

Gravita India

Estimate change	↔
TP change	↔
Rating change	↔

Bloomberg	GRAV IN
Equity Shares (m)	74
M.Cap.(INRb)/(USDb)	152 / 1.8
52-Week Range (INR)	2700 / 730
1, 6, 12 Rel. Per (%)	-9/24/104
12M Avg Val (INR M)	691

Financials & Valuations (INR b)

Y/E Mar	FY25E	FY26E	FY27E
Sales	39.4	50.6	64.5
Adj. EBITDA	4.2	5.5	7.2
Adj. EBITDA Margin (%)	10.6	11.0	11.2
Adj. PAT	3.2	4.4	5.8
Cons. Adj. EPS (INR)	42.8	59.8	79.1
EPS Gr. (%)	23	40	32
BV/Sh. (INR)	291	349	428

Ratios

Net D:E	-0.3	-0.3	-0.3
RoE (%)	18.5	17.7	19.7
RoCE (%)	21.2	18.7	20.4

Valuations

P/E (x)	48.3	34.5	26.1
EV/EBITDA (x)	41.4	26.2	19.9

Shareholding pattern (%)

As on	Dec-24	Sep-24	Dec-23
Promoter	59.3	63.4	66.5
DII	5.4	3.2	0.4
FII	15.5	15.5	12.0
Others	19.8	18.0	21.1

Note: FII includes depository receipts

CMP: INR2,065 TP: INR2,800 (+36%) Buy

Strong volume growth drives revenue

Earnings in line with estimates

- Gravita India (GRAVITA) reported strong revenue growth of ~31% YoY in 3QFY25, aided by total volume growth of 33% YoY. The growth was broad-based across segments, with aluminum reporting the highest growth (2.4x YoY), following by plastics (44%) and lead (up 23% YoY). However, adj. EBITDA/kg declined 14% to INR19.1, due to higher sourcing of domestic scrap (44%) in 3Q.
- The company's core business (lead) is witnessing strong traction as the availability of scraps domestically has improved. Other segments are also picking up traction amid growing capacities and strong industry tailwinds. For 4Q, we estimate revenue/EBITDA/adj. PAT growth of 29%/21%/43%.
- We keep our FY25E/FY26E/FY27E EPS unchanged. We reiterate our BUY rating on the stock with a TP of INR2,800 (35x FY27E EPS).

Lower margins attributed to higher domestic sourcing of scrap

- Consolidated revenue grew 31% YoY to INR9.9b (est. INR9.5b) in 3QFY25. Consolidated sales volume rose 33% YoY to 53KMT.
- Adjusted EBITDA margin contracted 160bp YoY to 10.3% (est. 11.3%), while adjusted EBITDA grew 14% YoY to INR1b (in line with est.). Adj. PAT grew 29% YoY to INR779m (est. INR753m).
- **Lead business** revenue grew 23% YoY to INR8.4b, led by volume growth of 27% YoY to 44KMT. EBITDA/kg stood at INR19 (down 19% YoY). **Aluminum business** revenue grew 2.4x YoY to INR1.2b. Volumes jumped 1.9x YoY to 6.3KMT, while EBITDA/kg surged 2.3x YoY to INR20.1. **Plastic business** revenue grew 44% YoY to INR255m and volumes rose 33% YoY to 3.3KMT. EBITDA/kg declined 7% YoY to INR10.

Highlights from the management commentary

- **Outlook:** The company maintains its guidance of a ~25% CAGR in sales volume and a ~35% CAGR in PAT, with RoIC of more than 25%. GRAVITA expects non-lead business/value-added products mix at 30%/50% in the next three to four years.
- **Industry scenario:** The upcoming end-of-life vehicle (ELV) policy, effective 1st Apr'25, will mandate the channeling of used vehicles to registered vehicle scrappage facilities (RVSFs), which will supply battery scrap to recyclers. While the majority of battery scrap currently comes from the replacement market (~70%), this share will decline after the regulation boosts inflows from ELVs
- **Capacity and Expansion:** The Mundra plant's capacity will be expanded from the current 72KMTPA to 100KMTPA by 1HFY26. The company is accelerating its expansion plans in Oman. Additionally, capacity expansion efforts are underway in the Dominican Republic, with licensing approval anticipated by 1HFY26.

