ANANDRATHI

India | Equities

Cement

Company Update

Change in Estimates ☑ Target ☑ Reco □

19 August 2020

NCL Industries

Cement division shines; retaining a Buy

Outpacing the industry, NCL's cement division did well, with the highest EBITDA/ton. Its Boards & RMC divisions, however, suffered on closure of major markets and no progress could be made on the Chinese JV. The Mattampally-plant modernisation and the 8MW WHRS and new solar power agreement will help in cost savings. We retain our Buy rating, with a higher TP of ₹136 (earlier ₹108).

Cement division: industry beating volumes, with highest EBITDA/ton. Beating the industry, NCL's volumes fell only 12% y/y to 0.48m tons (Sagar ~32%, Deccan ~34%) backed by good rural demand in May/Jun and the contribution to a government project (Polaveram/Kaleshwaram). On higher realisations (up 29% y/y) and lower fuel cost, it attained the highest EBITDA/ ton of ₹1,385 (vs. ₹1,103 a year ago, ₹410 the prior quarter). Running at 100% capacity, management targets cement volumes of ~2.3m tons for FY21.

Boards & RMC suffered; no progress on Chinese JV. On major markets (Maharashtra/Gujarat) being locked down and weak urban demand, Boards/ RMC sales volumes fell 47%/44% y/y in Q1, leading to EBIT loss of ₹8m/ ₹1m. No progress on the Chinese JV for the steel building division was made and management is looking for other technology partner. It expects the Board division's performance to improve on rapidly rising hospital construction demand along with the company's efforts to expand the market. Further, the energy division is expected to benefit on the good monsoon.

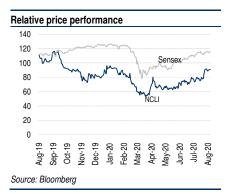
Outlook, Valuation. Besides setting up the 8MW WHRS, the company entered into solar power-purchase agreement, which would further reduce power costs. The modernisation of the (line-1) cement unit at Mattampalli (Telangana) is expected to be complete in a year, whereas the EC for the 0.7m-ton cement GU at Vizag is yet awaited. We expect cement volumes to dip 1% in FY21 and grow 8% in FY22, and EBITDA/ton to come at ₹684/692 in FY21/22. We retain our Buy rating, at a higher target of ₹136 (6x FY22e EV/EBITDA). **Risks**: Rise in input costs, extension of the lockdown.

. ,	1				
Key financials (YE Mar)	FY18	FY19	FY20	FY21e	FY22e
Sales (₹ m)	8,804	9,799	9,379	9,397	10,245
Net profit (₹ m)	491	469	508	460	549
EPS (₹)	10.9	10.4	11.2	10.2	12.1
PE (x)	20.1	14.0	4.8	9.0	7.6
EV / EBITDA (x)	9.3	7.2	4.2	5.2	4.8
EV / ton (\$)	56.0	43.0	23.2	31.5	32.9
RoE (%)	14.3	9.8	9.9	8.4	9.3
RoCE (%)	9.1	8.1	7.7	6.6	7.2
Dividend yield (%)	1.1	1.7	4.6	2.2	2.2
Net debt / equity (x)	0.5	0.6	0.6	0.6	0.6
Source: Company, Anand Rathi Rese	arch				

Rating: Buy
Target Price: ₹136
Share Price: ₹92

Key data NCLI IN / NCLI.BC										
52-week high / low	52-week high / low ₹130 / 48									
Sensex / Nifty		38528	/ 11385							
3-m average volume			\$0.5m							
Market cap		₹4bn /	\$55.1m							
Shares outstanding			45m							
Shareholding pattern (%)	Jun-20	Mar-20	Dec-19							
Promoters	42.3	42.3	41.4							
- of which, Pledged	3.5	3.1	3.2							
Free float	57.7	57.7	58.6							
- Foreign institutions	2.3	2.3	2.4							
- Domestic institutions	7.5	11.1	11.5							
- Public	47.9	44.3	44.8							

Estimates revision (%)	FY21e	FY22e
Sales	4.5	3.6
EBITDA	6.0	(0.2)
EPS	24.1	4.1



nesearch Analyst	
Vibha Jain	

Manish Valecha

Anand Rathi Shares and Stock Brokers Limited (hereinafter "ARSSBL") is a full service brokerage and equities research firm and the views expressed therein are solely of ARSSBL and not of the companies which have been covered in the Research Report. This report is intended for the sole use of the Recipient. Disclosures and analyst certifications are present in Appendix.

