

14 August 2024

Hindalco Industries

*Best upstream aluminium EBITDA margin, record copper EBITDA;
Buy*

Rating: **Buy**

Target Price (12-mth): Rs.800

Share Price: Rs.621

The strategic expansions in Bay Minette, UAL (South Korea), Aditya and Silvassa are on track, with Hindalco Industries commissioning its Guthrie plant in Q1 to enhance post-production and post-consumer automotive scrap-recycling capacity. Besides the ongoing downstream expansion, which would enhance capacity >0.6m tonnes, the company has identified many growth-capex projects for the domestic market. In the next phase, it plans to enhance its alumina refining capacity in Odisha, set up a 0.2m-tonne copper smelter and a 180-pot primary aluminium smelter at Aditya. In line with the extension of Novelis' IPO timeline, we slightly trim our EV/EBITDA multiple from 7x to 6.5x. Given softer LME prices, we slightly trim our FY25e LME. Considering the strong focus on recycling, adding capacity, integrating RM and enhancing VAPs, we retain a Buy with a sum-of-parts Rs.800 TP.

In-line Q1. Revenue increased 8% y/y to Rs570bn (in line with Are's Rs582bn). EBITDA moved up 31% y/y to Rs75bn (in line with our estimated Rs76bn) and adj. PAT 38% y/y to Rs34bn (in line with our Rs33.6bn estimate). Novelis' revenue rose 2% y/y to \$4.2bn, missing our estimate by 6%; adj. EBITDA/tonne was \$525 (in line with Are's \$529).

Key takeaways. Coal cost for domestic operations is likely to be flat or inch up a bit, ~1% q/q, in Q2. Ahead, the copper vertical is likely to post Rs6bn EBITDA on a normalized basis. The Sierre plant, hurt by the Rhône overflowing, would restart by end-Q2. Capex for Bay Minette is on track; the plant would be commissioned in FY27. Of the 300MW domestic RE target, ~58% has been achieved and a further 25MW would come on stream by end-Mar'25. No major liability is expected due to the recent SC judgement on royalty.

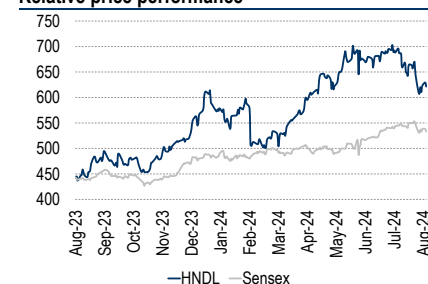
Outlook, Valuation. Though the company is expected to retain its volume momentum and focus on VAP, we slightly trim our TP due to the recent fall in LME prices and extension of Novelis' IPO timeline. We retain a Buy with a TP of Rs.800.

Key data	HNDL IN
52-week high / low	Rs.715 / 438
Sensex / Nifty	78,956 / 24,139
3-m average volume	\$64.7m
Market cap	Rs.1,396bn / \$16,629.7m
Shares outstanding	2247m

Shareholding pattern (%)	Jun'24	Mar '24	Dec '23
Promoters	34.6	34.6	34.6
- of which, Pledged	-	-	-
Free float	65.4	65.4	65.4
- Foreign institutions	30.9	30.5	31.6
- Domestic institutions	25.6	25.8	25.2
- Public	8.9	9.1	8.6

Estimates revision (%)	FY25e	FY26e
Sales	(2.5)	0.0
EBITDA	(7.1)	0.0
PAT	(12.3)	0.0

Relative price performance



Source: Bloomberg

Key financials (YE Mar)	FY22	FY23	FY24	FY25e	FY26e
Sales (Rs bn)	1,951	2,232	2,160	2,371	2,566
EBITDA (Rs bn)	283	227	239	278	329
Adj. PAT (Rs bn)	136	101	101	118	149
PE (x)	10.1	13.7	13.6	11.7	9.2
EV / EBITDA (x)	6.1	7.5	7.2	6.3	5.3

Source: Company, Anand Rathi Research

Parthiv Jhonsa
Research AnalystPrakhar Khajanchi
Research Analyst

Anand Rathi Share 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 the Appendix.

