14 July 2026

Company Update | Sector: Midcaps

Gravita (India)

BSE SENSEX	S&P CNX
77,055	24,052

Stock Info

Bloomberg	GRAV IN
Equity Shares (m)	74
M.Cap.(INRb)/(USDb)	134 / 1.4
52-Week Range (INR)	1950 / 1267
1, 6, 12 Rel. Per (%)	11/19/9
12M Avg Val (INR M)	507
Free float (%)	44.1

Financial Snapshot (INR b)

Y/E March	FY26	FY27E	FY28E
Sales	42.7	65.6	80.9
EBITDA*	4.5	6.3	8.4
EBITDA Margin (%)*	10.6	9.6	10.4
Adj. PAT	3.8	4.7	6.1
Cons. Adj. EPS (INR)	51.3	63.0	82.8
EPS Gr. (%)	21	23	31
BV/Sh. (INR)	332	394	476
Ratios (%)			
Net D:E	0.1	0.2	0.2
RoE (%)	16.8	17.4	19.0
RoCE (%)	14.4	14.5	15.9
Valuations			
P/E (x)	35.3	28.7	21.9
EV/EBITDA (x)	31.1	21.9	16.8

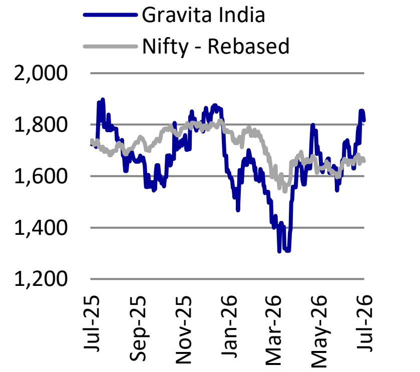
*Adjusted

Shareholding pattern (%)

As On	Mar-26	Dec-25	Mar-25
Promoter	55.9	55.9	59.3
DII	5.1	4.7	5.4
FII	15.3	17.1	15.4
Others	23.7	22.3	19.9

FII Includes depository receipts

Stock performance (one-year)



CMP: INR1,816 TP: INR2,200 (+21%) Buy

Leveraging recycling tailwinds across metals

Gravita India (GRAV), a leading player in India's recycling industry, is building a multi-commodity recycling platform, strategically diversifying beyond its core lead business into other commodities such as copper, rubber, etc. This direction positions the company well to capitalize on India's rising recycling need.

- **GRAV's acquisition of a 99% stake in Rashtriya Metal Industries (RMIL) signals a strategic entry into copper, with potential to integrate backward into recycling by leveraging RMIL's downstream capabilities. Thereby, it is expanding across the value chain from scrap to value-added products, unlike its core lead business, which is largely confined to primary products.**
- **RMIL (est. 1947) brings in a downstream platform with diversified end-use exposure across automotive, electricals, switchgear, connectors, HT cables, fashion accessories, horology (e.g., Titan), locks & keys (e.g., Godrej), coinage and defense, along with ~25% exports. Going ahead we expect the company's utilization can improve (~40% in FY26 to ~65% by FY28E), supported by rising copper demand in end markets such as govt.'s power transmission investment of INR9.15t and rising EV penetration (EV requires 3x more copper than ICE).**
- **This strategic move is further reinforced by a favorable industry backdrop, structural copper deficits driven by energy transition demand, limited mine supply growth and higher copper intensity across applications. These factors make recycling a cost-efficient (~80-85% lower energy than primary) solution. With improving scrap availability and policy support, India's secondary copper market is expected to scale up rapidly (~14% CAGR to ~55% share by FY30), validating GRAV's potential foray into copper recycling as a timely and value-accretive diversification.**
- **We expect a CAGR of 38%/36%/27% in revenue/EBITDA/PAT over FY26-28E. We value the stock at 27x FY28E EPS to arrive at our TP of INR2,200. We reiterate our BUY rating on the stock.**

RMIL acquisition followed by foray into copper recycling

- GRAV has acquired a ~99% stake in RMIL for INR5.6b in Mar'26, which manufactures semi-finished copper products with ~31,200 MTPA capacity from its Sarigam (near Vapi), Gujarat plant.
- Simultaneously, GRAV announced capex of INR1.6b for copper recycling capacity of 29.4k MTPA in Mundra, Gujarat (RMIL plant distance is 690km), which is expected to commence by 4QFY27. GRAV is guiding that it will double the capacities of both RMIL and copper recycling after the commissioning of the first phase of copper recycling capacity.
- **This acquisition enhanced GRAV's entry into copper, enabling participation across a broader value chain (from copper scrap recycling to value-added products). Unlike its core lead business, which is largely confined to primary products, copper offers greater scope for value addition (wire, strips, bullet cups, etc.), positioning the company for enhanced margins and a deeper market presence.**

Research Analyst: Sumant Kumar (Sumant.Kumar@MotilalOswal.com) | **Swapnil Upadhyay** (Swapnil.Upadhyayk@MotilalOswal.com)
Research Analyst: Nirvik Saini (Nirvik.Saini @MotilalOswal.com) | **Yash Darak** (Yash.Darak@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.