Quick Glance – Financials and Valuations

Fig 1 – Income statement (₹ m)											
Year-end: Mar	FY18	FY19	FY20	FY21e	FY22e						
Sales volumes (m tons)	1.8	2.2	1.9	1.8	2.0						
Net revenues	8,804	9,799	9,379	9,397	10,245						
Growth (%)	15.0	11.3	-4.3	0.2	9.0						
Direct costs	6,137	6,611	5,673	5,848	6,351						
SG&A	1,336	1,840	2,312	2,115	2,265						
EBITDA	1,331	1,348	1,394	1,434	1,629						
EBITDA margins (%)	15.1	13.8	14.9	15.3	15.9						
- Depreciation	347	453	421	456	507						
Other income	71	64	26	39	46						
Interest expenses	310	348	307	320	336						
PBT	744	611	692	697	832						
Effective tax rate (%)	34.0	23.2	26.5	34.0	34.0						
+ Associates / (Minorities)											
Net income	491	469	508	460	549						
Adjusted income	491	469	508	460	549						
WANS	45	45	45	45	45						
FDEPS (₹ / sh)	10.9	10.4	11.2	10.2	12.1						
FDEPS growth (%)	-27.1	-4.5	8.4	-9.5	19.4						

Year-end: Mar	FY18	FY19	FY20	FY21e	FY22e
PBT	744	611	692	697	832
+ Non-cash items	347	453	421	456	507
Oper. prof. before WC	1,091	1,064	1,113	1,153	1,339
- Incr. / (decr.) in WC	-289	859	138	-121	130
Others incl. taxes	177	92	218	237	283
Operating cash-flow	1,203	113	757	1,037	926
- Capex (tang. + intang.)	2,226	687	784	900	1,130
Free cash-flow	-1,024	-574	-27	137	-204
Acquisitions					
- Div.(incl. buyback & taxes)	136	136	136	90	90
+ Equity raised	2,019	-	-	-	-
+ Debt raised	-789	725	208	-	200
- Fin investments	-	-	0	-	-
- Misc. (CFI + CFF)	28	-48	81	0	0
Net cash-flow	42	63	-37	47	-94

Year-end: Mar	FY18	FY19	FY20	FY21e	FY22e
Share capital	452	452	452	452	452
Net worth	4,612	4,993	5,284	5,654	6,112
Debt	2,619	3,345	3,552	3,552	3,752
Minority interest					
DTL / (Assets)	711	761	727	727	727
Capital employed	7,943	9,099	9,563	9,933	10,591
Net tangible assets	6,925	6,584	6,953	7,896	8,019
Net Intangible assets	-	-	-	-	-
Goodwill	-	-	-	-	-
CWIP (tang. & intang.)	330	905	899	400	900
Investments (strategic)	-	-	0.1	0.1	0.1
Investments (financial)	-	-	-	-	-
Current assets (ex cash)	2,209	3,236	3,492	3,295	3,593
Cash	161	224	187	234	139
Current liabilities	1,682	1,850	1,968	1,892	2,060
Working capital	527	1,386	1,524	1,403	1,533
Capital deployed	7,943	9,099	9,563	9,933	10,591
Contingent liabilities	315	325	-	-	-