Quick Glance – Financials and Valuations (consol.)

Fig 1 – Income statement (Rs bn)

Year-end: Mar	FY22	FY23	FY24	FY25e	FY26e
Revenue	1,951	2,232	2,160	2,371	2,566
Revenue growth (%)	47.8	14.4	-3.2	9.8	8.2
Expenses	1,667	2,005	1,921	2,093	2,237
EBITDA	283	227	239	278	329
EBITDA growth (%)	61.7	-20.0	5.3	16.3	18.7
EBITDA margins (%)	14.5	10.2	11.1	11.7	12.8
Depreciation	67	71	75	90	99
Other income	11	13	15	13	13
Interest expenses	38	36	39	43	44
PBT before exc. items	190	132	140	158	199
Exceptional items	6	0	0	0	0
PBT after exceptional items	196	132	140	158	199
Effective tax	54	31	39	40	50
PAT (before Assoc./ (Mino.))	142	101	102	118	149
+ Associates / (Minorities)	5	0	0	0	0
Reported PAT	137	101	102	118	149
Adj. PAT	136	101	101	118	149
Adj. PAT growth (%)	140.0	-26.2	0.8	16.6	26.3

Fig 2 – Balance sheet (Rs bn)

Year-end: Mar	FY22	FY23	FY24	FY25e	FY26e
Share capital	2	2	2	2	2
Net worth	782	948	1,061	1,166	1,301
Debt	632	583	545	533	520
Minority interest	0	0	0	0	0
DTL / (Asset)	44	73	82	82	82
Others	103	95	97	97	97
Capital employed	1,562	1,699	1,785	1,877	1,999
Net tangible assets	745	758	772	867	952
Net Intangible assets	306	324	323	316	307
CWIP	47	73	146	161	175
Investments	86	82	121	121	121
Other non-current assets	48	104	122	139	154
Inventory	445	430	408	448	485
Account receivables	211	162	164	180	195
Cash (incl. bank balance)	228	212	177	120	109
Other current assets	101	89	74	81	88
Current liabilities	657	536	522	556	587
Capital deployed	1,562	1,699	1,785	1,877	1,999

Fig 3 – Cash-flow statement (Rs bn)

Year-end: Mar	FY22	FY23	FY24	FY25e	FY26e
EBITDA	283	227	239	278	329
+ other Adj.	14	-3	9	0	0
- Incr./ (decr.) in WC	-91	-5	19	-30	-27
Others, incl. taxes	-38	-27	-27	-40	-50
CF from oper. activity	168	192	241	208	252
- Capex (tang. + Intang.)	-54	-97	-157	-210	-204
Free cash-flow	115	95	84	-2	48
Others	-17	16	14	13	13
CF from inves. activity	-71	-81	-143	-197	-191
- Div. (incl. buyback & taxes)	-7	-9	-7	-13	-14
+ Debt raised	-49	-82	-44	-13	-13
Others	-12	-13	-58	-43	-44
CF from finan. activity	-68	-103	-108	-68	-71
Closing cash balance	116	128	118	61	51
Closing balance (incl. bank bal.)	228	212	177	120	109

Source: Company, Anand Rathi Research

Fig 4 – Ratio analysis

Year-end: Mar	FY22	FY23	FY24	FY25e	FY26e
EPS	61.3	45.3	45.6	53.2	67.2
P/E (x)	10.1	13.7	13.6	11.7	9.2
P/BV (x)	1.8	1.5	1.3	1.2	1.1
EV / EBITDA (x)	6.1	7.5	7.2	6.3	5.3
EV / Sales (x)	0.9	0.8	0.8	0.7	0.7
RoE (%)	18.8	11.6	10.1	10.6	12.1
RoCE (%)	15.0	10.3	10.2	11.0	12.6
DPS (Rs)	4.0	3.0	3.5	6.0	6.5
Dividend payout (%)	6.5	6.6	7.7	11.3	9.7
Net debt / EBITDA (x)	1.2	1.4	1.4	1.4	1.1
Inventory (days)	83	70	69	69	69
Debtors (days)	39	27	28	28	28
Payable (days)	77	59	58	58	58
EBITDA margins (%)	14.5	10.2	11.1	11.7	12.8
Net profit margins (%)	7.0	4.5	4.7	5.0	5.8