Sumant Kumar - Research Analyst (Sumant.Kumar@MotilalOswal.com)

Research Analyst: Meet Jain (Meet.Jain@MotilalOswal.com) | Nirvik Saini (Nirvik.saini@MotilalOswal.com)

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

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

Valuation and view

- GRAVITA, being a key player in the burgeoning recycling industry in India, is expected to report robust earnings growth in the medium term on account of: 1) accelerated growth in the lead recycling segment fueled by favorable regulatory changes; 2) higher growth in new segments (aluminum and plastic) and the addition of the steel and paper segments; 3) robust capacity addition across segments; and 4) an improvement in the mix of value-added products.
- We expect a CAGR of 27%/30%/35% in revenue/EBITDA/PAT over FY24-27E. We maintain our FY25E/FY26E/FY27E EPS estimates. We reiterate our BUY rating on the stock with a TP of INR2,800 (35x FY27E EPS).

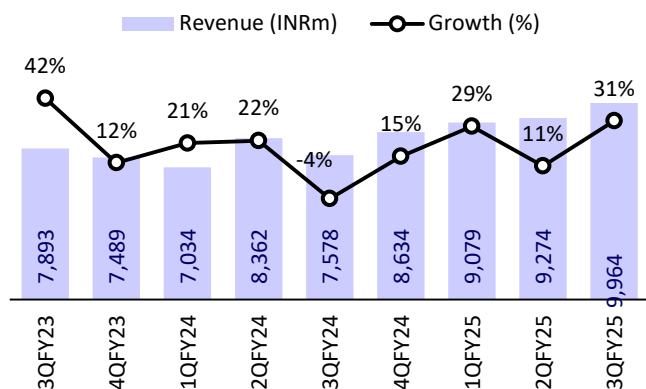
Consolidated - Quarterly Earning

(INR m)

Y/E March	FY24				FY25				FY24	FY25	FY25E	Var
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4QE			3QE	%
Sales	7,034	8,362	7,578	8,634	9,079	9,274	9,964	11,128	31,608	39,445	9,554	4
YoY Change (%)	5.6	44.2	11.0	9.4	29.1	10.9	31.5	28.9	12.9	24.8	14.3	
Total Expenditure	6,349	7,563	6,681	7,705	8,166	8,259	8,942	9,906	28,298	35,272	8,476	
Adjusted EBITDA	685	798	897	929	912	1,015	1,023	1,222	3,309	4,173	1,078	-5
Margins (%)	9.7	9.5	11.8	10.8	10.1	10.9	10.3	11.0	10.5	10.6	11.3	
Depreciation	79	86	90	125	65	72	76	80	380	293	85	
Interest	127	112	130	124	130	120	128	35	492	413	125	
Other Income	132	69	61	42	33	23	73	35	304	165	20	
PBT before EO expense	612	670	738	722	751	847	891	1,142	2,742	3,631	888	
PBT	612	670	738	722	751	847	891	1,142	2,742	3,631	888	
Tax	86	82	123	28	71	128	111	149	319	458	120	
Rate (%)	14.1	12.2	16.7	3.9	9.4	15.1	12.4	13.1	11.6	12.6	13.5	
MI & Profit/Loss of Asso. Cos.	5	10	12	4	7	-1	1	10	31	17	15	
Reported PAT	521	579	603	690	673	720	779	983	2,392	3,156	753	
Adj PAT	521	579	603	690	673	720	779	983	2,392	3,156	753	4
YoY Change (%)	26.0	36.1	35.2	37.4	29.3	24.4	29.3	42.6	18.9	31.9	30.1	
Margins (%)	7.4	6.9	8.0	8.0	7.4	7.8	7.8	8.8	7.6	8.0	7.9	