Fig 4 – Ratio analysis

Year-end: Mar	FY18	FY19	FY20	FY21e	FY22e
P/E (x)	20.1	14.0	4.8	9.0	7.6
EV/EBITDA (x)	9.3	7.2	4.2	5.2	4.8
EV / Sales (x)	1.4	1.0	0.6	0.8	0.8
P/B (x)	2.1	1.3	0.5	0.7	0.7
RoE (%)	14.3	9.8	9.9	8.4	9.3
RoCE (%) - after tax	9.1	8.1	7.7	6.6	7.2
DPS (₹ / sh)	2.5	2.5	2.5	2.0	2.0
Dividend payout (%) - incl. DDT	27.7	29.0	26.8	19.7	16.5
Net debt / equity (x)	0.5	0.6	0.6	0.6	0.6
WC days	21.8	51.6	59.3	54.5	54.6
EV / ton (\$)	56.0	43.0	23.2	31.5	32.9
NSR / ton (₹)	4,318	3,979	4,118	4,318	4,368
EBITDA / ton (₹)	647	521	667	684	692
Volumes (m tons)	1.8	2.2	1.9	1.8	2.0
CFO: PAT %	245.0	24.0	148.9	225.5	168.7
Source: Company, Anand Rathi Resea	rch				

Fig 6 - Q1 FY21 segment revenue break-up

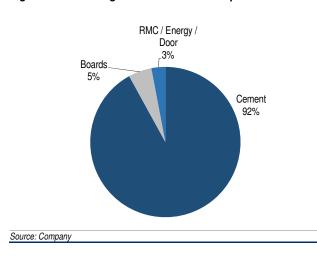
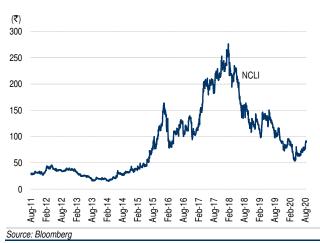


Fig 5 – Price movement



Company update

Promoted by the late K. Ramachandra Raju, the Hyderabad-based NCL Industries, incorporated in 1979, is into cement, particle boards, ready-mix concrete and hydro power For the past three decades it has been supplying the construction industry with its top quality Nagarjuna Cement brand.

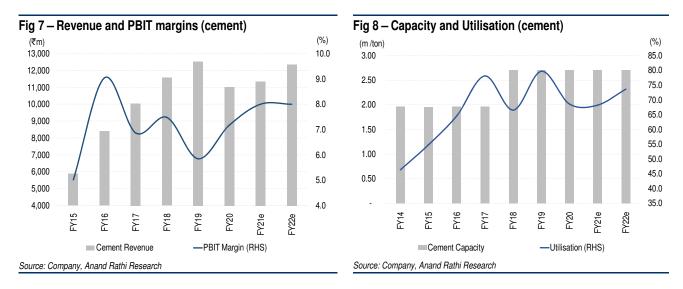
It is a strong regional operator and has been a household name in Andhra Pradesh, popularly known as "Monagadu" cement in Telugu. The company forward-integrated into value-added products with cement boards and ready-mix concrete. It has two small hydro-electric plants, of 7.5MW in Andhra Pradesh and 8.25MW in Karnataka.

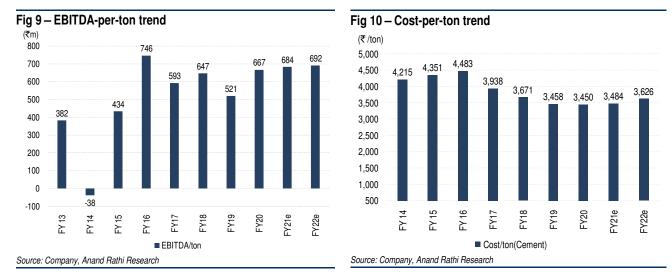
NCL has a wide distribution network in the country, with more than 1,600 cement dealers and 300 distributors for boards. It is the only private company in Andhra Pradesh which manufactures the special 53-S grade cement.

The cement division

With its strategically-located 2.7m-tpa cement capacity, and a wellestablished brand Nagarjuna Cement, NCL is a robust regional cement manufacturer in south India. In FY18, it expanded its clinker capacity in Nalgonda from 1.58m tons to 2.64m tons. It markets its products largely in the south, primarily in AP/Telangana (90%) and Tamil Nadu and Karnataka.