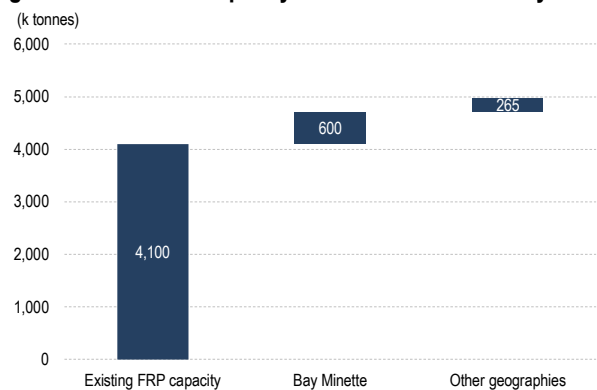
Source: Company, Anand Rathi Research

Fig 5 – Price movement



Source: Bloomberg

Fig 6 – Novelis' FRP capacity to cross 4.9m tonnes by FY27



Source: Company, Anand Rathi Research

Detailed business-wise analysis

Aluminium upstream

Q1 shipments declined 4% y/y to 329k tonnes (in line with the 333k-estimate), taking FY25 shipment estimates to ~1.35m. The upstream business revenue (not- inter-segmentally adjusted) rose 10% y/y to Rs.88.4bn due to higher realizations on better aluminium prices. EBITDA grew 81% y/y to Rs.35bn (19% ahead of Are's Rs29bn.). Lower input cost led to higher, 40%, margins (24% a year ago) and \$1,273 EBITDA/tonne (~\$690 a year back).

Aluminium downstream

Q1 shipments grew 19% y/y to 96k tonnes (in line with Are's 95k). Once downstream capacity expansion at Aditya (FRP) is complete and the Silvassa plant fully ramped up by end-Mar'25, the company will increase downstream capacity to >0.6m tonnes. Revenue rose 18% y/y to Rs.29bn (in line with Are's Rs29bn.). The premium commanded by the downstream business to the LME narrowed to \$1,065/tonne in the quarter (\$1,397 a year ago; \$1,147 the quarter prior). EBITDA, which was hurt by the unfavourable product mix, lower premium and realizations, was Rs.1.1bn. Q1 EBITDA/tonne came to \$138. As the share of the downstream vertical in the product mix rises, ~Rs10bn EBITDA potential is expected.

Copper, all-time high EBITDA

Q1 metal shipments rose 1% y/y to 119k tonnes (in line with Are's 121k). Revenue grew 16% y/y to Rs133bn (in line with Ares' Rs132bn.). The vertical posted an all-time high EBITDA, which surged 52% y/y to Rs8bn (36% higher than we estimated), driven by better realisations, higher average copper prices and improved operations. However, the company has guided to quarterly EBITDA of Rs6bn on an ongoing basis.

Novelis

Shipments rose 8% y/y to 951k tonnes (higher than Are's 945k). Revenue rose 2% y/y to \$4.2bn (missing our \$4.5bn estimate 6%). The miss was due to the unfavourable balance between scrap and the LME prices. Adj. EBITDA grew 19% to \$500m (in line with our estimated \$500m). The adj. EBITDA/tonne came to \$525 vs. our estimated \$529. The reduced raw material cost was offset by lower realisations. Adj. PAT rose 43% y/y to \$237m (19% above our estimated \$200m). Net debt was \$4.6bn (up from \$4.3bn in Mar'24).

