Management Discussion & Analysis

Hindalco Industries Limited, the metals flagship of Aditya Birla Group, is the world's largest Aluminium rolling and recycling company and a major copper player. Hindalco is also one of Asia's largest producers of primary Aluminium.

Consolidated Net Debt to EBITDA at

2.59 Times

At the end of the year Hindalco continued to maintain its strong balance sheet in FY 2020-21

Today Novelis recycles

74 BILLION CANS

A year, enough to circle the globe more than 160 times

In India, the Company's aluminium manufacturing units comprise the full value chain, from bauxite mining, alumina refining, coal mining, captive power generation and aluminium smelting to downstream value addition of Aluminium rolling, extruding and foil making. Hindalco's copper facility in India comprises of a world-class copper smelter, downstream facilities, a fertilizer plant and a captive jetty. The copper smelter is among the world's largest custom smelters at a single location. Hindalco is one of the largest suppliers of copper to the Indian Railways.

Novelis Inc., Hindalco's wholly-owned subsidiary, is the world's largest producer of aluminium beverage can stock and aluminum automotive sheet, and the largest recycler of Aluminium. Novelis provides innovative solutions to its customers in the beverage cans, automobile, aerospace and high-end speciality markets (including foil packaging, certain transportation products, architectural, industrial, Building & Construction (B&C) and consumer durables).

It operates an integrated network of technically advanced rolling and recycling facilities across North America, South America, Europe and Asia. Hindalco's (including Novelis) global footprint spans 48 manufacturing units across 10 countries and 4 continents. Novelis has recycling operations in 15 of these global operating facilities. Today Novelis recycles 74 billion cans a year, enough to circle the globe more than 160 times.

In FY 2020-21, the Company delivered a resilient and strong performance, despite macroeconomic challenges, tough market conditions on account of the COVID-19 pandemic and global uncertainties. This performance was mainly driven by higher volumes and better product mix, lower input costs, stability in operations and cost-saving actions in India as well as its overseas operations. Novelis closed its acquisition of Aleris Corporation and is now integrating the two companies. Novelis continued to report its best-ever EBITDA and EBITDA per ton and overall shipments, including Aleris. Hindalco continued to maintain its strong balance sheet in FY 2020-21, resulting in a consolidated Net Debt-to-EBITDA of 2.59 times at the end of the year.

FY 2020-21: KEY HIGHLIGHTS

3,613# KT
Overall shipments in Novelis

US$1.714# BILLION
Record Adjusted EBITDA in Novelis (up 16%)

US$474
Record Yearly adjusted EBITDA/ton in Novelis

61 %
Recycled inputs in Novelis

ALERIS ACQUISITION
Completed on April 14, 2020

2,699* KT
Alumina production

1,229 KT
Aluminium metal production

270 KT
Aluminium value-added products (VAP) in India (excluding wire rods) production

235 KT
Copper rods Production

₹1,31,985 CRORE (UP 12%)
Consolidated Revenue

₹18,896 CRORE (UP 22%)
Consolidated EBITDA

₹5,182 CRORE (UP 38%)
Consolidated PAT for Continuing Operations

* including Utkal, the wholly-owned subsidiary;
# Novelis FY 2020-21 Numbers includes Aleris

Key initiatives during the year

On April 14, 2020, Novelis closed its acquisition of Aleris Corporation. The acquisition provides a number of strategic benefits, including increasing the Company's footprint as an Aluminium rolled products manufacturer and diversifying its product and customer portfolio, including by providing entry into the aerospace market. In addition, more than $180 million of run-rate synergies have been identified through traditional integration cost synergies and strategic synergies created by enhancing and integrating operations in Asia. By the end of fiscal year 2021, $79 million of run-rate cost synergies have already been achieved. The acquisition of Aleris provides Novelis with further product diversification with the addition of high-end Aerospace and expanded speciality capabilities. It insulates Hindalco-Novelis from global price volatility and sharpens focus on the downstream business.

Novelis remains committed to all its organic projects announced. The 200 Kt automotive finishing facility in Guthrie, Kentucky in the US and 100 Kt of the auto finishing line in China, were both commissioned in the second half of FY 2020-21, bringing global automotive finishing capacity to approximately 1 million tons when fully ramped up. Customer qualification continues to ramp up at both facilities to meet strong demand for lightweight, automotive Aluminium sheet. The recycling, casting and rolling expansion in Brazil and recycling facility in Greensboro also remains on track to commission in the middle of FY 2021-22.

In March 2021, Novelis successfully placed a 3.375%, €500 million Senior Unsecured Green bonds in Europe for eight years, due in 2029. Novelis received credit rating upgrades on Novelis unsecured notes by both S&P Global Ratings and Moody's Investor Services in March 2021. Hindalco's Credit Rating Outlook upgraded from 'Stable' to 'Positive' while reaffirming the rating at "AA" by CRISIL in April 2021.

Hindalco has been ranked as the Aluminium Industry Leader for its sustainability performance in the 2020 edition of the S&P Dow Jones Sustainability Indices (DJSI) Corporate Sustainability Assessment (CSA) rankings. Hindalco is the only Company from India to be recognised as an Industry Leader this year. Industry Leaders are the top-performing companies in each of the 61 industries represented in the DJSI. Hindalco also featured in the S&P Global Gold Class category as 'Sustainability Leaders of 2021' in the Dow Jones Sustainability Yearbook 2021.

Utkal's Alumina brownfield capacity expansion, by 500 Kt, is on track with mechanical completion underway with commercial production to begin in quarter two of FY 2021-22. This will further strengthen the Company's integration and boost the availability of best-in-class alumina to its aluminium smelters in India.

Hindalco's sustainable business model focussed on downstream product expansion in India is expected to nearly double its existing downstream capacity in the next 5-6 years. Hindalco, in December 2020, announced its plans to set up a 34,000-ton extrusion plant at Silvassa. The new plant will service the fast-growing market for extruded aluminium products in the western and southern regions. The ₹730-crore project in Silvassa signals a big step forward in Hindalco's downstream strategy as the Company moves ahead with its long-term downstream investment plan. The Company's intent is to build a larger value-added product portfolio over the next few years. This investment indicates confidence in the economic revival, which will grow the demand for downstream value-added products.

1. Industry analysis

1.1 Aluminium Segment and Industry Review

Global economic activity in CY 2020 was severely hit by enforcement of stringent lockdown measures as a result of the spread of the COVID-19 pandemic. Strong fiscal support of around 20% of world's GDP coupled with vaccination powered normalisation prevented an economic catastrophe. As the lockdown measures eased gradually in the second half of CY 2020, economic activity started to pick up. Global growth is projected to contract by 3.3% in CY 2020 (vs 2.9% in CY 2019, IMF Forecast). Except for China, the GDP in most advanced and emerging economies is expected to contract in CY 2020. Going forward, recovery will depend on the path of the pandemic, pace of roll-out of the vaccine and the extent of associated industrial activity disruptions. While the global economy is expanding, large sectoral and regional divergences in growth trajectory exist. The geopolitical tensions and trade frictions, deteriorating fiscal positions of governments are key downside risks to growth. According to the IMF, global growth in CY 2021 is projected to rebound to 6% on a contracted base in CY 2020.

The prolonged COVID-19 crisis dampened global economic sentiments, with most of the major economies experiencing a slowdown in economic growth. This in turn affected aluminium consumption. In CY 2020, primary aluminium consumption fell by 3% from the decline of 1% in 2019. The world, excluding China, de-grew by ~12% in 2020 on the back of 3% decline in CY 2019, owing to weakening demand in North America, Europe, and Japan. Among user industries, only packaging, including foil stock, recorded flattish growth year-on-year in CY 2020, whereas consumption growth declined in sectors like Transportation, Construction, Consumer Durables and Machinery & Equipment sectors. In CY 2019, China grew by 3% led by growth in auto, building and construction, consumer durables, packaging.