In Q1 FY21, its cement revenue slid $\sim 2\%$ y/y to $\sim ₹3.5$ bn. Cement sales volumes were down 12% y/y to 0.48m tons, though net realisations were up $\sim 12\%$ y/y. The PBIT margin increased to 17% (14.6% a year ago) on higher realisations and lower costs.

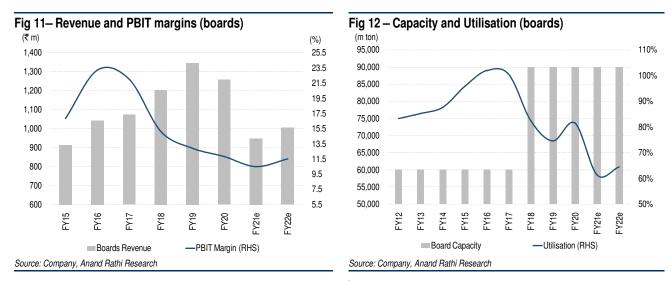




The Boards division

Cement-bonded particle boards, made of 62% cement, 28% wood, popularly known as Bison Panels, were introduced by NCL in 1990 in collaboration with Bison Werke (Germany), the global leader in particleboard technology. On the one hand, the boards have the strength and durability of cement; on the other, they have the easy workability of wood. They are fire-, water- and termite-resistant and can be used externally and internally. To address mounting demand, NCL expanded its boards capacity by 30,000tpa in Q3 FY18 at ₹400m capex. Post-expansion, Bison boards are manufactured at two plants: Mattampally (Telangana) and Paonta Sahib (HP), combined capacity being 90,000tpa.

During Q1 FY21, the Boards division revenue declined 46.7% y/y on the 47% y/y drop in sales volumes to 8,075 tons. It reported PBIT loss of ₹8m, vs. ₹41m PBIT a year ago. NSR/ton increased 1.5% y/y.



Energy and the RMC divisions

The company is small in hydro-electric energy and ready-mix concrete, which together bring $\sim 5\%$ to its revenue. Its strong brand (Nagarjuna Cement) has led to its ready-mix concrete brand being marketed as Nagarjuna RMC. It has four RMC manufacturing plants, adequately geared to handle demand from the vast number of urban housing development and infrastructure projects.

Equipped with twin-shaft concrete mixers to ensure a homogenous mix, plants have adequate control over the size, shape and grade of the aggregates and of optimal management of the water-cement ratio. The key ingredient of Nagarjuna RMC is its superior OPC-53 Nagarjuna Cement.

Its energy division operates two mini-hydel generating plants: one of 7.5MW on the Srisailam right main canal in AP, the other of 8.25MW on the right bank high-level canal of the Tungabhadra dam in Karnataka.

In Q1 FY21, the energy and RMC divisions combined brought 3% to overall revenue. The Energy division reported PBIT loss of ₹7m (vs. ₹8m loss in Q1 FY20); the RMC division also reported PBIT loss, of ₹1m (vs. ₹11m PBIT in Q1 FY20).

Result highlights

Fig	13 –	Quar	terly	trend

(₹ m)	Q3 FY18	Q4 FY18	Q1 FY19	Q2 FY19	Q3 FY19	Q4 FY19	Q1 FY20	Q2 FY20	Q3 FY20	Q4 FY20	Q1 FY21	% Y/Y	% Q/Q
Sales	2,227	2,726	2,394	2,288	2,412	2,705	2,864	1,940	2,106	2,469	2,609	(8.9)	5.7
EBITDA	284	352	272	265	257	554	651	258	261	225	644	(0.9)	186.7
EBITDA margins (%)	12.8	12.9	11.4	11.6	10.7	20.5	22.7	13.3	12.4	9.1	24.7	198bps	1559bps
EBITDA per ton (₹)	449	613	489	384	347	835	1,103	495	353	410	1,385	25.6	238.2
Interest	86	65	86	93	87	81	76	75	81	75	68	(10.0)	(8.3)
Depreciation	94	99	113	113	114	113	105	109	108	99	100	(4.7)	1.2
Other income	6	47	13	13	15	23	15	2	(14)	23	5	(70.5)	(80.0)
PBT	110	236	87	71	71	382	485	76	58	74	480	(0.9)	551.2
Tax	(27)	142	25	(6)	6	118	194	(12)	3	(3)	85	(56.0)	NA
PAT	137	94	62	77	65	265	290	87	54	77	395	36.0	415.1
Source: Company, Anand	Rathi Resear	rch											