- Demand for recycled copper is unlikely to be a constraint, as tightening primary supply (mine disruptions) and strong demand from power, infrastructure and clean energy are driving a structural shift toward recycling.
- The secondary copper demand is projected to grow significantly faster at ~14% CAGR (to ~1,410 KTPA by FY30) compared to domestic secondary lead demand, which is expected to see ~6.5% CAGR (to ~1.7 MMT by CY30), because application of lead is mainly into automotive batteries. Copper has diversified applications, indicating a potential direction for GRAV to explore higher-growth copper recycling opportunities.
- **Overall, the acquisition of RMIL marks a strategic move toward a higher-growth, value-added copper ecosystem for GRAV, with long-term value creation contingent on effective integration and the ability to enhance return ratios over time.**

Deep dive into RMIL's business and growth opportunities

- RMIL, established in 1947, is involved in the manufacturing of value-added cold-rolled strips, foils, blanks, electroplated brass, nickel-based alloys and ammunition cups (bullet jacket), positioning it as a downstream processor rather than a commodity producer, where margins are driven by conversion value and product mix rather than pure metal price movements.
- The company supplies its products to industries such as automotive, electrical and switchgear, connectors, HT power cable, fashion accessories, horological (to Titan), locks & keys (to Godrej), coinage (for e.g., INR5 coins) and defense. Moreover, exports also contribute ~25% to GRAV's revenue, indicating well-diversified product portfolio and geographical exposure.
- Currently RMIL's blended utilization is ~40% as of FY26, which we believe is expected to go up to ~65% by FY28E, driven by healthy end-market tailwinds.
- The most powerful near-term volume drivers are the HT power cable segment, which is recording an 11-13% CAGR, fueled by extra-high-voltage underground cable demand for smart cities, metro rail, and India's INR9.15t power transmission infrastructure investment plan through 2032.
- In FY26, copper prices rose ~30% to INR1,152/kg, driving FY26 EBITDA/kg to INR65 (vs. normalized INR45). This expansion is largely led by inventory gains and operating leverage on a higher price base.
- Structurally strong demand (power, renewables, EVs, data centers) supports a stable higher copper price environment, which is expected to drive a gradual re-rating of RMIL's historical EBITDA/kg base. This margin expansion is further supported by economies of scale, optimized raw material mixes and improving fabrication premiums in niche applications and defense-related products.
- **RMIL has clocked a CAGR of 19%/23% in revenue/EBITDA over FY20-26 to INR12.7b/INR975m. Over FY25-28E, we expect revenue/EBITDA to grow at 19%/28% to INR15.5b/INR1.3b and contribute 19%/15% to GRAV's consolidated revenue/EBITDA in FY28.**

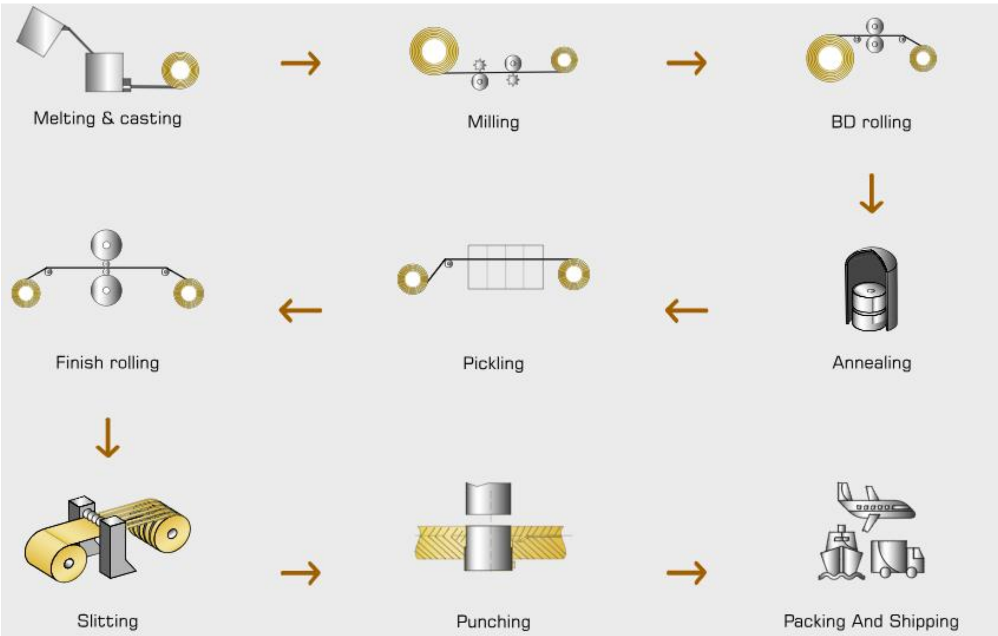
Why copper recycling is a big opportunity

- According to BloombergNEF, **copper demand from the energy transition could triple by 2045**, with a structural deficit likely as early as 2026. Simultaneously, S&P Global expects mine supply to peak by 2030 and decline thereafter, highlighting a structural demand-supply mismatch.
- **The challenge is aggravated by the ~15-year gestation period** for new mines and ongoing disruptions at key assets such as the Grasberg mine, Indonesia mine, and Quebrada Blanca mine in Chile, making primary supply both slow to respond and increasingly uncertain.
- Meanwhile, demand is accelerating across EVs, renewable energy, power infrastructure and modern industrial systems, all of which are structurally more copper-intensive, further tightening the market.
- **This creates a strong case for recycling, especially as scrap availability in India is improving**, driven by waste PCBs (primarily from the IT sector), end-of-life wires, and construction & demolition activities.
- Recycled copper is a genuine substitute for virgin copper, as it retains identical physical and chemical properties (conductivity, ductility, corrosion resistance), allowing seamless use across applications such as electrical wiring, automotive components and industrial equipment with no loss in performance or lifespan.
- Also, the **recycling process consumes 80-85% less energy than primary production** (which involves mining, smelting and refining), resulting in **meaningfully lower production costs and up to 60-70% lower emissions**, making recycled copper both cost-efficient and structurally aligned with tightening ESG and decarbonization requirements.
- **Policy support is becoming a key enabler:** Effective Apr'26, EPR norms in India mandate producers to ensure the recycling of non-ferrous metal scrap and meet prescribed recycling targets. The targets start at 10% of the quantity of products made from non-ferrous metals reaching end-of-life in FY27, which will progressively increase to 75% by FY33. This, alongside potential recycled-content mandates and favorable treatment for low-carbon metals in export markets, further reinforces the differentiated positioning and long-term demand outlook for green metals. (refer Exhibit 11)
- Alongside this, initiatives like the Vehicle Scrappage Policy (2021) and the National Infrastructure Pipeline (NIP) are expected to increase scrap generation from end-of-life vehicles and construction activities while shifting volumes from the unorganized to the organized sector, enhancing compliance, efficiency, and scalability of the recycling industry.
- **As a result, India's secondary copper industry is estimated to post ~14% CAGR (FY24-FY30), with recycled copper's share rising to ~55% by FY30, positioning recycling as a critical and scalable solution to meet future copper demand sustainably.**