Global aluminium production Ex. China was flattish in CY 2020 versus growth of around 1% growth a year ago; production growth in China was ~4% YoY due to growth in Inner Mongolia and Yunnan, as compared to 3% degrowth in 2019. As a result, overall global production marginally grew by 2% YoY in CY 2020, down from a degrowth of 1% in CY 2019. Given the sharper slowdown of global consumption by 3% as against a production growth of 2%, leading to a surplus of ~2 million ton. Consequently, global inventories increased from ~10.5 million tons in the beginning of CY 2020 to ~12.5 million tons by the end of CY 2020. (See Figure 1&2)

The overall markets were in surplus of 2.0 million tons in Q1-CY 2020, and in the remainder of CY 2020, the markets were balanced. In China, since April 2020 till December 2020, consumption of Aluminium surpassed the production. In World Ex China, the consumption picked up since June '20 and reached Pre-COVID levels by November 2020 and December 2020. Consequently, the surplus also narrowed from level of 0.7 million in June 2020 to a deficit in November (See Table 1). This reduction in surplus led by an improvement in demand was also reflected in the prices. In beginning of Jan '20, the prices were at ~$1800/Mt, and by end of March '20, the prices declined to ~$1500/MT. As the demand recovered, by end of June 20, it stabilised to a little over $1600/MT, and by September, with increasing economic activity, the prices rose to pre-COVID levels of ~$1800/Mt. As the markets became more balanced, the prices improved to ~$2000/Mt by the end of the December 2020. Due to significant price fluctuations, the overall average for CY 2020 was $1704/MT. (See Figure 3)

Figure 1 : Primary Aluminium Consumption (in Million Tons)

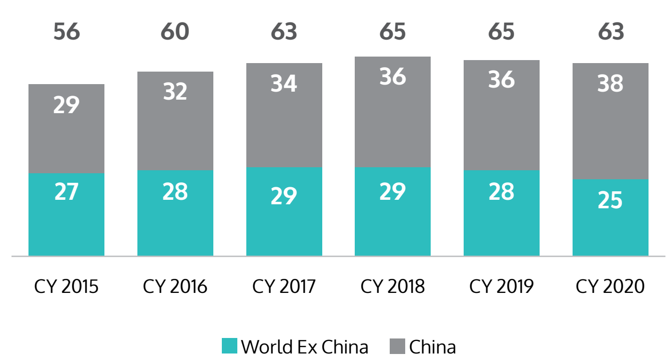


Figure 2 : Primary Aluminium Production (in Million Tons)

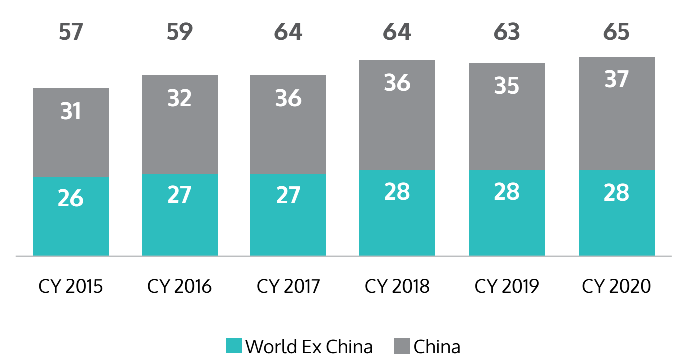


Figure 3 : Global Aluminium Prices ($/MT)

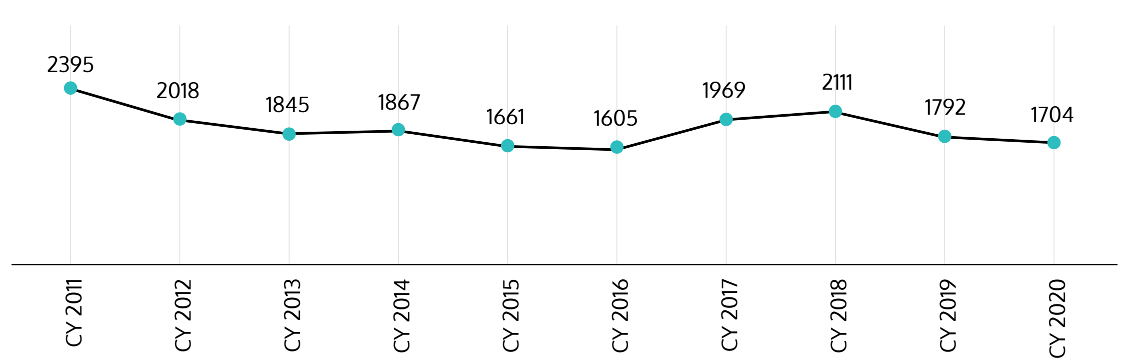


Table 1 : Global Demand & Supply Balance

World	Q1 CY 2020	Q2 CY 2020	Q3 CY 2020	Q4 CY 2020	CY 2020
Production (MnT)	15.9	15.8	16.3	16.7	64.8
Consumption (MnT)	13.9	15.7	16.3	16.9	62.8
Surplus/Deficit (MnT)	2.0	0.2	0.0	-0.2	2.0
Al Price ($/MT)	1690	1497	1704	1916	1704

The average value of premiums was also volatile. By the end of CY 2020, Spot Main Japanese Port (MJP), European Rotterdam Ingot duty paid and US Midwest premium was $86/t, $129/t and $12cents/lb, respectively versus $84/t, $143/t and $18 Cents/lb, respectively in CY 2019.

Domestic consumption is likely to decline by 8% in FY 2020-21. However, the pace of decline was much steeper in the Q1 FY 2020-21 due to COVID related lockdown. As the economic activity resumed, domestic consumption saw significant improvement across all sectors over the year.

Table 2 : Sector Wise Domestic Consumption YoY growth % in FY 2020-21

Sector	Q1 FY 2021	Q2 FY 2021	Q3 FY 2021	Q4 FY 2021 E	FY 2021 E
Electrical	-40% to -50%	-10% to -20%	-10% to 0%	0% to 10%	-10% to -20%
Building & construction	-50% to -60%	-30% to 40%	-10% to 0%	0% to 10%	-20% to 30%
Auto	-50% to -60%	-20% to -30%	30% to 40%	10% to 20%	-0% to -10%
Industrial & Defense	-10% to -20%	0% to 10%	40% to 50%	40% to 50%	15% to 25%
Packaging	-20% to -30%	-10% to -20%	10% to 20%	30% to 40%	-5% to 5%
Consumer Durables	-20% to -30%	-10% to -20%	20% to 30%	30% to 40%	5% to 15%
India Consumption	-42%	-22%	18%	21%	-8%
Imports Share %	68%	51%	63%	61%	60%

Source : Company Estimates

Imports continued to be a concern for domestic players. Even when the overall consumption declined by 8%, imports fell by only 4%. Consequently, the share of imports increased from 58% in FY 2019-20 to 60% in FY 2020-21. Overall imports, including scrap, touched ~2.1 Mt in FY21 from ~2.2 Mt in FY 2020. (See Table 2)

1.1.1 Outlook

In CY 2021, the global macroeconomic environment is expected to recover sharply. As per the IMF, in April 2021, the global economy is expected to rise by 6% in CY 2021 compared to a contraction of 3.3% growth in CY 2020. World ex-China demand is improving due to strong stimulus measures by global fiscal support and massive vaccination drive to support economic recovery. A strong push to global growth is from the US thanks to a massive fresh fiscal stimulus of $1.9 trn and President Biden's $2.3 trn infrastructure and jobs plan.

Packaging likely to witness strong momentum, while demand in transport is likely to recover with increasing Electric vehicles sales. In CY 2021, primary demand is likely to grow by 12-13%. In China, Strong solar, Electric Vehicles, Automotive and packaging sectors are likely to support Chinese consumption in CY 2021. In CY 2021, primary demand is likely to grow by 8-9%.

Global aluminium supply is likely to increase by 6% to 68-69 Mt. Production in the world excluding China is expected to increase by 4% to around 29-30 Mt. Primary aluminium supply in China is likely to grow marginally in the 39-40 Mt range, on the back of ramp-ups at Yunnan.

