL

Exhibit 4: Forecast cash flow from operations (CFO) for SPVs and InvIT (as per the offer document)

Projects	FY22F	FY23F	FY24F
Vizag	2,607	2,260	2,011
Kala Amb	650	615	565
Parli	3,085	3,081	3,078
Warora	3,435	3,432	3,429
Jabalpur	2,424	2,421	2,421
CFO at SPVs	12,202	11,808	11,504
CFO at InvIT	12,086	11,685	11,374

Source: Power Grid InvIT RHP, MOFSL

Exhibit 5: PWGR has another 16 TBCB-based SPVs with est. cost of INR187b; SPVs for additional ~INR50b of recent award wins yet to be taken over

	Proj. cost	FY20		
	Est. INR m	Debt INR m	Net worth INR m	PAT INR m
NM Transmission	13,465	10,889	833	-295
Unchahar Transmission	729	403	244	96
Southern Interconnector	36,916	27,807	7,161	87
Medinipur-Jeerat	29,728	21,111	2,893	0
Mithilanchal Trans.	10,964	6,480	1,200	0
Varanasi Trans.	8,848	5,363	1,250	0
Jawaharpur Firozabad	4,459	2,113	0	0
Khetri Transco	9,127	2,125	0	-3
Bhind Guna Trans.	5,024	480	-6	1
Ajmer Phagi	6,411	1,627	-3	-3
Bhuj Transmission	10,173	830	0	0
Fatehgarh-II	7,982	1,468	0	0
Rampur Sambhal	7,123	151	-8	-7
Meerut-Simbhawali	8,953	310	0	0
Bikaner-II Bhiwadi	20,980	NA	NA	NA
Ramgarh New	6,180	NA	NA	NA
Total	187,062	81,157	13,564	-124

Note: Rows highlighted are commissioned projects.

Source: MOFSL, CEA, Company

Exhibit 6: Combined SPV Income Statement

INR m	FY18	FY19	FY20	9M-FY21
Revenue From Operations	3,436	9,772	13,243	9,923
Other Income	20	70	98	168
Total Income	3,456	9,841	13,341	10,091
Finance costs	1,158	3,281	4,291	2,910
Depreciation and amortization	932	2,750	3,794	1,392
Other expenses	81	330	382	312
Total expenses	2,171	6,361	8,467	4,614
Profit Before Tax	1,285	3,480	4,874	5,477
Tax expense:	144	1,000	1,086	2,105
Profit for the period	1,141	2,481	3,788	3,371

Source: Power Grid InvIT RHP, MOFSL

Exhibit 7: Combined SPV Balance Sheet Statement

INR m	FY18	FY19	FY20	9M-FY21
Assets				
Non-current assets				
Property, Plant and Equipment	17,787	66,153	63,219	61,994
Capital work-in-progress	45,293	87	-	22
Other Intangible assets	4	885	1,155	1,117
Intangible assets under development	187	-	-	-
Deferred tax Assets(Net)	193	-	-	-
Other non-current assets	412	55	41	620
	63,875	67,180	64,415	63,753
Current assets				
Inventories	109	210	310	310
Trade receivables	507	1,189	1,737	1,881
Cash and cash equivalents	170	27	399	541
Other current financial assets	339	1,306	1,260	1,405
Current Tax Assets (Net)	49	57	57	-
Other current assets	0	34	34	296
	1,174	2,823	3,797	4,432
Total Assets	65,049	70,003	68,212	68,185
Equity and Liabilities				
Equity				
Equity Share capital	4,423	9,987	12,007	12,130
Other Equity	712	2,196	3,330	2,751
	5,135	12,183	15,337	14,881
Liabilities				
Non-current liabilities				
Borrowings	52,367	53,369	44,293	47,507
Deferred tax liabilities(Net)	-	53	287	2,677
	52,367	53,422	44,580	50,185
Current liabilities				
Trade payables	1	4	9	87
Other current financial liabilities	7,388	4,305	8,268	2,998
Other current liabilities	157	53	15	31
Provisions	0	6	1	0
Current Tax Liabilities (Net)	1	31	1	2
	7,547	4,398	8,295	3,119
Total Equity and Liabilities	65,049	70,003	68,212	68,185