Valuation and view

- As a leading player in India's rapidly growing recycling industry, GRAV is well-positioned to capitalize on evolving market dynamics, driven by regulatory policy changes that are expected to increase the availability of domestic scrap, benefiting organized players such as GRAV.
- As GRAV acquired RMIL and announced capacity additions in copper recycling, it mitigates the risk of dependence on a single commodity, i.e., lead (FY26 EBITDA mix: 94% vs. 70% in FY28E). Copper also provides application diversification, as its use cases are spread across multiple end-use industries, whereas lead remains largely concentrated in lead-acid batteries, supporting a more diversified earnings profile and potential valuation re-rating over time.
- Going forward, we expect the company to report robust earnings growth on the back of: 1) strategic capacity expansion across verticals and geographies, 2) an increased focus on value-added products, and 3) higher growth in new segments (copper and rubber).
- We expect a CAGR of 38%/36%/27% in revenue/EBITDA/PAT over FY26-28E. **We value the stock at 27x FY28E EPS to arrive at our TP of INR2,200. We reiterate our BUY rating on the stock.**

Exhibit 1: Production process of RMIL



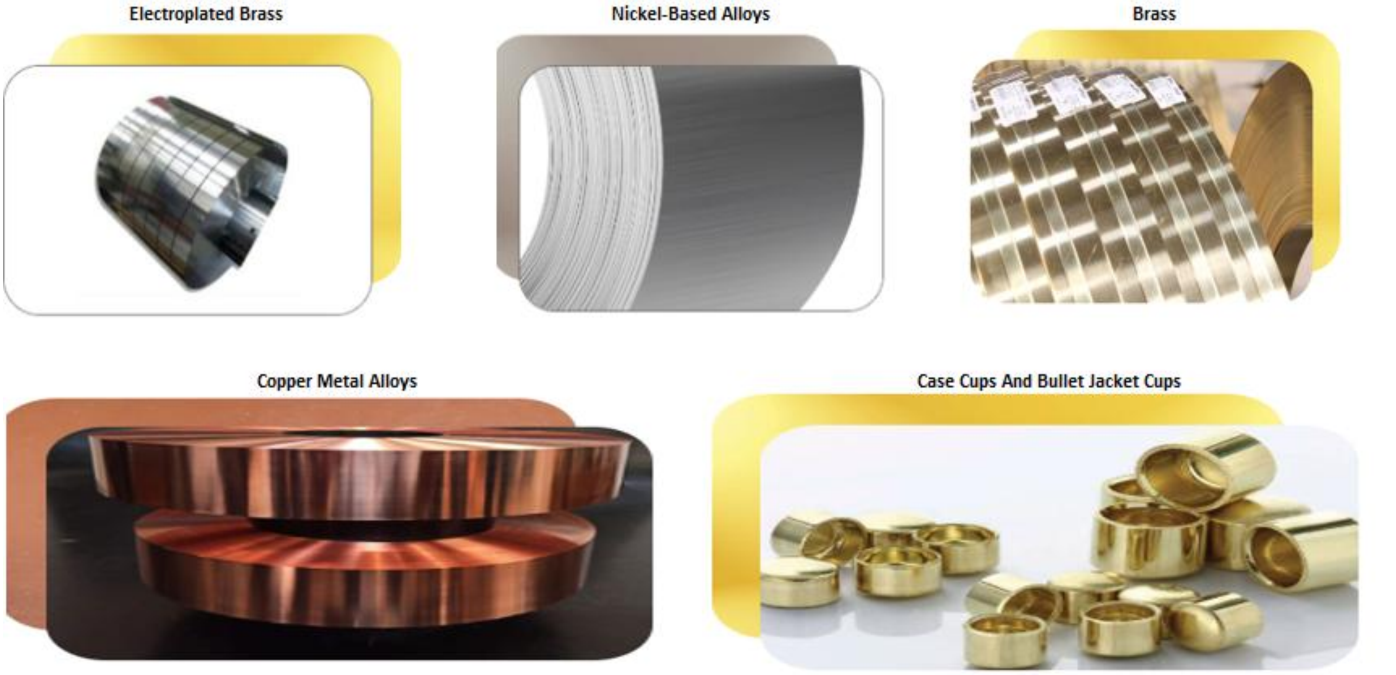
Source: Company, MOFSL

Exhibit 2: Global reach of RMIL

Region	Countries
Oceania	❖ Australia
Asia	❖ Bangladesh, India, Indonesia, Israel, Malaysia, Nepal, Philippines, Singapore, Sri Lanka, Thailand, Japan
Africa	❖ Ghana, Kenya, South Africa
Europe	❖ Czech Republic, Denmark, Germany, Malta, UK, Ukraine
MENA	❖ Egypt, Oman, Saudi Arabia, UAE
Americas	❖ Canada, Mexico, USA, Colombia