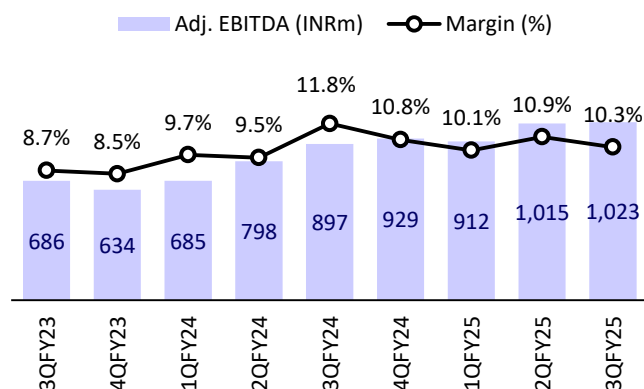
Key Exhibits

Exhibit 1: Consolidated revenue trend



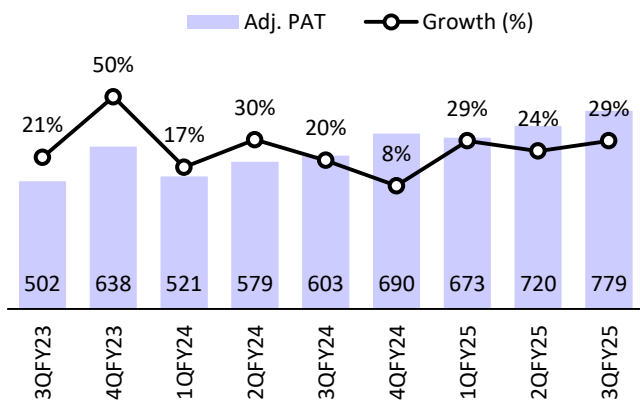
Source: Company, MOFSL

Exhibit 2: Consolidated Adj. EBITDA trend



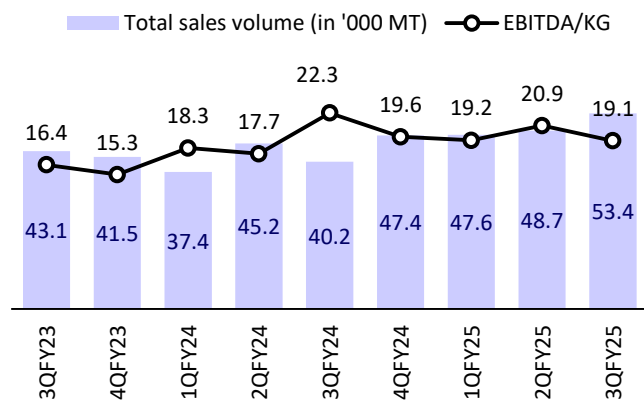
Source: Company, MOFSL

Exhibit 3: Consolidated Adj. PAT trend



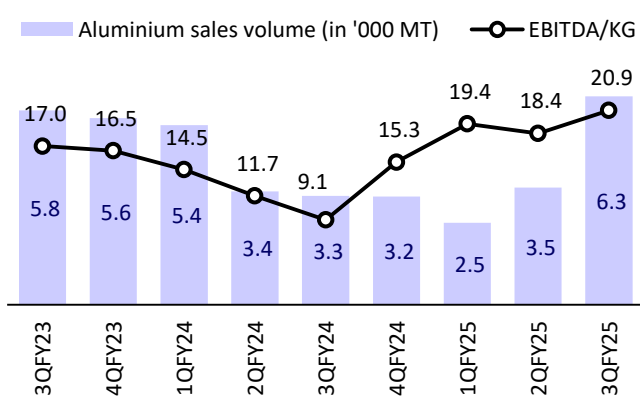
Source: Company, MOFSL

Exhibit 4: Total sales volume trend



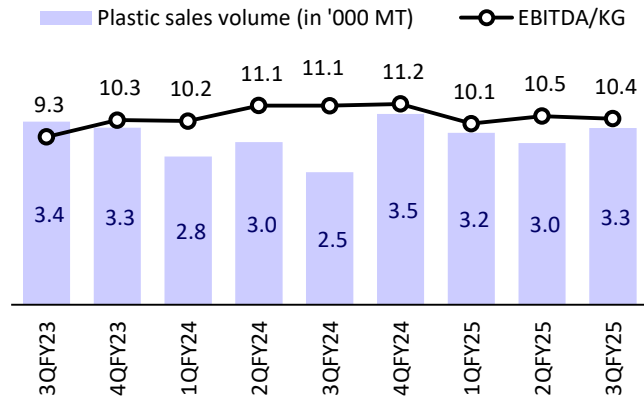
Source: Company, MOFSL

Exhibit 5: Aluminum sales volume trend



Source: Company, MOFSL

Exhibit 6: Plastic sales volume trend



Source: Company, MOFSL

Exhibit 7: Lead sales volume trend

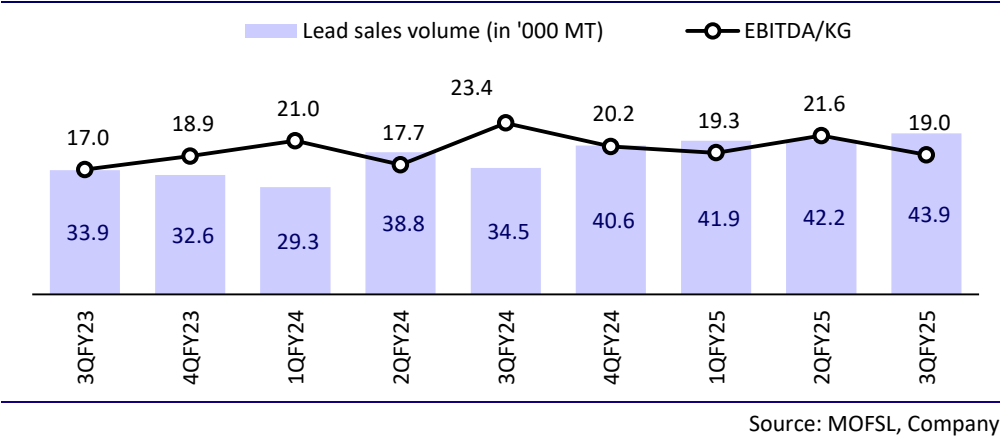


Exhibit 8: Widespread manufacturing presence

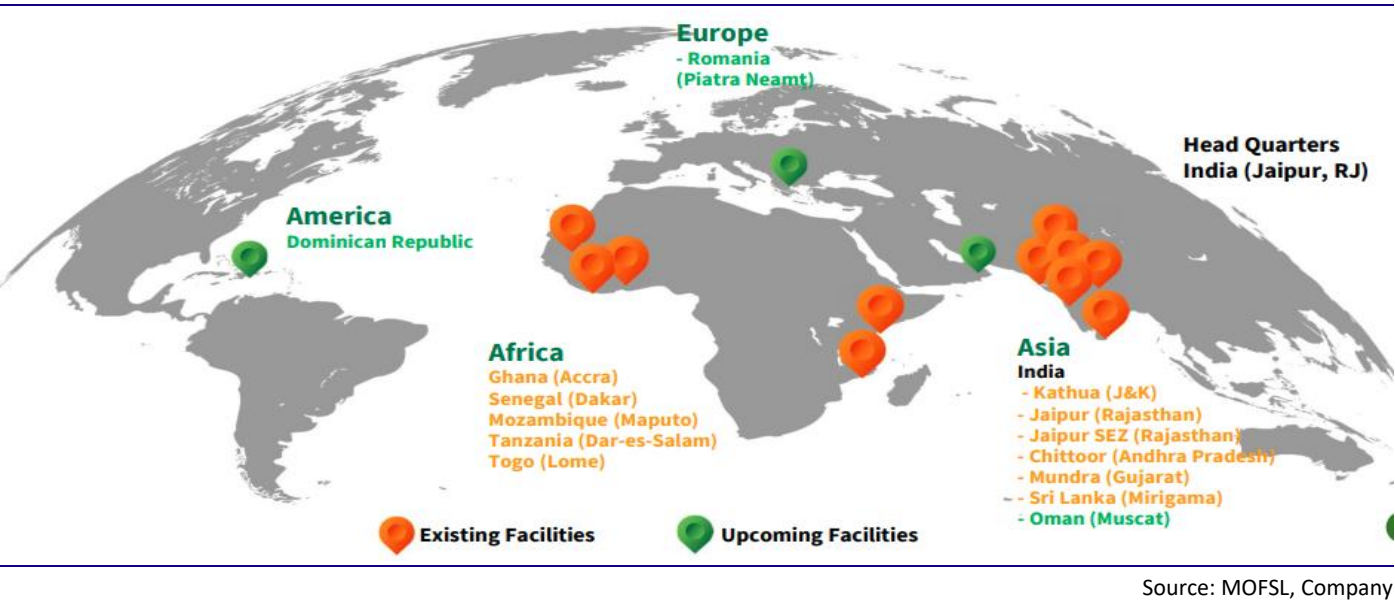


Exhibit 9: Deep routed procurement network