Result Highlights

Fig 7 – Quarterly consolidated performance at a glance

Quarter-end (Rs bn)	Q1 FY23	Q2 FY23	Q3 FY23	Q4 FY23	Q1 FY24	Q2 FY23	Q3 FY24	Q4 FY24	Q1 FY25	Q1 FY25 est	% Change to est.	% Y/Y	% Q/Q
Revenue	580	562	532	559	530	542	528	560	570	582	-2.0	7.6	1.8
EBITDA	84	54	35	53	57	56	59	67	75	76	-1.3	31.3	12.3
<i>EBITDA margins (%)</i>	14.5	9.5	6.7	9.5	10.8	10.4	11.1	11.9	13.2				
Interest	8	9	9	10	10	10	9	9	9				
Depreciation	17	17	18	19	18	18	19	20	19				
Other income	2	3	4	4	4	5	3	4	4				
PBT before exceptional items	60	31	12	28	33	32	33	41	52	45	15.4	55.6	25.1
Exceptional items	0	0	0	0	-0	0	0	0	-3				
PBT after exceptional items	61	31	12	28	33	32	33	41	48				
Tax	20	9	-1	4	9	10	10	10	18				
PAT before MI / Asso.	41	22	14	24	25	22	23	32	31				
+Assoc / (Minorities)	0	0	0	0	0	0	0	-0	0				
Reported PAT	41	22	14	24	25	22	23	32	31	34	-8.4	25.3	-3.2
Adj. PAT	41	22	14	24	25	22	23	32	34	34	1.4	38.0	7.2
Upstream aluminium shipments (k tonnes)	329	331	336	323	341	334	333	337	329	333	-1.2	-3.5	-2.4
Downstream aluminium shipments (k tonnes)	78	95	91	90	81	94	90	105	96	95	1.1	18.5	-8.6
Copper metal shipments (k tonnes)	101	112	109	117	118	134	119	135	119	121	-1.7	0.8	-11.9
Novelis shipments (k tonnes)	962	984	908	936	879	933	910	951	951	945	0.6	8.2	0.0
Upstream aluminium EBITDA / tonne	1,288	510	576	825	690	751	881	968	1,273	1,059	20.3		
Downstream aluminium EBITDA / tonne	262	264	210	151	221	220	137	174	137	194	-29.2		
Novelis EBITDA / tonne	583	514	376	431	479	519	499	540	526	529	-0.6		

Downstream financial numbers are restated by the company for Q4 FY24 and Q1 FY24, we shall change the same in coming quarters
Source: Company, Anand Rathi Research

Novelis' performance, concall highlights

Geographical mix

North America

- **Volumes** up 5% y/y but q/q down 1% to 388k tonnes (in line with Are's 379k).
- **EBITDA** grew 10% y/y but dipped 13% q/q to \$183m (in line with our estimate).
- **EBITDA/tonne** was \$472, slightly missing our \$505 estimate.
- Higher beverage can shipments, driven by strong demand.
- The EBITDA miss was led by lower metal benefit and a less favourable product mix.
- The US imports ~400k-500k tonnes of beverage can-sheets pa; however, once the Bay Minette plant comes on stream, it would replace imports from Asia.

Europe

- **Volumes** up 5% y/y, 7% q/q, to 263k tonnes (a positive surprise to our estimated 238k).
- **EBITDA** rose 2% y/y, 22% q/q to \$90m (26% above our estimate).
- **EBITDA/tonne** was \$342, 14% above our estimated \$300.
- Higher beverage can shipments drove volumes, partially offset by lower automobile segment offtake.

Asia

- **Volumes** up 10% y/y, 6% q/q, to 194k tonnes (in line with our estimate).
- **EBITDA** rose 6% y/y, 10% q/q to \$92m; EBITDA/tonne \$474 (in line with our estimate).
- Higher inter-regional beverage can shipments to North America drove volumes.

South America

- **Volumes** up 29% y/y but q/q down 6% to 154k tonnes (less than our estimated 164k).
- **EBITDA** grew 57% y/y but dipped 9% q/q to \$132m. EBITDA/tonne was \$857 (in line with our estimated \$875).
- Volumes improved driven by more beverage can-sheet shipments to North America.