Fig 14 – Segme	nt details	5											
(₹)	Q3 FY18	Q4 FY18	Q1 FY19	Q2 FY19	Q3 FY19	Q4 FY19	Q1 FY20	Q2 FY20	Q3 FY20	Q4 FY20	Q1 FY21	% Y/Y	% Q/Q
Net revenue													
Cements	2,884	3,546	3,241	2,794	3,106	3,377	3,530	2,158	2,406	2,935	3,464	(1.9)	18.0
Boards	304	342	286	344	338	378	320	313	311	315	171	(46.7)	(45.7)
Energy	31	4	-	29	15	0	-	27	44	9	-	NA	NA
RMC	122	163	149	188	191	214	190	217	235	197	108	(42.9)	(45.0)
Doors									1	14	10	NA	(32.5)
Segment PBIT													
Cement	130	270	163	89	94	386	517	87	58	127	589	14.1	364.7
Boards	46	33	15	44	45	70	41	31	32	44	(8)	P2L	P2L
Energy	23	(4)	(8)	20	7	(8)	(8)	19	35	2	(7)	P2L	P2L
RMC	(3)	1	3	11	12	16	11	14	16	10	(1)	P2L	P2L
Doors									(0)	(33)	(24)	NA	NA
PBIT margins (%)													
Cement	4.5	7.6	5.0	3.2	3.0	11.4	14.6	4.0	2.4	4.3	17.0	238bps	1269bps
Boards	15.2	9.7	5.2	12.8	13.3	18.4	12.9	10.0	10.4	13.9	(4.6)	NA	NA
Energy	72.4	(115.5)	NA	70.2	45.5	NA	NA	68.3	80.3	17.3	NA	NA	NA
RMC	(2.4)	0.7	1.8	5.7	6.5	7.5	5.6	6.4	6.7	5.0	(1.1)	NA	NA
Doors									(3.5)	(232.8)	(252.8)	NA	NA
Source: Company, Ana	nd Rathi Rese	earch											

Concall highlights

- The 8MW waste-heat-recovery plant at Mattampally has been delayed and is now expected to commence by Dec'20. The company has incurred ₹600m till now and ₹350m-400m is left. Management expects a savings in power of ₹250m a year. The company has contracted to purchase 8MW solar power at ₹3.25 a unit (vs. ~₹6 per unit from the grid).
- Collections from certain companies have been stuck owing to the sudden cancellation of projects by the AP government. Trade receivable days are ~60-90.
- On good trade demand, road projects, the Indian Railways and the Polaveram dam (1,000 tons/day of cement dispatched by NCL), capacity utilisation in july was nearly 100%. Management said healthy demand would persist. Cement prices have slipped to ₹300-350/bag from ₹380-390 in June.
- Management targets cement sales of ~2.3-2.4m tons and board sales of 5m sq. mtr. in FY21. It expects the energy division to do well on good water inflow due to the monsoon.
- The company is setting up a 2,000tpd cement GU near Vishakhapatnam at ₹1.5bn, and modernising line-1 of its cement unit at Mattampally in Telangana at ₹530m. Capex would come from a ₹1.4bn term loan and internal accruals. Management said this would be completed within 18 months of financial closure.
- Gross debt on 30th Jun'20 was ₹3.5bn. Management spoke of ~₹500m capex in FY21.
- The Doors plant commenced in Q3 FY20. A brand-building exercise is now on and meaningful contribution expected only in FY22.

The company entered an agreement with a Chinese company and incorporated a new JV, NCL-Guangzheng Structures. This may now be on hold due to the prevailing sentiment. The company has invested ₹60m-70m and is looking for another technology provider, perhaps from Korea.