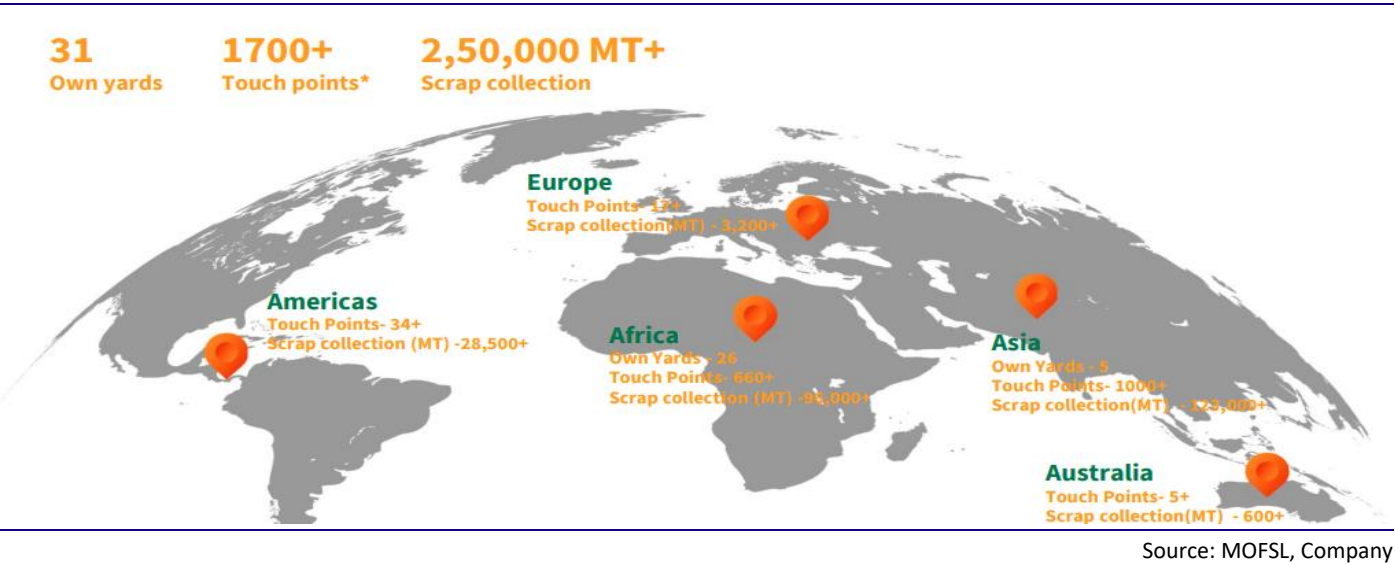
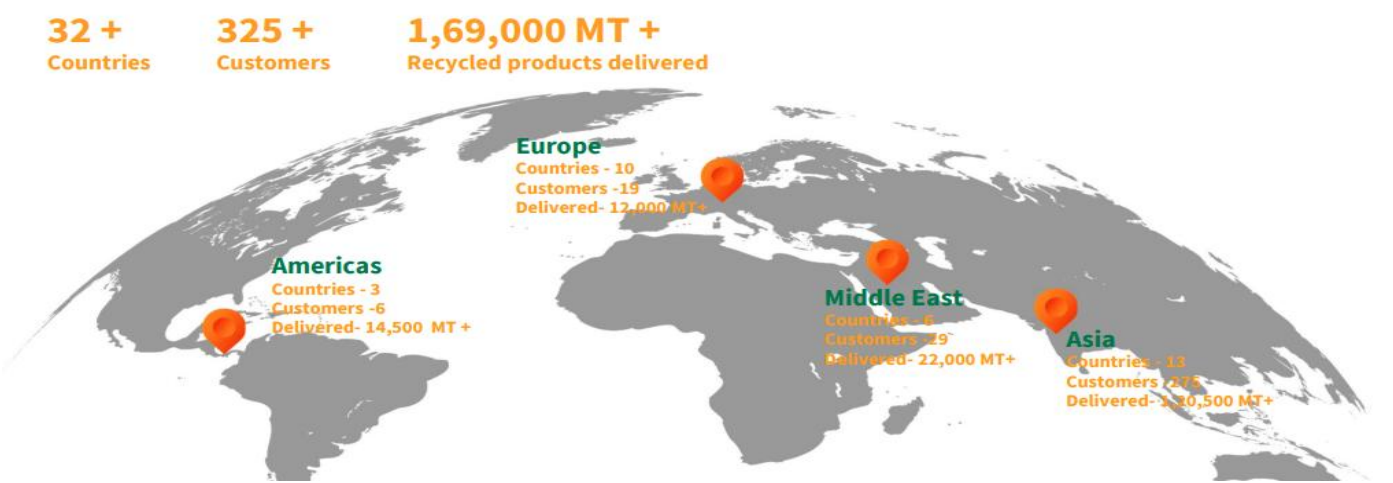


Exhibit 10: Diversified global customer network



Source: MOFSL, Company



Highlights from the management commentary

Operating performance

- Recyclers Ghana Ltd., a step-down subsidiary of GRAVITA, has commenced operations for commercial production of recycled aluminum with a capacity of 4KMTPA in phase 1, which will be expanded to 8KMTPA in phase 2.
- Gravita Netherlands BV has increased its stake in Navam Lanka Ltd. from 52% to 100%.
- Its first rubber recycling plant and lithium recycling facility are on track to start commercial operations in 1HFY26
- Gravita is on track to increase its capacity to over 500KMTPA by FY27 from 300KMTPA currently.
- EBITDA margin growth was lower than revenue growth as there was not much arbitrage compared to the previous quarter.

Outlook and guidance

- The company targets a volume CAGR/profitability growth of 25%+/35%+, ROIC of 25%+, and the contribution of value-added products at 50%+ and non-lead business at 30%+ by FY28.
- It expects volume growth of ~40% in aluminum, 60-70% in plastics and 18%-20% in lead in the next 3-4 years.
- EBITDA/kg in lead will be in the range of INR18-19 in FY26. The overseas business and the contribution of value-added business will boost margins.
- **Lead:** EBITDA margin/kg from was ~INR11-12 from India and ~INR28 from overseas. The company targets EBITDA margin/kg of ~INR18-19, with ~INR14-15 in aluminum and INR10 in plastics.
- GRAVITA is exploring growth opportunities in both overseas and Indian markets, with a potential M&A target of ~INR8-9b in all three segments.