Capex

- Capex for Bay Minette is progressing per timeline, with no cost escalation likely.
- A complete automotive volume tie-up is expected before the plant comes on stream by FY27.

- Novelis commissioned the 240k-tonne recycling plant in Gunthrie. The advanced sorting technology and automotive ‘closed loop’ recycling would re-use post-production and post-consumer scrap.
- The 100k-tonne UAL recycling plant in South Korea is expected to be commissioned in H2.
- Novelis is undertaking a \$90m UBC recycling and casting expansion in the UK, which would enhance capacity by 350k tonnes. This plant is expected to be commissioned by FY27 and would capture the UK recycling market.

Flooding in Sierre, Switzerland

- In Jun'24, the Rhône overflowed, which caused the Sierre plant to temporarily shut operations.
- It is to restart by end-Q2 FY25.
- The net-cash impact of the flooding is expected at ~\$80m (after considering the insurance payout).
- The estimated net EBITDA impact is ~\$30m, most expected in Q2 FY25.
- The impact on EBITDA only pertains to volumes. Any other impact pertaining to repairs/maintenance of machinery would be additional.
- Though the plant is insured, a lag between when the amount is received from the insurance company and the cost incurred is possible, which might stretch funds needed for Novelis in the near term.

Fig 8 – Novelis' financial performance at a glance

Novelis quarter-end	Q1 FY23	Q2 FY23	Q3 FY23	Q4 FY23	Q1 FY24	Q2 FY23	Q3 FY24	Q4 FY24	Q1 FY25	Q1 FY25 est	% Change to est.	% Y/Y	% Q/Q
Revenue (\$ m)	5,089	4,799	4,201	4,397	4,091	4,107	3,935	4,077	4,187	4,476	-6.4	2.3	2.7
EBITDA (\$ m)	561	506	341	403	421	484	454	514	500	500	0.0	18.8	-2.7
EBITDA / tonne (\$)	583	514	376	431	479	519	499	540	525	529	-0.8	9.6	-2.9
Shipments (k tonnes)	962	984	908	936	879	933	910	951	951	945	0.6	8.2	0.0
North America shipments (k tonnes)	386	386	380	363	370	390	362	391	388	379	2.4	4.9	-0.8
Europe shipments (k tonnes)	272	268	242	248	250	256	230	246	263	238	10.6	5.2	6.9
Asia shipments (k tonnes)	185	208	141	187	176	175	176	183	194	195	-0.3	10.2	6.0
South America shipments (k tonnes)	148	162	162	144	119	144	176	164	154	164	-6.1	29.4	-6.1
North America EBITDA / tonne (\$)	588	495	326	361	449	533	456	537	472	505	-6.6	5.1	-12.2
Europe EBITDA / tonne (\$)	309	272	157	367	352	391	257	301	342	300	14.1	-2.8	13.8
Asia EBITDA / tonne (\$)	508	543	426	385	494	469	460	459	474	500	-5.2	-4.1	3.3
South America EBITDA / tonne (\$)	1,054	784	765	799	706	646	852	884	857	875	-2.0	21.4	-3.1

Source: Company, Anand Rathi Research

Conference call key takeaways (HNDL)

Guidance

- The FRP capex at Aditya is on track and expected to be commissioned by FY26.
- The Silvassa plant is being ramped up and is likely to reach optimum utilisation by end-Mar'25.
- Once capex for downstream plants is completed, domestic capacity of >0.6m tonnes is expected, with ~Rs10bn EBITDA potential.
- Coal cost would be flat or move up a bit (1%) in Q2 FY25.
- The current coal linkage is ~48% and the share of e-auction is 49%; to be the same till the Chakla mine comes on stream.
- A slight increase in mining cost is likely ahead, however, the company does not anticipate significantly increased liability from the recent Supreme Court judgement on royalty.
- The company has hedged ~22% at \$2,550/tonne and 15% at zero collar with a base of \$2,258/tonne and a cap of \$2,539/tonne.
- ~10-12% of the bauxite required is met from mines in Jharkhand; the rest from Odisha.
- Of its 300MW domestic RE target, ~58% has been achieved; a further 25MW is expected to come on stream by end-Mar'25.