Valuation

At the CMP, the stock trades at an EV/EBTIDA of 4.8x and an EV/ton of \$33 on FY22e. We retain our Buy rating, at a higher target price of ₹136, based on 6x FY22e EV/EBITDA.

Change in estimates

We increase our FY21e and FY22e revenue by 4.5% and 3.6% respectively and PAT 24% and 4%. Further, we increase our FY21e EBITDA 6%.

	Old		New		Change (%)	
(₹ m)	FY21e	FY22e	FY21e	FY22e	FY21e	FY22e
Sales	8,995	9,892	9,397	10,245	4.5	3.6
EBITDA	1,352	1,632	1,434	1,629	6.0	(0.2)
PAT	371	527	460	549	24.1	4.1

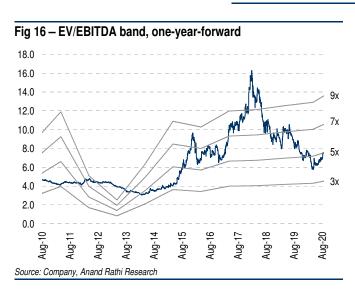


Fig 17 - EV/EBITDA: Standard deviation, one-year-forward



Risks

- Mounting competition
- Rising diesel prices
- Extension of lockdown.

	СМР	/aluations P / E (x)		EV / EBITDA (x)		EV / ton (\$)	
	(₹)	FY21e	FY22e	FY21e	FY22e	FY21e	FY22e
NCL Indus	92	9.0	7.6	5.2	4.8	31	33
Birla Corp.	595	15.1	11.8	7.7	6.7	61	50
Ramco Cement	696	31.7	23.0	19.1	14.5	131	122
Dalmia Bharat	789	NA	NA	8.3	7.3	101	90
Deccan Cement	300	9.0	6.5	4.5	3.0	22	19
Heidelberg Cement	193	19.8	14.4	9.6	7.4	88	81
India Cement	117	NA	30.3	12.8	9.4	58	58
JK Cement	1,511	31.5	20.0	15.0	10.9	119	113
JK Lakshmi	270	16.9	11.0	7.2	5.2	46	40
Mangalam Cement	199	14.4	8.1	6.9	4.9	37	35
Orient Cement	69	24.7	12.3	7.4	5.6	41	37
Prism Johnson	50	NA	22.5	12.4	7.6	54	51
Sanghi Industries	26	NA	9.3	12.0	7.5	42	40
Star Cement	93	18.1	14.0	10.2	8.0	83	84

Appendix

Analyst Certification

The views expressed in this Research Report accurately reflect the personal views of the analyst(s) about the subject securities or issuers and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst(s) in this report. The research analysts are bound by stringent internal regulations and also legal and statutory requirements of the Securities and Exchange Board of India (hereinafter "SEBI") and the analysts' compensation are completely delinked from all the other companies and/or entities of Anand Rathi, and have no bearing whatsoever on any recommendation that they have given in the Research Report.

Important Disclosures on subject companies Rating and Target Price History (as of 18 August 2020)



Anand Rathi Ratings Definitions

Analysts' ratings and the corresponding expected returns take into account our definitions of Large Caps (>US\$1bn) and Mid/Small Caps (<US\$1bn) as described in the Ratings Table below:

Ratings Guide (12 months)				
	Buy	Hold	Sell	
Large Caps (>US\$1bn)	>15%	5-15%	<5%	
Mid/Small Caps (<us\$1bn)< td=""><td>>25%</td><td>5-25%</td><td><5%</td><td></td></us\$1bn)<>	>25%	5-25%	<5%	

Research Disclaimer and Disclosure inter-alia as required under Securities and Exchange Board of India (Research Analysts) Regulations, 2014

Anand Rathi Share and Stock Brokers Ltd. (hereinafter refer as ARSSBL) (Research Entity) is a subsidiary of Anand Rathi Financial Services Ltd. ARSSBL is a corporate trading and clearing member of Bombay Stock Exchange Ltd, National Stock Exchange of India Ltd. (NSEIL), Multi Stock Exchange of India Ltd (MCX-SX) and also depository participant with National Securities Depository Ltd (NSDL) and Central Depository Services Ltd. ARSSBL is engaged in the business of Stock Broking, Depository Participant and Mutual Fund distributor.