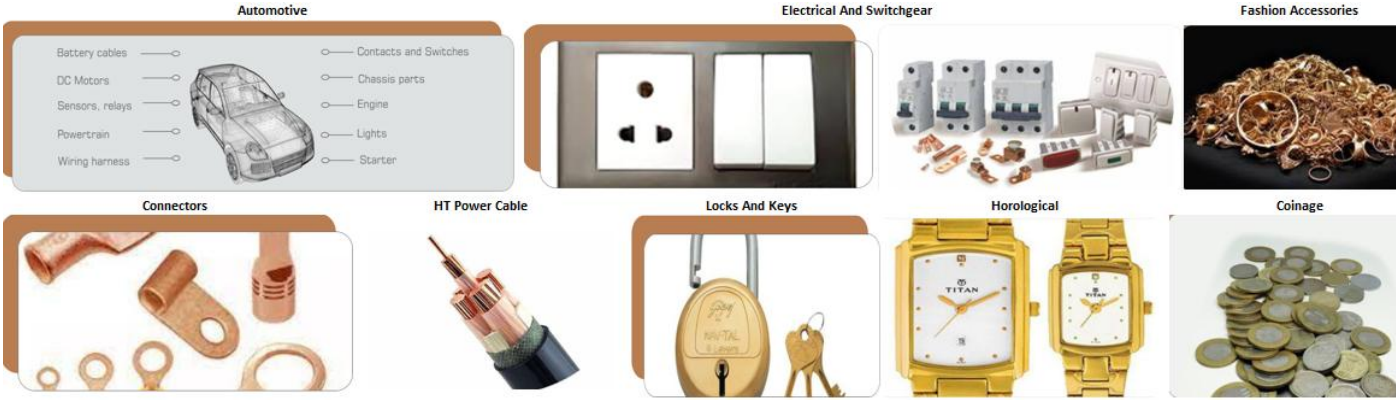
Source: Company, MOFSL

Exhibit 3: Product portfolio of RMIL



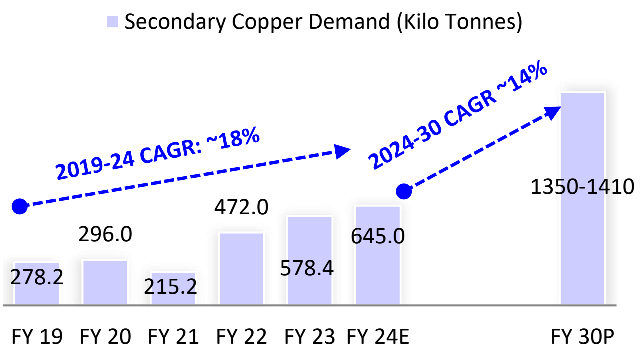
Source: Company, MOFSL

Exhibit 4: End-user industries of RMIL



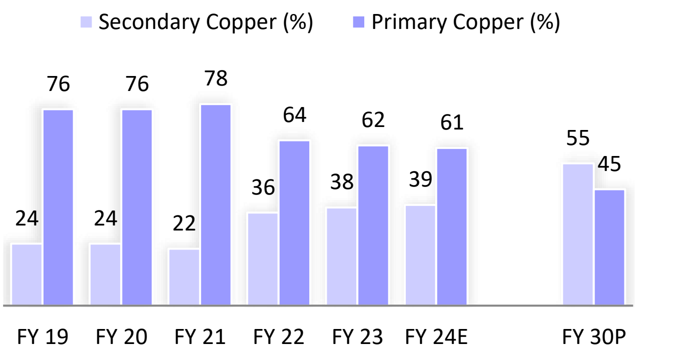
Source: Company, MOFSL

Exhibit 5: Domestic secondary copper demand trend



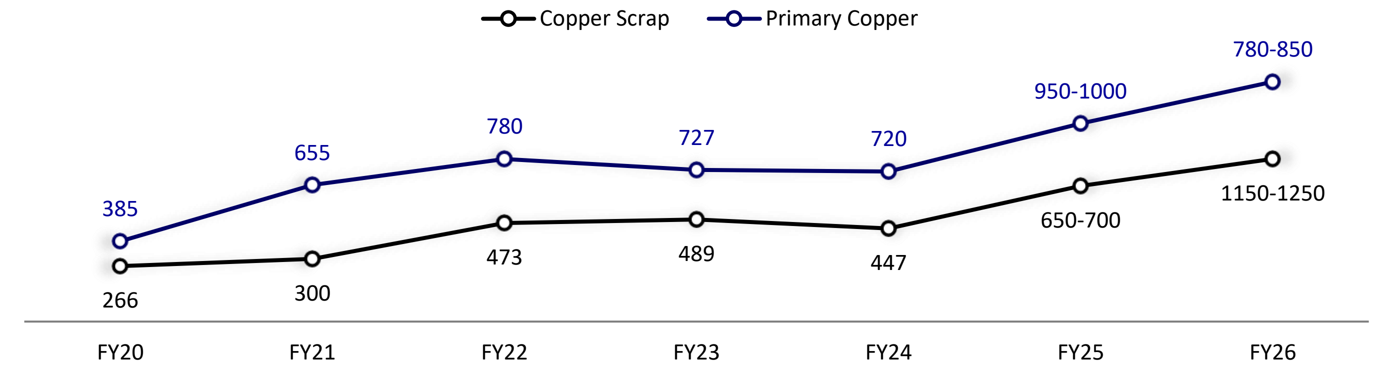
Source: Industry, ICA India, Crisil Intelligence, MOFSL