Source: Power Grid InvIT RHP, MOFSL

Financials and valuations

Income statement						(INR m)		
Y/E March	2016	2017	2018	2019	2020	2021E	2022E	2023E
Net Sales	206,521	257,039	299,415	325,323	394,269	411,061	441,851	461,355
Change (%)	17.0	24.5	16.5	8.7	21.2	4.3	7.5	4.4
Expenditure	23,940	30,467	36,296	48,386	48,033	46,076	48,769	52,507
EBITDA	182,581	226,572	263,119	276,937	346,236	364,985	393,081	408,849
% of Net Sales	88.4	88.1	87.9	85.1	87.8	88.8	89.0	88.6
Depreciation	61,818	77,223	92,310	105,410	116,070	125,875	134,957	142,343
Interest	50,862	62,036	73,241	87,366	95,090	95,276	97,024	97,121
Other Income	4,663	5,838	4,891	6,022	9,274	10,148	6,444	6,753
PBT before EO	74,563	93,153	102,459	90,184	144,350	153,982	167,545	176,138
EO income (expense)	0	0	0	0	0	-10,750	0	0
PBT after EO	74,563	93,153	102,459	90,184	144,350	143,232	167,545	176,138
Tax	16,129	20,063	21,955	-8,864	35,308	30,738	33,881	35,692
Rate (%)	21.6	21.5	21.4	-9.8	24.5	21.5	20.2	20.3
Reported PAT	58,434	73,090	80,504	99,047	109,043	112,495	133,664	140,446
Share of JVs and asso.	1,152	1,418	1,479	1,288	1,551	1,420	1,486	1,453
Adjusted PAT	59,586	74,507	86,513	100,335	110,594	124,664	135,149	141,898
Change (%)	17.1	25.0	16.1	16.0	10.2	12.7	8.4	5.0
Balance sheet						(INR m)		
Y/E March	2016	2017	2018	2019	2020	2021E	2022E	2023E
Share Capital	52,316	52,316	52,316	52,316	52,316	52,316	52,316	52,316
Reserves	387,383	446,339	491,944	538,568	594,638	640,492	701,166	757,149
Net Worth	439,699	498,655	544,260	590,884	646,954	692,808	753,482	809,465
Loans	1,085,449	1,189,879	1,315,030	1,463,764	1,482,696	1,446,725	1,390,288	1,321,952
Deferred Rev. & tax	82,169	74,184	74,509	194,755	221,448	221,448	221,448	221,448
Capital Employed	1,607,318	1,762,718	1,933,798	2,249,403	2,351,098	2,360,981	2,365,218	2,352,865
Gross Fixed Assets	1,214,908	1,519,616	1,798,900	2,072,146	2,275,432	2,509,684	2,689,471	2,817,493
Less: Depreciation	63,965	142,837	236,914	344,750	464,311	590,186	725,142	867,486
Net Fixed Assets	1,150,942	1,376,779	1,561,986	1,727,396	1,811,121	1,919,498	1,964,329	1,950,008
Capital WIP	354,021	296,750	289,496	262,311	284,492	155,488	69,605	31,190
Investments	9,185	11,650	12,240	12,964	14,311	14,311	14,311	14,311
Other Assets	278,769	271,272	279,548	470,904	456,609	447,900	481,210	527,401
Inventory	109,163	94,963	97,683	126,472	81,617	81,964	82,289	83,261
Debtors	27,395	31,319	36,400	47,281	50,407	55,678	52,204	52,943
Cash & Bank Balance	22,434	33,536	21,890	43,367	54,390	26,267	49,443	79,186
Other Current Assets	82,260	71,952	85,246	154,238	155,906	169,592	182,903	196,359
Loans & Advances	37,518	39,501	38,329	99,547	114,289	114,400	114,372	115,653
Other Liabilities	185,600	193,732	209,468	224,173	215,434	176,217	164,236	170,045
Net Current Assets	93,170	77,539	70,080	246,731	241,174	271,684	316,974	357,356
Application of Funds	1,607,318	1,762,718	1,933,801	2,249,402	2,351,098	2,360,981	2,365,218	2,352,865

Financials and valuations

Ratios

Y/E March	2016	2017	2018	2019	2020	2021E	2022E	2023E
Basic (INR)								
EPS	11.4	14.2	16.5	19.2	21.1	23.8	25.8	27.1
Cash EPS	23.2	29.0	34.2	39.3	43.3	47.9	51.6	54.3
Book Value	84.0	95.3	104.0	112.9	123.7	132.4	144.0	154.7
DPS	2.1	2.5	5.8	8.6	10.0	13.0	14.2	16.4
Div.Payout (incl. Tax.)	0.0	21.0	44.2	54.5	54.1	59.8	60.6	66.7
Valuation (x)								
P/E	19.4	15.5	13.4	11.5	10.4	9.3	8.6	8.1
Cash P/E	9.5	7.6	6.5	5.6	5.1	4.6	4.3	4.1
EV/EBITDA	12.2	10.2	9.3	9.3	7.5	7.1	6.4	5.9
Price/Book Value	2.6	2.3	2.1	2.0	1.8	1.7	1.5	1.4
Dividend Yield (%)	1.0	1.1	2.6	3.9	4.5	5.9	6.4	7.4
Profitability Ratios (%)								
RoE	14.5	15.9	16.6	17.7	17.9	18.6	18.7	18.2
RoCE	6.5	7.2	7.5	9.3	7.9	8.3	8.9	9.2
RoIC	8.6	8.9	8.9	10.6	8.9	9.0	9.4	9.5
Turnover Ratios								
Debtors (Days)	48	44	44	53	47	49	43	42
Inventory (Days)	94	70	64	84	59	58	56	55
Current Liabilities (Days)	160	142	136	149	155	125	112	113