The research analysts, strategists, or research associates principally responsible for the preparation of Anand Rathi research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors and firm revenues.

General Disclaimer: This Research Report (hereinafter called "Report") is meant solely for use by the recipient and is not for circulation. This Report does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. The recommendations, if any, made herein are expression of views and/or opinions and should not be deemed or construed to be neither advice for the purpose of purchase or sale of any security, derivatives or any other security through ARSSBL nor any solicitation or offering of any investment /trading opportunity on behalf of the issuer(s) of the respective security (ies) referred to herein. These information / opinions / views are not meant to serve as a professional investment guide for the readers. No action is solicited based upon the information provided herein. Recipients of this Report should rely on information/data arising out of their own investigations. Readers are advised to seek independent professional advice and arrive at an informed trading/investment decision before executing any trades or making any investments. This Report has been prepared on the basis of publicly available information, internally developed data and other sources believed by ARSSBL to be reliable. ARSSBL or its directors, employees, affiliates or representatives do not assume any responsibility for, or warrant the accuracy, completeness, adequacy and reliability of such information / opinions / views. While due care has been taken to ensure that the disclosures and opinions given are fair and reasonable, none of the directors, employees, affiliates or representatives of ARSSBL shall be liable for any direct, indirect, special, incidental, consequential, punitive or exemplary damages, including lost profits arising in any way whatsoever from the information / opinions / views contained in this Report. The price and value of the investment referred to in this Report and the income from them may go down as well as up, and i

Opinions expressed are our current opinions as of the date appearing on this Research only. We do not undertake to advise you as to any change of our views expressed in this Report. Research Report may differ between ARSSBL's RAs and/ or ARSSBL's associate companies on account of differences in research methodology, personal judgment and difference in time horizons for which recommendations are made. User should keep this risk in mind and not hold ARSSBL, its employees and associates responsible for any losses, damages of any type whatsoever.

ARSSBL and its associates or employees may; (a) from time to time, have long or short positions in, and buy or sell the investments in/ security of company (ies) mentioned herein or (b) be engaged in any other transaction involving such investments/ securities of company (ies) discussed herein or act as advisor or lender / borrower to such company (ies) these and other activities of ARSSBL and its associates or employees may not be construed as potential conflict of interest with respect to any recommendation and related information and opinions. Without limiting any of the foregoing, in no event shall ARSSBL and its associates or employees or any third party involved in, or related to computing or compiling the information have any liability for any damages of any kind.

Details of Associates of ARSSBL and Brief History of Disciplinary action by regulatory authorities & its associates are available on our website i.e. www.rathionline.com

Disclaimers in respect of jurisdiction: This report is not directed to, 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 or regulation or which would subject ARSSBL to any registration or licensing requirement within such jurisdiction(s). No action has been or will be taken by ARSSBL in any jurisdiction (other than India), where any action for such purpose(s) is required. Accordingly, this Report shall not be possessed, circulated and/or distributed in any such country or jurisdiction unless such action is in compliance with all applicable laws and regulations of such country or jurisdiction. ARSSBL requires such recipient to inform himself about and to observe any restrictions at his own expense, without any liability to ARSSBL. Any dispute arising out of this Report shall be subject to the exclusive jurisdiction of the Courts in India.

Statements on ownership and material conflicts of interest, compensation - ARSSBL and Associates

Answers to the Best of the knowledge and belief of ARSSBL/ its Associates/ Research Analyst who is preparing this report