MCX listing

- MCX aluminum hedging has not been materialized as of now. The government has introduced BIS in this.
- The company will see volume of ~4000MT per quarter until it is listed on MCX.
- As soon as the hedging mechanism starts, the company will see significant volume growth and realizations in the aluminum segment, with the aluminum MCX expected to be listed by 1QFY26.

Industry scenario

- With the new favorable regulation, the availability of car batteries will surge 3x in the next three years.
- More battery scrap inflow is expected from ELVs in India; however, this may take time. Currently, most of the batteries actually come from the replacement market (~70%), ELV policy will be effective from 1st Apr'25. As per that regulation, used cars will be going to RVSFs, which will supply the scrap to respective recyclers.
- As the EVL targets are met (in the next 1-2 years), there will be more flow of such batteries to recyclers.
- The availability of domestic scrap will improve going ahead due to the implementation of extended producer responsibility guidelines, reverse charge mechanism (RCM), battery waste management rules, and the shift from unorganized markets to organized markets.

Capex

- Over the next three years, the company will spend ~INR25b, of which ~INR15b will be from internal cash flows.

- GRAVITA will spend ~INR15b for new expansions and another INR10b for the additional working capital needs.

Fund raise

- The funds raised in the QIP will be strategically utilized to drive the company's vision of becoming a global leader, increasing capacity and diversifying into new verticals.
- About INR2.45b from the fund raise was used for the repayment of borrowings and working capital.

Capacity expansion

- The Mundra plant's capacity will be expanded to 100KMTPA from the current ~72KMTPA by 1HFY26.
- Lithium ion is a pilot project and the company is not expecting any revenue in the next 3-4 years. Once scrap comes in from EVs, the company wants to be ready for the scrap procurement and recycling.
- Capacity utilization for aluminum is 46% in 9MFY25 and 44% in 3QFY25.
- The company has plans to fast track the Oman expansion
- The company is currently expanding its capacity in Dominican Republic, where the company is expecting a license by 1HFY26.

Other

- The current gross debt is ~INR3.4b, which is expected to be zero by year end (through QIP proceeds).
- Overall 44% of the total scrap processed in India comes from domestic sources and the company can easily increase it; however, the company has restricted it as overseas scrap is more profitable currently
- The acquisition of a rubber recycling unit in Romania would be complete by 4QFY25. FDA approval is already in place.
- EPR regulations will help the plastic segment to grow ~70%. If RCM comes into the plastic recycling, the company will witness higher growth in this segment.
- Margins in lithium will be higher, though this is only speculative as the entry barriers are higher.

Valuation and View

- GRAVITA, being a key player in the burgeoning recycling industry in India, is expected to report robust earnings growth in the medium term on account of: 1) accelerated growth in the lead recycling segment fueled by favorable regulatory changes; 2) higher growth in new segments (aluminum and plastic) and addition of the steel and paper segments; 3) robust capacity addition across segments; and 4) an improvement in the mix of value-added products.
- We expect a CAGR of 27%/30%/35% in revenue/EBITDA/PAT over FY24-27E. We maintain our FY25E/FY26E/FY27E EPS estimates. We reiterate our BUY rating on the stock with a TP of INR2,800 (35x FY27E EPS).

Exhibit 11: Summary of our revised estimates

Earnings change (INR m)	Old			New			Change		
	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E
Revenue	39,035	49,765	63,442	39,445	50,570	64,475	1%	2%	2%
EBITDA	4,209	5,559	7,234	4,173	5,547	7,226	-1%	0%	0%
Adj. PAT	3,118	4,413	5,833	3,156	4,416	5,840	1%	0%	0%