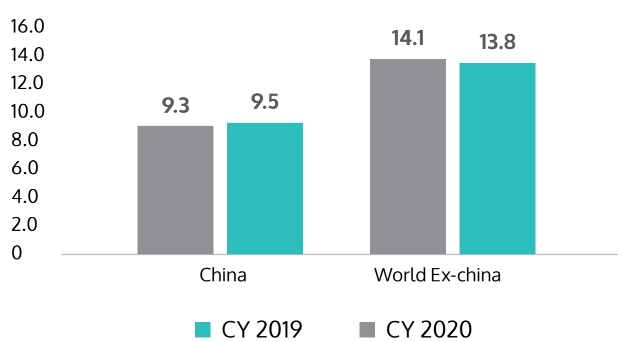
In CY 2020, with an increase in supply by 6% and a sharp growth in demand by 8% to 10%, market is expected to be balanced. Consequently, the inventories are likely to remain stable at ~12-13 million tons by the end of CY 2021.

In the domestic market, recovery in Transportation, Building & Construction, Industrial Equipment, and Consumer Durables. Imports of aluminium products, including scrap, continue to remain a major concern for domestic aluminium producers. Over the last few years, the domestic rolled and foil industry has been witnessing an increase in dumping of imports especially from China and FTA countries, at unfair prices, leading to pricing pressure. In light of the existing business environment, pricing pressure due to imports in rolled products and foil is expected in the FY 2021-22 as well, unless some proactive measures are taken by the Government to support the Aluminium industry in India.

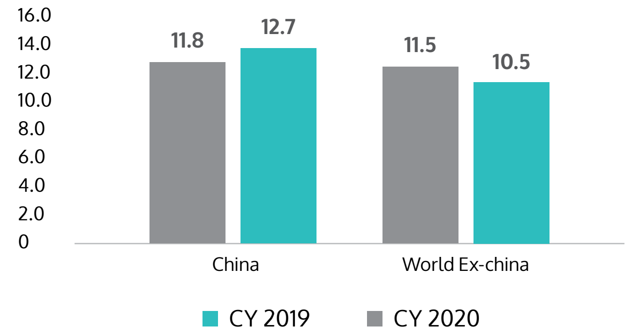
1.2 Copper Segment and Industry Review

In CY 2020, on yearly basis, Global refined copper consumption saw a dip by 1% to 23.2 Mt as compared to 23.3 Mt in CY 2019. The consumption in China grew by 7%, whereas World Ex China, declined by 8%. The global Copper market was impacted adversely due to COVID-19.

Refined Copper Production (Mt)



Refined Copper Consumption (Mt)



Indian Industrial Production was restricted by one of the world's strictest COVID-19 lockdowns in Q1 FY 2020-21 and improved gradually thereafter.

On a yearly basis, Domestic market demand reduced by 24% to 566 Kt in FY 2020-21 from 750 Kt in FY 2019-20.

Market share of Imports declined by 14% to 31% (178 Kt) in FY 2020-21 from 45% (335 Kt) in FY 2019-20, the major contributing factor being CVD imposition on Imports of Copper Wire (<6mm dia) from Indonesia, Malaysia, Vietnam & Thailand (excluding SEI Thailand).

On the raw material side, copper mines production was almost flat, with only 0.1% growth in Copper concentrate production globally in CY 2020 compared to the previous year. This was on account of multiple issues faced by the mining industry, including COVID-19 disruptions, local community issues in some South American countries, a drop-in copper grade in some large global mines.

The tight concentrate market has impacted benchmark Tc/ Rc for CY 2021 with the benchmark dropping by 3.7% from 15.9 US cents/lb during CY 2020 to 15.3 US cents/ lb. As far as spot Tc/Rc is concerned, the strong demand from China coupled with almost flat growth in Concentrate production resulted in a very tight market with Spot Tc/Rc being consistently below the annual benchmark of 15.3 c/lb and dropping to below 10 c/lb during the later part of the year.

1.2.1 Outlook

Global demand for refined Copper is expected to increase by ~5.6% in CY 2021. China is expected to grow by ~4%, and the rest of World Ex China is expected to grow ~7%. We expect that Indian manufacturing activity will further improve, and with a fall in imports, recovery of demand will also sustain. At the start of this financial year, Indian refined copper demand was expected to reach back to FY 2020 levels. However, surge in COVID cases, and lockdowns across the country may result in slower recovery.

In spite of all the challenges due to COVID disruptions and other issues, the Concentrate outlook is likely to grow by 3.9% during CY 2021. This is due to some new mines being commissioned during the year like Kamoa-Kakula in DRC, Spence project in Chile. Accordingly, spot Tc/Rc is expected to improve during the course of the CY 2021, in line with the more balanced market expected.

1.3 Novelis – Industry Review & Business overview

Q1 of FY 2020-21 were negatively impacted by a short-term reduction in demand for Aluminium rolled products as a result of the COVID-19 pandemic and restrictions put in place to combat the virus. Some industries such as automotive, aerospace, and some speciality markets, including heat exchangers and transportation, experienced a sharper demand decline than the more resilient beverage can segment.

However, demand strengthened considerably in the second quarter of FY 2020-21 across most end markets and remained favourable through the remainder of FY 2020-21. While aerospace demand is expected to remain muted into FY 2021-22, some end markets, including automotive and specialities, have returned to pre-COVID demand levels due to strong consumer demand. We believe the long-term trends for flat-rolled aluminium products remain strong.

Economic growth, material substitution, and sustainability considerations, including increased environmental awareness around polyethylene terephthalate ("PET") plastics, continue to support long-term increasing global demand for Aluminium and rolled products. With the exception of China where can sheet overcapacity and strong competition remains, favourable market conditions and increasing customer preference for sustainable packaging options is driving higher demand for recyclable aluminium beverage cans and bottles. At the end of fiscal 2019, we began expanding rolling, casting and recycling capability in Pindamonhangaba, Brazil to support this demand. Meanwhile, the long-term demand for Aluminium in the automotive industry continues to grow, which drove the investments we made in automotive sheet finishing capacity in North America, Europe, and Asia in recent years, and is driving additional investments in Guthrie, Kentucky (US), Changzhou, China, and Zhenjiang, China. This demand has been primarily driven by the benefits that result from using lightweight Aluminium in vehicle structures and components, as companies respond to stricter government emissions and fuel economy regulations while maintaining or improving vehicle safety and performance, resulting in increased competition with high-strength steel.

We expect long-term demand for building and construction and other speciality products will to grow due to increased customer preference for lightweight, sustainable materials. Demand for Aluminium plate in Asia expected to surge driven by the development and expansion of industries serving aerospace, semi-conductor, rail and other technically demanding applications. We believe significant aircraft industry order backlogs for key original equipment manufacturers (OEMs), including Airbus and Boeing, will translate into growth in the future, and we believe our multi-year supply agreements have positioned us to benefit from future expected demand.

The acquisition provides a number of strategic benefits, including increasing the Company's footprint as an aluminium rolled products manufacturer and diversifying its product and customer portfolio, including by providing entry into the aerospace market. The results from continuing operations reported for the period ending March 31, 2021 reflect the Aleris acquisition.

For a region-wise detailed business overview, please refer to the 10K filed by Novelis Inc. dated May 12, 2021 for the year ended March 31, 2021.

1.3.2 Outlook

On the broader outlook on the global FRP, there has been limited short-term impact resulting from the COVID-19 pandemic in some end markets, but long-term demands trends for FRP remain broadly intact.

Beverage can has historically been a relatively recession-resistant product, and demand for aluminium cans as a package type was very strong, particularly across the Americas. The automotive industry was severely impacted by the slowdown resulting from COVID-19 in the first quarter of FY 2020-21, as major US and European automotive OEMs temporarily shut down production. However, the resumption of customer operations beginning in May 2020, combined with strong demand for larger vehicles like pick-up trucks and SUVs, as well as strengthening demand for electric vehicles, has driven demand for the automotive aluminium sheet to above pre-pandemic levels by the fourth quarter. While we do see some short-term demand reduction resulting from the semi-conductor shortage impact on OEM production rates in the first half of calendar 2021, the long-term demand trends for automotive aluminium sheet remain strong.