Cash flow statement

(INR m)

Y/E March	2016	2017	2018	2019	2020	2021E	2022E	2023E
PBT before EO Items	75,597	94,369	103,938	84,531	149,465	153,982	167,545	176,138
Depreciation	61,818	77,223	92,310	105,410	116,070	125,875	134,957	142,343
Interest	50,862	62,036	73,241	87,366	95,090	95,276	97,024	97,121
Others	-4,730	-3,264	-3,616	33,927	-28,805	-20,898	-6,444	-6,753
(Inc)/Dec in WC	-19,310	4,495	-16,181	-54,619	4,271	-58,632	-22,114	-10,639
Direct Taxes Paid	-14,156	-18,714	-22,591	-22,808	-25,687	-30,738	-33,881	-35,692
CF from Operations	150,082	216,144	227,101	233,807	310,405	264,865	337,086	362,518
(Inc)/Dec in FA	-216,795	-239,244	-261,799	-224,507	-113,671	-105,248	-93,904	-89,608
(Pur)/Sale of Investments	1,030	495	4,784	36,137	3,249	11,568	7,930	8,206
CF from Investments	-215,765	-238,749	-257,015	-188,370	-110,423	-93,681	-85,974	-81,402
Equity raised	0	0	0	0	0	0	0	0
Grants etc	0	0	0	0	0	0	0	0
(Inc)/Dec in Debt	117,171	112,506	119,924	133,169	-17,317	-35,972	-56,437	-68,336
Interest Paid	-47,584	-57,000	-70,480	-102,924	-117,301	-95,276	-97,024	-97,121
Dividend Paid	-13,379	-15,921	-36,598	-54,554	-53,440	-68,060	-74,475	-85,916
CF from Fin. Activity	56,208	39,586	12,847	-24,308	-188,058	-199,308	-227,936	-251,372
Inc/Dec of Cash	-9,475	16,980	-17,067	21,129	11,924	-28,123	23,176	29,743
Add: Beginning Balance	31,909	16,556	38,957	22,237	42,466	54,390	26,267	49,443
Closing Balance	22,434	33,536	21,890	43,367	54,390	26,267	49,443	79,186

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 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, Investment Advisory Services, Depository participant services & distribution of various financial products. MOFSL is a subsidiary company of Passionate Investment Management Pvt. Ltd.. (PIMPL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at <http://onlinereports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf>

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

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

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to Subject Company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act") and together with the 1934 Act, the "Acts), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

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

For Singapore

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

Specific Disclosures

- 1 MOFSL, Research Analyst and/or his relatives does not have financial interest in the subject company, as they do not have equity holdings in the subject company.
- 2 MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- 3 MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 4 MOFSL, Research Analyst and/or his relatives do not have material conflict of interest in the subject company at the time of publication of research report
- 5 Research Analyst has not served as director/officer/employee in the subject company
- 6 MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 7 MOFSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months
- 8 MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- 9 MOFSL has not received any compensation or other benefits from third party in connection with the research report
- 10 MOFSL has not engaged in market making activity for the subject company

The associates of MOFSL may have:

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company
- received compensation/other benefits from the subject company in the past 12 months
- 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.

The associates of MOFSL has not received any compensation or other benefits from third party in connection with the research report

Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

Analyst Certification

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

Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, nor its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 71934200/ 022-71934263; Website www.motilaloswal.com; CIN no.: L67190MH2005PLC153397; Correspondence Office Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad(West), Mumbai- 400 064. Tel No: 022 7188 1000.

Registration Nos.: Motilal Oswal Financial Services Limited (MOFSL)*: INZ000158836(BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412. AMFI: ARN - 146822; Investment Adviser: INA000007100; Insurance Corporate Agent: CA0579;PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) is offered through MOWML, which is a group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance Products and IPOs. Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock Exchanges carefully before investing. There is no assurance or guarantee of the returns. Investment in securities market is subject to market risk, read all the related documents carefully before investing. Details of Compliance Officer: Name: Neeraj Agarwal, Email ID: na@motilaloswal.com, Contact No.: 022-71881085.

* MOSL has been amalgamated with Motilal Oswal Financial Services Limited (MOFSL) w.e.f August 21, 2018 pursuant to order dated July 30, 2018 issued by Hon'ble National Company Law Tribunal, Mumbai Bench.