Capex

- On completion of the ongoing downstream capex, the company plans to expand its alumina refining capacity in Odisha, a 0.2m-tonne copper smelter and a 180-pot primary aluminium smelter at Aditya.
- It has earmarked ~Rs240bn capex for the three projects, which would take 3-4 years to be commissioned.
- It plans to expand the 50k-tonne copper recycling unit at Dahej from Oct'24.

Aluminium and copper demand-supply balance

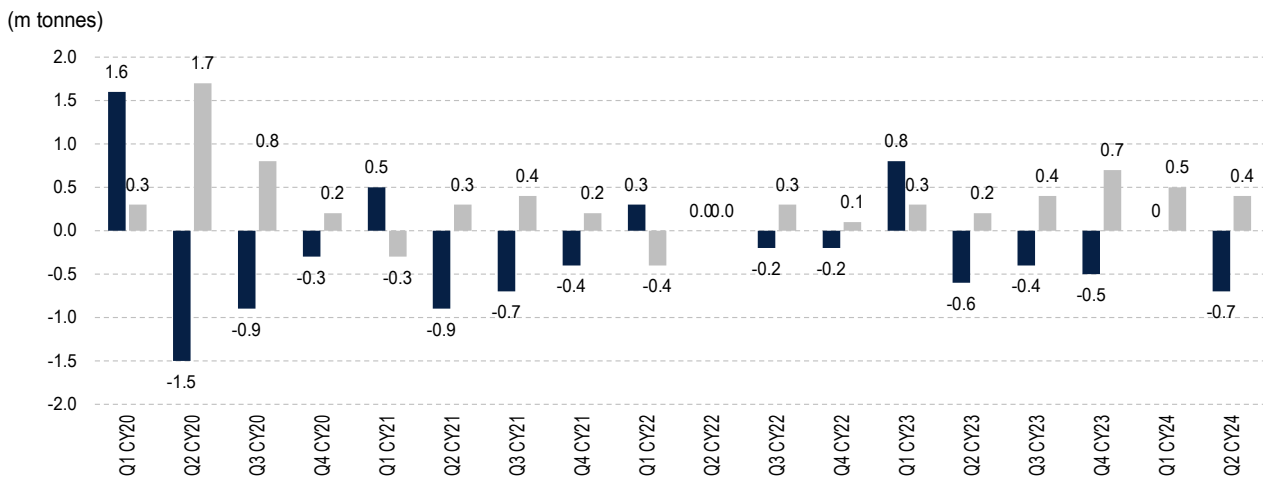
Aluminium

Like other ferrous and base metals, China produces the lion’s share in global aluminium (~59%). Its production outpaced the increase in global demand, increasing ~0.4m tonnes in Q2 CY24 to 10.6m tonnes (vs. ~0.1m tonne for the RoW). Chinese aluminium consumption in Q2 CY24 was 11.3m tonnes (up 2.7% y/y), compared to a 0.1m tonne decline for the RoW. The reduction in demand was due to subdued macros in Europe and MENA, partially offset by greater aluminium demand in India. China’s continuing cap on yearly production targets led to the 0.7m-tonne deficit in the country.

Just like other metals, India continues to outperform other global majors. Aluminium demand in the quarter stepped up 15% y/y to 1.32m tonnes, driven by strong demand in electricals, packaging, industrial machinery, and consumer durables.

Excl. China, global FRP demand is expected to grow ~4% in CY24, driven by greater demand for beverage cans in North America, a favourable vehicle mix, more construction in North America and India and robust demand from aerospace.