Exhibit 6: Rise in secondary copper usage



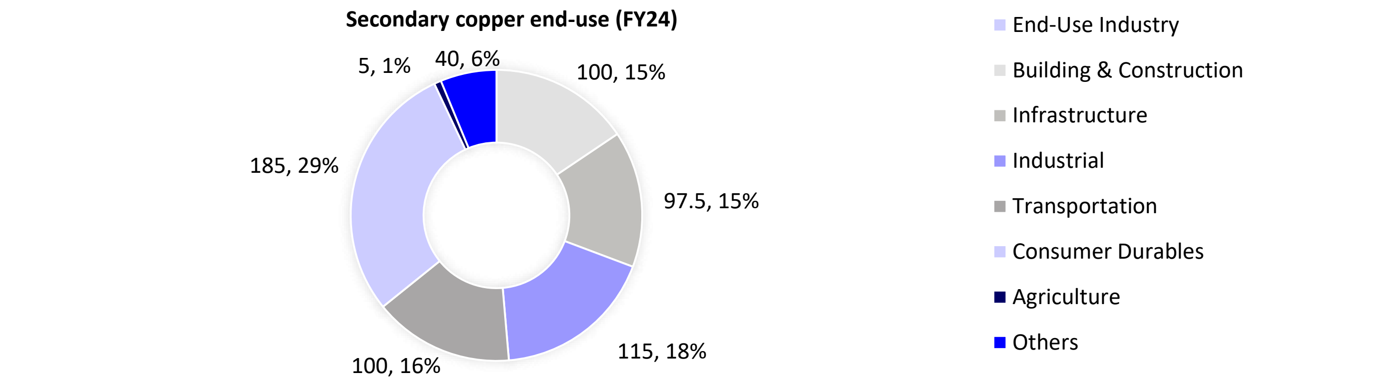
Source: ICA India, Crisil Intelligence, MOFSL

Exhibit 7: Pricing trends of primary and secondary copper (INR/kg)



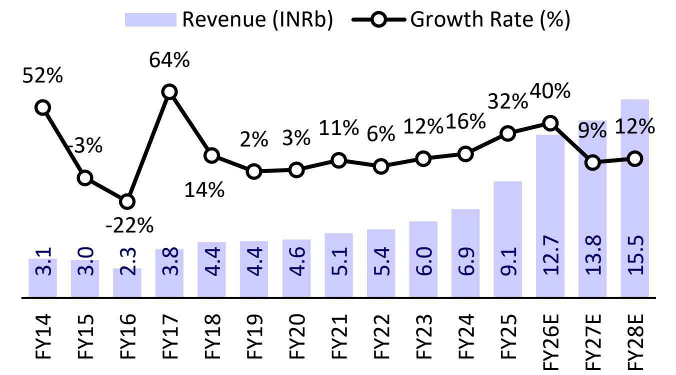
Source: IBM, Ministry of commerce and industry, Crisil Intelligence, MOFSL

Exhibit 8: Recycled copper end-use (FY24)



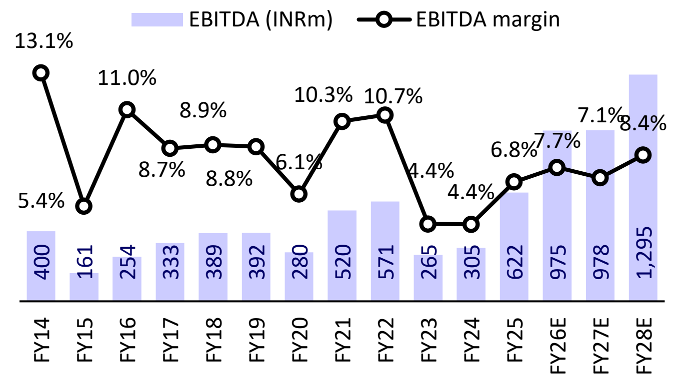
Source: IBM, Ministry of commerce and industry, Crisil Intelligence, MOFSL

Exhibit 9: RMIL revenue trend



Source: MCA filing, MOFSL

Exhibit 10: RMIL EBITDA trend



Source: ICA India, Crisil Intelligence, MOFSL

Exhibit 11: EPR targets for producers of non-ferrous metal products

No	Year (Y)	Recycling targets (by weight)
1	2026-27	❖ 10% of the quantity of products made of non-ferrous metals in year Y-X, where ‘X’ is the average life of the product
2	2027-28	❖ 10% of the quantity of products made of non-ferrous metals in year Y-X, where ‘X’ is the average life of the product
3	2028-29	❖ 30% of the quantity of products made of non-ferrous metals in year Y-X, where ‘X’ is the average life of the product
4	2029-30	❖ 30% of the quantity of products made of non-ferrous metals in year Y-X, where ‘X’ is the average life of the product
5	2030-31	❖ 50% of the quantity of products made of non-ferrous metals in year Y-X, where ‘X’ is the average life of the product
6	2031-32	❖ 50% of the quantity of products made of non-ferrous metals in year Y-X, where ‘X’ is the average life of the product
7	2032-33 onwards	❖ 75% of the quantity of products made of non-ferrous metals in year Y-X, where ‘X’ is the average life of the product
8		❖ Units established after 1st April, 2026, the extended producer responsibility obligation will start after two years and shall be as per the target prescribed above
9		❖ The extended producer responsibility obligation for importers of used devices or products or scrap of non-ferrous metals in the year (Y) shall be 100 per cent of the non-ferrous metals imported in the year (Y-1)