Financials and valuations

Consolidated - Income Statement							(INRm)
Y/E March	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E
Total Income from Operations	14,098	22,159	28,006	31,608	39,445	50,570	64,475
Change (%)	4.6	57.2	26.4	12.9	24.8	28.2	27.5
RM Cost	11,586	17,899	23,391	25,612	32,160	40,203	51,193
Employees Cost	729	1,028	1,336	1,312	1,585	2,225	2,772
Other Expenses	633	1,078	1,259	1,848	2,159	2,595	3,283
Total Expenditure	12,948	20,005	25,986	28,772	35,904	45,023	57,249
% of Sales	91.8	90.3	92.8	91.0	91.0	89.0	88.8
EBITDA	1,150	2,154	2,020	2,836	3,541	5,547	7,226
Margin (%)	8.2	9.7	7.2	9.0	9.0	11.0	11.2
Other Inc. (Operational) - Commodity and Forex Hedging	20	-4	841	474	631.4	0.0	0.0
Adjusted EBITDA	1,170	2,149	2,860	3,309	4,173	5,547	7,226
Margin (%)	8.3	9.7	10.2	10.5	10.6	11.0	11.2
Depreciation	203	206	240	380	293	447	591
EBIT	967	1,944	2,621	2,929	3,879	5,100	6,635
Int. and Finance Charges	310	380	435	492	413	262	153
Other Income	52	83	90	304	165	200	250
PBT bef. EO Exp.	709	1,646	2,276	2,742	3,631	5,038	6,732
EO Items	0	0	0	0	0	0	0
PBT after EO Exp.	709	1,646	2,276	2,742	3,631	5,038	6,732
Total Tax	141	162	235	319	458	605	875
Tax Rate (%)	19.9	9.8	10.3	11.6	12.6	12.0	13.0
Minority Interest	44	91	30	31	17	17	17
Reported PAT	525	1,394	2,011	2,392	3,156	4,416	5,840
Adjusted PAT	525	1,394	2,011	2,392	3,156	4,416	5,840
Change (%)	58.1	165.7	44.3	18.9	31.9	39.9	32.2
Margin (%)	3.7	6.3	7.2	7.6	8.0	8.7	9.1

Consolidated - Balance Sheet							
Y/E March	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E
Equity Share Capital	138	138	138	138	148	148	148
Total Reserves	2,551	3,730	5,751	8,236	21,308	25,651	31,417
Net Worth	2,689	3,869	5,889	8,374	21,456	25,798	31,565
Minority Interest	90	140	128	132	229	246	263
Total Loans	2,611	3,915	3,477	5,451	2,951	2,451	951
Deferred Tax Liabilities	24	15	-61	2	2	2	2
Capital Employed	5,415	7,939	9,433	13,959	24,639	28,498	32,782
Gross Block	2,285	2,650	3,690	4,759	6,337	8,087	10,087
Less: Accum. Deprn.	562	738	957	1,337	1,630	2,077	2,668
Net Fixed Assets	1,724	1,913	2,733	3,423	4,707	6,010	7,419
Goodwill on Consolidation	0	0	0	0	0	0	0
Capital WIP	135	425	455	428	750	1,000	1,000
Total Investments	0	0	11	165	165	165	165
Current Investments	0	0	0	165	165	165	165
Curr. Assets, Loans&Adv.	5,405	7,638	8,789	12,008	21,414	24,372	27,694
Inventory	3,577	5,135	5,965	6,746	8,066	9,498	11,450
Account Receivables	594	1,097	1,370	2,643	2,486	2,910	3,533
Cash and Bank Balance	199	325	381	988	9,009	9,588	9,681
Loans and Advances	1,035	1,081	1,073	1,631	1,854	2,377	3,030
Curr. Liability & Prov.	1,849	2,036	2,555	2,065	2,398	3,049	3,497
Account Payables	1,357	329	895	675	885	1,110	1,412
Other Current Liabilities	376	1,515	1,457	1,379	1,499	1,922	2,063
Provisions	116	193	202	11	13	17	22
Net Current Assets	3,556	5,601	6,234	9,944	19,017	21,324	24,197
Misc Expenditure	0	0	0	0	0	0	0
Appl. of Funds	5,415	7,939	9,433	13,959	24,639	28,498	32,781

Financials and valuations

Ratios

Y/E March	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E
Basic (INR)							
EPS	7.6	20.2	29.1	34.6	42.8	59.8	79.1
Cash EPS	10.5	23.2	32.6	40.1	46.7	65.9	87.1
BV/Share	38.9	56.0	85.3	121.3	290.7	349.5	427.6
DPS	1.1	3.5	0.6	0.9	1.0	1.0	1.0
Payout (%)	14.2	17.1	2.1	2.5	2.3	1.7	1.3
Valuation (x)							
P/E	271.8	102.3	70.9	59.6	48.3	34.5	26.1
Cash P/E	195.9	89.1	63.4	51.4	44.2	31.3	23.7
P/BV	53.0	36.9	24.2	17.0	7.1	5.9	4.8
EV/Sales	10.3	6.6	5.2	4.7	3.7	2.9	2.2
EV/EBITDA	126.2	67.9	72.2	51.8	41.4	26.2	19.9
Dividend Yield (%)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
FCF per share	8.0	-8.8	13.5	-8.9	15.7	16.5	21.3
Return Ratios (%)							
RoE	21.2	42.5	41.2	33.5	21.2	18.7	20.4
RoCE	15.8	27.9	28.3	24.6	18.5	17.7	19.7
RoIC	15.4	28.6	20.2	20.7	21.0	27.7	29.1
Working Capital Ratios							
Fixed Asset Turnover (x)	6.2	8.4	7.6	6.6	6.2	6.3	6.4
Asset Turnover (x)	2.6	2.8	3.0	2.3	1.6	1.8	2.0
Inventory (Days)	101	94	84	86	82	77	73
Debtor (Days)	15	18	18	31	23	21	20
Creditor (Days)	38	6	13	9	9	9	9
Leverage Ratio (x)							
Current Ratio	2.9	3.8	3.4	5.8	8.9	8.0	7.9
Interest Cover Ratio	3.1	5.1	6.0	6.0	9.4	19.5	43.3
Net Debt/Equity	0.9	0.9	0.5	0.5	-0.3	-0.3	-0.3