Demand for specialities products has recovered from some short-term reduced demand driven by COVID-19-related impacts early in fiscal 2021. Demand remains particularly strong for aluminium sheet in the electronics market in Asia, as well as building and construction, transportation, and foil packaging in North America and Asia.

In aerospace, sharply lower consumer travel is expected to drive soft demand for aerospace sheet and plate for the next several quarters.

2. Business Segment Review

2.1 Hindalco – SWOT Analysis

INDIA ALUMINIUM

Strengths

- Integrated business model generating healthy cash flows
- The dominant player in India across upstream and downstream
- Utkal - among the world's most economical and efficient Alumina producers; capacity expansion of 500 Kt in progress and Utkal capacity to reach 2.0 Mt
- Increased focused on Value Added Products (VAP) to be further de-linked to the global aluminium prices.

Weakness

- Commodity product with a smaller share of VAP currently
- Upstream business linked to LME volatility

Opportunities

- Immense headroom for a growing market in India; Aluminium consumption in India at 1/12th of global average
- Rising Aluminium penetration in Building & Construction, Automotive, Packaging, and Transportation bodes well for growing VAP demand
- Substitution opportunity versus steel, uPVC, wood, among others.

Threats

- LME, forex and raw material price volatility
- Competition from China
- The threat of rising imports of scrap and other VAP to India from the Free Trade Agreement (FTA) countries
- Domestic availability/ shortage of resources like coal and bauxite

NOVELIS

Strengths

- Global presence - across nine countries, enabling global play with marquee customers
- Market leader in Can and Automotive FRP products
- The Aleris acquisition gave Novelis entry in the high-end aerospace segment providing further product diversification.
- ~61% share of recycling in Novelis portfolio - cost competitiveness
- The strategy of deploying healthy cash flows to strategic expansions and staying ahead of the market

Weakness

- Lack of access to Shanghai Futures Exchange (SHFE) metal in China
- China price competitiveness in the Speciality market

Opportunities

- Growing penetration of aluminium cans for beverage and food packaging in emerging markets
- The growing automotive market is driven by EVs, energy efficiency and light-weighting focus across the globe
- Entry in the Aerospace, Defence and High-end specialities segments with the acquisition of Aleris

Threats

- Increasing tariffs and protectionist measures
- Cost Competitiveness in China
- Price erosion on account of growing competition
- The pace of recovery from COVID-19 pandemic in the automotive and aerospace sectors

COPPER

Strengths

- A balanced portfolio of revenue streams to tide through volatile market
- Secured concentrate supply via long term contracts with miners
- Increased focused on VAP

Weakness

- Import dependence for Copper concentrate supplies

Opportunities

- Immense headroom for growth due to lower consumption vs global average

Threats

- Mine disruptions
- Duties & FTAs – trade policies

2.2 Operational Performance & Financial Review

Financial Table: Standalone and Consolidated

(₹ Crore)

Description	Standalone		Consolidated	
	FY 2020-21	FY 2019-20	**FY 2020-21**	FY 2019-20
Revenue from Operations	42,701	40,242	1,31,985	1,18,144
Earning Before Interest, Tax and Depreciation (EBITDA)				
Novelis*			12,727	10,435
Aluminium			4,855	3,749
Copper (including DHIL)			716	1,276
Other Segments			26	(38)
Unallocable Income/ (Expense) - (Net) & GAAP Adjustments			572	114
Total EBITDA	**4,884**	**4,403**	**18,896**	**15,536**
Depreciation & Amortisation (including impairment)	1,848	1,708	6,766	5,135
Finance Cost	1,469	1,679	3,738	4,197
Earning before Exceptional Items, Tax & Share in Profit/ (Loss) in Equity accounted Investments	**1,567**	**1,016**	**8,392**	**6,204**
Share in Profit/ (Loss) in Equity Accounted Investments (Net of Tax)	-	-	5	4
Earning before Exceptional Items and Tax	1,567	1,016	8,397	6,208
Exceptional Income/ (Expenses) (Net)	7	(64)	(492)	(284)
Profit Before Tax (After Exceptional Items)	1,574	952	7,905	5,924
Tax Expense	581	332	2,723	2,157
Profit/ (Loss) from Continuing Operations	993	620	5,182	3,767
Profit/ (Loss) from Discontinued Operations	-	-	(1,699)	-
Profit/ (Loss) After Tax	**993**	**620**	**3,483**	**3,767**

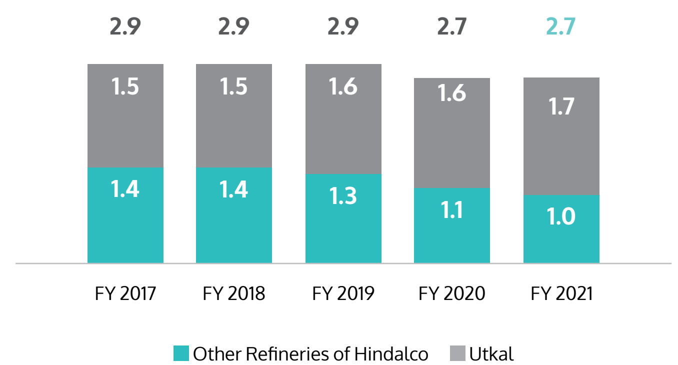
* As per US GAAP

Hindalco Aluminium Business Review

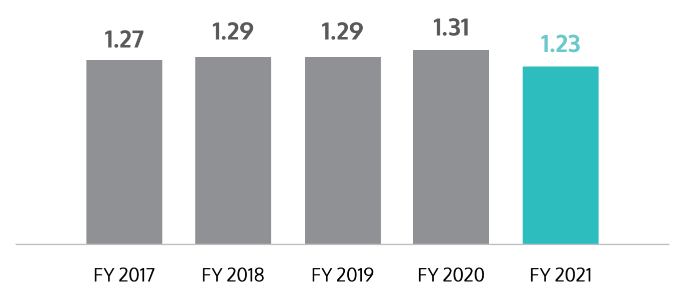
2.2.1 Operational Overview – Aluminium

The Company delivered a stable operational performance in its aluminium business in FY 2020-21, despite the challenging business environment. The Production and sales of Aluminium were impacted in the Q1 of FY 2020-21 on account of COVID-19. The production of Aluminium stood at 1.229 million tons in FY 2020-21 versus 1.314 million tons in the corresponding year. The Overall Alumina production stood at 2.699 million tons versus 2.735 million tons in FY 2019-20. Overall metal sales in all forms were at 1.250 million tons in FY 2020-21 versus 1.290 million tons in FY 2019-20, mainly due to lower sales in Q1 of FY 2020-21 on account of lockdown. Utkal Alumina also recorded production of 1.667 million tons and continues to be the most economical and efficient alumina producer globally, running at maximum capacity to produce 1.6 million tons of world-class alumina and providing strong support to most of Hindalco's India smelting facilities, leading to better cost optimisation and quality input (Alumina). Production of VAP excluding wire rods was flat YoY, at 270 Kilo tons in FY 2020-21.

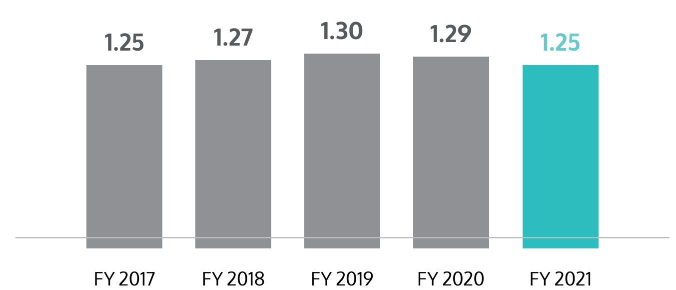
Alumina Production (Million Tonnes)



Metal Production (Million Tonnes)



Metal Sales in all forms (Million Tonnes)*



* including wire rods amd other value added products

2.2.2 Financial Overview

Aluminium

Revenue for Hindalco's aluminium business (excluding Novelis) was ₹20,495* crore in FY 2020-21, from ₹21,804* crore in FY 2019-20, down 6%. EBITDA was at ₹4,855 crore versus ₹3,749 crore a year earlier, up 30% on account of favourable macros and lower input costs. The EBITDA margins were at 24% in FY 2020-21, one of the best in the industry.