Research analyst or research entity or his associate or his relative has any financial interest in the subject company and the nature of such financial interest.	No
ARSSBL/its Associates/ Research Analyst/ his Relative have actual/beneficial ownership of one per cent or more securities of the subject company, at the end of the month immediately preceding the date of publication of the research report?	No
ARSSBL/its Associates/ Research Analyst/ his Relative have actual/beneficial ownership of one per cent or more securities of the subject company	No
ARSSBL/its Associates/ Research Analyst/ his Relative have any other material conflict of interest at the time of publication of the research report?	No
ARSSBL/its Associates/ Research Analyst/ his Relative have received any compensation from the subject company in the past twelve months	No
ARSSBL/its Associates/ Research Analyst/ his Relative have managed or co-managed public offering of securities for the subject company in the past twelve months	No
ARSSBL/its Associates/ Research Analyst/ his Relative have received any compensation for investment banking or merchant banking or brokerage services from the subject company in the past twelve months	No
ARSSBL/its Associates/ Research Analyst/ his Relative have received any compensation for products or services other than investment banking or merchant banking or banking or brokerage services from the subject company in the past twelve months	No
ARSSBL/its Associates/ Research Analyst/ his Relative have received any compensation or other benefits from the subject company or third party in connection with the research report	No
ARSSBL/its Associates/ Research Analyst/ his Relative have served as an officer, director or employee of the subject company.	No

Other Disclosures pertaining to distribution of research in the United States of America

This research report is a product of ARSSBL, which is the employer of the research analyst(s) who has prepared the research report. The research analyst(s) preparing the research report is/are resident outside the United States (U.S.) and are not associated persons of any U.S. regulated broker-dealer and therefore the analyst(s) is/are not subject to supervision by a U.S. broker-dealer, and is/are not required to satisfy the regulatory licensing requirements of FINRA or required to otherwise comply with U.S. rules or regulations regarding, among other things, communications with a subject company, public appearances and trading securities held by a research analyst account.

This report is intended for distribution by ARSSBL only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the U.S. Securities and Exchange Act, 1934 (the Exchange Act) and interpretations thereof by U.S. Securities and Exchange Commission (SEC) in reliance on Rule 15a 6(a)(2). If the recipient of this report is not a Major Institutional Investor as specified above, then it should not act upon this report and return the same to the sender. Further, this report may not be copied, duplicated and/or transmitted onward to any U.S. person, which is not the Major Institutional Investor.

In reliance on the exemption from registration provided by Rule 15a-6 of the Exchange Act and interpretations thereof by the SEC in order to conduct certain business with Major Institutional Investors, ARSSBL has entered into an agreement with a U.S. registered broker-dealer, Cabrera Capital Markets. ("Cabrera"). Transactions in securities discussed in this research report should be effected through Cabrera or another U.S. registered broker dealer.

1. ARSSBL or its Affiliates may or may not have been beneficial owners of the securities mentioned in this report.

2. ARSSBL or its affiliates may have or not managed or co-managed a public offering of the securities mentioned in the report in the past 12 months.

3. ARSSBL or its affiliates may have or not received compensation for investment banking services from the issuer of these securities in the past 12 months and do not expect to receive compensation for investment banking services from the issuer of these securities within the next three months.

4. However, one or more of ARSSBL or its Affiliates may, from time to time, have a long or short position in any of the securities mentioned herein and may buy or sell those securities or options thereon, either on their own account or on behalf of their clients.

5. As of the publication of this report, ARSSBL does not make a market in the subject securities.

6. ARSSBL or its Affiliates may or may not, to the extent permitted by law, act upon or use the above material or the conclusions stated above, or the research or analysis on which they are based before the material is published to recipients and from time to time, provide investment banking, investment management or other services for or solicit to seek to obtain investment banking, or other securities business from, any entity referred to in this report.

© 2019. This report is strictly confidential and is being furnished to you solely for your information. All material presented in this report, unless specifically indicated otherwise, is under copyright to ARSSBL. None of the material, its content, or any copy of such material or content, may be altered in any way, transmitted, copied or reproduced (in whole or in part) or redistributed in any form to any other party, without the prior express written permission of ARSSBL. All trademarks, service marks and logos used in this report are trademarks or service marks or service marks or service marks or service.

Additional information on recommended securities/instruments is available on request.

ARSSBL registered address: Express Zone, A Wing, 9th Floor, Western Express Highway, Diagonally Opposite Oberoi Mall, Malad (E), Mumbai – 400097. Tel No: +91 22 6281 7000 | Fax No: +91 22 4001 3770 | CIN: U67120MH1991PLC064106.