Fig 9 – Global aluminium demand-supply balance (m tonnes)

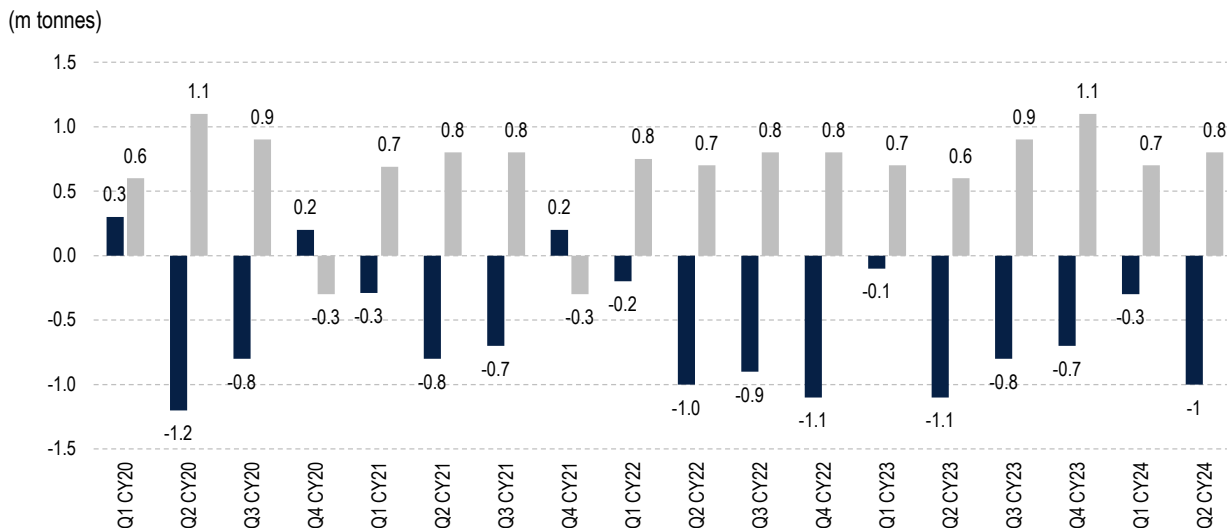


Source: Company, Anand Rathi Research

Copper

Global copper production in Q2 CY24 stepped up 3% y/y to 6.4m tonnes but consumption slipped 1% y/y to 6.6m tonnes, resulting in a ~0.2m-tonne deficit. Demand in China exceeded production, which led to a ~1m tonne deficit. This was offset by slower demand in the RoW, which saw a 0.8m-tonne surplus. Domestic demand for refined copper grew slower (4% y/y) to 201k tonnes. As domestic demand outpaces production, the shortfall would be met via imports. The share of domestic suppliers improved to 73% during the quarter.

Fig 10 – Global copper demand-supply balance (m tonnes)



Source: Company, Anand Rathi Research

Valuations

We believe that, with the move toward greener alternatives globally, demand for aluminium and copper would be robust, driven by the strong push from EVs, RE, packaging, consumer durables, energy, aerospace, infrastructure, construction, automobiles, etc.

The company, which is at the forefront of FRP and VAP capacity expansion, would be one of the biggest beneficiaries of the ongoing change in the non-ferrous landscape. Along with planned capex, it is strengthening backward integration by setting up recycling capacities internationally and operationalising mines in India.

Considering all the positive triggers, we have built in a ~7% revenue CAGR over FY24-26 for Novelis, driven by the volume momentum, better realisations and a consolidated ~9% revenue CAGR stemming from the greater share of downstream VAPs and support from LME in FY26. Further, we expect a ~10% EBITDA CAGR for Novelis and ~17.5% consolidated EBITDA CAGR over FY24-26.

During our recent initiation, we had assigned 7x FY26 EV/EBITDA for Novelis, which was in line with the valuation at the lower end of the band of the proposed IPO. However, with the IPO being extended with no clear timeline, we slightly trim our ascribed EV/EBITDA multiple from 7x to 6.5x for Novelis. Further, considering the recently softer LME prices, we slightly trim our FY25e LME. We retain our Buy rating and a sum-of-parts TP of Rs.800.