(*The above numbers are without elimination of Inter-segment revenue)

(₹ Crore)

Description	FY 2020-21	FY 2019-20	% Change
Revenue	20,495	21,804	-6%
EBITDA	4,855	3,749	30%

Note: In the consolidated financial statements, within the aluminium segment, the significant entries are Hindalco and Utkal Alumina International Ltd. Since Utkal Alumina is a wholly-owned subsidiary of Hindalco and supplies a substantial quantity of its production to Hindalco, we have analyzed the combined performance of Hindalco's aluminium business along with Utkal Alumina.

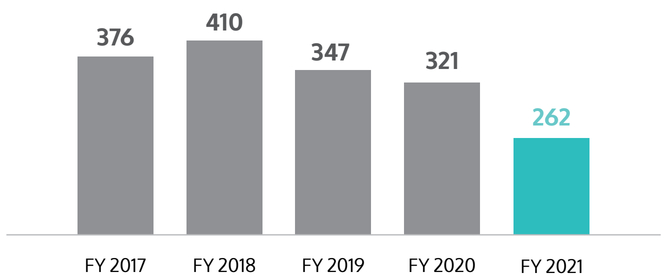
2.3 Copper Business Review

2.3.1 Operational Overview

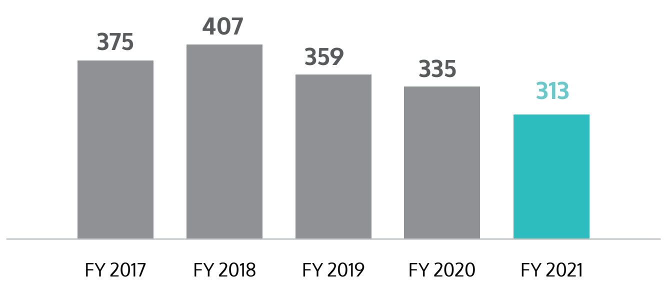
The copper operations as well as the domestic market was impacted by the lockdown in Q1 of FY 2020-21 due to COVID-19. The copper cathode production was 262 Kt in FY 2020-21, down 19% versus the last year. Copper rod production was at 235 Kt in FY 2020-21 versus 263 Kt in FY 2019-20. Di-Ammonium Phosphate (DAP) plant was under maintenance during the year for up-gradation from April 2020.

Total Copper Metal Sales was at 313 Kt in FY 2020-21, down by 6% compared to 335 Kt in the previous year due to lower production. The sales of Copper VAP (Copper Rods) were down by 9% at 233 Kt in FY 2020-21 versus 257 Kt in the previous year. The share of VAP (CC Rods) to Total metal sales was 74% in FY 2020-21, from 77% in the previous year.

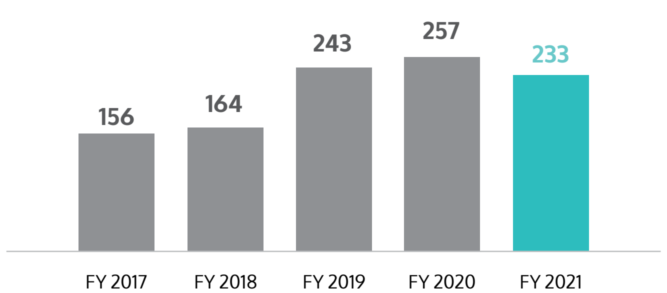
Cathode Production (Kt)



Copper Metal Sales in All Forms (Kt)



Copper VAP - CC Rod Sales (Kt)



2.3.2 Financial Overview

Copper Business (including DHIL) revenue for FY 2020-21 was at ₹22,446* Crore (vs. ₹18,533* crore in FY 2019-20), up by 21% due to higher prices of Copper in the latter half of the financial year. EBITDA fell 44% at ₹716 crore (vs. ₹1,276 crore in FY 2019-20) on account of lower volumes, lower Tc/Rc and by-product realisations in FY 2020-21 during the year.

*The above numbers are without elimination of Inter-segment revenue

(₹ Crore)

Description	FY 2020-21	FY 2019-20	% Change
Revenue	22,446	18,533	21%
EBITDA	716	1,276	-44%

2.4 Novelis Business Review

2.4.1 Operational Overview

Novelis Inc., with the acquisition of Aleris in FY 2020-21, is the global leader of Flat-Rolled aluminium products and also the world's largest recycler of Aluminium. Driven by its purpose of shaping a sustainable world together, Novelis works alongside its customers to provide innovative solutions to the beverage can, automotive, aerospace, Building & Construction(B&C), and speciality markets (which includes foil packaging, certain transportation products, architectural, industrial, and consumer durables). Novelis operates an integrated network of technically advanced rolling and recycling facilities across North America, South America, Europe, and Asia, and leverages its global manufacturing and recycling footprint to consistently deliver high-quality products around the world.

Novelis reported yet another year of its best-ever financial performance despite a challenging business environment. It recorded best-ever adjusted EBITDA and EBITDA per ton in FY 2020-21 along with Aleris integration. The performance was mainly driven by its portfolio optimisation, better cost efficiencies, favourable product mix, innovations, customer centricity and favourable demand for lightweight, sustainable aluminium solutions across end markets. Novelis leveraged its extensive recycling footprint and favourable market conditions to increase recycled content in its shipments to 61% in FY 2020-21.

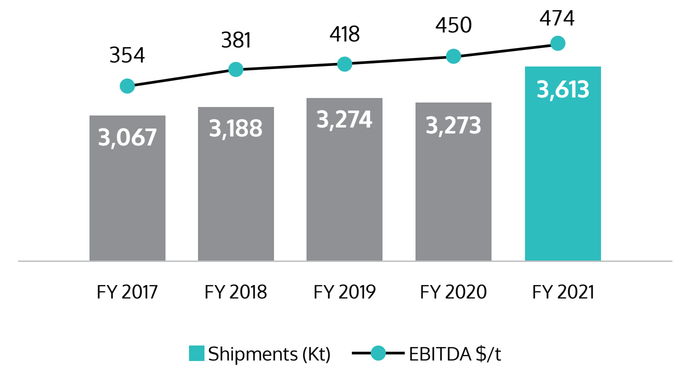
In FY 2020-21, the total shipments, including Aleris was up by 10% over the last year to 3.613 million tons. Share of beverage can sheet shipments were 60% in FY 2020-21, automotive body sheet shipments were at 16% in FY 2020-21, despite market challenges in the initial quarter of FY 2020-21 due to the lockdown on account of the COVID-19 pandemic. The Specialities and Aerospace shipments were 22% and 2% respectively in FY 2020-21.

Novelis operates in four key geographies: North America, Europe, Asia and South America. In North America, in FY 2020-21, total shipments were 1,348 Kt. Novelis' 200 Kt automotive finishing facility in Guthrie, Kentucky in the US, has commissioned during FY 2020-21 to cater to the growing automotive demand in this region.

In Europe, the Company shipped 948 Kt across product categories in FY 2020-21. In Asia, Novelis shipped 740 Kt of rolled products versus 711 Kt in FY 2019-20. Its automotive finishing line expansion project of 100 Kt has commissioned in FY 2020-21. In South America, Novelis shipped 577 Kt in FY 2020-21, up from 559 Kt in the prior year.

In FY 2020-21, Novelis reported a record overall adjusted EBITDA/ton of $474, up from $450/ton in the last year, reflecting a strong and consistent performance year after year.

Shipments (Kt) and EBITDA $/ton



With Novelis' thrust on sustainability and recycled Aluminium, the share of recycled inputs was at 61% in FY 2020-21. The Company has invested significantly in recycling initiatives and developed high-tech recycling capabilities over the years. Its new 100 kt rolling, casting, and 60 Kt recycling expansion projects in Pinda, Brazil is expected to be commissioned in FY 2021-22, which will add to the overall rolling capacity of the Company.