Source: MoE

Story in Chart

Exhibit 12: Revenue to clock ~38% CAGR over FY26-28E

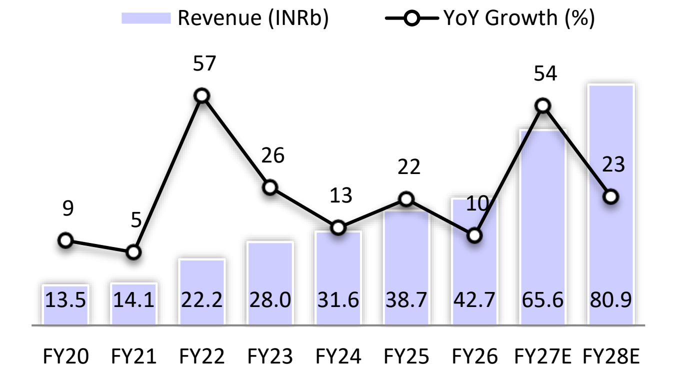


Exhibit 13: EBITDA and margin trend

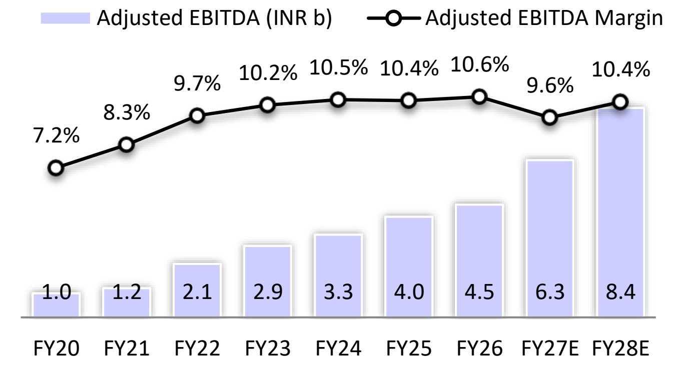


Exhibit 14: PAT to clock 27% CAGR over FY26-28E

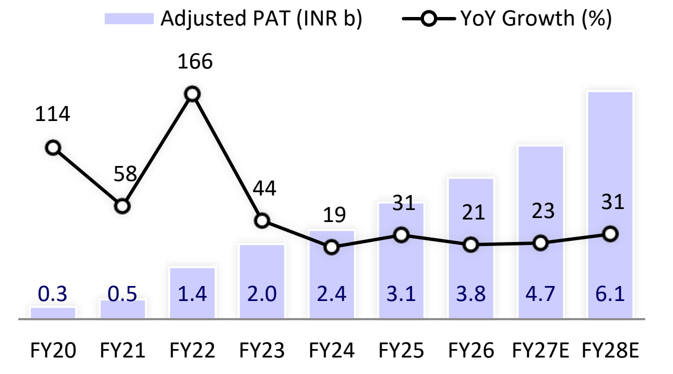


Exhibit 15: Reduction in net working capital leading to…

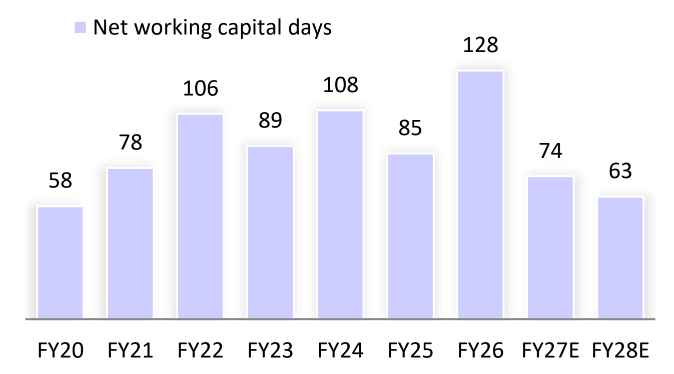


Exhibit 16: …improved cash flow from operations

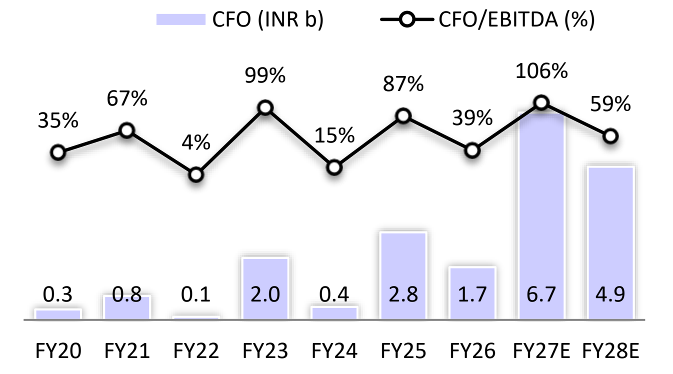


Exhibit 17: Healthy return ratios

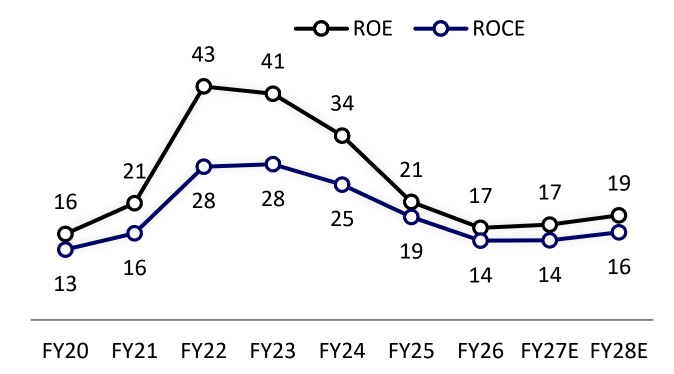
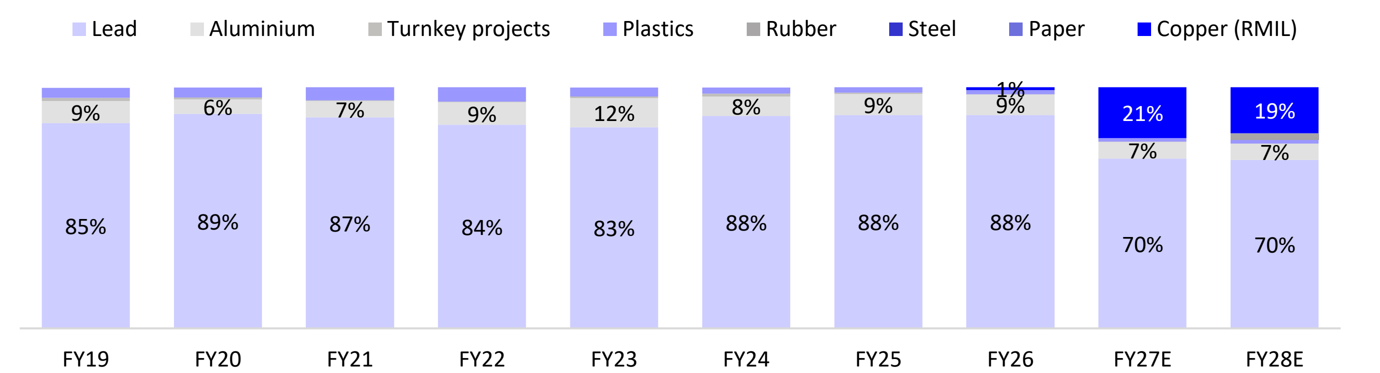