Consolidated - Cash Flow Statement

(INR m)

Y/E March	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E
OP/(Loss) before Tax	709	1,646	2,276	2,742	3,631	5,038	6,732
Depreciation	203	206	240	380	293	447	591
Interest & Finance Charges	271	327	384	188	248	62	-97
Direct Taxes Paid	-115	-149	-235	-319	-458	-605	-875
(Inc)/Dec in WC	-302	-2,062	-822	-2,567	-1,052	-1,727	-2,781
CF from Operations	765	-32	1,843	424	2,663	3,215	3,570
Others	0	128	154	0	0	0	0
CF from Operating incl EO	765	96	1,997	424	2,663	3,215	3,570
(Inc)/Dec in FA	-212	-702	-1,064	-1,042	-1,500	-2,000	-2,000
Free Cash Flow	553	-606	933	-618	1,163	1,215	1,570
(Pur)/Sale of Investments	0	4	-11	0	0	0	0
Others	19	3	21	-536	-156	200	250
CF from Investments	-194	-695	-1,054	-1,578	-1,656	-1,800	-1,750
Issue of Shares	0	0	0	0	10,000	0	0
Inc/(Dec) in Debt	-193	1,294	-442	1,974	-2,500	-500	-1,500
Interest Paid	-265	-336	-389	-492	-413	-262	-153
Dividend Paid	-74	-238	-43	-60	-74	-74	-74
Others	-33	0	0	338	0	0	0
CF from Fin. Activity	-565	719	-874	1,760	7,014	-836	-1,727
Inc/Dec of Cash	6	121	69	606	8,021	579	93
Opening Balance	107	113	234	382	988	9,009	9,588
Other cash & cash equivalent	85	91	78	0	0	0	0
Closing Balance	198	325	382	988	9,009	9,588	9,681

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

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.

Disclosures

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Depository participant services & distribution of various financial products. MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - 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://online.reports.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") (UEN 201129401Z), which is a holder of a capital markets services license and an exempt financial adviser in Singapore. This report is distributed solely to persons who (a) qualify as "institutional investors" as defined in section 4A(1)(c) of the Securities and Futures Act of Singapore ("SFA") or (b) are considered "accredited investors" as defined in section 2(1) of the Financial Advisers Regulations of Singapore read with section 4A(1)(a) of the SFA. Accordingly, if a recipient is neither an "institutional investor" nor an "accredited investor", they must immediately discontinue any use of this Report and inform MOCMSPL.

In respect of any matter arising from or in connection with the research you could contact the following representatives of MOCMSPL. In case of grievances for any of the services rendered by MOCMSPL write to grievances@motilaloswal.com.

Nainesh Rajani

Email: nainesh.rajani@motilaloswal.com

Contact: (+65) 8328 0276

Specific Disclosures

- Research Analyst and/or his/her relatives do not have a financial interest in the subject company(ies), as they do not have equity holdings in the subject company(ies). MOFSL has financial interest in the subject company(ies) at the end of the week immediately preceding the date of publication of the Research Report: Yes.
Nature of Financial interest is holding equity shares or derivatives of the subject company
- Research Analyst and/or his/her relatives do not have actual/beneficial ownership of 1% or more securities in the subject company(ies) at the end of the month immediately preceding the date of publication of Research Report.
MOFSL has actual/beneficial ownership of 1% or more securities of the subject company(ies) at the end of the month immediately preceding the date of publication of Research Report: No
- Research Analyst and/or his/her relatives have not received compensation/other benefits from the subject company(ies) in the past 12 months.
MOFSL may have received compensation from the subject company(ies) in the past 12 months.
- Research Analyst and/or his/her relatives do not have material conflict of interest in the subject company at the time of publication of research report.
MOFSL does not have material conflict of interest in the subject company at the time of publication of research report.
- Research Analyst has not served as an officer, director or employee of subject company(ies).
- 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(ies) in the past 12 months.

8. MOFSL may have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company(ies) in the past 12 months.
9. MOFSL may have received compensation or other benefits from the subject company(ies) or 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.