2.4.2 Financial Overview

Novelis' net sales in FY 2020-21 were at $12.3 billion, up 9%, mainly driven by higher shipments, as well as higher aluminum prices and local market premiums. Adjusted EBITDA stood at a record high of $1.714 billion, up 16%, on the back of portfolio optimisation, favourable metal prices, better cost efficiencies and favourable foreign exchange and contribution by the acquired businesses of Aleris in FY 2020-21. Aleris business contributed around $200 million EBITDA in FY 2020-21. Novelis reported free cash flow from continuing operations of $740 million driven by stronger adjusted EBITDA and lower capital expenditures. Net Income (without Exceptional Items) from continuing operations stands at US$561 million in FY 2020-21 versus $590 million in FY 2019-20.

($ Million)

Description	FY 2020-21	FY 2019-20	% Change
Net Sales	12,276	11,217	9%
Adjusted EBITDA	1,714	1,472	16%
Net Income/ (loss) w/o Special Items*	561	590	-5%

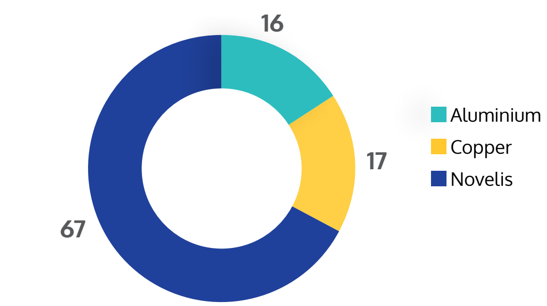
*Tax-effected special items may include restructuring & impairment, metal price lag, gain/loss on assets held for sale, loss on extinguishment of debt, loss/gain on sale of business

3. Consolidated Financial Statements

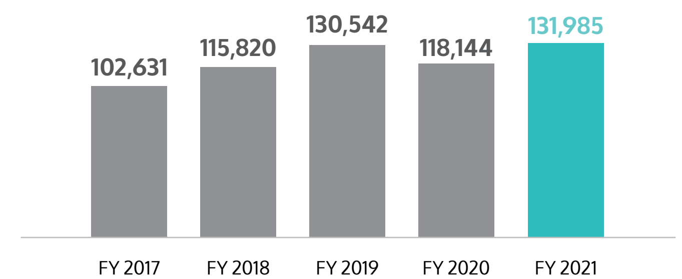
3.1 Revenue

Hindalco's consolidated revenue was at ₹1,31,985 crore in FY 2020-21 compared to ₹1,18,144 crore in FY 2019-20, up by 12% mainly due to higher global aluminium prices and local market premiums. Below is the split of Revenue by businesses in FY 2020-21 and the trend of revenues over the last five years.

Revenue split by business for FY 2020-21 (%)



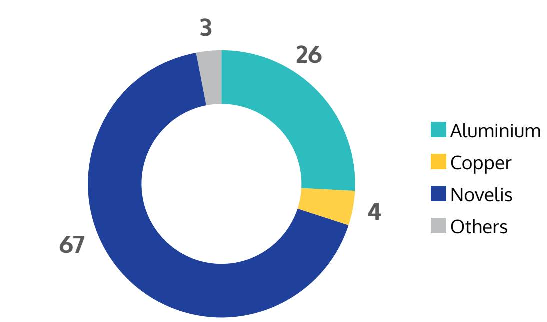
Revenue (₹ Crore)



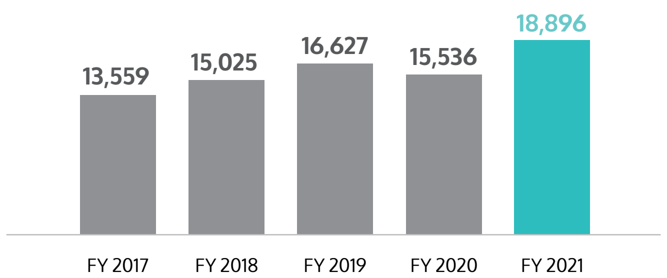
3.2 EBITDA

Consolidated EBITDA FY 2020-21 was higher by 22% to ₹18,896 crore from ₹15,536 crore in the previous year. This was due to higher EBITDA in the aluminium business in India and best-ever performance by Novelis in FY 2020-21. The EBITDA margin in FY 2020-21 was better at 14% compared to 13% in FY 2019-20. The below graph shows the EBITDA split by businesses in FY 2020-21 and the EBITDA trend of the last five years.

EBITDA split by business: FY 2020-21 (%)



EBITDA (₹ Crore)



3.3 Finance Cost

Finance Cost decreased by 11% at ₹3,738 crore in FY 2020-21 from ₹4,197 crore in FY 2019-20 due to lower interest cost of long term loans in India and refinancing of term loans by Novelis during the year. Novelis refinanced $1.1 billion of $1.7 billion 2017 term loans via New $500 million 2021 secured term loan due 2028, New €500 million 3.375% senior unsecured green bond in Europe (~US$588 million) due 2029. The balance 2017 term loan is to be repaid by Novelis before maturity in FY 2021-22.

3.4 Depreciation and amortisation (including net impairment loss/(reversal) of non-current assets)

Depreciation and amortisation (including net impairment loss/(reversal) of non-current assets) increased to ₹6,766 crore in FY 2020-21 from ₹5,135 crore in FY 2019-20 mainly on account of the addition of Aleris business, capitalisation and certain reclassifications as per the accounting standards and exchange impact.

3.5 Exceptional Income/(Expense)

The total exceptional expense (net) of ₹492 crore in FY 2020-21 was majorly on account of ₹395 crore charitable donation by the Company to support COVID-19 pandemic relief measures and ₹131 crore related to employee severance cost pursuant to restructuring program in a manufacturing unit in Novelis Germany. The exceptional income of ₹127 crore was on account of Renewable Energy Certificates (REC) recognised during the period after approval received from Odisha Electricity Regulatory Commission (OERC) permitting adjustment of excess REC purchased during earlier years against future Renewable Power Obligation (RPO) and reversal of excess Renewable Power Obligation (RPO) provision related to FY 2019-20 after Madhya Pradesh Electricity Regulatory Commission (MPERC) order.

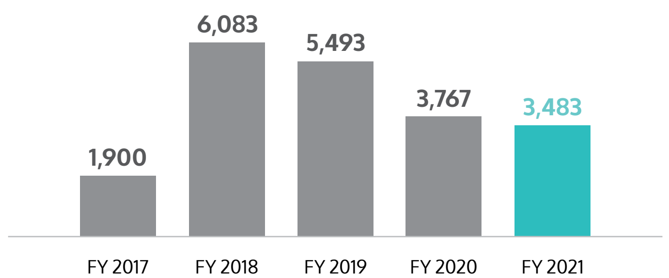
3.6 Taxes

Provision for the tax was at ₹2,723 crore in FY 2020-21 against ₹2,157 crore in FY 2019-20. This increase in taxes was due to higher taxes in Novelis and also higher profitability of the Company in FY 2020-21.

3.7 Profit/(Loss) after tax

Profit After Tax (PAT) in FY 2020-21 was at ₹3,483 crore compared to ₹3,767 crore a year ago. FY 2020-21 PAT includes one time loss of ₹1,699 crore on account of discontinued operations related to divestments of automotive assets of Aleris in FY 2020-21. The net profit margin in FY 2020-21 stands at 2.6% versus 3.2% in FY 2019-20. The PAT for Continuing operations for FY 2020-21 was up 38% year on year at ₹5,182 crore versus FY 2019-20.

Profit After Tax (₹ Crore)



3.8 Consolidated Net Debt to EBITDA

The consolidated balance sheet continued to remain strong, with the Net Debt to EBITDA at 2.59 times at the end of March 2021 versus 2.61 times at the end of March 2020.

3.9 Key Financial Ratios (Consolidated)

(i) Debtors Turnover (Days)

The Consolidated Debtors Turnover Days on March 31, 2021 improved to 31 days compared to 32 days at the end of March 31, 2020. This shows consistency in managing its credit with customers and this also reflects the Company's strong financial position with respect to most of its customers. The Debtor Turnover (days) is calculated as Average Debtors / Total Consolidated Sales multiplied by 365 days.