Exhibit 18: Revenue breakup trend



Source: Company, MOFSL

Financials and valuations

Consolidated - Income Statement

(INR Million)

Y/E March	FY22	FY23	FY24	FY25	FY26	FY27E	FY28E
Total Income from Operations	**22,159**	**28,006**	**31,608**	**38,688**	**42,653**	**65,632**	**80,949**
Change (%)	57.2	26.4	12.9	22.4	10.2	53.9	23.3
RM Cost	17,899	23,391	25,612	31,728	34,179	52,112	64,274
Employees Cost	1,028	1,336	1,312	1,595	1,818	2,822	3,400
Other Expenses	1,078	1,259	1,848	2,124	2,306	4,392	4,881
Total Expenditure	**20,005**	**25,986**	**28,772**	**35,447**	**38,303**	**59,326**	**72,555**
% of Sales	90.3	92.8	91.0	91.6	89.8	90.4	89.6
EBITDA	**2,154**	**2,020**	**2,836**	**3,241**	**4,349**	**6,306**	**8,394**
Margin (%)	9.7	7.2	9.0	8.4	10.2	9.6	10.4
Other Income (Operational) - Commodity and Forex Hedging	-4	841	474	794.7	175.5	0.0	0.0
Adjusted EBITDA	**2,149**	**2,860**	**3,309**	**4,036**	**4,525**	**6,306**	**8,394**
Margin (%)	9.7	10.2	10.5	10.4	10.6	9.6	10.4
Depreciation	206	240	380	291	388	614	923
EBIT	**1,944**	**2,621**	**2,929**	**3,745**	**4,137**	**5,692**	**7,471**
Int. and Finance Charges	380	435	492	434	248	480	600
Other Income	83	90	304	324	594	320	400
PBT bef. EO Exp.	**1,646**	**2,276**	**2,742**	**3,635**	**4,483**	**5,532**	**7,271**
EO Items	0	0	0	0	0	0	0
PBT after EO Exp.	**1,646**	**2,276**	**2,742**	**3,635**	**4,483**	**5,532**	**7,271**
Total Tax	162	235	319	506	699	885	1,163
Tax Rate (%)	9.8	10.3	11.6	13.9	15.6	16.0	16.0
Minority Interest	91	30	31	5	-5	-5	-5
Reported PAT	**1,394**	**2,011**	**2,392**	**3,124**	**3,788**	**4,652**	**6,112**
Adjusted PAT	**1,394**	**2,011**	**2,392**	**3,124**	**3,788**	**4,652**	**6,112**
Change (%)	165.7	44.3	18.9	30.6	21.3	22.8	31.4
Margin (%)	6.3	7.2	7.6	8.1	8.9	7.1	7.6

Consolidated - Balance Sheet

Y/E March	FY22	FY23	FY24	FY25	FY26	FY27E	FY28E
Equity Share Capital	138	138	138	148	148	148	148
Total Reserves	3,730	5,751	8,236	20,552	24,369	28,947	34,985
Net Worth	**3,869**	**5,889**	**8,374**	**20,699**	**24,516**	**29,094**	**35,133**
Minority Interest	140	128	132	76	68	63	58
Total Loans	3,915	3,477	5,451	2,823	7,323	8,840	9,840
Deferred Tax Liabilities	15	-61	2	4	146	146	146
Capital Employed	**7,939**	**9,433**	**13,959**	**23,602**	**32,054**	**38,143**	**45,177**
Gross Block	2,650	3,690	4,759	5,853	9,708	14,864	22,074
Less: Accum. Deprn.	738	957	1,337	1,628	2,016	2,630	3,554
Net Fixed Assets	**1,913**	**2,733**	**3,423**	**4,226**	**7,692**	**12,234**	**18,520**
Goodwill on Consolidation	0	0	0	58	1,628	1,628	1,628
Capital WIP	425	455	428	393	475	1,170	1,510
Total Investments	**0**	**11**	**165**	**5,279**	**4,127**	**4,127**	**4,127**
Current Investments	0	0	165	4,911	3,830	0	0
Curr. Assets, Loans&Adv.	**7,638**	**8,789**	**12,008**	**15,195**	**20,247**	**23,142**	**24,509**
Inventory	5,135	5,965	6,746	6,168	10,233	9,752	10,933
Account Receivables	1,097	1,370	2,643	2,751	4,309	3,596	4,347
Cash and Bank Balance	325	381	988	4,073	2,018	4,121	2,232
Loans and Advances	1,081	1,073	1,631	2,203	3,687	5,673	6,997
Curr. Liability & Prov.	**2,036**	**2,555**	**2,065**	**1,549**	**2,116**	**4,158**	**5,117**
Account Payables	329	895	675	396	674	1,043	1,276
Other Current Liabilities	1,515	1,457	1,379	870	1,124	2,625	3,238
Provisions	193	202	11	282	318	489	603
Net Current Assets	**5,601**	**6,234**	**9,944**	**13,646**	**18,131**	**18,984**	**19,392**
Misc Expenditure	0	0	0	0	0	0	0
Appl. of Funds	**7,939**	**9,433**	**13,959**	**23,602**	**32,054**	**38,143**	**45,177**