Fig 11 – Change in estimates

(Rs bn)	FY25e			FY26e		
	New	Old	% variance	New	Old	% variance
Revenue	2,371	2,431	-2.5	2,566	2,566	0.0
EBITDA	278	299	-7.1	329	329	0.0
Adj. PAT	118	135	-12.3	149	149	0.0

Source: Anand Rathi Research

Fig 12 – TP of Rs.800

Particulars	UoM	FY26e
Aluminium – upstream		
Volumes	kt	1,350
EBITDA / tonne	\$	927
EBITDA	Rs m	1,07,374
EV / EBITDA (x)	x	5.0
Target EV	Rs m	536,872
Aluminium – downstream		
Volumes	Kt	455
EBITDA / tonne	\$	225
EBITDA	Rs m	8,796
EV / EBITDA (x)	x	6.5
Target EV	Rs m	57,173
Copper		
Volumes	kt	522
EBITDA	Rs m	27,477
EV / EBITDA (x)	x	6.0
Target EV	Rs m	164,863
Novelis		
Volumes	kt	3,994
EBITDA / tonne	\$	566
EBITDA (converted to Rs)	Rs m	193,798
EV / EBITDA (x)	x	6.5
Target EV	Rs m	12,59,688
Other Adj.		
EBITDA	Rs m	-8,000
EV / EBITDA (x)	x	4.5
Target EV	Rs m	-36,000
Target group EV	Rs m	19,82,596
Less: Net debt	Rs m	3,77,854
Add: Adj. CWIP (@ 50%)	Rs m	87,720
No. of shares	m	2,220
Per share value	Rs	762
Add: Adj. per share value of investment (holding co. disc @ 35%)	Rs	38
Target price	Rs / sh	800

Source: Anand Rathi Research

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 13 August 2024)



Anand Rathi Ratings Definitions

Analysts' ratings and the corresponding expected returns take into account our definitions of Large Caps, Mid Caps & Small Caps as described in the Ratings Table below:

Ratings Guide (12 months)

	Buy	Hold	Sell
Large Caps (Top 100 companies)	>15%	0-15%	<0%
Mid Caps (101st-250th company)	>20%	0-20%	<0%
Small Caps (251st company onwards)	>25%	0-25%	<0%

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, SEBI Regn No. INH000000834, Date of Regn. 29/06/2015) is a subsidiary of the Anand Rathi Financial Services Ltd. ARSSBL is a corporate trading and clearing member of Bombay Stock Exchange Ltd (BSE), National Stock Exchange of India Ltd. (NSEIL), Metropolitan Stock Exchange of India Ltd. (MSE), and also depository participant with National Securities Depository Ltd (NSDL) and Central Depository Services Ltd. (CDSL), ARSSBL is engaged into the business of Stock Broking, Depository Participant, 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 investments referred to in this Report and the income from them may go down as well as up, and investors may realize losses on any investments. Past performance is not a guide for future performance. ARSSBL does not provide tax advice to its clients, and all investors are strongly advised to consult with their tax advisers regarding taxation aspects of any potential investment.

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 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
ARSSBL/its Associates/ Research Analyst/ his Relative has been engaged in market making activity for the subject company.	No

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

Research report is a product of Anand Rathi Share and Stock Brokers Ltd. (hereinafter refer as ARSSBL) under Marco Polo Securities 15a6 chaperone service 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.

Research reports are intended for distribution by 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 a chaperoning agreement with a U.S. registered broker-dealer, Marco Polo Securities Inc. ("Marco Polo").

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. 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.

© 2024. 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 registered trademarks or service marks of ARSSBL or its affiliates, unless specifically mentioned otherwise.

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

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

Compliance officer-Deepak Kedia, email id - deepakkedia@rathi.com, Contact no. +91 22 6281 7000

Grievance officer-Madhu Jain-email id- grievance@rathi.com, Contact no. +91 22 6281 7191

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.