(ii) Inventory Turnover (Days)

The Consolidated Inventory Turnover Days on March 31, 2021 was little higher at 80 days versus 75 days at the end of March 31st, 2020. This shows how the Company managed its inventory levels during the year. The Inventory (days) is calculated as Average Inventory / Cost of Goods Sold (Cost of Sales + Depreciation) multiplied by 365 days.

(iii) Interest Coverage Ratio:

The Consolidated Net Interest Coverage Ratio as on March 31, 2021 stands at 5.06 times versus 3.70 times at the end of March 31, 2020. This is higher over the previous year because of higher earnings (EBIT) and lower interest and finance charges in FY 2020-21 on account of lower interest rates in India compared to last year and refinancing of long term loans in Novelis. This ratio reflects the Company's ability and strength to meet its interest obligations.

(iv) Current Ratio

The Consolidated Current/Liquidity Ratio as on March 31, 2021 stands at 1.39 times versus 1.78 times at the end of March 31, 2020 reflecting the Company's strengthening of liquidity or solvency position compared to the last year.

(v) Debt to Equity Ratio

The Consolidated Debt to Equity Ratio as on March 31, 2021 stands well below 1.0 at 0.99 times versus. 1.15 times as on March 31, 2020. This reflects the Company' strong balance sheet and ability to meet its current short-term obligations.

(vi) Return in Net Worth (RONW)

The Consolidated Return on Net Worth as on March 31, 2021 stands at 5.58% compared to 6.51% as at March 31, 2020. This was lower compared to the previous year due to the lower profits due to the impact of one-time loss on account of discontinued operations of ₹1,699 crore in FY 2020-21. RONW based on PAT for continuing business stands at 8.30% in FY 2020-21.

(vii) Operating Margins

The Consolidated Operating margins in FY2020-21 stands at 13.39% versus 12.15% in FY2019-20 reflecting higher operating profit in FY2020-21 compared to the previous year. (Operating Margin = Operating Profit/Net Sales)

(viii) Net Profit Margins

The Consolidated Net profit margins in FY 2020-21 stands at 2.64% versus 3.19% in FY 2019-20. This was lower on account of one-time loss of discontinued operations in FY2020-21 of ₹ (1,699) crore. The Consolidated Net Profit Margins for Continuing operations stands at 3.93% in FY2020-21. (Net Profit Margin = Net Profit/Net Sales)

3.10 Consolidated Cashflow:

Cash generated from operations for Hindalco Consolidated stands at ₹17,232 crore in FY 2020-21 versus ₹12,745 crore in FY 2019-20.

The table below shows the comparative movement of Cash flows:

(₹ Crore)

	Consolidated	
	Year ended	
Particulars	31-03-2021	31-03-2020
Cash Flow from Operating Activities		
Operating Cashflow before working capital changes	17,764	13,945
Changes in working capital	1,404	(1,098)
Cash generated from operations before Tax	**19,168**	**12,847**
(Payment)/Refund of Direct Taxes	(1,256)	(102)
Net Cash generated/ (used) -Operating Activities - Continuing Operations	17,912	12,745
Net Cash Generated/ (Used) - Operating Activities - Discontinued Operations	(680)	-
Net Cash Generated/ (Used) - Operating Activities (a)	**17,232**	**12,745**
Cash Flow from Investment Activities		
Net Capital Expenditure	(5,517)	(6,858)
Disposal of Investments in Subsidiaries (Net)	-	25
(Purchase) / Sale of treasury instrument (Net)	(2,775)	(1,578)
Acquisition of business, net of cash acquired	(19,524)	-
Investment in equity accounted investees	-	(3)
Loans & Deposits (given) / received back (Net)	(261)	266
Interest and dividends received	228	331
Investment in Equity Shares at FVTOCI	(43)	(653)
Others	10	43
Net Cash Generated/ (Used) - Investing Activities - Continuing Operations	(27,882)	(8,427)
Net Cash Generated/ (Used) - Investing Activities - Discontinued Operations	2,245	-
Net Cash Generated/ (Used) - Investing Activities (b)	**(25,637)**	**(8,427)**
Cash Flow from Financing Activities		
Equity Raised / Debentures Redeemed	2	4
Treasury shares acquired by ESOP Trust	-	(7)
Net Debt inflows	(968)	10,949
Interest & Finance Charges paid	(3,678)	(3,970)
Dividend Paid (including Dividend Distribution Tax)	(222)	(320)
Net Cash generated/ (Used) - Financing Activities - Continuing Operations	(4,866)	6,656
Net Cash Generated/ (Used) - Financing Activities - Discontinued Operations	(16)	-
Net Cash Generated/ (Used) - Financing Activities (c)	**(4,882)**	**6,656**
Net Increase/(decrease) in Cash and Cash Equivalents (a) +(b) + (c)	**(13,287)**	**10,974**

4. Business Outlook

Hindalco continued to deliver yet another strong and resilient performance across all the business segments in India as well as overseas, while maintaining safe and stable operations, as the business is catching up with a sharp recovery of the market, supported by improved macros. The cost competitiveness of Hindalco smelters continues to position it in the first quartile of the global cost curve. The Aleris integration is providing accelerated synergistic benefits, along with a positive EBITDA contribution as we continue to unlock and capture the entire value of this acquisition. This year, Aleris contributed around $200 million to EBITDA, including synergies.

The Company's relentless focus is on product innovation, better efficiencies, complete digitalisation, organic expansions with a diversified product mix and cost competitiveness. The Capacity 500 Kt expansion project at Utkal Alumina refinery will further help in reducing the overall integrated cost of production going forward. The Company continues to focus on cash conservation while maintaining adequate liquidity and deliver sustained performance despite challenges on account of COVID-19 pandemic. The Company's long-term strategic investments in Novelis and the India downstream expansion projects will enhance its capabilities across the FRP and the Extrusion segments in India. In addition, the acquisition of Aleris by Novelis in FY 2020-21 has provided further product diversification and has strengthened Company's long-term sustainable business model. Novelis' two auto finishing lines, in China and in the US with rolling, recycling and casting expansions in South America, makes Novelis well positioned to capture the tremendous market opportunity as the industry leader in Aluminium flat rolled products.

The domestic copper demand is largely in the form of rods which is the downstream product for the copper business. Hindalco's strategy of enhancement of Copper VAP capacity in terms of Copper Rods and Copper Inner Grooved Tubes will help the Company drive a larger market share and meet the growing demand for Copper in the domestic market.

Hindalco announced its Capital Allocation Framework with a guidance for the next five years with respect to broad allocation of its consolidated operating cashflows after meeting maintenance capex and working capital requirement. The key focus of this framework is on pursuing profitable growth opportunities via organic expansions in both India downstream as well as Novelis, strengthening the Balance Sheet through deleveraging, creating clear road map for ESG and overall shareholders value enhancement/ distributions of returns.

5. Price Risk Management

Hindalco's financial performance was significantly impacted by fluctuations in prices of Aluminium, exchange rates and interest rates. The Company takes a structured approach to the identification, quantification and hedging of such risks by using derivatives in commodity and currency, which is driven by the Company's comprehensive risk management policy.

Details of our initiatives and performance are provided in the section on 'Our Capitals' in the report.