Financials and valuations

Ratios

Y/E March	FY22	FY23	FY24	FY25	FY26	FY27E	FY28E
Basic (INR)							
EPS	**20.2**	**29.1**	**34.6**	**42.3**	**51.3**	**63.0**	**82.8**
Cash EPS	23.2	32.6	40.1	46.3	56.6	71.4	95.3
BV/Share	56.0	85.3	121.3	280.5	332.2	394.2	476.1
DPS	3.5	0.6	0.9	1.0	1.0	1.0	1.0
Payout (%)	17.1	2.1	2.5	2.4	1.9	1.6	1.2
Valuation (x)							
P/E	89.7	62.2	52.3	42.8	35.3	28.7	21.9
Cash P/E	78.2	55.5	45.1	39.1	32.0	25.4	19.0
P/BV	32.3	21.2	14.9	6.5	5.5	4.6	3.8
EV/Sales	5.8	4.6	4.1	3.3	3.2	2.1	1.7
EV/EBITDA	59.8	63.5	45.7	39.4	31.1	21.9	16.8
Dividend Yield (%)	0.2	0.0	0.0	0.1	0.1	0.1	0.1
FCF per share	-8.8	13.5	-8.9	23.7	-6.3	11.1	-35.4
Return Ratios (%)							
RoE	42.5	41.2	33.5	21.5	16.8	17.4	19.0
RoCE	27.9	28.3	24.6	18.8	14.4	14.5	15.9
RoIC	28.6	20.2	20.7	19.4	17.0	17.7	19.0
Working Capital Ratios							
Fixed Asset Turnover (x)	8.4	7.6	6.6	6.6	4.4	4.4	3.7
Asset Turnover (x)	2.8	3.0	2.3	1.6	1.3	1.7	1.8
Inventory (Days)	94	84	86	64	98	60	49
Debtor (Days)	18	18	31	26	37	20	20
Creditor (Days)	6	13	9	4	6	6	6
Leverage Ratio (x)							
Current Ratio	3.8	3.4	5.8	9.8	9.6	5.6	4.8
Interest Cover Ratio	5.1	6.0	6.0	8.6	16.7	11.9	12.5
Net Debt/Equity	0.9	0.5	0.5	-0.3	0.1	0.2	0.2

Consolidated - Cash Flow Statement (INR m)

Y/E March	FY22	FY23	FY24	FY25	FY26	FY27E	FY28E
OP/(Loss) before Tax	1,646	2,276	2,742	3,635	4,483	5,532	7,271
Depreciation	206	240	380	291	388	614	923
Interest & Finance Charges	327	384	188	434	248	160	200
Direct Taxes Paid	-149	-235	-319	-506	-642	-885	-1,163
(Inc)/Dec in WC	-2,062	-822	-2,567	-787	-2,078	1,249	-2,296
CF from Operations	**-32**	**1,843**	**424**	**3,067**	**2,399**	**6,670**	**4,935**
Others	128	154	0	-245	-706	0	0
CF from Operating incl EO	**96**	**1,997**	**424**	**2,822**	**1,693**	**6,670**	**4,935**
(Inc)/Dec in FA	-702	-1,064	-1,042	-1,073	-2,157	-5,850	-7,550
Free Cash Flow	**-606**	**933**	**-618**	**1,749**	**-464**	**820**	**-2,615**
(Pur)/Sale of Investments	4	-11	0	-4,819	1,503	0	0
Others	3	21	-536	-2,744	-2,985	320	400
CF from Investments	**-695**	**-1,054**	**-1,578**	**-8,636**	**-3,639**	**-5,530**	**-7,150**
Issue of Shares	0	0	0	9,815	0	0	0
Inc/(Dec) in Debt	1,294	-442	1,974	-2,612	2,487	1,517	1,000
Interest Paid	-336	-389	-492	-443	-242	-480	-600
Dividend Paid	-238	-43	-60	-354	-462	-74	-74
Others	0	0	338	-4	-4	0	0
CF from Fin. Activity	**719**	**-874**	**1,760**	**6,403**	**1,779**	**963**	**326**
Inc/Dec of Cash	**121**	**69**	**606**	**588**	**-167**	**2,103**	**-1,889**
Opening Balance	113	234	382	988	4,073	2,018	4,121
Other cash & cash equivalent	91	78	0	2,497	-1,888	0	
Closing Balance	**325**	**382**	**988**	**4,073**	**2,018**	**4,121**	**2,232**

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 and BSE enlistment no. 5028. 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 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 and is a member of Association of Portfolio Managers in India (APMI) for distribution of PMS products. Details of associate entities of Motilal Oswal Financial Services Ltd. are available on the website at http://onlinereports.motilaloswal.com/Dormant/documents/Associate%20Details.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. As per Regulatory requirements, Research Audit Report is uploaded on www.motilaloswal.com > MOFSL-Important Links > MOFSL Research Analyst Compliance Audit Report.

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

1. 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
2. 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
3. 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.
4. 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.
5. Research Analyst has not served as an officer, director or employee of subject company(ies).
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(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, enlistment as RA with Exchange 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
Mr. Neeraj Agarwal	022 40548085	na@motilaloswal.com
Mr. Siddhartha Khemka	022 50362452	po.research@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, BSE enlistment no. 5028, AMFI registered Mutual Fund Distributor and SIF Distributor: ARN .: 146822. IRDA Corporate Agent – CA0579, APMI: APRN00233. 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.