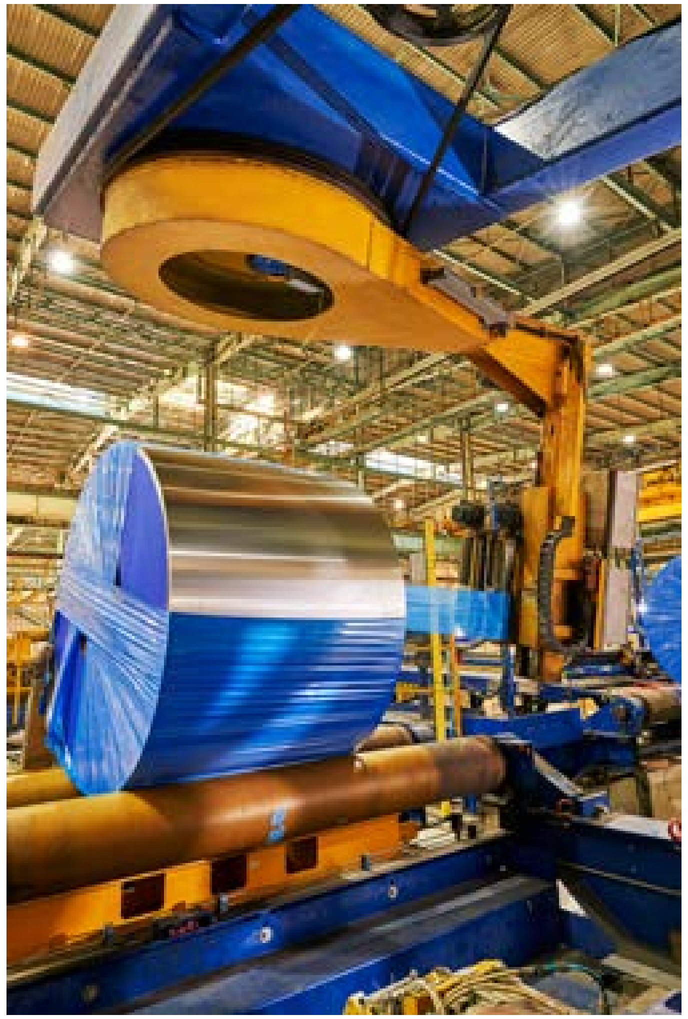
6. Sustainability

Continuing to focus on aspects related to environment and safety, we have embarked on our journey of value creation and integrating sustainability concerns throughout our value chain. Aligning our approach with the elements of People, Planet and Prosperity, we are progressing to nurture our business growth with emphasising on building a greener, stronger and smarter business. Taking the next step on our journey of setting a benchmark for the aluminium industry, we have set strategic priorities to further strengthen our sustainability goals. With strong ESG commitment being a part of our strategic priority, we aim to build an organisation that works towards reducing its environmental footprints as well as providing a safe work environment for its people.

Our Hindalco Sustainability Committee, led by the Managing Director, helps us to keep track of our performance and carry out periodic reviews to identify areas of improvement. Further, we have a task forces at the plant level which work on initiatives related to energy, water, waste, and air quality management. Due to our energy-intensive operations, it becomes imperative on us to adopt efficient ways of using energy. Our constant focus on energy conservation has led us to achieve a renewable energy capacity of 49 MW and also, we have undertaken a target of 100 MW by FY 2022.

As energy consumption has a direct impact on the carbon footprint, we have also set a goal to achieve 'Net Zero Carbon' by 2050. Water management also forms an important part of our sustainability agenda and we have set a target to achieve 20% reduction in our specific freshwater consumption by 2025. Our waste initiative 'Value from Waste' is directed towards the reduction of waste generation and maximising waste utilisation. Furthering this initiative, our aim is to achieve zero waste to landfill by 2030. Our progress towards a greener, stronger, smarter future will be led by our employees, for whom we strive to provide a safe work environment and ensure their holistic development. Our robust HR Management Framework is helping us to achieve this goal. We plan to achieve our objective of 'Zero Harm' across the organisation in the near future.

Ensuring the integration of sustainability efforts throughout our value chain, we have developed a framework for supplier assessment through which suppliers are assessed based on key environmental aspects. This helps us to ensure effective managment of our environmental footprint. In our efforts to strengthen our ties with our communities, we undertake various community development initiatives and engage periodically through our community consultation programs.



Details of our initiatives and performance are provided in the section on 'Our Capitals' in the report.

7. Safety

As a responsible corporate citizen, Hindalco is fully dedicated to human health and safety, and it is our topmost priority. Our plants and mines follow occupational health and safety management standards that integrate safety responsibilities into everyday business. Strong safety culture is required to prevent fatalities and achieve good safety performance. With focused efforts to further strengthen our safety culture, our safety performance this year has been better than the past two years. That said, we also deeply regret losing two contract workmen to work related injuries. We shall continue to focus on various elements of safety culture to make Hindalco a 'Zero Harm' organisation.

During the year, we introduced an e-permit system. We also introduced the Serious Injuries and Fatality. With this standard, we have now 9 technical safety standards, 4 occupational health standards and 8 administrative safety standards. Our standards and procedures provide a consistent approach to managing major hazards across our operations. To meaningfully implement the standards, we developed 300 subject matter experts (SME). This is in addition to the 866 SMEs developed in the last couple of years. Every year we audit our entire operations against our standards and require our businesses to meet their health and safety performance requirements and targets. The audits for all 15 manufacturing sites of Hindalco were conducted virtually using "RealWare". In addition, we conducted risk reviews of all activities (51000 plus) having manual interventions.

Despite limitations on classroom safety training due to COVID-19, this year too we could invest 3 man hours per person (including direct employees and contract workmen). We focused more on-the-job training and, wherever, possible conducted virtual trainings. COVID-19 accelerated the digital transformation of our health and safety activities. More than 60 virtual training were conducted during the year with the help of Hindalco Technical University. We started using new BBS module incorporated in "Enablon" to report safety interventions and behaviour-based safety observations.

We have devised many platforms in the form of safety taskforces and subcommittees for each employee to participate in various safety programs. All employees have deemed safety officers and contribute to the safety of the units and mines at every level.

In the year 2020, we completed Qualitative Exposure Assessment (QlEA) and Quantitative Exposure Assessment (QnEA) studies of all our manufacturing facilities as well as mining operations. Currently, we are in advanced stages of implementing all the recommendations made in these studies.

In 2020, the Company also initiated an offering of psychological safety training sessions to employees. In addition, looking at health needs, the Company at each unit also maintained a comprehensive wellness program, catering to employees, their families and our communities.

Hindalco has an active Crisis Management Plan at the corporate, plant and mines level to ensure appropriate response to all natural disasters or other emergencies, including COVID-19.

8. Human Capital

With around 25,000 direct employees in India and another 12,500 outside the country, people are at the centre of driving excellence at Hindalco. The Aditya Birla Group is one of the most preferred employers in the country which enables us to attract the required talent and retain them.

Keeping in mind the new normal, we are constantly working on our Employee Value Proposition and innovating our programs and interventions for holistic employee development. We swiftly moved our human interventions in a way that enabled and supported employees to perform during the change. A series of online programs on behavioural/ leadership and functional/technical aspects were supported by digital capability building initiatives. We have extended our Potential Assessment process to a larger employee population now to create a bigger talent pool and provide career opportunities. We have strengthened our partnership with the business with the HR Business Partners working closely on talent management, capability building, driving performance and strategic projects with them. This year we have made our performance management process digital by introducing a digital tool for normalisation. We have also focused on increased development conversation as well as regular feedback. We have been closely working on increasing employee engagement and building an open, transparent and inclusive culture by working extensively on action plans based on the results of our employee engagement survey.

Details of our initiatives and performance are provided in the section on 'Our Capitals' in the report.

9. Internal controls

A strong culture of Internal Controls is pervasive throughout the Group. Regular internal audits at all locations are undertaken to ensure that the highest standard of Internal Controls is maintained. The effectiveness of a business' internal control environment is a component of senior management performance appraisals. The principal aim of the system of internal control is the management of business risks, with a view on enhancing shareholder value and safeguarding the Group's assets. It provides reasonable assurance on the internal control environment and against material misstatement or loss.

Cautionary Statement

Statements in this "Management Discussion and Analysis" describing the Company's objectives, projections, estimates, expectations or predictions may be "forward looking statements" within the meaning of applicable securities laws and regulations. Actual results could differ materially from those expressed or implied. Important factors that could make a difference to the Company's operations include global and Indian demand supply conditions, finished goods prices, feedstock availability and prices, cyclical demand and pricing in the Company's principal markets, changes in the government regulations, tax regimes, economic developments within India and the countries within which the Company conducts business and other factors such as litigation and labour negotiations. The Company assumes no responsibility to publicly amend, modify or revise any forward looking statements, on the basis of any subsequent development, information events or otherwise.